Rethinking early modern empiricism: the case of Locke

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Abstract: There is an enduring and influential story about empiricism, which runs as follows: from Locke onwards to Carnap, empiricism is the doctrine in which raw sense-data are received through the passive mechanism of perception; experience is the effect produced by external reality on the mind or 'receptors'. By extension, empiricism is the 'handmaiden' of experimental natural science, seeking to redefine philosophy and its methods in conformity with the results of modern science. In this essay I take up, piecemeal, some representative moments of what we think of as Locke's empiricism, in order to present a different view. Not by suggesting, as has been done quite convincingly, that the canonical understanding of empiricism should be broadened or widened. But rather, by suggesting that the canonical figure of Locke did not quite think what we thought he did, or at least what we often hear he thought. Specifically, Lockean empiricism as a project is less about being the "servant" of the sciences and more about "matters concerning our conduct". This relates to a theme I explore elsewhere, on how Lockean inquiry into the mind is not a proto-"science of the mind." I focus here on revising our view of Lockean empiricism in favour of a less epistemological, more ethico-practical view.

Keywords: Empiricism, sensationism, science of the mind, Locke.

> 'Tis of great use to the Sailor to know the *length of his Line*, though he cannot with it fathom all the depths of the Ocean. 'Tis well he knows, that it is long enough to reach the bottom, at such Places, as are necessary to direct his Voyage ... Our Business here is not to know all things, but those which concern our Conduct. If we can find out the *Measures*, whereby a rational Creature put in that State, which Man is in, in this World, may, and ought to govern his Opinions, and Actions depending thereon, we need not be troubled, that some other things escape our Knowledge.
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> Locke, *Essay*, I.i.6

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1. *The category of empiricism*

There is an enduring and influential story about empiricism, which runs as follows: from Locke onwards to Carnap, empiricism is the doctrine in which raw sense-data are received on a blank slate or *tabula rasa* through the passive mechanism of perception; experience is the effect produced by external reality on the mind or 'receptors'[1]. This view arguably can be traced back to Russell's notion of sense-data, which he credited as an outgrowth of classic British empiricism, against neo-Hegelianism. The term 'sense-data' has its own history, which is quite independent of the writings of, e.g. Locke and Hume, in which the term is, of course, not found, and I shall not investigate that further[2]. The extension of what one could call the 'mainstream view' of empiricism views it as the 'handmaiden' of experimental natural science, seeking to redefine philosophy and its methods in conformity with the results of modern science. Building on some recent scholarship, I aim to articulate the contrarian view according to which this story is false; to be precise, the problem is twofold: both the 'empiricism-as-scientific-approach-to-the-mind' story and its variant, 'empiricism-as-epistemology' are to be challenged.

This view may exist, e.g. in the 20th century, but Locke does not hold it (nor does Hume, which is a topic for another paper: suffice it to say that Hume rejects several standard tenets of the decontextualized version of empiricism: he holds that "all our reasonings concerning causes and effects are deriv'd from nothing but custom; and that belief is more properly an act of the sensitive, than of the cogitative part of our natures" and that "there is nothing in any object, consider'd in itself, which can afford us a reason for drawing a conclusion beyond it"[3]). There is no passive mind in Locke, although that is not what

[1] C. Taylor, *The Explanation of Behavior*, Routledge Kegan Paul, London 1964, p. 92. See also J. Nagel, "Empiricism", in S. Sarkar, J. Pfeifer (eds.), *The Philosophy of Science: An Encyclopedia*, Routledge, London 2006, pp. 235-43.

[2] See N. Milkov, "The History of Russell's Concepts 'Sense-Data' and 'Knowledge by Acquaintance'", in *Archiv für Begriffsgeschichte* 43 (2001), pp. 221-31.

[3] D. Hume, *A Treatise of Human Nature* (1739), ed. D.F. Norton, Oxford University Press, Oxford 2000, I.iv.1, p. 123, and ibid., I.iii.12, p. 95. Regarding Hume's purported experimentalism (much like Locke's purported "underlabourer" status as the proto-scientist of the mind), rather than stating laws of nature or inductive scientific observations, it is rather the case, as D. Perinetti puts it, that "empirical generalizations, or as Hume calls them, 'general rules' or 'maxims', are essentially guiding principles influencing our judgment after the model of maxims found in the writings of moralists and historians of the period" ("Humean Explanations: Sagacity and Prudence", in *Cahiers d'épistémologie* (UQAM) 8 (2005), p. 16). For further criticism of the empiricist reading of Hume see T. Demeter, "Fodor's guide to the Humean mind", in *Synthese* 199 (2021), pp. 5355-75.

I object to here[4]. If the story is carefully revised, those figures that we take to representatives of classic, or 'canonical' empiricism turn out to be less 'science-friendly' and more concerned with moral matters (in a case of rival canons, as it were: one more focused on the rise of a kind of scientific philosophy, the other on ethico-political motivations).

In recent years, several important scholars, including Michael Ayers and David Norton, have picked apart the label 'British empiricism'. The only true empiricist, it seems (in the sense of a thinker who holds that *nihil est in intellectu quod non fuerit in sensu*, 'nothing is in the intellect which was not first in the senses' or in Locke's rendition, "There appear not to be any ideas in the mind before the senses have conveyed any in"[5], a phrase one could treat as the empiricist minimal credo, to which I return below) is a Continental thinker, Gassendi, who was from Digne in the South of France; there is almost no continuity of ideas or reading between Locke, Berkeley and Hume (instead, they read Gassendi, Malebranche, and Bayle); this isn't to say that Berkeley didn't read Locke, but that it is misguided to restrict our comparisons and commentaries to an 'Anglo' context; and in the old tale of British empiricism as 'Locke begat Berkeley, who begat Hume', Locke is the only English thinker in that group: Berkeley is Irish, Hume Scottish). Locke read a lot of Malebranche (and Gassendi, or at least Bernier's major 6-volume digest of Gassendi) and translated three of Pierre Nicole's *Essais de morale*; Hume read a lot of Bayle (and Malebranche)[6]. Admittedly, this minimal empiricism is there in some of the early drafts of the *Essay*, but the question is whether it amounts to Locke's long-term view or not. Jonathan Rée has suggested that the idea of British em-

4 For an excellent rebuttal of the 'mind as passive' reading of Locke, see M. Losonsky, *Enlightenment and action from Descartes to Kant: passionate thought*, Cambridge University Press, Cambridge 2001, pp. 72-75, and more broadly A. Waldow, *Experience Embodied: Early Modern Accounts of the Human Place in Nature*, Oxford University Press, Oxford 2020, chp. 2, and M. Lenz, *Socializing Minds. Intersubjectivity in Early Modern Philosophy*, Oxford University Press, Oxford 2022, chp. 2.

