DIDEROT AND MATERIALIST THEORIES OF THE SELF

Charles T. WOLFE*

Abstract. The concept of self has preeminently been asserted (in its many versions) as a core component of anti-reductionist, antinaturalistic philosophical positions, from Descartes to Husserl and beyond, with the exception of some hybrid or intermediate positions which declare rather glibly that, since we are biological entities which fully belong to the natural world, and we are conscious of ourselves as 'selves', therefore the self belongs to the natural world (this is characteristic e.g. of embodied phenomenology and enactivism). Nevertheless, from Cudworth and More's attacks on materialism all the way through twentieth-century argument against naturalism, the gulf between selfhood and the world of Nature appears unbridgeable. In contrast, my goal in this paper is to show that early modern materialism could yield a theory of the self according to which (1) the self belongs to the world of external relations (Spinoza), such that no one fact, including supposedly private facts, is only accessible to a single person; (2) the self can be reconstructed as a sense of "organic unity" which could be a condition for biological individuality (a central text here is Diderot's 1769 Rêve de D'Alembert); yet this should not lead us to espouse a Romantic concept of organism as foundational or even ineffable subjectivity (a dimension present in Leibniz and made explicit in German idealism); (3) what we call 'self' might simply be a dynamic process of interpretive activity undertaken by the brain. This materialist theory of the self should not neglect the nature of experience, but it should also not have to take at face value the recurring invocations of a better, deeper "first-person perspective" or "first-person science."

Keywords: materialism, self, first-person perspective, externalism

La moitié d'un *moi* est une absurdité contradictoire, et une portion de matière qu'on ne peut partager est aussi une contradiction : comment donc se persuader que l'esprit et la matière ne sont pas deux substances différentes? (Suzanne Necker, 1798)

_

^{*} Ghent University, Department of Philosophy and Moral Sciences and Sarton Centre for History of Science, Blandijnberg 2, 9000 Ghent, email: ctwolfe1@gmail.com

1. Introduction

Our familiarity with the diverse forms of early modern materialism has grown a great deal in recent decades, marking a considerable advance over older (if still regrettably common at times) views of materialism as inherently mechanistic, fixated on the idea of the body as machine, or denying basic features of embodiment.1 Similarly, some progress has been made with regard to the two rather monolithic conceptions of materialism as either a kind of cosmological posit concerning the material nature of the universe as a whole (often coming hand in glove with a matter theory) or as a variant of what philosophers in the twentieth century came to call the 'identity theory' of brain and mind, namely a more localized claim concerning the identity of cerebral processes and mental processes, as in the definition of materialists given in the Encyclopédie article "Matérialistes": "those who argue that that the human soul is composed of matter." Even such a well-known piece of argumentation (with endless polemical and over-interpreted reverberations)3 as Locke's reflections on the possibility of thinking matter, or to be precise, the possibility that God could have "superadded" thought to matter,4 ended up creating conceptual spaces located very much in between these two classic positions.

Locke himself had noted that if we can conceive of God superadding different properties to matter, to make, e.g., plants, "with all the excellencies of vegetation, life, and beauty, which are to be found in a rose or a peach tree, etc., above the essence of matter in general," or "other properties that are to be found in an elephant," nothing prevents us from conceiving that God could add the property of thought⁵; and he alludes to the possibility implicit therein, that human and animal minds would then be less different, less separate than is often held, and thereby that 'materiality' and 'mindedness' are not radically separate. The latter consequence was spelled out by the celebrated free-thinker and pornographer, the Marquis d'Argens, in his La philosophie du bon sens (1737), claiming again on the basis of superaddition that one could not deny God's ability to elevate the faculties of an animal soul to that of a human one,6 and also turning the point around: "if animals thus possess a material Soul, Feeling is then not incompatible with Matter: the latter allows of it" (383). And in the revolutionary-era Encyclopédie méthodique, the entry on "Materialists (Atheists)", which is partly drawn from Cudworth - illustrating the well-known principle that apologeticists are the best theorists and typologists of materialism - distinguishes between the cosmological thesis and the brain-mind (or body-soul) identity thesis, but then observes that they are often collapsed: "materialists argue either that man's soul is matter, or that matter is eternal and is God; or that God is just a universal soul distributed throughout matter which moves and arranges it, either to produce beings or to create the various arrangements we see throughout the universe."7

So in addition to the two basic claims concerning either the *materiality of the world* or a type of *mind-brain identity* (or body-soul identity, including in Epicurean and naturalized Aristotelian-Averroist conceptions of the material soul),⁸ there exist various intermediate positions – combinations, hybridizations and at times pastiches of more familiar views. Nevertheless, the nature of the relation between these two types of materialist claims remains an open question: does the position that the universe is entirely material, commit one to a specific brain:mind identity claim?

Certainly the reverse does not hold. Indeed, some cerebral materialists such as La Mettrie consider that our ever-revised knowledge of neuroanatomy and neurophysiology, as it impacts ('falsifies') our knowledge of the mind, has really nothing to do with traditional metaphysical claims about the nature of reality: we will never know the essence of matter, which does not mean we should not be materialists.⁹ Conversely, the realization that the materialist philosopher should be specifically concerned with the status of the brain is a relatively late occurrence, explicit in Toland and Collins in the early years of the eighteenth century (in 1704, Toland writes, "Whatever be the Principle of Thinking in Animals, yet it cannot be perform'd but by the means of the Brain," and four years later, Collins asserts to Samuel Clarke that consciousness "is a real Quality, truly and properly inhering in the Subject itself, the Brain, as Modes of Motion do in some Bodies, and Roundness does in others")¹⁰ but only really reaching prominence (and analytic depth) in authors such as La Mettrie and Diderot.

The different ways in which materialist authors could treat the relation between the materiality of the world and the materiality of the mind (via the latter's corporeality or cerebrality) are deserving of further examination, including in contrast to what we have come to think of as early modern panpsychism, e.g. in Margaret Cavendish. But in what follows I examine another aspect of the second species of materialist claim (about the mental), or rather, an obstacle, a stumbling-block to what might otherwise seem like a successful process of conceptual steam-rolling (i.e., immanentization). I have in mind the materialist treatment of the self, and overall the cluster of problems concerning selfhood, individuality and personal identity, in various authors but most centrally in Diderot. (My analysis is neither a standard internalist reconstruction of a problem in Diderot, with passing mention of other period authors, nor an intellectual history-type survey of a problem in the period, with discussion of as many authors as possible. It is, as the title indicates, a reflection on Diderot and materialist theories of the self. That is, the aim is to reconstruct a problem, and it turns out, at least according to my analysis, that Diderot puts forth one of the more significant and original versions of a materialist theory of the self but one which, of course, appropriates elements from other authors.)11 The self was often seen as simply a part of the classic 'matter and mind' problem. Thus Suzanne Necker reprises classic Cartesian points but to speak of the self: "half of a self is a contradictory absurdity, while a portion of matter that cannot be divided is also a contradiction: how can mind and matter not be different substances?"12 One should note that this shift to the problem of the self presents a particular kind of conceptual challenge. Why should the materialist approach to the self be particularly challenging? Because the latter belongs to a time-honored family of philosophical intuitions which are perennially presented as light-years removed from the world of materialism. From Augustine (Confessions, X, 16, 25) to Descartes and onto to Paul Ricoeur, or from Kant and Schelling onto Husserl and Heidegger (but also, Wittgenstein, Anscombe, Chisholm, Nagel, etc.), we are told in endlessly varied ways that the self is not, to borrow Wallace Stevens' elegant line, "composed of the external world":13 that the self is not of the material world, whether this has to do with its lack of divisibility, its temporal essence, the inner sense,¹⁴ grammatical properties of the first person, or other 'facts'.

