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RESEARCH

Habits of Mind A Brand New Condillac

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Is there anything in the mind that was not first in the senses? According to the received view, the French empiricist Étienne Bonnot de Condillac's (1714–1780) answer to this was a firm “No”. Unlike Locke, who accepted the existence of innate faculties, Condillac rejected the existence of all innate structure and instinctive behaviours. Everything, therefore, is *learned*. In this article, I argue that from at least the writing of his 1754 *Traité des sensations*, this reading fails to capture the true nature of his philosophy of mind. I present a genetic reading of Condillac's philosophy that shows that from the 1750s until his death in 1780, he developed, by engaging closely with the life sciences of his day, an increasingly sophisticated understanding of the mind and perception. This understanding depends on the acceptance of the activity of the mind, innate structure, and a moderate defence of instincts—all characteristics of the mind that he is most commonly read as rejecting. Reading Condillac in this genetic way demonstrates that his philosophy of mind is much more original and powerful than has previously been recognised.

Keywords: Condillac; Empiricism; Innate Ideas; Vitalism; Philosophy of Mind

In his 1754 *Traité des sensations*, the French empiricist Étienne Bonnot de Condillac (1714–1780) claimed that all of the mind's faculties and contents are developed *in* experience via habit. This *Traité* is, he says, ‘the only work that strips man of all his habits’ (OP I 324; PC 157).¹ Condillac's interpreters have frequently inferred from his claim that all of the mind's faculties are developed *through* experience, to the conclusion that it must be structureless *before* experience.² According to the received view, he is a disciple of Locke who developed his master's philosophy of mind into an *austere sensationalism*. It is called *sensationalism* because it maintains that there is nothing in the mind that is not acquired from sensations. It is *austere* because unlike Locke and Hume, who postulated the existence of native faculties that do the work of combining and organising these sensations, it suggests that the mind is *completely empty* at birth, and that even these faculties must arise from sensations. Moreover, many commentators on Condillac's philosophy have also claimed that a further unsavoury philosophical position must follow: a mechanistic mental determinism.³ If the mind is wholly without structure before receiving patterns from the external world, it follows that it is wholly determined by those patterns. There is nothing within the mind by which it could be elevated out of the realm of mechanically determined nature.

In this article I argue that, at least from the publication of the first edition of his *Traité des sensations* in 1754, this widespread interpretation of Condillac's philosophy of mind is false. It is based on the idea that Condillac understands the mind to be an entirely passive part of the mechanical world with no internal volitional force of its own. In contrast, in the first part of this article, I show that due to the inspiration of the ‘vital materialist’ views prominent in the circles within which he socialised during the early 1750s, Condillac started to defend

¹ If the reference to the *Traité* is undated, it refers to a passage published in the 1754 and left unchanged in later editions. If the reference is dated 1780, it refers to an addition to the text left in Condillac's manuscript at the time of his death.

² Cousin 1854: 351; Dieckmann 1953: 256; Delon 2001: 1210; Falkenstein 2010; Le Roy 1937: 185–188; Orain 2012; Richards 1979: 90; Schaupp 1926: 25, 32–33; Seigel 2005: 174; Staël 1813: 427–428; Young 1991: 15.

³ Beirne 1991: 3; Knight 1968; Schaupp 1926: 25, 32–33; Staël 1813: 427–428; and Wade 1977: 591. Not all commentators think this. Some read Condillac as a dualist. See Delbos 1919: 252, 272–274; Quarfood 2002: 107, 113; Radovanovitch 1927: 46; Seigel 2005: 186.

the existence of active forces throughout all of nature. In the second part, I argue that the mental structure of the mind is developed in response to the activity of a pragmatic needs-driven force. I argue that this force is, for Condillac, a real innate element directing the development of perception and cognition.

In the third section, I show that between the first edition of the *Traité des sensations* and his posthumous second edition and *Logique*, Condillac developed a theory of mental faculties that *does* deny that we are born with fully formed and perfectly functioning faculties, but, nonetheless, *does not* assert that our mind is 'empty at birth.' Rather, Condillac claims that these mental faculties have their basis—or germ—in the faculties of the body and, therefore, that these mental organs must develop through growth and exercise, just as our bodily organs do. In these later writings, I show, Condillac softens his well-known criticisms of the postulation of 'instincts', and starts to stress their importance and equivalence with what he had previously called '*impulsions*', thus echoing the work of Hermann Samuel Reimarus (1694–1768), which had become popular in Paris during the 1770s thanks to the translation of his famous work on animal instinct.

In the final section of this article, I argue that by the end of his life Condillac had developed a strikingly original philosophy of mind in which objective empirical representation depends on instinctive judgements and the development of mental and bodily habits. This theory, which is far from austere sensationalism, is made possible due to his defence of the activity of the mind, innate faculties, and instincts; three characteristics of mind that Condillac is commonly read as rejecting. When we pay close attention to the developments in Condillac's thought, rather than treating his philosophy as an unchanging whole, therefore, a much more promising theory of mind emerges.

I

Habits of mind play a central role in early modern empiricist philosophy. Both Locke and Berkeley emphasise their essential function in perception. According to Locke, these habits allow us to convert the flux of sensory atoms into perceptions of stable objects. It is because of them that we experience a 'red ball' instead of a disconnected bundle of sensations (Essay II.9§9 cf. §8). According to Berkeley, it is due to habits of mind that we come to associate certain sensory marks with the particular distance that an object is from our eyes (PW §21). For Locke and Hume, habits of mind also play a crucial role in thought. If two things have regularly been experienced at the same time, a mental habit will form such that it will become hard, if not impossible, to think of one of these things without recalling at the same time the other. According to Locke, despite the benefits of such habits,⁴ arbitrarily associated ideas that have been glued together through habit can be a great source of error. Much care must be taken over the kinds of associations formed by education.⁵ According to Hume, there is a strong link between our beliefs and our mental habits. Our belief that in the future things will continue in the same way as they have proceeded in the past is nothing but the result of such a habit of mind. It is because of this influence on belief that he can go on to say that 'the far greatest part of our reasonings, with all our actions and passions, can be derived from nothing but custom and habit' (T I.3.10.1; S-B 118).

These empiricist analyses aim to show, therefore, that a large part of cognition can be explained by habit. The formation of such habits is enabled by the principles of the association of ideas. By developing ideas found in Descartes's 1649 *Les passions de l'âme*, Nicolas Malebranche (1638–1715) tried to show, in his influential *De la recherche de la vérité*, that such principles could be explained in terms of mechanical physical processes: certain ideas are associated with others because of brain traces fashioned by the movements of animal spirits (the finest parts of matter) which enable the easy transition from one idea to another (SAT 103). Locke and Hume try to resist speculation over the physical causes of the association of ideas. Rather their aim is to attempt to discover principles of mental life by recourse to the inductive experimental methods of Bacon and Newton. Nevertheless, on occasion they cannot resist making analogies with the kinds of physical processes described by Malebranche,⁶ on the one hand, and by Newton, on the other.⁷ Such analogies allowed Hume to speculate that there:

⁴ For instance, they are necessary for the quick recollection of musical notes necessary for the skilled performance of songs (see Essay II.23§6).

⁵ See Essay II.23§§15–18.

⁶ See Locke, Essay I.33§6 and Hume T I.2.5.20; S-B 60 and I.4.5.29; S-B 247. On Hume, Locke, and Malebranche's psychophysiology see Wright (1987) and (2009: 53–57). On Hume and Newton, see Buckle (2001).

⁷ Hume claimed that the association of ideas is 'a kind of ATTRACTION, which in the mental world will be found to have as extraordinary effects as in the natural' (T I.1.4.6; S-B 12).