5 J. Locke, *An Essay concerning Human Understanding*, ed. by P.H. Nidditch, Clarendon Press, Oxford 1975, II.i.23, p. 117. See also in Locke's summaries of sections 20 and 23 of chapter 1 of Book II, "No ideas but from sensation and reflection, evident, if we observe children" and "A man begins to have ideas when he first has sensation" (ibid., pp. 19, 117-118).

6 See D.F. Norton, "The Myth of British Empiricism", *History of European Ideas* 1 (1981), 4, pp. 334, 341; M. Ayers, *Locke*, vol. 1: *Epistemology*, Routledge, London 1991, p. 15; Ayers, "Theories of knowledge and belief," in D. Garber & M. Ayers (eds.), *Cambridge History of Seventeenth Century Philosophy*, vol. 2., Cambridge University Press, Cambridge 1998, p. 1019. Ayers already challenges the idea of 'the rationalist' as opposed to 'the empiricist' in his *The Refutation of Determinism*, Methuen, London 1968, p. 56ff. No less than Gilbert Ryle rejected "the supposed two-party system of Rationalists versus Empiricists": "John Locke", in *Crítica: Revista Hispanoamericana de Filosofía* 1 (1967), 2, p. 6.

piricism, which goes back to Reid and Kant, became so popular because it was claimed to be a 'national' tradition for Britain; but if we think of the Cambridge Platonists, this tradition could just as well be idealism[7]. I am not claiming that the above are my discoveries, of course, and many or most of these points are known to Lockean scholars; but I am trying to bring them together in one place and make the case for this reading of Locke which is sometimes treated as ancillary to the author's main point, e.g. concerning theology or politics.

The inaccurate or dated character of the distinction between rationalism and empiricism leads to different responses. Some scholars, like Norton, challenge it simply on account of the figures who are said to belong to these respective 'schools', and their national identities. Others, like Peter Anstey, find fault with the distinction for not respecting 'actors' categories' and propose instead to speak of experimental versus speculative natural philosophy (instead of empiricism and rationalism), a category he legitimately can point to as operative in writers associated with the Royal Society, including Thomas Sprat, Henry Oldenburg, and Joseph Glanville[8]. In fact, experimental philosophy is not monolithic with respect to the question of accessing deep structure : here Locke et al. (like Sydenham) emphasize we can only know the surfaces of things, a point also made influentially in Baglivi's *De praxi medica*. Indeed, Anstey's proposed new distinction between experimental and speculative philosophy suffers from a feature already present in the empiricism-rationalism distinction, namely its antagonistic, oppositional quality. As Silvia Calvente and Silvia Manzo note, to replace the standard narrative by applying actors' categories like "experimental philosophy" and "speculative philosophy" may help us understand some discussions centering on certain figures in the seventeenth and eighteenth centuries, particularly around the Royal Society; but if these categories are presented oppositional-

[7] J. Rée, "La philosophie anglaise des années 50", in J.-M. Vienne (ed.), *Philosophie analytique et histoire de la philosophie*, Vrin, Paris 1997, p. 44. L. Loeb, in a suggestion that was not really taken up, urged us to abandon the label 'British Empiricism' altogether and introduced the category of 'Continental Metaphysics' which comprises Descartes, Spinoza, Malebranche, Berkeley and Leibniz: *From Descartes to Hume. Continental Metaphysics and the Development of Modern Philosophy*, Cornell University Press, Ithaca 1981. John Yolton and John Cottingham had already noted, something we now take for granted, namely Locke's embeddedness in Continental traditions. Some of this is reprised with a different emphasis in S. Gaukroger, *The Collapse of Mechanism and the Rise of Sensibility: Science and the Shaping of Modernity, 1680-1760*, Oxford University Press, Oxford 2010, pp. 155-57.

[8] P. Anstey, "Experimental versus speculative natural philosophy", in P. Anstey & J. Schuster (eds.), *The Science of Nature in the Seventeenth Century: Patterns of Change in Early Modern Natural Philosophy*, Springer, Dordrecht 2005, pp. 215-42.

ly they run the risk of reproducing the drawbacks of the traditional account[9].

Of course, there is plenty of material in the early modern period which appears to oppose rationalists to empiricists, sometimes using the language of 'reason' versus 'mere experience', as in Leibniz, who in the *New Essays* suggests a classic rationalist argument in favor of abstraction and against (naïve) empiricism, contrasting animals who are "empiriques" (like the empiricks) with humans whose capacity to reason and synthesize data means they learn, become wiser with the generations (hares and deer are no wiser now than centuries ago, Leibniz observes), and can take informed decisions in different situations. Such 'rational' behavior means not being wholly reactive to empirical facts, in order to be able to foresee when an exception from the rule of experience might occur[10].

Those who hold the standard, non-revisionist view will stress that empiricism and rationalism are not just meaningful categories but proper ways of describing thinkers like Locke-Berkeley-Hume versus Descartes-Spinoza-Leibniz, proper ways of distinguishing between two epistemologies and two metaphysics, each with their weaknesses, which are ultimately resolved in a grand synthesis with Kant, who is a transcendental idealist and an empirical realist. This view goes back at least as far the early nineteenth century in a Kantian context; it is represented today), and still predominates in most early modern philosophy textbooks. As has been noted especially by Alberto Vanzo[11], the beginning of this development is marked by the writings of Carl Leonhard Reinhold (*Über das Fundament des philosophischen Wissens*, 1791) and Wilhelm Gottlieb Tennemann (*Geschichte der Philosophie*, 1798-1819). Both subsumed

[9] See their entry "Early Modern Empiricism", in D. Jalobeanu and C.T. Wolfe (eds.), *Encyclopedia of Early Modern Philosophy and the Sciences*, Springer, Cham 2020). Other challenges to Anstey's programmatic suggestion lie outside of the scope of the present essay, e.g. the presence of a deep speculative vein in Lockean and experimentally nourished philosophies such as that of Diderot (C.T. Wolfe and J.B. Shank, "Diderot", in E. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2021 Edition) https://plato.stanford.edu/archives/fall2021/entries/diderot/), or complications surrounding the relation between 'science', notably Newtonian-style science, and empiricism (E. Schliesser, "Four Methods of Empirical Inquiry in the Aftermath of Newton's Challenge", in A.-L. Rey and S. Bodenmann (eds.), *What does it mean to be an empiricist? Empiricisms in Eighteenth Century Science*, Springer, Dordrecht 2018, pp. 15-30). The analysis of Locke in M. Ben-Chaim's *Experimental Philosophy and the Birth of Experimental Science: Boyle, Locke and Newton*, Ashgate, Aldershot 2004, is unusual in that it rejects the standard empiricist-epistemological reading but adopts a modified version of what I shall call the underlabourer reading (with a behavioral twist, one might say, thinking of the difference between a foundationalist scientific approach and one interested in behavior).