Contrasting with such views (or intuitions, which is often what they are), I point to the existence of an early modern materialist discussion of self - an intellectual 'tradition', even if it lacks direct transmission or continuity, given that materialism is, in Günther Mensching's phrase, a "discontinuous tradition," which does not evolve according to a direct transmission or connection between doctrines, from one generation to the next.15 I say 'early modern' - broadly construed as extending from Spinoza and Locke to Diderot - because I do not believe that the attempt to combine thoroughgoing materialism and a concept of self is somehow a 'timeless' feature of materialist thought (indeed, it is possible although I make no such metahistorical claims on my own account, that concern with the self is a post-Cartesian development, in the sense of the Augustinian elements in Descartes - or even Luther on some readings). 16 This materialist approach to the self can take (at least) three forms, which occur independently of one another (e.g. in Spinoza, Dom Deschamps or La Mettrie) but which can also be combined, as they are in admittedly programmatic form in Diderot. These are: externalism as a metaphysical position, (§ 2), the biologization of individuality, that is, a justification of individuality in biological terms (§ 3), and the equation of brain and self, in a reductionist approach to the problem of personal identity (§ 4). In conclusion (§ 5) I suggest that rather than being 'blind to the world of internal life' as was often claimed of materialism, there can be something like a materialist theory of self, notably but not exclusively as sketched in Diderot. Differently put, rather than a whole-scale elimination of the mental, the early modern materialist approach could also be a 'naturalization' of the mental - an inscription of mental life in the broader natural world, which does not make it disappear as if by waving a wand.¹⁷

Here, paying attention to historical context can help rid us of some philosophical commonplaces, such as the phenomenological opposition between the realm of Nature and the realm of the mind, itself an iteration of Cartesian dualism, despite its protestations. Quite typical is Husserl's opposition of the world of the mental to causality: "As far as causality is concerned, we have to say that if we call causality that functional or lawful relation of dependence which is the correlate of the constitution of persistent properties of a persistent real something of the type Nature, then as regards the soul we cannot speak of causality at all."18 To be fair, the opposition between what it is to be part of Nature and what it is to be a 'self' does not have to take the classic form of substance dualism: the T can be redefined as a function.¹⁹ In addition, many of the rejections of mainstream conceptions of the self are not materialist in character, most notably, Hume's looking inward and not finding an object called 'self'. Nevertheless, I suggest that a reconstruction of some materialist positions on the self (including their appropriation and transformation of elements from such sources as Spinoza and Locke) may yield some insights and some 'displacements' of our historico-philosophical commonplaces.

2. Externalism

Externalism is to be understood here not as a semantic theory or a social theory of mind (at least two of the other senses of the term) but rather as the position according to which mental states lack any inaccessible, 'first-person' dimension; any such dimension would be either explainable in external terms or traceable to processes in the agent which produce a 'feeling' of interiority.²¹ If the internalist holds that "States, or experiences [...] owe their identity as particulars to the identity of the person whose states or experiences they are," as in Cudworth's conception of the self as to hegemonikon or as defined by sui potestas, endlessly echoing itself,²² the 'externalist' holds that "no fact is only accessible to a single person,"²³ and deplores, as Diderot does in § X of his 1753 Pensées sur l'interprétation de la nature, that it is easier to consult oneself than to consult Nature. The externalist will hold that any sense of unity, any foundational dimension of selfhood, in fact comes from outside. Materialism implies externalism but externalism does not imply or entail materialism (a vision of the mind as social, including as behaviourally constituted in a world of activity, is not committed to a materialist metaphysics).

One can also see the distinction between internalism and externalism in the difference, familiar to scholars, between the Cartesian cogito and the Spinozist homo cogitat (Ethics IIa2). That 'homo cogitat' is not a foundational property of a first person; the self, and its key property, thinking, is not foundational. To be a thinking subject is simply to belong to the universe of causal relations, to be a particular intersection within it. In Spinoza's memorable phrase, "The order and the connection of ideas is the same as the order and the connection of things." For the externalist, no fact, datum or vécu belongs to a private, off-limits zone, for what is first is not the thinker but the web of relations to which thought belongs. As Dewey put it in very Spinozist terms, challenging first-person foundationalism: "There is nothing in nature that belongs absolutely and exclusively to anything else; belonging is always a matter of reference and distributive assignment." Of course, Spinoza doesn't content himself with this static vision of a grid of relations; he emphasizes that any such particular 'individuated' entity strives to persevere in existence, as the finite mode it is. I cannot improve on Morfino's summary:

[F]or Spinoza the individual is neither substance nor subject [but...] is a relation between an outside and an inside constituted by this very relation (there is no absolute interiority of the *cogito* opposed to the absolute exteriority of a world). This relation constitutes the essence of the individual, comprised of its own existence-power. . . . It is a variable power, precisely because the constitutive relation between inner and outer is unstable, not established. The passions are not, therefore, the property of an already given human nature, but they are relations constituting the human individual; their locus is not interiority, but the space *between* individuals.²⁶

One could say that the externalist has a *relational* definition of what it is to be an individual, as a particular duration within a given, causally closed space-time; in the specifically biological version of this position, this will become the particular duration

of a state of relations which constitutes a given individual – a tree, a beetle, a person – qua that which resists decomposition (a "conatus ad existendum"). Of course, to claim that Spinoza defines the individual as a relation, or has an ontology in which there is a primacy of relation, may seem to run counter to the obvious fact that Spinoza thinks the individual is defined by its own conatus, its own essence (E IIIp9s: the conatus is our essence). Yet the relational view has in favor of it, equally core Spinozist definitions: our body needs a great number of other bodies to survive (EIIp13, 4th postulate), just as our mind would be imperfect if it only took itself as an object (EIVp18s). In addition, bodies form a single body or individual when their movements are related to one another (or when they "communicate" according to a precise ratio or relation: EIIp13d). In sum, our essence is a certain ration, proportion or relation of motion and rest (ratio motus et quietis).²⁷

For the externalist, an experience, a desire, or a belief do not belong de jure to a constitutive subject, but rather de facto, to a subject which they constitute.²⁸ Indeed, the subject is constituted by her progressive filtering (and filtering out) of the world, which also serves as an argument against skepticism, according to the idea that the senses are made for x. This sensory filtering is described in Diderot's important, but at the time unpublished Rêve de D'Alembert (1769) as constitutive of our individuality: no one's sensory make-up is identical to anyone else's sensory make-up. "The animal is a unified whole," both because of its specific physiological constitution (organisation), and specifically because of what he calls its organic continuity, as distinct from the mere contiguity of parts.²⁹ The limits of our sensory system are also the limits of our individual, in the sense that however much all of matter may be living matter, I cannot sense what is happening on Saturn, for between me and this planet "there are only contiguous bodies, instead of continuity."30 In the Éléments de physiologie, he puts it this way: "if external sensations . . . and inner sensations were equally intimate to me, everything would be me, and I would be everything."31 I don't perceive the cosmos directly (my perceptual apparatus acts as a filter); if I did, the barriers of my self would somehow be the barriers of the world. For sensation (perception, experience) are both real and constitutive of self, here. In an Epicurean vein, Diderot insists that "Il n'y a point de plaisir senti qui soit chimérique," which is reminiscent of a passage in Shaftesbury's Inquiry Concerning Virtue or Merit (which Diderot translated), where our sensations are described as real regardless of the status of the objects: "For let us carry scepticism ever so far, let us doubt, if we can, of everything about us, we cannot doubt of what passes within ourselves. Our passions and affections are known to us. They are certain, whatever the objects may be on which they are employed."32 Again, Diderot is stating that "no experienced pleasure is illusory," Shaftesbury, that "our passions and affections . . . are certain." Both of them are indebted to the Epicurean credo according to which, 'if you argue against all your sensations, you will then have no criterion to declare any of them false',33 which becomes stronger in the Lucretian version, as it takes the form of infallibility: 'there is no error in sense-perception'.34 But Shaftesbury (perhaps) and Diderot (certainly) are adding an additional claim, not just a rebuttal of skepticism but an assertion of a kind of a 'sensory self'.