Is a kind of pre-established harmony between the course of nature and the succession of our ideas; and though the powers and forces, by which the former is governed, be wholly unknown to us; yet our thoughts and conceptions have still, we find, gone on in the same train with the other works of nature. Custom [or habit] is that principle, by which this correspondence has been effected. (EHU 5.21)

Locke and Hume present the process of mental habit acquisition and instantiation in a way that fits coherently with the mechanical conception of nature. They establish principles of mental association through the observations of regularities of mental behaviour that enable the behaviour of the human mind to be brought into the domain of mechanical explanation. If a subject repeatedly experiences e^1 , e^2 , and e^3 in immediate succession, then, according to the principles of association, they will form a mental disposition d . Following this process, if the subject finds herself experiencing e^1 again, d will be activated and e^2 and e^3 will follow. This can be cashed out in terms of matter and motion. As Locke writes:

Custom settles habits of thinking in the understanding, as well as of determining in the will, and of motions in the body; all of which seem to be but trains of motion in the animal spirits that, once set a-going, continue in the same steps they have been used to: Which, by often treading, are worn into a smooth path, and the motion in it becomes easy, and, as it were, natural. (Essay II.33§6; cf. Hume T I.2.5.20; S-B 60–61 & 2.1.5.10; S-B 289)

The constant conjunction of experiences e^1 , e^2 , and e^3 causes the animal spirits (the finest parts of matter) to frequent the same material route and to form a smoothly worn pathway. Once this pathway is in place, the animal spirits will find this the easiest journey to take whenever there is a relevant stimulus trigger.⁸ Let us say that these experiences are of the notes to my favourite song. If you were to sing the first few notes (e^1), since I have heard the song many times, and the notes are firmly associated, the animal spirits will move along the path of least resistance and the rest of the tune (e^2 , e^3 , etc.) will follow in my head.

It is clear why many scholars have found it helpful to read the work of Locke and Hume as developing a philosophical outlook methodologically aligned to the mechanist and sober experimentalist science⁹ of Bacon, Boyle, and Newton.¹⁰ Since Condillac is often grouped amongst these empiricists, his work has often been read as if it were developed in exactly the same context. It is certainly true that there are many passages in his 1746 *Essai sur l'origine des connaissances humaines* that make such an alignment appear natural.¹¹ There he writes that:

The perceptions of the mind have their physical cause in the shock to the fibres of the brain... When a perception is familiar, the fibres of the brain will more easily submit to our efforts, since they are accustomed to bend to the action of our objects. (OP I 16: EO§24)

Furthermore, he claims that melancholia is caused when '[t]he animal spirits... dig foundations for this castle so deep that nothing will change their course' (OP I 57: EO§83). This is why readers often assume that he has a purely passive theory of mind. If the mind is developed purely in response to sensations, and sensation is a purely receptive process that is triggered by shocks to the fibres of the brain, then it seems fairly clear that the development of the mind must be one completely determined by the mechanical processes that affect it. How, if our second nature is as mechanically determined as our first, could there be any room

⁸ As Wright (2009: 54) notes, Hume continually echoes the use of the Malebranchian language of the 'easy transition of ideas'. See T I.3.8.5; S-B 100; T I.3.9.9; S-B 110; T I.3.9.16; S-B 116; T I.3.10.4; S-B 120; T I.4.3.3; S-B 220; T II.1.4.4; S-B 283; T II.1.5.9; S-B 289; T II.1.5.11; S-B 290; T II.1.9.5; S-B 306.

⁹ By the 'sober experimentalist tradition' I mean the experimentalist tradition that stuck strictly to empirical facts and feigned no speculative hypotheses. I make the distinction between the 'sober' and 'non-sober' tradition because I do not want to deny that a certain version of Newtonianism was important for Condillac. However, he was writing within a context in which one could be a Newtonian of sorts and an empiricist without it being at all appropriate to refer to this position as 'sober'. For the French vital materialists, the postulation of attraction as an 'occult force' licensed the further postulation of non-mechanical forces throughout nature. As I shall show in this section, this turned out to be a very slippery slope and led to the endowment of material atoms with properly Leibnizian qualities of force, perception and appetite. When freed from the strictures of Humean and Lockean scepticism, Newtonianism in France quickly led to 'neo-Leibnizianism' (see Roger 1971: 373).

¹⁰ Just as it is insightful to recognise that their forays into the mechanisms of the mind were influenced by the Cartesian psychophysiology of Descartes and Nicolas Malebranche. See Wright 2009: 54 and 2011.

¹¹ For excellent discussions of the *Essai*, see Auroux 1992; Charrak 2003; Pariente 1999; and Pécharman 1999; as well as the excellent recent edition of EO edited and annotated by Pécharman and Pariente.

in this picture to resist the force of habit? It seems that there cannot be. We end up with another familiar empiricist version of the mind according to which, as Gilles Deleuze writes, it 'is not a subject; it is subjected' (1991 [1953]: 31).¹²

In the remainder of this section, I argue that although it is true that Condillac's understanding of mind was inspired by eighteenth-century developments in the natural sciences, by the time he was writing the *Traité des sensations*, he was no longer interested in the attempt to bring the mind within the domain of mechanical explanation. Condillac's work was situated within a different scientific paradigm; one that was slowly moving away from sober experimentalism and Cartesian psychophysiology and beginning to speculate confidently about the dynamic and living universe. He no longer understood the mind to be a passive mechanical part of a bigger machine. Instead, he believed that it is fundamentally active. This understanding was inspired by the life sciences and the vital materialist philosophies prominent in the circles within which he socialised. While the theories grouped under the label 'vital materialism' are certainly varied, and those whom we class as part of the tradition today would not have recognised themselves as members of well-defined group, there were three relationships that Condillac had with representatives of it that are of particularly instructive for understanding the influence of this context on his philosophy. I shall now briefly discuss each of these in order of increasing significance.

The first is with the 'original' French Newtonian Pierre Louis Maupertuis (1698–1759). Maupertuis began writing his most important works in natural history and speculative philosophy in the 1740s. In 1745, he published his *Vénus physique*. It is a significant work of natural history because it revived the embryological theory of epigenesis.¹³ He conjectured that it was by means of the mixture of male and female semen that the foetus was formed. For this theory to work he argued that we must extend the theory of attractive force further than the astronomers have and admit the existence of such forces in natural bodies. Due to attractive forces, the right parts of each seed combine in the right way. Maupertuis understood these attractive forces as enjoying psychological properties. However, in attributing such properties to material bodies, he was moving away from Newton towards Leibniz.¹⁴ By the time of his 1751 *Système de la nature*, his *materialised* Leibnizianism was clear. To explain natural phenomena, he believed that matter had to be endowed with properties such as 'desire', 'aversion', and 'memory'; the kind of properties that belong to the immaterial substances that Leibniz called 'monads'. Crucially, then, Maupertuis's version of materialism is *vitalist* because he believes that all of the properties of matter are not describable in terms of predicates drawn from mechanical physics, but they require predicates drawn from psychology too.

Condillac and Maupertuis became correspondents following the publication of *Vénus physique* and they discussed their developing philosophical ideas, including the *Traité des sensations* project, in their letters (OP II 533–539). In 1750, Maupertuis sent Condillac his *Essai de cosmologie*, a proof of the existence of God based on his metaphysical mechanics and his adherence to the 'principle of least action' throughout all of nature. Condillac was very taken with this work and described it as 'precious' (OP II 533). The influence of Maupertuis is perhaps most explicit in Condillac's late 1775 *De l'art de raisonner* in which he defends the existence of attractive forces in all material particles (OP I 643–644). He is also clear that such forces have a teleological dimension. Bodies fall to the ground, Condillac writes, 'only because they are attracted to the centre of the earth' (OP I 643). Although he recognises that the Cartesians object to the postulation of what they regard as non-mechanical attractive forces, Condillac believes that the facts of gravity cannot be explained without them and that it is a perfectly acceptable inference from effects to causes, even if we cannot clearly grasp the metaphysical nature of this force (OP I 644).