[10] Leibniz, *Nouveaux essais*, Avant-Propos, in Leibniz, *Sämtliche Schriften und Briefe*, ed. by Akademie der Wissenschaften der DDR, vol. VI-6, Akademie Verlag, Berlin 1990, p. 51.

[11] A. Vanzo, "Kant on empiricism and rationalism", in *History of Philosophy Quarterly* 30 (2013), 1, pp. 53-74.

the philosophers of the 17th and 18th centuries under the combined scheme of empiricism and rationalism, and thereby emphasized the one-sidedness of pre-Kantian accounts, in favour of Kant as the saviour of epistemology. Kant himself presents the fundamental opposition in the Transcendental Doctrine of Method:

> With regard to the origin of pure cognitions of reason, the question is whether they are derived from experience, or independent of it, they have their origin in reason. *Aristotle* may be regarded as the head of the *empiricists*, and *Plato* as the head of the *noologists*. *Locke*, who in recent times followed Aristotle, and *Leibniz*, who followed Plato . . . have not been able to bring this conflict to any definitive conclusion[12].

This usage of the empiricist-rationalist distinction as a way to valorize Kantian thought continues (perhaps to the present day?) in Kantian and neo-Kantian thought (Kuno Fischer, Friedrich Lange, Wilhelm Windelband, Ernst Cassirer) and, stripped of its original context, in mainstream Anglophone introductions to modern philosophy[13].

I will not enter into discussion here as to whether the term (and idea) of empiricism are genuinely and restrictively Kantian[14] or can legitimately be traced back to medical sources, given that the claim that our knowledge comes through the senses was much older, often being stated in a vocabulary including 'experience', 'experiment', 'empirical'[15]. It really seems non-trivial that in addition to the standard British-empiricism story of Locke, Berkeley, Hume, empiricism was more commonly understood, in the early modern context, as

[12] I. Kant, *Critique of Pure Reason*, A854/B882, trans. by P. Guyer and A.W. Wood, Cambridge University Press, Cambridge 1998, p. 703.

[13] E.g. R. Ariew and E. Watkins (eds.), *Readings in Modern Philosophy*, 2 vols., Hackett Books, Indianapolis 2000 and Jonathan Bennett's *Learning from Six Philosophers*, Oxford 2001, which (among many other secondary sources, including P. Markie and M. Folescu's "Rationalism vs. Empiricism" entry in the *Stanford Encyclopedia of Philosophy*, revised 2021 – an entry in a major reference source) present the choice in early modern philosophy as being between rationalism and empiricism, each of which have their aporias, which will be resolved by Kant.

[14] For this view, see A. Vanzo, "From empirics to empiricists", in *Intellectual History Review* 24 (2014), 4, p. 529 (Vanzo made various versions of this point on the Early Modern Experimental Philosophy blog, notably https://blogs.otago.ac.nz/emxphi/kant-empiricism-and-historiographical-biases/ and https://blogs.otago.ac.nz/emxphi/prehistory-empiricism/).

[15] J.H. Zedler's *Universal-Lexicon* from the 1730s explicitly discusses the relation between medical empiricism and philosophical empiricism in those terms: see s.v. "Empirici", in Zedler, *Grosses vollständiges Universal-Lexicon aller Wissenschafften und Künste*, vol. 8, Halle-Leipzig 1734 (reprint Akademischen Druck- und Verlagsanstalt, Graz 1961, p. 1041); thanks to P. Rumore for this reference.

building on the ancient 'empirics', i.e., as Pearce explains, "a school of physicians who eschewed theorizing in favor of reliance on detailed case histories," so that

> "rather than trying to understand how the body functioned, these physicians were content to know that, in previous cases, when such-and-such treatment was given in such-and-such circumstance the patient recovered, but similar patients given an alternative treatment did not… The goal is to draw cautious generalizations about which similarities and differences are relevant to actual outcomes. No grand theories"[16].

There are actually several issues bound up in one here, centering on what was empiricism and who was an empiricist. The 'who?' question contributes to decentering the classic 'British empiricist' narrative; the 'what?' question looks at the content of empiricism, but also how it has been constructed (Locke's project is quite different from what became known as empiricism in a Kantian context, and both of these are different from the logical-positivist, Russellian and epistemologically focused construction of empiricism that philosophers have often discussed and challenged since the early decades of the twentieth century).

2. *Empiricism as a theory of mind*

Leaving aside the question of who should be labelled an empiricist, where they were based, and the limits of the label (including in the sense of doctrines held by an author, say Locke or Hume, that seem to 'exceed' the perimeter of what is allowed under it), we can state in preliminary fashion that the minimal empiricist claim seems at first sight to be strictly a claim *about the mind* (I say 'mind' rather than 'knowledge' as it turns out that the specifically *epistemological* version of this is heavily overdetermined in the post-Kantian reading, and underdetermined textually, although Book IV of the *Essay* does show us a Locke concerned with the nature of knowledge). Namely, the claim that "there is no a priori metaphysical knowledge and all concepts are derived from

[16] K. Pearce, "Two Definitions of 'Empiricism'", 2016 https://philosophymodsquad.wordpress.com/2016/05/03/two-definitions-of-empiricism/. As Anstey has noted in an another influential article, this kind of empiricism is closer to Baconian natural histories as notably promoted by the Royal Society in the later seventeenth century, which work from 'instances' and limited generalizations, certainly not in order to promulgate an epistemology (P. Anstey, "Locke, Bacon and Natural History", in *Early Science and Medicine* 7 (2002), 1, pp. 65-92).

experience”[17]. In early modern vocabulary, this is the claim that ‘nothing is in the mind which was not first in the senses’. It is found in a variety of thinkers, including Hobbes, Montaigne, Locke of course and a variety of clandestine texts[18]. This was also a medical claim, or at least a claim found in a large number of Renaissance and early modern medical writings[19]: it moves between theoretical reflections inspired by empirical practice (recall that ‘empiricism’ itself is a term loaded with a medical background, from Galen’s *empirikoi* to early modern ‘empiricks’) and more properly philosophical reflections, whether Lockean or other. While various glosses on the phrase are found in philosophical texts, it is also frequently appealed to in medical texts, sometimes in tandem with more traditional appeals to experience and/or experiment.