The self is constituted from without, and the sensory part of this process entails that no two subjects will perceive the same object in the same fashion. This is

the properly materialist way of accepting that someone's life-history, including the larger-scale evolutionary history, is constitutive of their being. Notice that we have a criterion of personal identity here: "For any organism x and any y, x = y if and only if x's life is y's life." And since externalism does not mean that my self is equal to the universe as a whole, we can see something of a biological emphasis being smuggled in here. If I am not defined by a free, unconditioned inner space of interiority, but by a multitude of 'petites perceptions' (often interpreted in determinist and materialist terms in the early eighteenth century, e.g. by Anthony Collins in his *Inquiry Concerning Human Liberty* of 1717)³⁶ crisscrossing in my mental life, by my physiological constitution, by 'the blood which flows in my veins', as La Mettrie would have it (each of us, the criminal and the honest man, are in pursuit of our own good – happiness, particularly understood as pleasure –; whether I am virtuous or vicious depends "on my blood"; it was because of his blood that "Cartouche was made to be Cartouche"), '37 then we have gradually shifted from externalism per se to a biologization of individuality.

3. The organic self

There is nothing novel or particularly radical about philosophy turning to the biological world to obtain its 'best definition' of what an individual substance is; think of the notable case of Aristotle, who tended to use actual organisms as paradigm cases of individual substances, or in contemporary parlance, "paradigmatic individuals." The same has been observed of the biomedical sources of Leibniz's idea of substance, and the monad. But it is a further step to say that the traits associated with our interiority are themselves biological in nature – whether it be the 'inner sense', intentionality, the synthetic unity of apperception, consciousness, and so on. Indeed, one author warned in the later nineteenth century against committing a sort of category mistake and confusing the self with the 'feeling of organic unity'. I am interested in the narrower class of thinkers who explicitly disobey the Nietzschean warning not to confuse the self with the feeling of organic unity, or in more general terms, who think that facts about selves, including experiential ones, might turn out to be biological facts. Of course, even in this narrower class we can find the argument running in two contrasting directions: either

— a reductionist direction, in which the thinker will retain whichever experiential, existential or phenomenal properties can be successfully preserved after a reduction to the biological facts⁴¹

or

— a holist direction, in which there is a 'transfer' of subjective properties onto biological entities, usually the 'organism' (which is one major reason for the bad reputation of the concept of organism in some circles, and its constant exorcization). I shall take Diderot as my major example of the biologization of individuality, although this could also be compared to certain moments in early- to mid-twentieth century 'biophilosophy', where thinkers such as Kurt Goldstein and Georges Canguilhem articulated an 'organismic' theory of personhood, where the biological facts and the personal facts support one another.⁴² (This does not mean I am treating Diderot as a 'precursor' of some form of intellectual complexity generated in the mid- to late twentieth century, whether out of biology, physics, literary theory or other areas. Examples of such addiction to the 'virus of the precursor' abound; at one time, Diderot was a precursor of Whitehead.⁴³ Rather, I seek to understand such cases in their argumentative context in order to additionally reflect on how and what they can contribute to a materialist theory of the self.)

For Diderot, materialism definitely implies a degree of reduction – a deflationary or destructive impulse to trace back "our most sublime feelings and our purest tenderness" to "a bit of testicle." 44 But this is not a reduction of the human or animal action or personhood to the action and necessitation of falling stones or clockwork. It is a reduction to the animal, so to speak - as when he writes, commenting critically on the Dutch scholar Franz Hemsterhuis' 1772 Lettre sur l'homme, "wherever I read soul I replace it with man or animal." 45 It retains an embodied focus, so that, e.g. properties of the soul are explained in terms of properties of the body,⁴⁶ not of fundamental physics. In the language of theory reduction, we could say that for Diderot, the reducing theory is biology, not physics (there was no physics to speak of, and more importantly, he felt that the cluster of theories later to be termed biology, and then referred to as 'natural history' in general, was the richest). In Diderot's major fictional piece of speculative natural philosophy, the Rêve de D'Alembert, the character D'Alembert challenges the character Diderot to account for the self. Diderot has more or less successfully defended the concept of a living, sensing and thinking matter, but D'Alembert queries: "Could you tell me about the existence of a sentient being in relation to itself?", that is, about the self-awareness of a sentient being. Diderot speaks in Lockean terms of memory as the basis for our self, and adds the materialist tenet that memory itself is the product of our physiology (organisation). Later on, in another dialogue of the Rêve, the 'pupil' character M^{lle} de Lespinasse tells the doctor, Bordeu, that some things seem so obvious to her in a prephilosophical way that no philosophy, especially materialism, could change her mind: particularly "that of my unity, my self, for instance. Blast, it seems to me that there is no need of such verbiage to know that I am me, I have always been me, and I will never be any other."47

What is the materialist reply? That the self is itself the result of a construction of smaller elements – parcels of living matter (literally, "molécules sensibles"). An organism is formed by adjunction of living points or animalcules, by purely material processes: "A hundred, a thousand times, I have seen the shift from inert matter to active sensitivity, to the soul, to thought, to reasoning – without any other agent or intermediary than material agents or intermediaries." This shift from inert matter to active sensitivity – and the "soul" (here used, as was increasingly common in the period e.g. in authors such as Charles Bonnet, to mean 'mind') is associated with the biological theory of epigenesis, according to which the embryo

grows by successive additions of material layers rather than according to a 'preformed' set of immaterial information. Epigenesis is understood here as rebutting dualism and its biological cousin, preformationism, which Diderot presents sarcastically via the character of the doctor Bordeu: "I wager, Mademoiselle, that you believed that having been . . . a very tiny woman in your mother's testicles, you thought you had always been a woman in your present form." ⁴⁹ In this shift from inert matter to sensing, living matter, how do I *feel* that I am myself? For Diderot, the answer is: in and through my central nervous system – which, as we saw above with regard to the Epicuro-Lucretian theme of the infallibility of sensation – is both *myself* and a guarantor of my relation to the rest of the material world in a constant process of exchange.

Yet it is not obvious that the shift in matter theory from a more passive to a more active matter, which is explicit in Diderot (building on earlier authors such as John Toland), offers any special basis for a theory of self. Indeed, one problem for such 'vital' or 'vitalized' materialism is that it begins to resemble panpsychism: if I am made of small parcels of living matter, each of which has a kind of self, and the 'self' of the whole is simply more powerful than any of them, what prevents, not only the infinitely small bodies, but also the universe itself, from having a self? The solution has to do with the distinction between continuity and contiguity, as I mentioned above. This distinction is specifically meant to pick out the difference between mere assemblages or 'heaps' of matter, and forms of organismic unity. Diderot is one of the first materialists to explicitly take note of the 'fact' that organisms are in part defined by their sense of unity (the sense, in Kant's phrase, that I am myself from my fingertips to my head).⁵⁰ He will also use the language of unified causality to describe this unity: "without regard for the sum of elements of which I am composed, I am one, and a cause only has one effect; I have always been one single cause [une cause une], thus I have never had more than one effect to produce; my duration is thus nothing more than a succession of necessary effects." In that sense, I cannot "do otherwise than myself" or "be anything other than myself."51

Diderot's articulation of an embodied materialism - not one understood as synonymous with 'physicalism'52 - can have access to some of the key features of selfhood, individuality and identity which anti-materialists from More and Cudworth to Thomas Reid and Edmund Husserl insisted could not be present in a materialist analysis.⁵³ Commentators often overlook Diderot's critique of Helvétius' De L'Homme (1773), which precisely focuses on the latter's excessively 'mechanistic' picture of behaviour as subject to standardized rules of social conditioning. But contrary to Madame Necker (and earlier, Bishop Bramhall, Cudworth, Samuel Clarke) or Thomas Reid, who was perhaps the originator of the distinction between acting according to reason and acting according to causes, a distinction that materialists such as Collins and Diderot do away with, as they reject appeals to a 'power of self-determination',⁵⁴ Diderot does not disagree with Helvétius' 'social determinism' (or crude psychophysics of operant conditioning)⁵⁵ in the name of an unconditioned, uncaused or otherwise 'extra-territorial' self. He finds Helvétius' program to be not only dangerous but condemned to fail, at the very least because of the irreducible 'organic' or 'psycho-physiological' specificities of each individual. But within that organic

individuality, there is no homuncular self – as he says in the *Eléments de physiologie*, when I am hungry it is my stomach that is hungry, not 'me', and so on.