The second relationship, with Georges-Louis Leclerc, Comte de Buffon (1707–1788), was less cordial. In 1749, Buffon published the first three volumes of his *Histoire naturelle*. In this work, he criticised the mechanistic understanding of the natural world and argued that even if matter's mechanical attributes are the easiest for our senses to understand, natural philosophy must penetrate further. Like Maupertuis, Buffon defended the existence of animated organic forces in nature (HN 44). He argued that we can infer the existence of active forces animating matter in the same manner as we infer the existence of the force of gravity. Therefore, these organic forces should be 'ranked among the mechanical principles' (HN 62). When Condillac published his *Traité des sensations* in 1754, Buffon criticised him for taking a whole book to merely reproduce what he had said in only eleven pages of his *Histoire naturelle*. In response, in 1755,

¹² Commentators who have read Condillac's philosophy as leading to this position include Beirne 1991: 39; Knight 1968; Schaupp 1926: 25, 32–33; Staël 1813: 427–428; Wade 1977: 591.

¹³ This is the theory that formed individual organisms gradually emerge from unformed matter through its interactions. Epigenesis is opposed to *preformation*, which claims that an organism's form already exists in either the sperm or the ovum.

¹⁴ On the importance of Leibniz for this development in Maupertuis's thought, see Ballstadt 2008: 140, and Roger 1971: 387.

Condillac published his *Traité des animaux*, which was an attempt to outline what he saw to be the great differences between their two positions.¹⁵

If the canonical interpretation of Condillac were correct, we might expect him to distance himself from Buffon's speculation regarding these organic forces. In fact, Condillac makes quite the opposite move. He argues that Buffon's picture of the natural world remains *too mechanical*, because Buffon insists that animals are mere automata. Buffon accepted that animals have 'sensations', but argued that their responses to these sensations are purely automatic. Up until they are two weeks old, he says, even children are limited to such automatic sensations. This kind of sensation is purely 'corporeal', but, at fourteen days, children are able to experience 'spiritual sensations' as well. Since spiritual sensations involve comparison, and comparison involves making a decision in accordance with an end, they evidence free mental activity (OP I 358). Condillac objects that this distinction between the involuntary responses of the corporeal body and the voluntary responses of the spiritual soul introduces all of the worst problems of dualism: 'A single *I* formed from two different sources of sensation (one simple and the other extended)', he writes, 'is a manifest contradiction. This would be one person only in supposition, but two in truth' (OP I 342). Since we do not experience such a radical dualism, but rather a unity of being, we should reject this mechanistic explanation of animal sensation. Although Buffon is right to say that animals sense, the absurdity of the dualistic account of human sense experience shows that he is wrong to posit a strict distinction between the way that animals and humans sense.

Condillac's argument is unconvincing. There is no reason to believe that if a being is a 'corporeal substance' formed from mind and matter that it would necessarily experience the world dualistically. There is no more reason to believe that we would not have unity of experience because we are composed of both mind and matter, than there is to believe that we would not have unity of visual experience because we have two eyes. Nonetheless, regardless of the strength of Condillac's argument, the crucial point for the present argument is that he believes that it shows that if animals sense, (and both he and Buffon believe they do), they must sense like us. The animals are not merely mechanical beings, automata, but rather, they 'ensure their own conservation; they move according to their own will; they grasp what is proper to them, reject, avoid what is contrary to them' (OP I 341). For Condillac, therefore, animal sensation is evaluative and animal action is teleological. Animals compare their *apperceived* sensations and make decisions on the basis of ends, i.e. their idea of that which is 'proper to them'. An animal 'determines itself, only because it compares the feelings that it experiences, and judges from them what it hopes and what it fears' (OP I 346).

The last of Condillac's relationships that I shall discuss is with his close friend Denis Diderot (1713–1784).¹⁶ The work of Maupertuis and Buffon formed an essential part of the background to the development of the thought of both Condillac and Diderot. In Diderot's 1753 *De l'interprétation de la nature*, in reference to what would become biology, he prophesied that 'we are at the dawn of a great revolution in science' and that the days of Mathematics being the privileged language of natural philosophy are over (PN §4). Like Maupertuis, he argued that matter must be dynamic and endowed with a self-moving internal force. However, unlike him, Diderot rejected the idea that this internal force must be understood in psychological terms¹⁷ and instead developed a material monism that sometimes he described as 'Spinozist' on the basis of his theory of active matter.¹⁸ However, it differs from Spinoza insofar as it is a monism of *types* of substance rather than *of* substance tout court. According to this monist view, all human beings, animals, and the rest of nature are compounds of the same interrelated material atoms. The key historical insight that we pick up from examining Diderot's philosophy is that even though he, like Condillac, is well known for his criticisms of the rationalist method, this did not mean that he lacked any enthusiasm for the views of philosophers traditionally conceived of as rationalist. Even if both Diderot and Condillac denied that one could arrive at indubitable knowledge of doctrines common to the rationalist philosophers via a priori argumentation, they believed that such doctrines could be postulated by means of the careful use of 'conjecture' and 'analogy' (OP I 680–685).

'Conjectures', Condillac wrote, 'possess the degree of certitude furthest from evidence; but that is not a reason to reject them. It is by them that every science and every art has begun; for we foresee the truth before we see it' (OP I 680–1).¹⁹ Furthermore, it is on the basis of 'analogy', he claims, that we are justified

¹⁵ See Dagognet 2004.

¹⁶ From 1744, Diderot and Condillac dined together once a week for many years (Quarfood, 2002: 21).

¹⁷ Diderot claimed that he could see no difference between the Leibnizian monad and Hobbes's 'sensitive molecule'. He wrote that 'they are the same thing' (DC XV 456).

¹⁸ See Diderot, "Spinoziste," *Encyclopédie*, vol. XV (1765): 474a. For a detailed discussion of the relationship between Diderot's Spinozism and his understanding of the life sciences, see Wolfe 2014.

¹⁹ For Diderot on conjectures, see PN §§XXXII–XXXVIII.

in believing that animals are not mere automata. Although it would not be beyond God's powers to deceive us, to do so would be 'without ground' (OP I 685). Through the use of conjectures and analogy, Diderot, on the one hand, developed a new form of Spinozist monism; Condillac, on the other, I shall now propose, was more faithful to Leibniz and developed a new form of pluralist monadism.

In 1747, two years before Condillac published his *Traité des systèmes*, a powerful critique of rationalist philosophy, he submitted an entry on monads to the Berlin Academy's prize competition.²⁰ Unsurprisingly, this work included a critique of Leibniz's monadology, a critique that we find also with only minor variations in the *Traité des systèmes*; but quite surprisingly – for anyone who has read the *Traité des systèmes* – it also included a development of his own. Condillac's arguments differ from Leibniz's. At that time, he strongly rejected the idea that such a metaphysics could be argued for on the basis of analogy and conjecture (see OP I 160–161; PC 64–66; and Bongie 1980: 121–123). Nevertheless, he too argued that the world is ultimately composed of windowless self-determining simple substances that develop according to a pre-established harmony.²¹ This suggests a major shift from the occasionalist metaphysics that he supposes in the *Essai sur l'origine des connaissances humaines* published only a year earlier. My proposal is that by the time of *Traité des sensations*, Condillac's metaphysics had changed further.

In *Les Monades*, Condillac's view of the physical world was still straightforwardly mechanical. Therefore, the monads—the principles of activity—had to be placed outside of this world. However, the developments in the understanding of life sciences at the time when Condillac was writing the *Traité des sensations* (and the philosophical theories of Maupertuis, Buffon, and Diderot) showed that this need not be considered the case. Monads can be understood as part of the material world not necessarily outside of it. It is possible to posit such forces within the natural world. Furthermore, these thinkers showed that a careful use of conjecture and analogy could be used to make progress in the sciences. For this reason, we find Condillac, in an early passage from his *Traité des sensations*, putting forward a Leibnizian argument in a style that he had previously, in both the *Traité des Systems* and *Les Monades*, been sceptical of: an argument from introspection and analogy.