The ‘nihil est’ is in fact an old claim – often attributed to Aristotle, who doesn’t say anything of the sort, but in Scholasticism it ‘settles’ as an established claim, perhaps inspired by passages in the *Posterior Analytics* and the *Nicomachean Ethics*[20]. For almost all fourteenth – and fifteenth-century Aristotelians, sensation was the foundation of cognition, which they summarised in the *nihil est* formula; Pico uses it to sum up Aristotle’s position[21]. As late as

[17] S. Priest, *The British Empiricists*, Routledge, London 2007, p. 5.

[18] Again, see Locke, *Essay*, II.i.23, p. 117. In Hobbes’ version, “*nihil esse in intellectu humano, quod non prius fuerit in sensu*” (“there is nothing in human intellect that was not previously in sense (for sensation takes place through the action of objects even [...] upon the sensoria or the organs of perception”); T. Hobbes, *Thomas White’s ‘De Mundo’ Examined*, trans. by H.W. Jones, Bradford University Press, London 1976, chp. XXX, § 3, p. 364. A much more familiar and explicit version is in Leibniz, negatively put of course: *Discours de métaphysique* § 27, and *Nouveaux Essais* II.i.8. The phrase occurs in a variety of clandestine texts like the *Symbolum Sapientiae*, *L’Âme matérielle*, Fréret’s and Boyer d’Argens’ works, and in Bayle’s *Système de philosophie ou Abrégé de la métaphysique*, in which he credits it to the Epicureans (and calls it a “vulgar axiom”): P. Bayle, *Œuvres diverses*, ed. by P. Husson et al., The Hague 1731, vol. 4, p. 482.

[19] P. Cranefield, “On the Origin of the Phrase *Nihil Est In Intellectu*”, in *Journal of The History of Medicine and the Allied Sciences* 25 (1970), pp. 77-80; on its reception including in the materialist readings of Locke, see C.T. Wolfe, “From Locke to Materialism: Empiricism, the Brain and the Stirrings of Ontology” in A.-L. Rey and S. Bodenmann (eds.), *What does it mean to be an empiricist? Empiricisms in Eighteenth Century Science*, Springer, Dordrecht 2018, pp. 235-63.

[20] *An. Post*. II, 19; *Eth. Nic*. VI, iii, 3. Hegel himself, in the Introduction to the *Encyclopedia*, notes that it is a mistake, originating in Scholasticism, e.g. Aquinas (or even earlier, Bonaventure; one could add Henry of Ghent) to attribute the ‘nihil est’ phrase to Aristotle, and suggests (à la Leibniz) that both this claim *and the converse* (“*nihil est in sensu quod non fuerit in intellectu*”) are true (*Enzyklopädie der philosophischen Wissenschaften im Grundrisse* (1830), Vorrede, § 8, in *Werke in 20 Bänden*, ed. by E. Moldenhauer, K.M. Michel, Bd. 8, Erster Teil, Suhrkamp, Frankfurt 1979, p. 51).

[21] K. Park, “The Organic Soul”, in C.B. Schmitt and Q. Skinner (eds.), *The Cambridge History of Renaissance Philosophy*, Cambridge University Press, Cambridge 1988, p. 470; C.B. Schmitt, quoted in Cranefield, “On the Origin of the Phrase *Nihil Est In Intellectu*”, p. 78.

the 1790s, Condorcet gives the *nihil est* 'top billing' (in capitals), and identifies its source as Aristotle: "our most abstract or intellectual ideas originate in our sensations"[22]. Diderot repeats different versions of it throughout his work, once crediting Hobbes with the idea[23].

That knowledge came from the senses was not viewed as an especially scandalous claim prior to the early modern era: Fontenelle suggests that "the ancient philosophy was not always mistaken"[24]. Sometimes, the *nihil est* is presented as true because Aristotle himself held the view (even if that was not quite correct); sometimes, it is a radically *new* claim in the sense that a degree of antiquarianism either masks its novelty or is intended to combat a mainstream view of the time. Diderot describes Locke, in the *Encyclopédie* article of that title, as the thinker who "renewed the ancient axiom" of empiricism, and in the earlier *Suite de l'Apologie de l'Abbé de Prades*, he also calls it an axiom, but mentions the 'antiquity' of the idea to defend it against charges of impiety[25].

Locke does indeed defend a version of the 'nihil est' claim about the furniture of the mind, or more actively put, how the mind acquires its furnishings. It is undeniable that he states that the mind is originally "void of all Characters"[26]. However, this claim needs to be understood in the context of his broader project. Not only does Locke also hold a rafter of other views concerning truth, propositions, modes, and qualities which are not reducible to a kind of brute, atomistic, direct-realist version of this credo, as is rather well known at this point: brute atomism sits rather awkwardly with an author who declares that "'Tis evident, the Mind knows not Things immediately, but only by the intervention of the *Ideas* it has of them"[27]. It seems odd for someone Russell or Charles Taylor would call an empiricist, to declare that we do not know things directly but only through the mediation ("intervention") of ideas. Of course, if there is something essential in Locke which is alien to empiricism,

[22] Condorcet, *Esquisse d'un tableau historique des progrès de l'esprit humain* (1795), 5th *époque*, in J.-A.-N. de Caritat, Marquis de Condorcet, *Œuvres de Condorcet*, eds. A. Condorcet-O'Connor & F. Arago, Firmin Didot, Paris 1847-1849, vol. 6, p. 88.

[23] For more on Diderot's analysis of the phrase see Wolfe, "From Locke to Materialism", cit.

[24] Fontenelle, *Fragments de la connaissance de l'esprit humain*, in *Id.*, *Œuvres complètes*, Belin, Paris 1818, vol. 2, p. 411. He is possibly glossing on P.-S. Régis' "Let's conclude that the ancient philosophers were right to say there is nothing in the understanding that did not pass through the senses" (*L'Usage de la raison et de la foi, ou l'accord de la foi et de la raison*, Jean Cusson, Paris 1704, p. 108).

[25] D. Diderot, "Locke", in D. Diderot and J. le Rond D'Alembert (eds.), *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*..., Briasson, Paris 1765, vol. 10, p. 626b; Diderot, *Œuvres complètes*, eds. H. Dieckmann, J. Proust & J. Varloot. Hermann, Paris 1975-, vol. 4, §§ 12, 5.