In that sense, the judgment, found in a study of Diderot, that "Materialism as a working philosophy, used as a tool in the scientific investigation of the material universe, is appropriate and highly effective. Intended for the objective analysis and description of the world of externals, it yields disastrous results when applied to the inner, subjective world of human nature, human thought, and human emotions,"56 is at best the wielding of a very blunt explanatory instrument, and at worst, a projection of a personal valuative decision onto seventeenth- and eighteenth-century texts. Both La Mettrie and Diderot, and most of their critics in the eighteenth century, would have been surprised to hear that materialism was an effective tool for science and for handling 'the world of externals', but not for the inner life. Which does not mean, of course, that a materialist account of the inner life had to be to every one's tastes! At the risk of juxtaposing statements from two very different discursive registers, consider the recognition of the presence of embodiment present in judgments such as this, from the Nouvelles ecclésiastiques, an important Jansenist publication, in 1758: speaking of Helvétius' work De l'Esprit, the reviewer declared that it should really have been entitled "On Diversely Organized Matter, and even better, . . . On the Flesh, Particularly the Dirtiest, Most Impure Flesh."57 Dirty flesh is different from the cold, inanimate, geometrical world studied by 'science' in some accounts.

4. Personal identity and the brain

If the biologization of individuality seems to enable the materialist to do justice to some core features of selfhood (on the condition that she is not of the strict physicalist persuasion, in which case facts about the self would be declassified from any material standing, and relegated to – depending on the particular position – qualia, folk psychology, etc.), the same cannot be said, or at least not as easily, of externalism. Thus a 'qualitative' argument against externalism (which is however quite compatible with biological theories of individuality) will declare that there is something that it is like to be me, a special relation, which cannot be grasped from outside, and a fortiori by the scientific, 'third-person' perspective. The world of relations seems to 'drown' individuality, as in Spinoza's comment to Jarig Jelles that nothing can be said to unique with regards to its essence, but only with regard to its existence.⁵⁸ This seems to have been Montesquieu's reaction, which I cite not least because of its vivid turn of phrase: he felt that Spinoza "deprived him of everything personal," so he could no longer "find that self in which I was so interested"; "why glory? why shame? . . . in the universality of substance, both the lion and the insect have come and gone indistinguishably, both Charlemagne and Chilpéric."59 Conversely, Diderot's vitalization of matter seemed to preserve selfhood by veering towards panpsychism – although to the objection 'isn't vitalized materialism the same as panpsychism, since it seems to rely on the posit of Life all the way down?', Diderot would answer as he does notably to Maupertuis, that it is a mistake to explain the complexity of organic bodies by attributing higher-level features such as instinct or memory, to the 'molecule', i.e. the smallest unit of living matter. The same response can be found in some of the Montpellier vitalists when they seek to distinguish their analysis of the interrelation of organs – a functional relation, we might say – from Stahl's 'animist' analysis in which the explanatory principle is always *the soul*. They insist conversely on the specific materiality of the living systems they study (whether it be a person, a heart, or the glandular system).

But, to take stock while at the same time looking forward, consider the general question: if materialism is granted, should selfhood be located (a) in a set of relations, as a structurally defined feature, a 'ratio of motion and rest' in Spinozist terms (as in *Ethics* IIp13s), (b) in an actualized, temporal, finite biological entity – with additional individuating features to be specified involving its homeostatic equilibrium, its immune system, and so forth, or (c) in a purely processual definition such as Locke's continuity of consciousness over time?

Recall that Locke's celebrated theory of personal identity was in large part intended to avoid having to locate the latter in a merely material substance: "[those] who place Thought in a purely material, animal Constitution, void of an immaterial Substance" plainly "conceive personal Identity preserved in something else than Identity of Substance; as animal Identity is preserved in Identity of Life, and not of Substance."60 In addition to this "identity of Life," humans have a form of reflexive self-consciousness, a type of 'privileged access' to ourselves in our ability to remember our past - despite problems such as potentially fabricated memories - which we do not have in relation to others, including the narratives of others. 61 We are dealing here with memory, a type of privileged access crucial enough for it to be constitutive of personal identity itself. Yet Locke doesn't hold that memory per se is the guarantor of personal identity. Granted, our self-consciousness is inherently temporal: "as far as this consciousness can be extended backwards to any past Action or Thought, so far reaches the Identity of that Person; it is the same self now it was then."62 But unlike Descartes, Locke dissociates consciousness, identity and thought: "[...] methinks, every Drowsy Nod shakes their Doctrine, who teach, That the Soul is always thinking."63 This is what I termed a 'processual' definition of selfhood above: it explicitly aims to refute and replace any substantial definition - including, of course a materialist definition. Of course, Locke is frequently agnostic about tensions between immaterialism and materialism, but in the present context, he seems to lean in one direction: "the more probable opinion is, that this consciousness is annexed to, and the affection of one individual immaterial Substance."64

Is a materialist approach to personal identity instantly invalidated, or at least weakened, by Locke's anti-substantialist theory? Yes, if it meant understanding what a self or individual is (granted, these are not identical terms! as I clarify below) in strictly aggregative terms. To be clear, concepts of selfhood and of individuality are often run into each other in the texts of the period, including because the question of the immateriality or materiality of the mind had a direct impact on which conception of personal identity could be defended. Thus, when Diderot is criticizing the 'Platonic' immaterialism of Hemsterhuis' manuscript, Diderot writes, "what you take for the soul is the *self*"; and Locke: "*Person*, as I take it, is the name for this *self*: Where-ever a Man finds, what he calls *himself*, there I think another may say is the same *Person*." That early modern authors run 'self', 'person' and/or 'mind' together has been observed in one of the best studies of the topic. 66 Granted, contemporary

philosophers would not at all run the concepts of self and mind into one another (issues such as consciousness, and thus what it means to be conscious and which entities are conscious, arise). But in historical context I would emphasize the difference between thinkers like Descartes, Malebranche and later Kant, for whom there is a core difference between 'being aware of one's mental state' (propositional attitudes, intentionality, etc.) and sensation, passion, feeling, or appetite - and thinkers in an Epicuro-Lucretian vein such as La Mettrie and Diderot, who reject the appeal to such a difference as unfounded. A case in point – whether or not we are convinced by it – is the character Diderot's response to the character D'Alembert's challenge at the beginning of the Rêve de D'Alembert: if I can convince you that matter sense, he says to D'Alembert, I don't need anything further to overcome challenges concerning the nature of thought. That sentience is a feature of advanced organisms is taken by Diderot as an empirical fact (deriving from experiments such as Haller's on the nervous system); that a 'Cartesian' or 'Kantian' would deny that empirical facts are relevant to a decision on the nature of the mind is a problem beyond the scope of this paper. But the work of historians of philosophy (such as Thiel, in this case) should make it more difficult for naïve historiographic projections based on such philosophical commitments, such as Hill's judgment on Diderot cited above, to be tenable, or convincing.67

But Locke's important insights we have just surveyed, are not fatal to a more organismic (and thus also relational) concept of self. Recall Diderot's distinction between merely spatial and mechanical contiguity, and properly organic, indeed organismic, continuity:68 the latter concept includes an existential, processual, temporal dimension, in the sense that an organism is not just a 'snapshot' of an organism. To cite Olson again, "For any organism x and any y, x = y if and only if x's life is y's life."69 And the sophisticated materialist theorist of personal identity, not least if she is inspired by biomedical reflection, should not be unaware of the simple fact that the cells in our bodies change over time (an example which Locke thought was fatal to a naïve substantialist-materialist theory of personal identity). As Diderot himself reflects, "through all the vicissitudes I experience in the course of my duration, given that I may not possess a single one of the molecules I was composed of at birth, how did I remain myself to others and to myself?"⁷⁰ Here the Spinozist point that what it is to me is not so much a fixed set of material parts, but rather a ratio, is applicable. We could also, again, think of the case of our immune system, which is neither reducible to a 'thing' located at one fixed point in time and space, nor a cosa mentale which the biologically nourished materialist can say nothing about.