Although Leibniz is perhaps best known for his a priori rationalist arguments for monads, he frequently puts forward a posteriori arguments as well.²² For example, in *De ipsa natura*, a text Condillac would have had access to, Leibniz first defends the existence of force through the introspection of our own activity (GIV 510; AG 161), and then defends the existence of force in all beings by means of what he elsewhere calls the 'principle of uniformity' (cf. G III 343; WF 220–221). He writes that:

If we were to attribute an inherent force to our mind, a force for producing immanent actions, or to put it another way, a force for acting immanently, then nothing forbids, in fact, it is reasonable to suppose that the same force would be found in other souls or forms, or, if you prefer, in the nature of substances – unless someone were to think that, in the natural world accessible to us, our minds alone are active, or that all power for acting immediately, and further, as I put it, all power for acting vitally is joined to an intellect, assertions that are neither confirmed by any rational arguments, nor can they be defended except by distorting the truth. (G IV 510; AG 161)

In the 1754 *Traité des Sensations*, Condillac echoes this two-step form of argument exactly: '[t]here is in us an impetus for our actions that we feel but cannot define; it is called *force*. We are likewise active in relation

²⁰ For a discussion of this work and the circumstances in which it was written, see Laurence Bongie's (1980) introduction to the text. Reflecting on this time and the importance of monads, Euler wrote that:

There was a time when the dispute about monads was so lively and general that one spoke of them heatedly in all companies, even in the *corps-de-garde*. There was almost not a single lady in court who had not declared herself for or against monads. Everyone's conversation fell upon monads everywhere and no one spoke of anything else. (cited in Clarke 1999: 440)

²¹ Elisabeth Schwartz (1999) has also highlighted the 'secret' importance of the *Les Monades* text for understanding Condillac. In the *Essai*, Schwartz argues, Condillac had need of an active teleological mental principle in order to account for the transformation of sensations and the liaison of ideas with signs necessary for the development of language. It is this that the metaphysics of the mind drawn from Leibniz's conception of the monad supplies. So where does my interpretation differ from Schwartz's? I think, as Schwartz does, that Condillac defended a dualist view of the mind in the *Essai*. However, it is not clear to me that he had a view of the mind that could be described as 'active' and 'teleological' in this earlier work, although I think that is certainly the case in all of his works after the publication of *Les Monades*. I also think that Condillac gave up on his dualism by the time of the *Traité des sensations* and attributed such active teleological principles to animals and all other living beings.

²² On Leibniz and a posteriori arguments see Phemister 2004 and Lodge 2014.

to everything this force produces in us or outside of us... By analogy, we suppose a force in all objects that produce change' (OP I 226; PC 179, n.6).²³ Here we have both the affirmation of a self-causing inner force in the mind, but also an argument by analogy that forces with similar features must drive all external change.²⁴ The Condillac of *Les Monadés* knew that this form of argument was used to defend the existence of monads; my claim is that the Condillac of the *Traité des sensations* had not forgotten this. However, Condillac had, thanks to his close intellectual relationships, changed his mind on the validity of such arguments. In fact, in his 1775 *De l'art de raisonner*, he included a whole chapter on the importance of arguments from analogy. In this section, therefore, I hope to have shown that there are good reasons to believe that by the means of an argument from analogy, Condillac, like Leibniz, Maupertuis, and Diderot, and unlike empiricists such as Locke and Hume, postulates the existence of active teleological forces throughout nature.

II

As I stated in the introduction, one of the main reasons why Condillac's theory of mind is judged implausible is that he is supposed to consider the mind as a passive empty receptacle entirely at the mercy of external stimuli. However, once we recognise that Condillac posits a formative active force, 'the impetus for our actions' discussed above, his view that the mind directs the development of its own mental faculties and learns to use them starts to appear more plausible. The mere postulation of an active force grounding the Condillacian mind, however, is not itself enough to establish that his theory is not mechanically determined. Activity is a necessary condition for a non-mechanistic theory of mind, but not a sufficient one. In this section, I shall argue that the reason why we can refer to Condillac's theory as non-mechanistic is because he stresses that the mind's active force pragmatically evaluates its sensations. Condillac, I show, posits an innate interest-driven mental activity that is a necessary condition for the possibility of experience. Interest is the drive that leads to the development of all of our mental habits.

In a late letter from 1779, 'it is our activity that draws from our sensations all that they contain' (OP II 553). The mind does not receive external stimuli passively but actively. This activity, I claim, is driven by an interest in those things that are beneficial or harmful for the organism. Consequently, Condillac claims that 'interest is sufficient to give rise to the activities of understanding and volition' (OP I 222; PC 171). At the beginning of the 1755 summary of the *Traité des sensations*, he argues that '[i]f man had no interest in attending to his sensations, the impressions that objects make on him would pass as shadows and leave no trace. After several years, he would be as at the first instant' (OP I 324; PC I 157). However, because of our interests, sensations have practical value for the organism. If they are pleasurable, this indicates that they may aid it in its self-preservation and satisfy its needs. If they are painful, it indicates that they are to be avoided in favour of pleasurable ones. These sensations are important for the organism and therefore leave a trace, while all others are ignored.

The claim that makes my reading of Condillac original, as far as I know, is that this interest is an *innate* activity, while the traditional reading regards interest and need as something that arises from sensation, not something that makes sensation proper possible. The traditional reading has the advantage of being consistent with what he says in his earlier *Essai* (see OP I 14; EO 26). I claim, in contrast, that Condillac's thought has developed significantly by the time of the *Traité*. In the passage above, as I read him, he is saying that the individual is active in its engagement with sensations so that it only registers those that are of interest to it, and will ignore those that are not.²⁵ Interest is an innate mental selective activity and sensations would not have an effect on the individual without it. Further evidence for this reading is found in the *Traité des sensations* itself where Condillac discusses the possibility of an individual '*without needs*' (OP I 299; PC 309). Of such an individual he writes that they would be:

²³ There is in Condillac's work a Leibnizian commitment to *force* combined with a more typically empiricist reluctance to say anything specific about its nature. As Condillac writes in his 1775 *L'art de raisonner* 'movement must necessarily produce an effect. Any effect demands a cause, and although I can have no idea of the nature of this cause, I can give to it the name *force*; it suffices that I am assured of its existence.' (OP I 641)

²⁴ In relation to the mind, Condillac sometimes refers to this force in its most basic form as *inquiétude* (disquiet) (OP I 324; PC I 157, 1755) and like Leibniz in his *Nouveaux essais* conceives disquiet as an imperceptible urge driving us along (NE 166). Disquiet is the premier source that gives to us the habits of touch, sight, understanding, sense, taste, comparison, judgment, reflection, desire, love, hate, fear, hope, and willing; in short, it is from this source that all the habits of the soul and the body arise' (OP I 324; PC I 157). Condillac would not have had access to the *Nouveaux essais* during the writing of the first edition of the *Traité* (the former wasn't published until 1765). The similarity in understanding of the term is probably due to the fact that in his translation of Locke's *Essay* Pierre Coste translated 'uneasiness' into French as '*inquiétude*', which, as Leibniz himself notes, is not a literal translation.

²⁵ I would like to thank a reviewer for persuading me that I needed to make my argument for this position clearer.

