C.T. Wolfe, *Materialism: A Historico-Philosophical Introduction*, Springer, 2016, 134 pp.

As the title of the book suggests this introduction to materialism pursues a double – historical and philosophical – objective. The historical assessment is meant to «do justice to [the] historical complexity» (p. 5) of materialism, challenging historiographical labels which have presented a monolithic and impoverished image of this tradition. As Wolfe points out, materialism has had a «bad reputation, on two distinct yet related grounds: that it reduces everything to 'dead' matter, and that it eliminates the 'higher', intellectual or spiritual parts of life, and thereby cannot be but immoral» (p. 6). The rectification of this view is achieved by a series of case studies connecting new perspectives on long debated authors to original insights on contemporary issues. At the same time Wolfe wants to make «more systematic» claims concerning the connection of a materialist philosophy to science (p. 125). Although this second point is explicitly made only in the final section, the problematic inspiration crosses the whole book. Indeed, it is possible to reconstruct a series of issues which serves as a guiding thread in the historical itinerary.

First of all Wolfe successfully detects a historico-philosophical common trait connecting - rather than materialistic theories themselves - the negative dismissals of materialism, from the first uses of the term in Cambridge Platonism of the 17th Century to contemporary philosophy. There is indeed a striking homogeneity between the motif of «stupid and senseless matter», introduced by Ralph Cudworth in his Treatise concerning Eternal and Immutable Morality, and similar negative characterizations in quite different contexts from the Enlightenment to the XXth century. Indeed, as the narrative comes to contemporary perspectives such as phenomenology, it shows that the image of matter as essentially deprived of intelligence, sensibility and the sense of agency is still a dominant feature of the philosophical debate, even when the moral side of the issue slips in the background or entirely disappears. Faced with this evidence Wolfe suggests a historical step back, formulating a simple and yet neglected question: «when Diderot and J.J.C. Smart seek to explain mental processes by appealing to the brain, what do they share and what is dissimilar in their arguments?» (p. 10).

Wolfe's original perspective is thus introduced by the critique of a recurrent «flagrant mistake» (p. 8): the identification of materialism in general – as the thesis that «everything that exists is material, or is the product of interaction between or relations between material entities» (p. 10) – with «mechanistic materialism», as the form of materialism which reduces every phenomenon to movements and interaction of particles. Examples include not only spiritualists of Platonic inspiration, but also physicalist philosophers of the Vienna tradition and thinkers of Marxist tradition (via Hegel), from Engels to Sartre. All the supporters of this view «seem blind to the presence, in Lucretius, Gassendi, La Mettrie and Diderot, an in a very different way in authors such as Dewey, Quine and Dennett, of either a specifically vital sense of matter, and/or a naturalistic openness to the fact that the description of the natural world is not, in the end, going to be a matter of pure physics» (p. 14). Given the dominance of this reductive image, the book presents a

richer «typology of forms of materialism», focusing on the reappraisal of nonphysicalist forms of materialism, characterized by a «vital sense of matter».

The centrality of life in debates on materialism is introduced by a study of Aristotle's arguments against atomism. Wolfe points out that Aristotle does not take sides with Plato against materialistic explanations of form, but rather «integrates the materialistic level» (p. 30) with his notion of form. Most of the problems raised by his critique of ancient materialism regard the explanation of the properties of living being. As a counterpoint to this early episode, then, Wolfe shows how early modern materialism is deeply "biological". Drawing on a rich and solid historiographical line of research - including a number of his own contributions – Wolfe especially insists on how 18th Century materialism is mainly medical and physiological in its inspiration, developing metaphors and metaphysical hypotheses for a better understanding of living beings. Key concepts here are the «activity» (e.g. in Toland) and «sensitivity» of matter (e.g. in Diderot) and the methodological «vitalism» of the Montpellier physicians. Plenty of examples show how these conceptual achievements also come in different versions, as an «increasing complexity in matter theory» corresponds to «shifting concepts of the soul» (p. 12). This polemical counterpoint crosses the tradition of radical and "irreligious" texts as well as apparently "technical" and ideologically unengaged scientific elaborations. That the different sides are aware of each other is evident, for example, in the history of the Boyle lectures. This context also sets the stage for one of the most important polemical exchanges on the issue of thinking matter, the Collins-Clarke discussion. Here we see how the thinking matter hypothesis could be introduced in the Newtonian paradigm of active powers. Collins identifies thought/consciousness with a property of the whole of physical parts of the brain, whose introduction would be allowed by standard science; Clarke replies that this hypothesis cannot explain individual consciousness. Here is an exemplary episode of a kind of discussion which, with minor modifications in scientific details, is still going on in contemporary philosophy and cognitive sciences.