Yet the structural answer (which corresponds in more detail to what I have called 'externalism' here in section 2) does not exhaust the materialist treatment of personal identity. In fact, Locke's emphasis on memory can be integrated therein, despite the seeming paradox (since it was intended to reject the material substantiality of the self). This integration is notably possible because of the shift in our understanding of memory as itself a cerebral function. That is, Locke rejects material criteria for personal identity and asserts the criterion of memory; but we would say today that the mechanisms of memory are cerebral functions! Indeed, Diderot himself described memory as a "corporeal quality," but also appeals to it in very

Lockean ways, for instance when he criticizes Hemsterhuis' version of a traditional immaterialist concept of personhood, stressing that without the memory attached to a series of actions, the individual, moving from sleep to wakefulness and back again, would barely be able to take note of her own existence. At the same time, this apparently 'processual' rather than 'substantial' concept is also integrated in his conception of what I called above 'the organic self' (section 3), as when he asserts (via the character M^{lle} de Lespinasse) that "the history of the life and the self of each animal is composed of the memory of its successive impressions." The structural here has become the corporeal, and/or the cerebral. (At times Diderot emphasizes the centrality of the brain – "the key features of man are in his brain, not his external organisation" – but at other times he considers it to be a 'secondary organ'.)

5. Conclusion

The materialist theory of self needs not be blind to or dismissive of all features of interiority. It can, notably, integrate degrees of embodied selfhood, qua biological individuality. And, if one thinks of such features of our embodiment as proprioception (what was often called in earlier contexts 'the inner sense'), the materialist can certain describe certain "routes of epistemological access" between ourselves and our bodies. Thereby, instead of denying the existence of introspection, the materialist should try and locate it within the physical world, within the overall framework of explanation (as Spinoza did). But since this materialism is not strictly a physicalism but can appeal to biological information, it offers plenty of ways to understand individuality, selfhood or agency - as we can see for instance in recent work on the 'immunological self'.76 And it need not oppose a private (and foundational) self to the body or the brain, as in the phenomenological credo that "It is man who thinks, not the brain."77 The point is not that the materialist theory of self, for instance in Diderot's articulation of it, encompasses all the positive features of all other theories of self without any of their negative features; but that classic oppositions between a world of agency, value, intentional states and privacy, and a 'merely spatial' and/or mechanical and by extension somehow dehumanized world, needs a serious revision.

The theory as I have reconstructed it is essentially comprised of a 'relational', externalist metaphysics and a biological vision of individuality, which can be combined in different ways, or extended separately – as in the metaphysics of the radical Benedictine monk Dom Deschamps, who authored a then-unpublished treatise of Spinozist metaphysics in the 1760s, La Vérité ou le Vrai Système. This was a deliberately Spinozist causal, relational, modal metaphysics of matter and its modifications forming part of what Deschamps called 'the Whole' as distinct from the more contingent 'the whole'. Deschamps mocked the materialists of his day for their belief that one could give up on metaphysics in favor, e.g. of an idea of 'laws of nature' derived from scientific experimentation, a notion which in his view precisely required a metaphysical grounding. Conversely, other materialists of the early eighteenth century such as Anthony Collins could restrict themselves to a more Lockean starting-point, without either a biologization of individuality or a causal metaphysics of Nature. It is indeed important that Locke's discussion of personal

identity plays a role in the articulations of the theories discussed here (in some versions) – although sometimes with unexpected results, as when Diderot himself asserts that memory is the ground of selfhood but then traces it back to other physiological analyses in his text and 'reminds' the reader that memory is a cerebral function.

In any of these combinations, we should also note a deflationary or reductionist dimension. For however much the materialist theory of self retains, it also, in a deflationary mode, leads to a *rejection* or *destruction* of selfhood qua interiority, certainly as something foundational (the early modern materialist could very well have said "You are *not* authoritative about what is happening in you, but only about what *seems* to be happening in you"). The same holds for the apparently real existence of individuals as something to be challenged in a deflationary vein, notably nourished by Spinozist arguments and extended by authors such as Diderot and Buffon: the latter wrote, "an individual of any sort, is nothing in the Universe; a hundred, a thousand individuals are still nothing: species are the only real entities in Nature."

The advantage of the biological perspective is that it preserves a certain realism; the power but also the danger of externalism as an ontology of relations, and of the reduction of personal identity, is that they lose trace of any existence of the self (as was often reproached to Spinoza: the 'selfhood' of one finite mode among others does not seem like the most appealing defense of the self). But this advantage – unless one has a kind of transcendental criterion with which to automatically reject any confusion between the self and the 'feeling of organic unity'⁸¹ – brings with it the danger of 'biologism', and of a metaphysics of the organism.⁸² Hence the materialist theory of the self is a mobile (and modular) set of concepts, with its advantages and its disadvantages, its diversity and its limitations. Future histories or philosophical *survols* of the self might consider it worthy of inclusion.⁸³

References

¹ Wolfe, C.T., "Forms of Materialist Embodiment", in *Anatomy and the Organization of Knowledge* 1500-1850, eds. M. Landers and B. Muñoz (London: Pickering and Chatto, 2012), 129-144.

² (Anon.), "Matérialistes," in *Encyclopédie des arts et des métiers*, eds. D. Diderot and J. D'Alembert, 35 vols. (Paris: Briasson, 1751-1780; reprint, Stuttgart/Bad Cannstatt: Frommann, 1966), X, 188.

³ Yolton, J.W., *Locke and French Materialism* (Oxford: Oxford University Press, 1991); Hamou, P., "L'opinion de Locke sur la 'matière pensante", *Methodos* 4: *Penser le corps* (2004) [Online] Available via http://methodos.revues.org/123, cited 14.03.2015.

⁴ Locke, J., *An Essay Concerning Human Understanding*, ed. P. Nidditch (Oxford: Oxford University Press, 1975), IV.iii.6.

⁵ Locke, J., Second Reply to Bishop of Worcester, in Locke, J., Works, vol. III (London: Rivington, 1824), 460-461.

⁶ d'Argens, J.B. de Boyer, Marquis, La philosophie du bon-sens ou réfléxions philosophiques sur l'incertitude des connoissances humaines, à l'usage des cavaliers et du beau-sexe (Londres: aux dépens de la Compagnie, 1737), 382-383.

⁷ Naigeon, J.-A., *Philosophie ancienne et moderne*, vol. III of, *Encyclopédie méthodique, ou par ordre de matières ; par une société de gens de lettres...*, ed. C. Panckoucke (Paris: H. Agasse, 1794), 208.