An animal immobilized in a trance. He is, but he stays what he is; he scarcely feels. Unable to notice the objects that surround him, unable to notice what goes on within himself; his mind is divided indiscriminately among all perceptions to which his senses open a passage. Similar to a mirror, he constantly receives new images and never preserves any of them. (OP I 299; PC 309)

Such an individual, Condillac claims, would have no reason to take an interest in any of its sensations. However, because animals are formed with needs, an individual 'is interested in enjoying some [sensations] and ridding itself of others' (OP I 222; PC I 171). It registers those sensations because they are of interest to it given its needs. The absence of pleasant sensations leads the individual into a state of 'disquiet'. This disquiet is:

The *first principle* of all our actions given us by our habits of touch, sight, hearing, feeling, taste, comparison, judging, reflection, desiring, loving, hating, fearing, hoping, wanting; in short, all the habits of the mind and body arise from this disquiet. (OP I 325; PC 157. My italics)

It is this original drive to satisfy the organism's needs that explains why we form sensory ideas from our impressions. It is only because impressions feel good or bad that we desire to know them, and we develop ideas so that we can maximise the former sensations and minimise the latter. This is essential for our successful interaction in the world, i.e. we form them for practical purposes. We form ideas, therefore, only because we *need* to form them. 'Need', he writes, is the 'primary force behind the progress of [the] mind' (OP I 259; PC 243). Condillac makes this claim several times throughout the *Traité des sensations*. He claims that '[o]ur knowledge is limited solely to ideas that we have learned to notice [*que nous avons appris à remarquer*]. Our needs are the sole cause that directs our attention to some more than others' (OP I 248; PC 217); and that we 'notice in sensations only the ideas in which pleasure and pain lead... [us] to take some interest' (OP I 258; PC 242). All further mental structure is built up in response to this needs-driven activity, and this impetus for self-preservation, therefore, must form a real innate element in perception and cognition.²⁶

This claim for the primacy of 'need' in our experience is not a mere empirical claim founded by means of induction, i.e. in all observed cases experience is determined by our needs, therefore all experience (as far as we can tell) is determined by need. It is much stronger than that. It is presented as a necessary condition for the possibility of experience. It is not something that we might find an exception to, an act of sensing not driven by its needs. Rather, he writes that 'just as without experience there is no knowledge, so there would be no experience without needs' (OP I 303; PC 316). If our sensations were not judged in accordance with these needs—judged as being useful to the organism's well-being in some sense—there *would be no experience at all* (OP I 324; PC 157).

It is important to make clear, however, as Condillac is at pains to do in the 1754 *Traité des sensations* and in his 1755 *Traité des animaux*, that this innate element, this impetus, should not be thought of as a blind drive. An animal (human or non-human) is not simply pulled toward the pleasurable, but forms judgments (albeit unconscious ones) and acts on the basis of these judgments. Ideas are judged on whether they agree less or more with the animal's well-being than previous ideas and their relative importance assessed in accordance. The innate element, therefore, is an ends-based faculty of judgment.

This distinction (between blind drive and faculty of judgment) is crucial for the distinction between the way that Locke and Hume, on the one side, and Condillac, on the other, explain the association of ideas. As Falkenstein (2010) notes, we do not find the detailed treatment of the particular principles of association that we find in Hume in Condillac's works. But, in Condillac's defence, we can be sure due to the examples that he gives of the results of such associations of ideas, such as associating personalities with facial features (OP I 82–83; EO 56) and predicting the shapes of future objects based on our previous experiences (OP I 262; PC 245), that contiguity and resemblance must be among them. However, part of the reason why he spends less time discussing association itself is that this is not the bottom level of explanation for Condillac. As I showed in §1, for Locke and Hume: (1) A large part of cognition is based on habits; (2) habits are based on principles of association; and, (3) these principles can be brought into the domain of mechanical explanation. Although Condillac agrees with (1) and (2), he rejects (3). This is because he believes that the principles of association are dependent on more basic conative principles: principles of need. As he writes in his *Traité des animaux*, for animals, both human and non-human, the whole 'system of knowledge in general depends

²⁶ From this it follows that Condillac cannot defend a straightforward copy theory of ideas. Rather, our ideas are formed by means of a selective process, and the selection is made on the basis of our practical interests.

on one and the same principle: need'. In accordance with need 'all is executed in the same way, the association of ideas' (OP I 358).²⁷ He writes that 'following the animal's needs, ideas are multiplied, and then carefully linked with each other' (OP I 357). This gives Condillac's position one notable advantage. For Hume and Locke, the only condition established in addition to contiguity, resemblance, or causation is *repetition*, but repetition appears empirically to be neither a necessary nor a sufficient condition for association. We can, on the one hand, experience some things together many times over, but fail to associate. I might walk past the same shrub next to the same church on my walk to work for many months, and still, even though the shrub sensation and church sensation have concurrently caused the animal spirits to travel down the same routes every day, never think of the shrub when I think of the church. Yet, on the other, I can form immediate associations based on very few experiences, or even just one. If I saw blackberries on the shrub outside the church—even for just a second—I would be sure to associate the church with them always (because I love the taste of blackberries), even though I would never have associated the shrub with the church without the blackberries.

Condillac provides an intuitively plausible proto-pragmatist solution to this problem of why it is that certain bundled sensations result in association while others do not. It is because the former is relevant for the interests of the organism. Without our needs acting as an organizational principle to direct them, the blooming buzzing confusion of ideas would exist in our mind without order. This also explains why objects continually differ in their appeal to us despite the fact that similar sensations recur:

[T]he same pleasures do not always have the same attraction, and the fear of one same pain is not always as lively: the thing must vary according to the circumstances. Therefore, its [an animal's] studies change the objects, and the system of knowledge extends little by little into a different sequence of ideas. (OP I 357)

It follows from this that just as Condillac's account has this advantage in the formation of habitual associations, it has a corresponding one for the actualisation of them too. As I showed in §I, for Locke and Hume, the repeated succession of e^1 , e^2 , and e^3 , together forms a disposition d such that whenever e^1 is experienced, e^2 , and e^3 will automatically (i.e. passively) follow. However, Condillac puts a condition on this such that what associations follow will depend on what interests currently most occupy the organism. Ideas, he writes, 'are born according to the action of the needs' (OP I 358). These ideas combine into what he calls 'vortices' depending on the need that organizes them. The ideas 'form vortices in memory that multiply in accordance with the needs. Each need is a centre, from where movement is communicated up to the circumference. These vortices are alternatively superior to each other depending on what need has in its turn become most violent' (OP I 358). This means that the same ideas will combine into different associative vortices if the need that organizes them differs. I hardly notice the coffee cup in my field of vision at all when I am engrossed in writing this paper. Therefore, the associations 'delicious taste', and 'additional vim', do not follow when I see it. As soon as I start to tire, I can hardly pay attention to anything else, and such ideas follow with great force.

III

One of the main problems for a radical blank slate theory of mind is that if all living beings are born with blank-slate minds, why is it the case that only humans seem able to reason and communicate using sophisticated forms of language? There must be some kind of structure that accounts for the distinctive abilities that human beings have. If the human mind were *truly* a blank slate without *at least* the innate faculties that Locke posited, it is difficult to see how this ability could arise. Since it is commonly believed that Condillac held a radical blank slate view, it is perhaps unsurprising that his philosophy of mind has received such little attention in recent years. However, I have already provided evidence to show that he defended the existence of one constitutive innate element (interest-driven activity), but I now want to suggest that Condillac's understanding of mind depended on the existence of a considerable amount of bodily-based innate structure.

This proposal may seem doomed from the outset. Condillac says unambiguously in the introduction of his *Traité des sensations* that: 'The main purpose of this work is to show how all our knowledge and all our faculties come from the senses, or, to be more precise from sensations' (OP I 323: PC 155). I believe that Condillac is merely overstating his case, and that such statements fail to track what Condillac actually argues

²⁷ Although I have framed this discussion in terms of a comparison with Locke and Hume in order to emphasise the distinctiveness of his empiricism, the explicit target of Condillac here is Buffon who thinks that non-human animal sensations are associated purely mechanically while human cognition alone depends on judgment.

for in this *Traité*. As we have seen in §2, Condillac's claim here can be rephrased as 'all of our knowledge is acquired and all of our faculties are developed in response to the mind's active attempts to satisfy its needs'. But what I want to emphasise now is the importance of recognising that for Condillac the mind is *embodied*. If Locke and Hume start with the passive mind and its impressions, Condillac starts with the *living* body and its needs. The mental faculties that a human or non-human animal has, and the needs that direct their formation, depend on its bodily structure.