As regards *morality*, Wolfe insists on the positive ethical contents of materialistic traditions. The criticism of prejudices and moral inclinations – the "unmasking" function – of materialism can be by no means reduced to the mechanical, ethically empty world-view of "automata" which has been one more typical straw man of anti-materialism. Wolfe argues that matter itself, in a broadly Spinozistic tradition, has been conceived as the origin of desire and moral feelings, including «sympathy»: a critical move which modifies the self-awareness of the moral subject rather than dissolving moral responsibility in a mechanistic "blind chain" of causes.

While Wolfe selects his examples from French materialism of the Enlightenment, his observations suggest a much wider and stimulating research program: from the Stoic exercise of reducing the representation of living processes to their material, decaying parts – thus stripping them of the ordinary sense – to the modern and contemporary fictions of statues, automata and zombies, different kinds of material doppelgängers of man, produced by the abstraction of moral feelings and desire, have served to draw a separating line between material processes and human experience, as essentially constituted by conscious feelings («perceptions», «raw feels», «qualia») and moral responsibility. The critique of these abstractions, in the light of the historically given alternatives, can significantly contribute to rethink a long and influent philosophical tradition of counterfactual thought experiments.

Connecting modern to contemporary contexts, Wolfe carefully unravels the original ideas of materialism which have been successively tied to central categories of epistemology. Thus *transformism*, as a basic feature of ancient and modern materialism, is sharply distinguished from Darwin's theory of natural selection. Determinism, as the awareness of the physically and socially conditioned character of behavior, is separated from the *law-like* determinism of physicalism. *Reductionism*, as the recognition of the bodily and physiological nature of mental activity («visceral» reductionism), is distinguished from textbook reductionism of philosophy of science and cognitive science. This analytical work is meant to contest dominant antinomies in contemporary debates, such as the appropriation of the notion of *embodiment* by a phenomenological, anti-naturalistic tradition, whose correlate is once again the identification of materialism to a physicalistic program, including the thesis of eliminationism. As Wolfe insists, forms of materialist embodiment exemplarily developed by La Mettrie and Diderot «share a commitment to reductionism, but not to eliminativism (although the extent to which this distinction is clearly applicable to the texts at hand is unclear)» (p. 53). The sense of this observation is once more clear: "there are (historically) more things in materialism" - Wolfe seems to suggest - "as are dreamt of in your (contemporary) philosophy".

Following the idea of widening the historical horizon of contemporary issues, a significant part of the study is devoted to *brain theory*. Wolfe correctly points out that a brain-centered variant of materialism is already prominent in the 18th Century, before neurophysiology is firmly established as a field of scientific investigation. This tradition is inspired by "thinking matter" hypotheses and metaphors, which play a role for the abandonment of the Cartesian "organ of the soul" paradigm long before experimental "neuroscience" sets in. On the other hand, most of the neuropsychologists of the XIXth century turn out to be distant from materialism. A very important example is Du Bois-Reymond, who, although himself very close to a materialistic perspective, is the author of an influent epistemological argument against the possibility of explaining (phenomenal) consciousness. A similar, more critical point is made with regards to materialism of 20th century identity theorists (Place, Smart and Armstrong). Wolfe shows how their account is singularly poor in terms of neurological details and rather grounded on logico-metaphysical arguments and physicalism. These case studies suggest that a materialist account of experience can exist without a full fledged scientific theory. Materialism, rather and before than a scientific theory - let alone reductionist brain science – is a «metaphysics of Nature» (p. 127). This is entirely correct from the historical point of view: indeed, the revival of materialism in contemporary philosophy (from Quine to Australian materialists) and neuroscience (e.g. Changeux and Crick) is grounded on purely metaphysical claims. Once again – as it is the case in early modern age – the elaboration of these claims has played a heuristic role in scientific research. Of course, this does not exclude the theoretical question of how science can accomodate a materialistic ontology. In the final chapters Wolfe highlights conceptions of the brain as intrinsically

connected to non-biological extensions of the body – "prostheses", including

cultural tools – with references to both Clark's "extended mind" hypotheses and "social brain" conceptions (e.g. by Vygotsky and Negri). These conceptions are appreciated as fruitful ways to contrast the persisting tendency to restore past antinomies and associate mind with «interiority» or with a mystically conceived «flesh» (*contra* neurological reductionism). Thereby Wolfe convincingly concludes his argument on the existence of neglected, «pluralist» (p. 106) views of materialism, which – as I have tried to show – opens new perspectives for both historical scholarship and philosophical reflection.