- ⁸ Wolfe, C.T. and van Esveld, M., "The Material Soul: Strategies for Naturalising the Soul in an Early Modern Epicurean Context", in *Conjunctions of Mind, Soul and Body from Plato to the Enlightenment*, ed. D. Kambaskovic (Dordrecht: Springer, 2014), 371-421.
- ⁹ La Mettrie, J.O. de, *L'Homme-Machine*, in *Œuvres philosophiques*, ed. F. Markovits, 2 vols. (Paris: Fayard-"Corpus", 1987), I, 109.
- ¹⁰ Toland, J., Letters to Serena (London: B. Lintot, 1704), letter IV, § 7, 139; Collins, A., Reflections on Mr Clarke's Second Defence, in Clarke, S., The Works of Samuel Clarke, 4 vols. (1738; Reprint, New York: Garland, 1978), III, 818.
- ¹¹ For more on one core aspect of this problem in Diderot, see Salaün, F. "L'identité personnelle selon Diderot", Recherches sur Diderot et l'Encyclopédie 26 (1999): 113-123.
- ¹² "La moitié d'un *moi* est une absurdité contradictoire, et une portion de matière qu'on ne peut partager est aussi une contradiction : comment donc se persuader que l'esprit et la matière ne sont pas deux substances différentes?", Necker, S., *Mélanges, extrait de ses manuscrits* (Paris: Charles Pougens, 1798), III, 88.
- ¹³ To be clear, Stevens's line goes the other way: "the soul, he said, is composed of the external world", Stevens, W., "Anecdote of men by the thousand", in *Collected Poetry and Prose*, eds. F. Kermode and J. Richardson (New York: Library of America, 1997), 41.
- ¹⁴ Heller-Roazen, D., The Inner Touch: Archaeology of a Sensation (New York: Zone Books, 2007).
- ¹⁵ Mensching, G., "Le matérialisme, une tradition discontinue", in *Materia actuosa… Mélanges en l'honneur d'Olivier Bloch*, eds. M. Benítez, A. McKenna, G. Paganini & J. Salem (Paris: H. Champion / Geneva: Slatkine, 2000), 513.
- ¹⁶ See Schürmann, R., *Broken Hegemonies*, trans. R. Lilly (Bloomington: Indiana University Press, 2003), and my review (of the original French edition) in *Revue de Métaphysique et de Morale* 2 (1999): 275-277.
- ¹⁷ For a description of such naturalization from a different perspective, that of the treatment of the 'soul' in the clandestine manuscripts, which retains a focus on the properties of the mental while tracing such properties to concepts from an integrated mind-body medicine, but also Renaissance naturalism, see Wolfe, C.T., "Conditions de la naturalisation de l'esprit : la réponse clandestine", *La Lettre clandestine* 18 (2010): 54-88. Gary Hatfield tells the story from the perspective of the emergence of psychology as a science: Hatfield, G., "Psychology as a Natural Science in the Eighteenth Century", Revue de Synthèse 115 (1994): 375-391.
- ¹⁸ Husserl, E., *Ideas Pertaining to a Pure Phenomenology and a Phenomenological Philosophy* II, trans. R. Rojcewicz & A. Schuwer (Dordrecht: Kluwer, 1989), § 32.
- ¹⁹ Husserl says this about the Kantian T in contrast to the Cartesian ego (Husserl, E., (1989), § 32). In the analytic tradition the theme of a functional identity of the I appears in Strawson, P.F., *The Bounds of Sense* (London: Methuen, 1966), 162-170 and Anscombe, G.E.M., "The First Person", in *Mind and Language*, ed. S. Guttenplan (Oxford: Clarendon Press, 1975), 45-65. It is also presented by William James, who puts forth his own version of externalism: James, W., *The Principles of Psychology* (1890) (Cambridge, Mass.: Harvard University Press, 1981), ch. 10, § 1.
- ²⁰ Hume, D., A Treatise of Human Nature (1739), ed. D.F. Norton (Oxford: Oxford University Press, 2000), I.iv.6.
- ²¹This paper was written before I encountered Martin Lenz's excellent "Locke as a social externalist", in *Continuity and Innovation in Medieval and Modern Philosophy: Knowledge, Mind, and Language*, ed. J. Marenbon (Oxford; Oxford University Press, 2013), 53-67. Here, externalism is a theory about language as socially fixed, thus closer (although not identical) to the linguistic sense which is not that of the present analysis. However, Lenz is closer to my sense of externalism in his equally interesting paper, "Intentionality without Objectivity? Spinoza's Theory of Intentionality", in *Intentionality: Historical and Systematic Perspectives*, ed. A. Salice (München: Philosophia, 2012), 29-58.

- ²² Cudworth, R., A Treatise concerning Eternal and Immutable Morality, reprinted with the Treatise on Free-Will, ed. S. Hutton (Cambridge: Cambridge University Press, 1996), ch. 10, 178. For one of the rare subtle discussions of this theme, from Cudworth to Kant, see Mijuskovic, B.L., The Achilles of Rationalist Arguments: The Simplicity, Unity and Identity of Thought and Soul from the Cambridge Platonists to Kant. A Study in the History of an Argument (The Hague: Martinus Nijhoff, 1974). The properly 'spiritualist' version of this position was Maine de Biran's, claiming that the self can have a direct effect on organic states, transforming them by the consciousness it 'superadds' to them. Maine de Biran, P., Nouvelles considérations sur les rapports du physique et du moral de l'homme (1834), in Œuvres de Maine de Biran, ed. F. Azouvi (Paris: Vrin, 1984), IX, 121.
- ²³ Respectively, Strawson, P.F., *Individuals* (London: Methuen, 1959), 97 and Dretske, F., *Naturalizing the Mind* (Cambridge, Mass.: MIT Press, 1995), 65.
- ²⁴ Ethics IIp7; see also IIIp2s. This is an ontological assertion of the primacy of relations; some readers, including the Spinozist social psychologist Lev Vygotsky, also viewed it as expressing the non-independence of mind and brain with regard to this world. Vygotsky, L., "Spinoza's Theory of the Emotions in Light of Contemporary Psychoneurology", trans. E. Berg, Soviet Studies In Philosophy 10 (1972): 362-382; discussion in Wolfe, C.T., "From Spinoza to the socialist cortex: Steps toward the social brain", in Cognitive Architecture. From Bio-Politics To Noo-Politics, eds. D. Hauptmann and W. Neidich (Rotterdam: 010 Publishers, Delft School of Design Series, 2010), 184-206.
- ²⁵ Dewey, J., Experience and Nature (Chicago: Open Court Books, 1925), 192.
- 26 Morfino, V., "Spinoza: An Ontology of Relation?", Graduate Faculty Philosophy Journal 27/1 (2006): 118 (translation modified). Morfino is in part building on the analysis of Balibar, E. "Individualité et transindividualité chez Spinoza", in Architectures de la raison. Mélanges offerts à Alexandre Matheron, ed. Pierre-François Moreau (Fontenay-aux-Roses: ENS Editions, 1996), 35-46.
- ²⁷ Beyond the comment to Jarig Jelles which I discuss further on, Spinoza can handle individuality structurally, as a particular ratio of motion and rest: *Ethics*, IIp13s (the physics), esp. lemmas 1 and 7s.; *Short Treatise*, appendix, II.14 leading, however, to troubles such as the case of the Spanish poet who was struck ill, and although he recovered, remained "so unconscious of his past life that he did not believe that the stories and tragedies he had written were his own" (*Ethics* IVp39s). At the structural level of ratios, he is the same person, *certa quadam ratione*; at the level of his mind, he is not. See Garrett, D., "Spinoza's Theory of Metaphysical Individuation", in *Individuation and Identity in Early Modern Philosophy*, eds. K.F. Barber & J.J.E. Gracia (Albany: SUNY Press, 1994), 92-93. I thank an anonymous reviewer for insisting on this problem and Daniel Schneider for discussion.
- ²⁸ See Parfit, D., Reasons and Persons (Oxford: Clarendon Press / New York: Oxford University Press, 1985), 210-211 (and ch. 10 as a whole).
- ²⁹ Diderot, D., Eléments de physiologie, in Diderot, D., Œuvres complètes, eds. H. Dieckmann, J. Proust & J. Varloot (Paris: Hermann, 1975-2004), XVII, 335 (the animal as whole); Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 140, 142 (organic continuity versus merely spatial contiguity). Throughout his writings (not just on biological or philosophical matters as in the above texts, but also in his dramatic writings) Diderot insists on the specifity of each individual's organisation.
- ³⁰ Diderot, D., Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 142.
- ³¹ Diderot, D., Éléments de physiologie, in Diderot, D., (1975-2004), XVII, 460.
- ³² Diderot, D., *Le pour et le contre* (correspondence with Falconet), letter III, in Diderot, D., (1975-2004), XV, 9. Shaftesbury, A.A.C., Earl of, *Characteristicks of Men, Manners, Opinions, Times* (1711), ed. J. M. Robertson (Indianapolis: Bobbs-Merrill, 1964), I, 336-337.