There are hints that Condillac held this view in the 1754 edition of the *Traité des sensations*. Condillac needs to defend the view that there is enough of a structural difference between animal bodies and our own in order to explain the fact that even though we are both open to the same external stimuli, human beings are able to develop much more sophisticated mental capabilities. Non-human animals are 'subjected to a body that would only occasion in it the faculties necessary for animal survival' and 'only the organs can occasion them' (OP I 222, fn.1; PC 171 fn.5). Human survival requires a different kind of body, one whose organs occasion the necessary conditions for the possibility of distinctly human thought. In the 1755 edition of the *Traité des animaux*, Condillac argues that what we call the instincts of animals is in fact a kind of primitive knowledge acquired by animals in accordance with their needs. 'It is', therefore, 'a thing that must vary according to the *organization of the animals*. Those who have a greater number of senses and needs, have more often occasion to make comparisons and judgements' (OP I 362. My italics).

However, we find much more explicit pronouncements of this theory in Condillac's later works—especially those published posthumously. This point is made clear in his *Logique*. There he tells us that our '*nature* is our faculties determined by our needs' (OP II 373; PC 348, 1780). For example, Condillac claims, a baby develops her faculty of determining distinguishing characteristics in response to the fact that she has certain needs that a wet nurse is able to fulfil. It is therefore advantageous for her to distinguish the wet nurse from other beings. This confirms my above rephrasing of Condillac's claim. But when he goes on to elaborate on this point, he says that:

Needs and faculties are properly what we call the *nature* of each animal. By that we only mean that an animal is born with certain needs and certain faculties. But because these needs and faculties depend on the animal's constitution and vary with it, consequently, by nature we understand the structure of our organs, and indeed therein lies its principles. (OP II 373: PC 348, 1780)

Because this passage occurs in the context of a discussion of the development of a baby's mental faculties, it should be read as asserting that the faculties of the mind are essentially the result of the structure of bodily organs. If we had a different bodily constitution, and different needs, we would have different mental faculties. In a rather convoluted way Condillac tells us, first, that the 'nature' of an animal is its needs and faculties, and, second, that by using the word 'nature' he means the structure of our bodily organs. The structure of these organs constitutes the animal and thus determines what needs and faculties it will have. Because animals are, of course, born with a certain organic structure, they are born with certain needs and faculties.²⁸ From which it follows if Condillac ever did hold the radical blank slate theory often attributed to him, he had given it up by the end of his life.

The above passage makes another important point, which is that because our needs and faculties are determined by the structure of our organs, as the latter change, so will the former (and vice versa). Faculties are not stable structures fully formed at birth but develop as the body develops. Just as we need to exercise our legs in order to build up the muscles so that we can learn to walk, we need to exercise the mental organs in order to learn to perceive and think. The crucial point that Condillac is making is not that the faculties do not exist until the reception of sensations somehow creates them *ex nihilo*, but rather that the mind must learn to use and develop the embodied structures with which it is born. It cannot do this without sensations, i.e., without interacting with its environment. This applies not just to the higher faculties, such as the faculty of reasoning, but even to the most basic faculties such as those that allow us to extract simple ideas from impressions and those that enable us to associate them.

Again, there is some evidence that Condillac already held this view when writing the 1754 *Traité*. In a discussion of how we can improve and develop our perceptual capacities, Condillac tells us that we all have the same potential to develop these capacities. We all possess the 'germ' of these capacities. However, only in

²⁸ Bertrand has also developed a naturalist reading of Condillac's later works in order to describe Condillac's theory of language (2002a, 2002b, 2002c, and 2016).

some are they 'developed, nourished, and grown' to their fullest extent (OP I 242; cf. OP I 239). The embodied character of the 'germ' is made clearer in his posthumous *Logique*. There Condillac writes that:

Just as the art of moving large masses has its laws in the faculties of the body and in the levers that our arms have learned to use, the art of thinking has its laws in the faculties of the mind, and in the levers that our mind has likewise learned to use. (OP II 372; PC 343)

The levers that our mental faculties must learn to use are our bodily structures. Therefore, there is no need to resort to explaining the human mind in terms of further mental faculties that exist in a spiritual substance. In fact, he even argues that we would be incorrect to attribute all of our mental faculties to our brain. When we acquire language, he claims, we do so by means of habits of the ear, mouth, and eyes, and the memories that make these habitual actions possible are stored in these organs rather than in the brain. The memory of a song, he tells us, 'has its seat' in the habits of movement of the fingers that play it, and the mouth that sings it, as well as in the habits of monitoring of the ear (that feed back information to the hands, mouth, and brain) (OP I 391; PC 379). For Condillac, therefore, we must not underestimate the importance of what we now commonly call 'muscle memory'.

IV

Perhaps the clearest development in Condillac's writing between the two editions of the *Traité des sensations* is his use of term 'instinct'. Condillac is often seen as the philosopher who did more than any other to reject instinct as a suitable form of scientific explanation.²⁹ For the Condillac of the 1755 *Traité des animaux*, explanations by means of instincts are *virtus dormitiva*-type explanations. To say that an animal is able to suckle out of instinct is no better than to say that opium causes sleep because of its dormitive power. Condillac's understanding of instinct is clearly echoed in the 1766 entry on 'Instinct' in the *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers* (Tome 8, 795–799). In this entry, Le Roy wrote that:

We see that the most ordinary and everyday actions of an animal suppose memory, reflection on what has happened, comparison between a present object that attracts them and the indicated perils that keep them away... What then is *instinct*? The effects, so multiplied in animals, of the search for pleasure and fear of pain; the consequences and inductions drawn by them from the facts that are placed in their memory; the actions that result from them; this system of knowledge to which experience adds, and that every day experience makes habitual. If we refer to all of this as 'instinct', then this word becomes synonymous with intelligence.

It is symbolic of a marked change in common scientific opinion on this issue that the explanation of instincts presented in the 1777 entry for the *supplément*³⁰ to the *Encyclopédie* contrasted sharply with the earlier one (Tome 3, 609–611). This later entry was instead a summary of the German naturalist Hermann Samuel Reimarus's (1760) *Allgemeine Betrachtungen über Die Triebe Der Thiere*, which had been translated into French ten years later as *Observations physiques et morales sur l'instinct des animaux*. In this work, Reimarus explicitly criticised Condillac's rejection of what he called 'skill-instincts' (see §§117–118), and brought together a significant amount of experimental evidence to show that many animals are born with innate skills that they can perform immediately without having had the chance to learn. He cites the cases of newly born spiders capable of spinning webs, newly born caterpillars being able to weave cocoons before seeing those of their ancestors, and a surgically removed baby water snake being able to swim as soon as it is placed in water.

Reimarus's work starts with a 'broad definition' of instinct. For Reimarus, '*Trieb*'—which is translated as 'instinct' in the French edition, but is more commonly translated as 'drive' rather than 'instinct' in English—'signifies a natural inclination towards certain actions' (§2). The next clause '*und die Wirksamkeit der Kräfte bedeutet*' ('and means the efficacy of the forces') is then translated into the French as '& désigne une force agissante' ('and designates an *active force*'). Reimarus then distinguishes between three species of instincts/drives: (1) Mechanical instincts (*mechanische Triebe/les instincts mécaniques*), which are 'organic movements that lead the machine to execute certain movements in order to maintain it and for the conservation of life without feeling or choice'; (2) Awareness instincts (*Vorstellungs-Triebe/les instincts représentatifs*),

²⁹ See Blix 2016 and Richards 1979: 90, and 2018.

³⁰ On the history of the *supplément* see Hardesty, 1977.

'or dispositions of the soul that lead it to know objects according to their relation with the present or past state of the body to which it is attached'; and, finally, (3) Volitional drives (*willkürliche Triebe/les instincts volontaires*), 'the effort of the soul to seek and procure whatever promises pleasure through its sensation and perception and to fear and avoid those which threaten pain'. These *spontaneous* instincts, Remairus tells us, are those most appropriate to the word '*Trieb*' or '*impetus*'.