[26] Locke, *An Essay concerning Human Understanding*, II.i.1, p. 105.

[27] Locke, *Essay concerning Human Understanding*, IV.iv.3, p. 563.

and something in Hume which is also alien to (this picture of) empiricism, maybe it's our picture of empiricism that needs changing!

What happens to the empiricist claim if seen in context?

3. *Two mistaken readings: the epistemologist and the underlabourer*

3.1. The epistemological paradigm

My reasons for challenging the common view of 'British empiricism', here as regards Locke in particular, are not purely contextual ones involving affinity groups or chains of influence, but have more to do with the intertwining of the epistemological and the moral in texts of this period. As such, we need to remove ourselves from what Knud Haakonssen termed the 'epistemological paradigm', which

> sees philosophy as essentially concerned with the justification of beliefs and judgements; it understands such justification in terms of events, whether perceptive or inferential, in the mind – or, as if in the mind – of the individual person; and it tends to apply this idea of epistemological justification as the criterion for what is properly included in the discipline of philosophy[28].

Contrast this with the more common view that "empiricism is a kind of epistemology"[29]. That Locke held that knowledge comes from experience (in part, it turns out) is typically studied in terms of his theory of ideas (simple and complex) and the challenge of secondary qualities, which indicates that we don't have direct access to the (primary) qualities of things for Locke. As Haakonssen details above, a key problem therein is the development of epistemology as a 'genre' and the retroactive vision we can have, thinking that various thinkers had a self-contained, deliberately conceived epistemology (hence there is a Platonic epistemology, a Cartesian epistemology, a Lockean epistemology, etc.). In fact this is very much a later invention, both due to post-Kantian (particularly neo-Kantian) thinkers and to Reid, while Locke's 'epistemology' is much more motivated by political and ethical concerns. Differently put, we need to take a

[28] K. Haakonssen, "The concept of eighteenth-century philosophy," in *Id.* (ed.), *The Cambridge History of Eighteenth-Century Philosophy*, Cambridge University Press, Cambridge 2006, p. 7.
[29] Priest, *The British Empiricists*, cit, p. 6.

big step back from the common vision of empiricism (at least in the history of philosophy) which treats it as primarily an epistemology. The idea of studying the "understanding," as Serjeantson showed[30] (and as Corneanu develops in a more novel direction), was a project of a different kind, which our 'epistemology' but also our sense of a 'naturalization of the mind' fail to grasp, even if both of these can also claim some Lockean sources. In fact, the more ethically focused reading must reject both (i) empiricism understood as a sense-data theory of passive perception, (ii) the epistemological reading, and (iii) the vision of Lockean empiricism as the handmaiden of science. It is to the latter that I now turn.

3.2. The underlabourer of science

Readers and scholars of Locke with an interest in his relation to the scientific ideas and revolutions of his time have always paid especial attention to a famous passage in the Epistle to the Reader that precedes the *Essay*:

> I shall always have the satisfaction to have aimed sincerely at truth and usefulness, though in one of the meanest ways. The commonwealth of learning is not at this time without master-builders, whose mighty designs in advancing the sciences, will leave lasting monuments to the admiration of posterity; but every one must not hope to be a Boyle, or a Sydenham; and in an age that produces such masters, as the great – Huygenius, and the incomparable Mr. Newton, with some others of that strain; *it is ambition enough to be employed as an under-labourer in clearing the ground a little, and removing some of the rubbish that lies in the way to knowledge* (emphasis mine)[31].

The 'under-labourer' passage has had an enormous impact on how Locke is viewed. For it seems to define the empiricist project as an adjacent, indeed subaltern project to the early modern corpuscular reductive project (although the extent to which Boyle and Sydenham can be fit into the same programmatic box is a debated one). Locke will treat the world of ideas as these great men treated to the world of natural objects[32].

[30] R. Serjeantson, "'Human Understanding' and the Genre of Locke's *Essay*", in *Intellectual History Review* 18 (2008), pp. 157-71.

[31] J. Locke, *Essay concerning Human Understanding*, cit., p. 9.

[32] S. Gaukroger notes that the underlabourer figure is almost a trope in the works of the period, and quotes Boyle, who is willing to "not only be an Underbuilder, but ev'n dig in the Quarries for Materials towards so useful a Structure, as a solid body of Natural Philosophy, than not to do something towards the erection of it.": Boyle, *Certain physiological essays and other tracts*, p. 18 (Gaukroger, *The Collapse of Mechanism*, cit., p. 157). For a surprisingly similar passage in Hume, see the conclusion to the sixth

This view of Locke the proto-scientist is sometimes combined with evidence of his early medical career to produce a reading of his philosophical work as somehow medically inspired. This overlaps with but is not identical with the reading of Locke as a kind of rough and ready 'scientist of the mind', or as a philosopher explicitly seeking to provide an epistemology for the sciences of his time. Thus some interpreters, who take Locke's self-description a bit too literally, describe the *Essay* as "the first attempt ever to apply scientific method to the systematic description of the cognitive operations and abilities of the mind," or, hewing closer (but wrongly in my view) to the underlabourer image, they claim it alludes to "his role as a philosopher of science with the self-appointed task of providing epistemological foundations for the emerging empirical sciences," or, in a more banal way, that it shows that Locke understood himself as a "popularizer of scientific theories"[33]. S. Priest, deferring here to A.J. Ayer, equates Locke's underlabourer project with that of the Vienna Circle's logical positivism, asserting that "their conception of philosophy was the Lockean one of clearing intellectual obstacles from the path of scientific progress"[34].

Granted, it would be a mistake to downplay Locke's engagement with corpuscularianism, his interest in issues such as natural kinds and his reference to e.g., microscopes, but often those references turn out to be deflationary, as in his discussion of the possibility of 'microscopical eyes', where his ultimate verdict is that if we did possess them, we "would not make any great advantage by the change," if this enhanced capacity did not "serve to conduct [us] to the market and exchange," and furthermore, the possession of such enhanced senses

volume of the *History of England*, regarding the experimental philosophy, which features a similar list of names, including Boyle, Sydenham and Newton, and explains how they "trod, with cautious, and therefore more secure steps, the only road, which leads to true philosophy" (Hume, *The History of England: from the invasion of Julius Caesar to the Revolution in 1688*, Liberty Classics, Indianapolis 1983, vol. 6, p. 541).