- ³³ Diogenes Laertius, Lives and Opinions of the Eminent Philosophers (London: Heinemann, 1959), X, 32; Epicurus, Principal Doctrines, 23, in Long, A.A., Hellenistic Philosophy: Stoics, Epicureans, Sceptics (Berkeley: University of California Press, 1986), 21 (further elaborated in Cicero, De natura deorum, I, 70 and De finibus, I, 30, 64).
- ³⁴ Sextus Empiricus, Adversus Mathematicos, VIII.9; Lucretius, De rerum natura, IV, 474-499. Many of the clandestine manuscripts of the seventeenth and eighteenth centuries, including Nicolas Fréret's Lettre de Thrasybule à Leucippe (written in the 1720s-1730s and in circulation from 1745 onwards, although only formally published in 1768), repeat these Lucretian topoi on how sensations cannot or rarely deceive us (Fréret, N., Lettre de Thrasybule à Leucippe (1768 version), ed. S. Landucci (Florence: Olschki, 1986), § VI), sometimes with an extra hedonistic flourish, as in Diderot.
- ³⁵ Olson, E., *The Human Animal: Personal Identity Without Psychology* (Oxford: Oxford University Press, 1997), 138.
- ³⁶ Leibniz himself stresses the unconscious dimension of the *petites perceptions*, e.g. in his criticism of Lockean uneasiness, that it leaves out the 'unapperceptive', that is, unconscious dimension of uneasiness. Leibniz, G.W., *New Essays on Human Understanding*, ed. & trans. P. Remnant & J. Bennett (Cambridge: Cambridge University Press, 1982), II.xx.6.
- ³⁷ La Mettrie, Discours sur le bonheur or Anti-Sénèque, in La Mettrie, J.O. de, (1987), II, 262, 287 (Cartouche was a celebrated bandit). This work was initially intended as a biography of Seneca, and indeed first appeared as an essay accompanying La Mettrie's translation of the latter's De vita beata, as De vita beata: traité de la vie bienheureuse de Sénèque, avec un discours du traducteur sur le même sujet (Potsdam: C. F. Voss, 1748); in 1750 a second edition appeared from the same publisher, now entitled Anti-Sénèque, ou le Souverain bien; the third edition (Amsterdam, C. F. Voss, 1751) bore the same title, but in the 1753 edition of La Mettrie's Œuvres philosophiques it is entitled Anti-Sénèque ou Discours sur le bonheur.
- ³⁸ Schlanger, J., Les métaphores de l'organisme (Paris: Vrin, 1971), 42; Hull, D., "Individual", in Keywords in Evolutionary Biology, eds. E. Fox Keller et al. (Cambridge, Mass.: Harvard University Press, 1992), 182.
- ³⁹ See Smith, J.E.H., *Divine Machines: Leibniz and the Sciences of Life* (Princeton: Princeton University Press, 2011). Smith suggests a link between what is often seen as the evolution in Leibniz's metaphysical notion of a substance and his shift from an interest in the vivisection of macroscopic animals to a fascination with the observation of microscopic animals (52).
- ⁴⁰ Fragment 11 (Spring-Fall 1881) = M III, \S 14, in Nietzsche, F., Œuvres philosophiques complètes, V (Paris: Gallimard, 1967), 318.
- ⁴¹ I have argued elsewhere that a soul:body reduction is different than a reduction to fundamental physics (Wolfe, C.T., (2012)). It has also been observed of reduction of the mental to the neurophysiological that in fact, a lot gets to be retained: pain receptors and a variety of functional and intentional properties: Enç, B., "In Defense of the Identity Theory", The Journal of Philosophy 80/5 (1983): 279-298. In the early modern context an interesting case of just such a tension between a more 'holist' insistence on organism as subjectivity and a more 'reductionist' insistence on organism as machine is the debate between Stahl and Hoffman (as compared to Stahl's debate on organism with Leibniz, where the tension is more between a less naturalistic holism and a more naturalistic, compositional or organizational view). See King, L.S. "Stahl and Hoffmann: a study in Eighteenth-Century Animism", Journal of the History of Medicine 37 (1963): 15-24.
- ⁴² See Wolfe, C.T., "Was Canguilhem a biochauvinist? Goldstein, Canguilhem and the project of 'biophilosophy", in *Medicine and Society, New Continental Perspectives*, ed. D. Meacham (Dordrecht: Springer, forthcoming 2015).

- ⁴³ On the problem of scientific precursors: Sandler, I., "Some Reflections on the Protean Nature of the Scientific Precursor", *History of Science* 17/3 (1979): 170-190. On Diderot as a proto-Whitehead, but also a proto-phenomenologist see Alexander, I., "Philosophy of Organism and Philosophy of Consciousness in Diderot's Speculative Thought", in *Studies in Romance Philology and French Literature Presented to John Orr* (Manchester: Manchester University Press, 1953), 1-21.
- ⁴⁴ Diderot to Damilaville, November 1760, in Diderot, D., *Correspondance*, ed. G. Roth, 9 vols. (Paris: Éditions de Minuit, 1955-1970), III, 216.
- ⁴⁵ Diderot, D., Observations sur Hemsterhuis, in Diderot, D., (1975-2004), XXIV, 340.
- ⁴⁶ Diderot, D., Éléments de physiologie, in Diderot, D., (1975-2004), XVII, 334-335.
- ⁴⁷ Diderot, D., Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 134.
- ⁴⁸ Diderot, D., Observations sur Hemsterhuis, in Diderot, D., (1975-2004), XXIV, 277.
- ⁴⁹ Diderot, D., Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 144.
- ⁵⁰ "Ich bin eben so unmittelbar in der Fingerspitze wie in dem Kopf" (*Traime ein Geistesehers* (1764), in Kant, I., *Kants gesammelte Schriften*, hrsg. von der Königlich Preussischen Akademie der Wissenschaften zu Berlin (AA) (1902; Reprint, Berlin: De Gruyter, 1968), II, 324. While we might expect a tripartite distinction between active matter, sentient matter, and self-reflexive consciousness embodied in matter (perhaps as three levels of complexity, moving upwards from brute matter), the latter two are generally collapsed into one in the Epicurean-materialist context (see below note 64 in addition).
- ⁵¹Diderot, D., Jacques le fataliste, in Diderot, D., (1975-2004), XXIII, 190, 28.
- ⁵²Some have argued with a noticeable hint of *argumentum ab auctoritate* that of the different forms of materialism, that chiefly discussed by "*professional* philosophers in the English-speaking world" (emphasis mine!) is "extreme physicalist Materialism." Smart, J.J.C., "Materialism", *Encyclopædia Britannica* (2000). [Online] Available via http://www.britannica.com/EBchecked/topic/369034/materialism, cited 05.01.2015.
- ⁵³ Reid, T., Essays on the Active Powers of Man (1788), eds. K. Haakonssen and J. A. Harris (University Park, PA: Pennsylvania State University Press, 2010), 4.4; cf. Yaffe, G., Manifest Activity: Thomas Reid's Theory of Action (Oxford: Oxford University Press, 2004). For the other authors mentioned, see citations given earlier in the paper.
- ⁵⁴ This essay does not treat discussions of free will and determination, which are of course a major dimension of discussions of selfhood (including in its relation to or distance from the natural world) in this period. One can observe very briefly that Bishop Bramhall's notion of 'election' which he opposed to Hobbesian determination, Cudworth's idea of 'self-moving' (presented contra Spinoza, Hobbes et al.), and Samuel Clarke's idea of 'agency' (presented against Anthony Collins) are tantamount to self-determination, which is categorially distinct from determination from without, whether by external physical causes or motives. In his discussion of liberty (and necessitation) in his *Philosophical Inquiry Concerning Human Liberty* (London: Robinson, 1717), Collins will reply, in this anticipating a celebrated Humean insight, that self-determination cannot mean anything other than determination by (one's own) motives; see Hume, D., (1739/2000), II.iii.2 and especially Hume, D., *Enquiry Concerning Human Understanding* (1748), ed. L.A. Selby-Bigge, revised by P. Nidditch (Oxford: Clarendon Press, 1975), § VIII. For discussion of Collins see Wolfe, C.T., (2010).
- ⁵⁵ Well summarized by Timo Kaitaro: "by controlling the sensations of a child it is possible to form [it] into anything one wants. Since the human mind is entirely determined by the sensations it receives, there are, at least in theory, no limits to the possibilities of education: by controlling sensations we could produce future citizens to our tastes and needs" (Kaitaro, T., *Diderot's Holism. Philosophical Anti-Reductionism and its Medical Background* (Frankfurt: Peter Lang, 1997), 133).