It is clear that this broad definition of 'instinct' had an important effect on the development of Condillac's writing. It includes under 'instinct' the kind of behaviours that Condillac had previously attributed to 'active force' and the impulsion of 'disquiet' (*inquiétude*). Consequently, he starts to use the word unashamedly. In the revised edition of the *Traité des sensations*, he writes that he uses 'impulse' (*impulsion*) and 'instinct' now to mean the same thing (OP I 299; PC 307, 1780). Furthermore, 'nature' is frequently used by Condillac from the mid 1770s on to refer to inborn, innate, or instinctive faculties and abilities. However, this shift in language is most crucial for Condillac's explanation of how the mind comes to develop the ability to represent the external world objectively. When we examine this explanation, we will see that the late Condillac came to occupy a middle position between Reimar's full acceptance of a wide range of instinctive faculties and behaviours, and what appeared to be an earlier denial of instincts of all kinds. Condillac never came to fully accept 'skill-instincts', but he did become much more explicit about his acceptance of instinctive bodily processes, mental drives, and faculties that are necessary for the formation of experience.

As we have already seen, Condillac rejects the empiricist 'copy theory' according to which we can straightforwardly acquire simple ideas from impressions. Those ideas that we focus on are those that reflect our practical interests or needs. He claims that 'we can see the same objects, but because we do not have the same interest in observing them, we each have very different ideas about them.' (OP I 248; PC 217). However, it isn't simply the case for Condillac that the mind selects from a ready set of fully formed ideas. Rather, the ability to perceive a 'simple' idea itself is one that we must acquire. It is an exercise of what he calls 'practical' or 'habitual' *know-how*. 'We have only those ideas involved in our sensations', he tells us, 'that we *know how* to notice' (*ibid.*).³¹ Although an individual able to see for the first time may experience a 'blooming, buzzing confusion' this individual will not be able to form distinct ideas from these sensations. The formation of ideas is, therefore, a process of skilful interpretation that requires the formation of habits.

The main influence for the development of this view was a famous 1728 report given by the surgeon William Cheselden with the pithy title: 'An Account of Some Observations made by a young Gentleman, who was born blind, or lost his Sight so early, that he had no Remembrance of ever having Seen, and was couch'd³² between 13 and 14 Years of Age'. The report discusses the experiences of this boy after he had his cataracts removed; the boy had a number of visual experiences, but failed to have accurate perceptions of the environment. He believed that all external things touched his eyes, he could not distinguish between objects, and he wasn't able to make judgements regarding shapes or magnitudes. All objects appeared, at first, to be astonishingly large. He could not tell the difference between the globe and the cube that Molyneux had discussed in his famous 'question', and he also failed to distinguish between his dog and his cat. He was too embarrassed to keep asking which was which and after picking the cat up, whom he could distinguish by feeling, he was observed by Cheselden 'to look at her stedfastly, and then [after] setting her down, [he] said, So Puss! I shall know you another Time'.³³ The process of learning which visual appearances related to the objects he had previously known through touch, therefore, took a lot of time and effort. Several months after being 'couch'd', the boy was surprised when suddenly instead of seeing paintings as simple planes diversified with different coloured paints, he perceived them as representing solid bodies.³⁴

From this report, Condillac concluded that although an individual suddenly endowed for the first time with the sense of sight would be able to experience—since they would receive the same sensory stimuli that a normally sighted individual would receive—this experiencing would not be the full-blown perception of distinctive external objects. This individual would have *to learn* to make sense of these stimuli. Although an individual able to see for the first time may experience a 'blooming, buzzing confusion' this individual will

³¹ « nous n'avons pas toutes les idées que nos sensations renferment; nous n'avons que celles que nous y savons remarquer ». Condillac also writes: « Nos connaissances se bornent uniquement aux idées que nous avons appris à remarquer ».

³² 'Couching' is a method of cataract removal that uses a needle to pierce the eye in order to move the lens that had been clouding vision downwards away from the line of sight.

³³ Cheselden 1728 448.

³⁴ Since this 1728 experiment, hundreds of similar cases have been reported. For example, in 1826, when James Wardrop documented a case, known as the 'Case of a Lady Born Blind', his subject told him that despite being able to 'see', 'I cannot tell what I do see. I am quite stupid' (1826: 533). In 1995 Oliver Sacks reported that his patient experienced the same sensory confusion: 'in the first moment he had no idea what he was seeing. There was light, there was movement, there was colour, all mixed up, all meaningless, a blur' (1995: 114).

not be able to form distinct ideas from these sensations. The formation of ideas is, therefore, a process of skilful interpretation that requires the formation of habits.

One interesting development in the 1780 edition of the *Traité des sensations* is that Condillac starts to argue that even the understanding of our sensations as referring to external objects requires mental habits. Although Cheselden's boy was born blind, he could faintly see colours before the operation. Because he could place his hand over his eyes and prevent himself from seeing them, he could tell that these sensations refer to something external to him. When the boy had his cataracts removed, he first experienced all objects as touching his eyes. But, Condillac argues, if the boy had been born fully blind and had therefore not been able to learn the distinction between inner and outer visual experiences through being able to touch his eyes, he would have experienced those first images as if they were merely subjective modifications of his own being. He would have experienced the new visual sensations as modifications of himself rather than as being caused by external objects. Consequently, he argues that although we do not need 'to learn to see (*voir*),' we need to 'learn to look (*regarder*)' (OP I 280; PC 275–6, 1780). *Voir*, for Condillac, means experiencing *without* perceiving, or mere 'reception' of sensation, and *regarder* means perceiving, i.e., objective empirical representation. Essentially, the understanding of the external world as external requires the coordination of sight and touch and without this co-ordination there could not be an experience of the external world as external. A fully sighted boy born completely immobile, therefore, could never learn to look.³⁵

The theoretical influence for Condillac's view that 'without habits, sensations are blind' came from the work of Malebranche. I propose that Condillac saw the experimental results from the report as partially backing up the position that Malebranche had defended in his debate with another Cartesian, Antoine Arnauld (1612–1694). Against Arnauld, Malebranche insisted that in order to represent the external world *qua* external, we require more than just sensation. He argued that to answer the question 'how can a mind's subjective modifications come to be *about* external objects?', we must conceive of a perception as including two ingredients: a *sensation* and a *pure idea* (SAT III.ii.6). Perceiving the sun involves its shape (pure idea) and its colour (the sensation of yellow, etc.). Perception, he argues, would be impossible without its intellectual component, since he believes that a sensation on its own would simply be a subjective modification and thus have no distinct object. This is why Malebranche's position agrees with the report. If we do not perceive an object, Malebranche claims, we do not properly perceive at all, and perceiving an object requires an idea as well as sensation. As we have seen, Condillac agrees that a sensation without an extra element, in his case a learned mental habit, would be experienced as a mere subjective modification. Malebranche's interlocutor Arnauld, contra Malebranche (and Condillac), argued that perception is *essentially* representational. He insisted that testimony confirms that all of our perceptions are 'perceptions of some F'. This is simply due to the *essential* nature of the soul and requires no further explanation. In response, Malebranche argued that this misses the importance of the distinction between the French words *sentir* (to immediately experience one's sensations) and *connaître* (to know by way of ideas).³⁶ It is by means of the pure idea that we come to *know* what the sensory impressions mean. Again, this distinction is a distinction that Condillac believes that the report confirms. Contra Arnauld, this shows that our experience *becomes* representational through a process of learning.

Nonetheless, this inference also shows that Condillac's agreement with Malebranche must be limited. For Malebranche, the pure idea that serves as an essential component of a perception was much like a Platonic Idea, an Idea grounded in the mind of God. Our perceptions are constituted by the combined effect of our sensations and these Ideas; Ideas that are caused by God, not learned by the organism. Condillac wanted to provide a naturalistic account for the genesis of the intentional relationship and argued that we develop full-blown perceptions—perceptions *of* objects—by means of a process of acquiring habitual know-how. Therefore, the conceptual role that Malebranche had given to the Ideas is played for Condillac by habits;³⁷ sensations are transformed into percepts thanks to the habitual *know-how* of the unconscious bodily mind, not thanks to a distinct intellectual faculty. The necessary concepts for perceiving the world are not stored in the mind of God, or innate to the mind, but rather *learned*.