[33] E. McCann, "John Locke", in S. Nadler (ed.), *A Companion to Early Modern Philosophy*, Blackwell, Oxford 2002, p. 356; D. Soles, "Locke's Empiricism And The Postulation Of Unobservables", in *Journal of the History of Philosophy* 23 (1985), 3, p. 339; P. Alexander, *Ideas, Qualities and Corpuscles: Locke and Boyle on the External World*, Cambridge University Press, Cambridge 1985, p. 6. L. Laudan had described Locke's epistemology as that of a "life-long scientist" ("Locke on Hypotheses: Placing the *Essay* in the 'Scientific Tradition,'" in Laudan, *Science and Hypothesis. Historical Essays on Scientific Methodology*, Reidel, Dordrecht 1981, p. 54). For more such references which read Locke, e.g. as part of the turn to the hypothetico-deductive method see S. Corneanu, "John Locke on the Study of Nature", in V. Alexandrescu (ed.), *Branching Off: The Early Moderns in Quest for the Unity of Knowledge*, Zeta Books, Bucharest 2009, p. 18ff.

[34] Priest, *The British Empiricists*, cit., p. 236.

would locate us "in a quite different World from other People"[35].

If Locke really believed his mission in the *Essay* was to be the (positively construed) underlabourer of the great figures of the New Science, he would not declare (sounding like Sydenham but also like Pascal) that "The Workmanship of the All-wise, and Powerful God, in the great Fabrick of the Universe, and every part thereof, farther exceeds the Capacity and Comprehension of the most inquisitive and intelligent Man"[36]. This testifies to what Catherine Wilson describes as a striking feature of the *Essay*, namely, "Locke's pessimism about the human ability to understand and control nature"[37]. Indeed, Locke also writes that "as to a perfect *science* of natural bodies … we are, I think, so far from being capable of any such thing that I conclude it lost labour to seek after it"[38]. This combination of a lack of experimental optimism and a rather Puritan ethical conviction, that, e.g., "We are furnished with faculties (dull and weak as they are) to discover enough in the creatures to lead us to the knowledge of the Creator, and the knowledge of our duty," but not more[39], entails a very different picture of empiricism from that we have just seen, in which it either has a degree of autonomy as a philosophical project but is (both) responding to and aiming at the scientific upheavals of Locke's time, or has no autonomy, being just an attempt to apply scientific method to questions concerning the mind. It is thus not that surprising, after all, that empiricism is "notoriously weak in its philosophy of experiment," as Michael Ayers once quipped[40].

Furthermore, the 'under-labourer' picture suggests a kind of naturalization of the mind which isn't really part of Locke's program (even if he does not reject it out of hand), as is clear when he states early on in the *Essay* that "I shall not at present meddle with the Physical consideration of the Mind"[41]. The corpuscularian hypothesis about the nature of underlying reality is, Locke thinks, the best bet for a valid explanation, but it is not his business[42]! One can

[35] Locke, *Essay concerning Human Understanding*, cit., II.xxiii.12, p. 303.

[36] Ibid., III.vi.9, p. 444.

[37] C. Wilson, "Philosophical and Scientific Empiricism and Rationalism in the Seventeenth and Eighteenth Centuries", in A.L. Rey and S. Bodenmann (eds.), *What Does it Mean to be an Empiricist? Empiricisms in Eighteenth Century Science*, Springer, Dordrecht 2018, p. 127.

[38] Locke, *Essay*, cit., IV.iii.29, p. 560.

[39] Ibid., II.xxiii.12, p. 303.

[40] Ayers, *Locke*, cit., vol. 2, p. 159.

[41] Locke, *Essay,* cit., I.i.2, p. 43.

[42] However, see ibid., II.ii.2, vii.10, and viii.11 (bodies produce ideas in us by 'impulses'). Metaphysically, corpuscularian explanations play a key role in Locke's definition of qualities (i.e. solidity is a primary quality since it still exists at the corpuscular level); biologically, they play a key role in what he assumes would be a correct theory of generation, explaining both similarity of traits and the occasional

contrast Locke on this issue with later figures (who invoked Locke) such as Toland or Hartley, who are materialists[43]. At the end of the eighteenth century, Joseph Priestley viewed Locke's project as tracing ideas back to their source in sensation, but he felt that Locke had not provided the actual 'neuropsychological' workings of this relation, something Priestley saw in David Hartley's 1749 *Observations on Man* (with the additional bonus in Priestley's eyes that this was a materialist account)[44].

In order to step back from the 'underlabourer' reading of Locke's project, we need to take a hint from a different passage *also* in the Epistle to the Reader, in which Locke discusses the circumstances in which he came to write his book.

4. *Locke, empiricist underlabourer or therapist?*

I turn now to this other passage in the Epistle to the Reader, which is less well-known to scientifically and/or experimentally inclined readers of Locke:

> *Were it fit to trouble thee with the history of this Essay, I should tell thee, that five or six friends meeting at my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand, by the difficulties that rose on every side*. After we had a while puzzled ourselves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts, that we took a wrong course; and that before we set ourselves upon inquiries of that nature, it was necessary to examine our own abilities, and see what objects our understandings were, or were not, fitted to deal with (emphasis mine)[45].

What's the secret here – the "remote subject" on which "five or six friends meeting at [Locke's] chamber," discoursed? A copy of the *Essay* owned by one of these five or six friends, James Tyrrell, bears in the margin, at this spot, the words "*morality and revealed religion*"[46]… In other words, the project of the

appearance of 'monsters'. For Locke, there is a necessary connection between a body's "real essence" (its corpuscular constitution) and its observed or manifest qualities.

[43] On this dimension of Toland, Hartley and other naturalistic/materialist readers of Locke on the mind, see C.T. Wolfe, "Locke and projects for naturalizing the mind in the eighteenth century," in J. Gordon-Roth and S. Weinberg (eds.), *The Lockean Mind*, Routledge, London 2021, pp. 152-63.

[44] Cf. C.T. Wolfe, "From the logic of ideas to active-matter materialism: Priestley's Lockean problem and early neurophilosophy", in *Intellectual History Review* 30 (2020), 1, pp. 31-47.

[45] Locke, *Essay*, cit., p. 7.