- ⁵⁶ Hill, E., "Materialism and Monsters in the Rêve de D'Alembert", Diderot Studies 10 (1968): 67-93, 90.
- ⁵⁷ Nouvelles ecclésiastiques, 18 November 1758, 188, cit. in Salaün, F., "La culture matérielle et morale dans l'Encyclopédie", in La matière et l'homme dans l'Encyclopédie, ed. S. Albertan-Coppola and A.-M. Chouillet (Paris: Klincksieck, 1995), 190.
- ⁵⁸ Letter of June 2nd 1674, Ep. L, in Spinoza, B., Opera, ed. C. Gebhardt (Heidelberg: C. Winter, 1925), 4 vols., IV, 238-239.
- ⁵⁹ See discussion in Citton, Y., L'Envers de la Liberté. L'invention d'un imaginaire spinoziste dans la France des Lumières (Paris: Éditions Amsterdam, 2006), citing Montesquieu at 77. 60 Locke, J., (1975), II.xxvii.12.
- ⁶¹ Such a Lockean position was defended in contemporary philosophy by Sydney Shoemaker, e.g. "Persons and their pasts" (1970), in Identity, Cause and Mind (Cambridge: Cambridge University Press, 1984), 19. Bertrand Russell, in his Problems of Philosophy (1912; Oxford: Oxford University Press, 1998), chapter 5, argued that we have a privileged 'acquaintance' with our self. Contemporary materialists diverge on whether this type of privileged link, relation or acquaintance should be granted or not. See notably Armstrong, D.M., A Materialist Theory of the Mind (London: Routledge & Kegan Paul, 1968; 2nd edition, 1993). Differently from Locke or Spinoza, materialists such as La Mettrie and Diderot would have directly accepted the following retort to defences of ineffable first-personhood: "The existence of a proprietary, first-person epistemological access to some phenomenon does not mean that the accessed phenomenon is nonphysical in nature. It means only that someone possesses an informationcarrying causal connection to that phenomenon, a connection that others lack" (Churchland, P.M., The Engine of Reason, the Seat of the Soul (Cambridge, Mass.: MIT Press, 1995), 198). ⁶² Locke, J., (1975), II.i.11.
- ⁶³ Locke, J., (1975), II.i.13. That memory was a key component of Locke's theory of personal identity - however much it ends up being crucial or not, depending on our reading - is evidenced by objections from his correspondents, but also contemporary philosophers such as Antony Flew (if I don't recall committing a crime and my identity is memory-based, then I didn't commit the crime?), which ultimately led him to insist on the role of the Last Judgment in determining who has done what, and rewarding and punishing us accordingly. (Recall that 'person' is fundamentally for Locke a "forensick", i.e. legal term: ibid., II.xxvii.26.) The best overall treatment of the topic in my view remains Winkler, K., "Locke on Personal Identity", Journal of the History of Philosophy 29/2 (1991): 201-226. Winkler cites authors such as Berkeley and Reid (206-208) criticizing Locke for having a memory-based theory of personal identity.
- ⁶⁴ Locke, J., (1975), II.xxvii.25. Cf. also: "There are but two sorts of Beings in the World, that Man knows or conceives. First, Such as are purely material, without Sense, Perception, or Thought, as the clippings of our Beards, and paring of our Nails. Secondly, Sensible, thinking, perceiving Beings, such as we find ourselves to be, which if you please, we will hereafter call cogitative and incogitative Beings" (IV.x.9).
- 65 Diderot, D., Observations sur Hemsterhuis, in Diderot, D., (1975-2004), XXIV, 286; Locke, J., (1975), II.xxvii.25.
- 66 Thiel, U., "Self-Consciousness and Personal Identity", in The Cambridge History of Eighteenth-Century Philosophy, ed. K. Haakonssen, vol. 1 (Cambridge: Cambridge University Press, 2006),
- ⁶⁷ I thank an anonymous reviewer for making me clarify this point.
- ⁶⁸ Cases like phantom limb syndrome and other sorts of 'anosognosia' would be an interesting challenge here – they pose no problem for theories in which our personhood is a subjective construct without corporeal and/or cerebral dimension, but seem to pose a problem for ordinary cerebral materialism.

- 69 Olson, E., (1997), 138.
- ⁷⁰ Diderot, D., Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 163. (It is the character D'Alembert who is asking.)
- ⁷¹ Diderot, D., Éléments de physiologie, in Diderot, D., (1975-2004), XVII, 335.
- ⁷² Diderot, D., Rêve de D'Alembert, in Diderot, D., (1975-2004), XVII, 155.
- ⁷³ In this sense, Diderot may be an interesting 'problem case' for the opposition between scholars such as Mijuskovic and Thiel, for Thiel rejects Mijuskovic's claim that materialist theories seek to establish "personal identity on a model of bodily identity" (Mijuskovic, B.L., (1974), 105) and emphasizes instead the Lockean dimension, according to which materialist theories of personal identity accept arguments against material-substantial continuity (Thiel, U., "Locke and Eighteenth-Century Materialist Conceptions of Personal Identity", *Locke Newsletter* (1998): 69).
- ⁷⁴ Diderot, D., Éléments de physiologie, in Diderot, D., (1975-2004), XVII, 326.
- ⁷⁵ Armstrong, D.M., in D.M. Armstrong & N. Malcolm, *Consciousness and Causality. A Debate on the Nature of Mind* (Oxford: Blackwell, 1984), 112. See Armstrong, D.M., (1968), 100-115, for the materialist's reconstruction of introspection.
- ⁷⁶ Pradeu, T., *The Limits of the Self: Immunology and Biological Identity*, trans. E. Vitanza (Oxford: Oxford University Press, 2012).
- 77 Straus, E., Du sens des sens (Grenoble: J. Millon, 1989), 183.
- ⁷⁸ Deschamps, Dom L.-M., La Vérité ou le vrai Système [...] par demandes et réponses (1761, 1770-1772), in Œuvres philosophiques, ed. B. Delhaume, 2 vols. (Paris: Vrin, 1993), I, 166, 83-84. D'Holbach, for instance, only grasped the "branches" of the system of nature, not its "roots," for Deschamps.
- ⁷⁹ Dennett, D., *Consciousness Explained* (Harmondsworth: Penguin Books, 1991), 96.
- ⁸⁰ Buffon, G.-L.–L. de, "Seconde Vue" sur l'Histoire de la Nature, printed at the start of the 13th volume of the original edition of the *Histoire naturelle* (1765); in Buffon, G.-L.–L. de, *Œuvres philosophiques*, ed. J. Piveteau (Paris: PUF, 1954), 35a. One should not take the 'reality of species' asserted at the end of the passage literally, either, since Buffon often and influentially explained that species is a construct, a 'vue de l'esprit' which we produce by comparing individuals to each other.
- 81 Fragment 11 (Spring-Fall 1881) = M III,

 § 14, in Nietzsche, F., (1967), 318.
- 82 As shown by Starobinski, J., L'idée d'organisme (Paris: C.D.U., 1956).
- ⁸³ Ideas such as those discussed in this paper are absent from 'classics' such as Taylor, C., Sources of the Self: The Making of the Modern Identity (Cambridge, Mass.: Harvard University Press, 1989), although they are discussed in Thiel's excellent survey piece, Thiel (2006), primarily with respect to personal identity. Thiel had however considered that "French materialist philosophes do not concern themselves very much with the special problem of personal identity (Thiel, U., (1998), 63n.). Perhaps Diderot's Rêve de D'Alembert merits a revision of this claim.