³⁵ In the 1754 edition there is a chapter called "*How this man, while remaining immobile, begins to feel himself in some way extended*". This is removed in the 1780 edition. The 1754 edition allows a vague idea of extension, while in the 1780 is clear that without motility, the statue could have no idea of extension at all.

³⁶ See Pyle 2003: 47–73.

³⁷ 'Malebranche is, I believe, the first who said that judgments are mixed in with our sensations. He states that many readers will be shocked by this point of view. But they will be especially shocked when they see the explanation this philosopher gives... Not able to understand how we would make these judgments ourselves, he attributes them to God' (OP I 288; PC 288, 1754).

How do we gain and use this know-how? This question seems especially difficult to answer if we think that the mind is completely empty before the input of sensations. Fortunately, Condillac does not think this and it is in order to answer that question that the later Condillac appeals to the language of 'nature' and 'instinct'. By means of the impetus of nature or instinct we come to acquire what he calls 'practical' or 'habitual knowledge' which forms the basis of the practical or habitual judgments (as opposed to theoretical ones requiring consciousness and language) necessary for objective empirical representation. At first an infant would move 'naturally, mechanically, by instinct and without being aware of it' (OP I 255; PC 233, 1780). It is because of their 'nature' that a child will stay in the same position if they receive a pleasurable sensation but recoil if they encounter a painful one (OP I 255; PC 232, 1780), and it is 'foreordained to move every time that it remembers agreeable sensations that movement has enabled it to enjoy' (OP I 259; PC 239). As children experiment in the world, they gain practical knowledge through their interactions.

Touch is crucial to the acquisition of practical knowledge. Only organisms that have the sense of touch and the motor abilities to enable them to establish that certain sensations are caused by objects that are external to them can acquire practical knowledge. An organism that enjoyed sight but not touch, he claims, can experience without perceiving, but they cannot learn to perceive, i.e., learn how to make sense of their experiences. For example, although a mollusc can sense light and dark, Condillac would understand this sensory information registration as non-perceptual since it lacks the connection to touch and motility necessary for perception. Because human beings are aided by touch, they are able to slowly learn that their confused sensory experiences represent objects outside of themselves. We do this, he argues, only through experimenting with the world, by learning that we can cover up certain figures and colours with the limbs that we learn belong to our own bodies. The 'guiding light' of this experimental 'analysis' is instinct; this analysis is a process done 'naturally' (OP I 267; PC 251, 1780).

By nature, we recognise the distinctive sensation that enables us to judge 'this is me' whenever we touch a part of our own body. We obtain ideas of distinctive external objects by comparing the relative solidity, hardness, and temperature of the different things that we come into contact with; we compare, judge, and learn to discriminate' (OP I 282; PC 277–278). Our ability to move means that we can learn to group together a set of sensations relating to a single external body (a ball, for example) and start to experience the single object as a single object. We gradually learn to perceive the shape of a sphere, which at first sight looked like a two-dimensional circle. We touch and feel the sphere while looking at it, and link 'ideas of roundness and of convexity to the impression that a certain mixture of light and shade makes on it' (OP I 282; PC 278). By means of recording these regular sensory patterns, the mind picks up a mental habit that enables it to understand the meaning of these patterns and to trigger a 'sphere experience' on future occasions with limited data.

Once it receives sensations that fit into the 'sphere' pattern, it makes the judgment that it perceives a sphere in front of it. It will then be able to perceive spheres that it has not previously seen before as spherical. This is because it has acquired the habit of perceiving a sphere as spherical from its surface qualities. It is able to tell from these qualities that it fits with the patterns it has learned using sight and touch which correspond to the sphere and 'fill in' the rest of the details in the mind by means of habitual judgment. Through the use of this practical knowledge and the judgments made using it, we can have an idea of what the back of the sphere looks like, even though it is not currently in our field of vision. We understand in advance how our perception would change if we moved our body in relation to it, because our mind has a record of this complicated sensory information. Condillac writes that '[t]hrough habit' the mind 'anticipates the senses; it recalls long series of ideas; it does still more, it... sends back... sensations that have not previously been sent to it, and it persuades us that we are seeing what we do not see' (OP II 390; PC 384, 1780).³⁸

Importantly, practical knowledge and practical judgments are part of the unconscious and instinctive operations of the mind. All of this is done 'instinctively'. '[T]hese judgments', he writes:

Which it does not perceive, are the instinct that guides it... to acquire habits, it is sufficient... to make these judgments without perceiving them. Do we think that a child makes judgments only after he has learned to speak? Certainly, he would not feel the need to acquire language, if he did not feel the need to express judgments. (OP I 298; PC 307–8, 1780)

The practical know how that the mind acquires is the ability to organize and make sense of sensations coming together from multiple sources. An important insight that Condillac gathers from the Cheselden case is that the mind can see the same sensations in a number of different ways. The boy would often refer to his

³⁸ Such sensory anticipation is what we now refer to as sensorimotor expectation. See Noë 2006.

'new ways of seeing'. Like when he first experienced a painted picture as representing three-dimensional objects rather than merely appearing like a flat variously coloured plane. We are able to experience new ways of seeing because each of our perceptions offers an interpretation of reality rather than a mere copy of it.

Although Condillac doesn't explicitly say this, I think we can interpret a 'practical judgment' as a kind of judgment the use of which he was defending in the sciences – it is a 'conjecture'. In the quote already cited above, Condillac claims that a conjecture possesses 'the degree of certitude furthest from evidence; but... by them... every science and every art has begun; for we foresee the truth before we see it' (OP I 680–1, 1775). On the basis of its acquired practical knowledge, the mind makes a conjecture about what it sees. These conjectures are confirmed if they 'work', but they are abandoned if they do not.

In a passage that would seem to back up this interpretation, Condillac writes:

To observe relations, to confirm judgments by new observations, or to correct them by observing anew—this is what nature makes us do. And all we do is do it and do it over again for each new bit of knowledge that we acquire. Such is the art of reasoning; simple like the nature that teaches it to us.

It thus seems that we already know this art as far as it is possible to know it. This would indeed be true if we were always capable of noticing that it is *nature and nature* alone that teaches it, for then we would have continued as it caused us to begin. (OP II 394; PC 384, 1780. My italics)

The kinds of conjectures that the mind forms will depend on the body and its needs. As we saw in §1, Condillac understands the mind as needs driven, so the habitual mind interprets the world in the best way it can so as to help itself satisfy these needs. It does not merely copy the world, but cuts it up according to its practical desires. Since the affective characteristics of our sensations track these needs, they not only form the ingredients for the distinctive qualitative character of our experience, they also play a constructive role in the formation of our distinctive cognitive structure.³⁹

V

In conclusion, I have shown that by the end of his life, Condillac had developed an original and compelling philosophy of mind and perception. This theory of mind is a long way from the austere sensationalism most often attributed to him. It depends on a defence of the selective activity of mind, innate structure, and a moderate defence of instincts—all features of the mind that the received view of Condillac has taken him to reject. In contrast to this view, and in accordance with the materialised Leibnizianism of his contemporaries, he argued that the body is fundamentally active and strives—by 'the guiding light' of instinct—towards its self-preservation. Even if Condillac never defends anything as strong as 'skill-instincts', due to the active nature of the mind and the body's consequent interactions with its environment, an individual becomes increasingly adept at satisfying its needs and forms habits that endow it with practical know-how and enable it to perceive the world around itself objectively. A proper appreciation of this theory requires a proper understanding of how Condillac continually developed his philosophy—right up to the end of his life—and the fact that throughout his career he paid close attention to developments in the life sciences. Once read in this light, it is clear that in relation to his philosophy of mind and perception, Condillac was not simply a disciple of Locke who pushed the rejection of innatism too far, but rather a strikingly original and powerful thinker in his own right.⁴⁰

Competing Interests

The author has no competing interests to declare.

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Abbreviations

AG: Leibniz, Gottfried Wilhelm. *Philosophical Essays*. Edited and translated by Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989.

³⁹ See Shapiro 2014.

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