[46] M. Cranston, *Locke. A Biography*, Longman, London 1957; reprint, Oxford University Press, Oxford

Essay has very little to do with empiricist epistemology and a lot to do with practical matters. Nor is it an ontology, which is why Locke often says that the relevant area of inquiry for him is not the "depths of the ocean of Being" but rather "matters concerning our conduct"; "Our Business here is not to know all things, but those which concern our Conduct"[47]. The idea that the *Essay* chiefly was motivated by practical concerns is not just to be found in a marginal comment in the Epistle to the Reader (for which we need to rely on annotations made by a friend). It is there throughout the book. As Locke writes in a draft of a letter to Tyrrell, "my business was only to show whence men had moral ideas, and what they were . . ."[48] – and their limits. The "Power" chapter closes similarly, with Locke explaining that his purpose was "only to enquire into the knowledge the Mind has of Things, by those *Ideas*, and Appearances, which *God* has fitted it to receive from them"[49].

I do not pretend here to present a detailed 'moral' or 'practical' reading of Locke, as it would require a separate treatment. Suffice it to say that in contrast to the 'underlabourer' reading, which treats Locke as somehow, however programmatically, laying out a project for a science of the mind, just as Newton, Huygens and other great natural philosophers had mapped out regions of the physical world, this reading takes Locke at his word when he insists that the *Essay* is primarily motivated by "practical" considerations. True, one should distinguish therein between two dimensions: one, proto-critical in the Kantian sense, which focuses on our need to take stock of our limits (perceptual, cognitive and other), and the other which focuses on the application of a "historical", genetic approach to the origin of our ideas, in the hopes that this will resolve a variety of ethical, political and theological tensions. The latter overlaps with the dimension that Corneanu has most distinctly highlighted, on how a better understanding of the functioning of the mind implies a set of practices, a "conduct," *in order to improve our moral, social, religious and political life*[50]. Tying together these two dimensions, Locke writes:

1985, pp. 140-41; G.A.J. Rogers, "The Intellectual Setting and Aims of the *Essay*", in L. Newman (ed.), *The Cambridge Companion to Locke's "Essay Concerning Human Understanding"*, Cambridge University Press, Cambridge 2007, p. 8. The manuscript of the *Essay* with Tyrrell's marginal annotations is now in the British Museum.

[47] Locke, *Essay*, cit., I.i.6, p. 46.

[48] Locke to Tyrrell, 4 August 1690, in J. Locke, *Correspondence*, ed. by E.S. De Beer, vol. 4, Oxford University Press, Oxford 1979, p. 113.

[49] Locke, *Essay*, cit., II.xxi.73, p. 287.

[50] That Locke's investigation of the logic of ideas and its implications for notions including substance, personal identity, free will, and the 'furniture of the mind' overall was determined by ethical,

> Since our Faculties are not fitted to penetrate into the internal Fabrick and real Essences of Bodies...'tis rational to conclude, that our proper Imployment lies in those Enquiries, and in that sort of Knowledge, which is most suited to our natural Capacities, and carries in it our greatest interest....Hence I think I may conclude, that *Morality* is the *proper Science, and Business of Mankind in general*[51]...

The 'moral' Locke is also the proto-critical Locke, that is, the one who wants to restrict our investigation to what we can know, by "examin[ing] our own abilities, and see[ing] what objects our understandings were, or were not, fitted to deal with." This is not just a mapping out of the mind, but a taking stock of its abilities and limitations, so we do not seek to act beyond our capacities (*Essay*, I.i.6). This is not 'pre-critical' but 'proto-critical'! Indeed, when Kant distinguished between dogmatic and critical philosophy in the first of his lectures on logic in 1770, he named Locke as an example of the latter[52]. Locke's biographer Maurice Cranston comments that "there is something alien to empiricism in Locke's whole aim of determining *in advance* the limits of human knowledge"[53].

Given the choice between these two hints on how to interpret Locke's vast *Essay* – the 'under-labourer' and the 'remote subject' – this is a rare case where the 'hidden' hint is the one to pay close attention to. For Locke to say in print that he is just the under-labourer for giant figures like Boyle, Huygens and Newton makes good sense in terms of public relations; his hint, without naming the issue, that the whole book revolves around the problem of morality and religion, says something more. This sense of a proto-critical assessment of the

political and theological considerations is very apparent in the *Essay*, where we are even told that "all the great ends of morality and religion are well enough secured *without* philosophical proofs of the soul's immateriality, since it is evident that he who made us ... sensible intelligent beings . . . can and will *restore us to the like state of sensibility* in another world and make us capable there to receive the retribution he has designed to men, according to their doings in this life" (Locke, *Essay*, cit., IV.iii.6, p. 542), but even more so in the later works such as the *Reasonableness of Christianity*, the commentary on Paul, and the *Conduct of the Understanding*. For a convincing analysis of Locke specifically along these lines see S. Corneanu, *Regimens of the Mind. Boyle, Locke, and the Early Modern 'Cultura Animi' Tradition*, University of Chicago Press, Chicago 2011.

[51] Locke, *Essay*, cit., IV.xii.11, p. 646.

[52] See Haakonssen, "The concept of eighteenth-century philosophy", cit., p. 10 and n. 17.

[53] Cranston, *Locke*, cit., p. 265. For an interesting critique of the view that Locke was an 'empiricist' about ideas, see L. Krüger, "Was John Locke an empiricist?" (1970), in L. Krüger, *Why does history matter to philosophy and the sciences? Selected essays*, ed. by T. Sturm, W. Carl, and L. Daston, De Gruyter, Berlin/New York 2005.

extent and limits of our powers so that we can "prosecute" our duties as well as possible in our lifetime ties in smoothly with the fact that Locke has explicit ethico-political motivations for some of his most celebrated 'epistemological' positions, such as his anti-innatism.

When Locke explains that it was "no small advantage to those who affected to be Masters and Teachers to make this the Principle of *Principles*, that Principles must not be questioned," since on this view they are innate[54], he is stating a position that plays out at length in his political philosophy (innate ideas are a cornerstone of authoritarianism) and in his important pedagogical work (anti-innatism is similarly a cornerstone of any liberal pedagogical project since it rests on the belief in the malleability of the human mind, which can evolve through learning). Locke is not interested in the theory of knowledge for its own sake, or in a disembodied mind; on ethical, political and theological grounds, his investigation into the 'furniture of the mind' is meant to "examine our own abilities, and see what objects our understandings were, or were not, fitted to deal with"[55].

Conclusion

Locke, or Locke as presented here, a philosopher of the primacy of "matters concerning our conduct", would concur with Hume writing two generations later that "'Tis evident, that all the sciences have a relation, greater or less, to human nature… Even Mathematics, Natural Philosophy, and Natural Religion, are in some measure dependent on the science of Man; since they lie under the cognizance of men, and are judged of by their powers and faculties"[56]. For Locke, the emphasis on practical matters "reflected and addressed concerns of ameliorating civil life"; "rather than subordinating human behavior and industry to a method that promised the knowledge of absolute truths, he claimed that philosophers ought to model their learning on the mental dispositions and skills embedded in prudent actions of everyday life"[57]. Themes such as anti-innatism (that is, the denial that there are innate ideas in the mind) are in fact not epistemological, that is, not primarily reducible to concerns about

[54] Locke, *Essay*, cit., I.iv.24, p. 101.
[55] Ibid., p. 7.
[56] Hume, *Treatise*, cit., p. 4.
[57] Ben-Chaim, *Experimental Philosophy and the Birth of Experimental Science*, cit., pp. 113, 114.

the nature of knowledge or the cognitive states of the knower, but are rather motivated by embedded concerns such as anti-authoritarianism (as in Locke's rejection of an innate notion of 'patriarchal' authority) and the desire to articulate a notion of toleration. As Ryle put it nicely, "Locke's Essay is, in intention and effect, much less a theory of knowledge than it is a theory of opinion"[58].

I have strongly opposed a more positivistic, science-friendly reading (the "underlabourer" reading) to a more practical reading, in which the *Essay* is fundamentally motivated by questions of "morals and revealed religion." But it is possible to reconcile the two, at least in part, if we treat the underlabourer motif as a more deflationary assertion, in keeping with Locke's desire, stated elsewhere, to rid philosophy of useless words and otiose metaphysical entities. Certainly his rendition of the underlabourer motif is less of a 'positive' claim than, e.g. Boyle's desire to build "useful structures." And this vision of science is more in keeping with Locke's concern with a "historical, plain method"[59]. In both cases (the epistemological and the moral), his "business" was to show "whence men had moral ideas, and what they were"[60]. That Locke abandoned his project of a demonstrative science of morals[61] does not mean that the *Essay* is not motivated by moral concerns.

I should note that Lockean empiricism as a moral project is indeed quite different from how Locke was taken up most influentially in the Enlightenment. Whether he was criticized for being a mere physiologist of the understanding, as Kant did, or praised for introducing the experimental method into 'metaphysics' (as D'Alembert, Diderot, Cabanis and others did), Locke's empiricism was understood more naturalistically in the Enlightenment. In fact, Locke was not interested in the physical basis of ideas; similarly, Hume's science of human nature is a *moral science* in which passions are the 'simples' or 'primitives', the building-blocks, which do not reduce to anything further (that would be the anatomist's job, Hume says), and his epistemology is significantly derived from his moral theory[62].

[58] Ryle, "John Locke", cit., p. 10.

[59] Locke, *Essay*, cit., I.i.2, p. 44.

[60] Locke to Tyrrell, 4 August 1690, cit.

[61] Stated e.g. at. *Essay* III.xi.16, IV.iii.18; Locke wrote to Molyneux that he "thought he saw" that "morality might be demonstratively made out," but admitted that "whether I am able so to make it out is another question" (Letter of 20 September 1692, in Locke, *Correspondence*, cit., vol. 4, p. 524).

[62] In fact, Hume goes much further than this in developing a moral and political theory of human nature based on history, and thus leaves behind a 'building-block' model of science even if those building-blocks were passions rather than atoms or corpuscules: see C. Dromelet, "Dual Minds: Lessons from the French Context of Hume's Social Theory", in *The Journal of Scottish Philosophy* 19 (2021), 3, pp. 203-17.

This Locke is engaged in ethical reflection on 'regimens of the mind', as Corneanu would have it, in a re-reading of the empiricist project which is broadly consonant with the emphasis other scholars have placed on how the notion of scientific truth is a byproduct of the notion of civility, and how prior to the Kantian focus on objectivity, early modern thinkers would have spoken more about 'impartiality'[63]. In this version of the 'philosophy-as-therapy' view, epistemology becomes more a focus on the mind's natural weaknesses and limits, that cultivates its strengths and cures its infirmities.

There is, as noted earlier, a pessimism here. Locke sometimes uses the language of our "weakness": improving our knowledge by "experience and history" is "all that the weakness of our Faculties in this State of *Mediocrity*, which we are in this World, can attain to"[64]. But as Corneanu stresses in her work, the "weaknesses and defects" of human nature for Locke, are not some kind of Puritan brute fact, but are open to emendation through education and the 'therapeutic' dimension of the "conduct of the understanding." A point I have not stressed in this paper but which is key to Locke's method thus understood, is that in the context of a dispute, the Lockean injunction to trace back your complex ideas to their origins in your mind, should not itself be taken as a partisan statement, and this peculiar accomplishment of Locke's empiricist method is neither a piece of disembodied epistemology nor a sample of scientific vulgarization. This was nicely observed by Gilbert Ryle, to whom I leave the last word:

> Suppose you hold some opinion passionately and are then advised to examine its credentials dispassionately and to examine the objections to it dispassionately, you, being human, will resent, passionately resent, the advice as partisan advice. It will feel like a traitor's advice to sell your fortress to its besiegers. But if someone, John Locke say, advises you to trace to their origins the complex ideas

[63] S. Gaukroger, "The Autonomy of Natural Philosophy: From Truth to Impartiality", in P. Anstey & J. Schuster (eds.), *The Science of Nature in the Seventeenth Century: Patterns of Change in Early Modern Natural Philosophy*, Springer, Dordrecht 2005, pp. 131-63; D. Perinetti, "The Nature of Virtue", in H.S. Harris (ed.), *The Oxford Handbook of British Philosophy in the Eighteenth Century*, Oxford University Press, Oxford 2013, pp. 333-68; S. Shapin, *A Social History of Truth. Civility and Science in 17th Century England*, University of Chicago Press, Chicago 1994 (who, funnily enough, credits Richard Rorty amongst others for his notion of civility); Corneanu, *Regimens of the Mind*, cit., p. 227ff.

[64] Locke, *Essay*, cit., IV.xii.19, p. 645. The language of "weakness" is there in the strong formulation from the *Conduct of the Understanding*: "[t]here are several weaknesses and defects in the understanding, either from the natural temper of the mind, or ill habits taken up, which hinder it in its progress to knowledge" (*Conduct*, § 12, in J. Locke, *The Works of John Locke*, ed. by Thomas Tegg *et al.*, London 1823, vol. 3, p. 233).

that are the materials of your opinion, to test for their precision and unambiguousness the words in which your ideas are fixed, then the advice does not feel to be partisan advice. It now feels like neutral advice from the laboratory. You may take this advice without suspecting treachery[65].

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[65] Ryle, "John Locke", cit., pp. 13-14.

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