

# MATERIALIST THEORIES OF CONSCIOUSNESS

Substance of a talk given in Brecon in April 2016 by Peter Brooke ([www.peterbrooke.org](http://www.peterbrooke.org))

*Her thesis undermines our most cherished illusions (as she would see them) of individual identity and personhood, yet she comes across as the kind of individual person you would wish to know.*

Richard Dawkins. Introduction to Susan Blackmore's book, *The Meme Machine*, p.xvi.

## BODY - SOUL - SPIRIT

The last talk I gave to the Brecon Political and Theological Discussion Group was called *The Illness and Cure of the Soul in the Orthodox Tradition*. In it, I presented a threefold anthropology - body, soul and spirit or, to use the Greek terms: *aisthesis* - the senses, the means by which we enter into relation with our immediate environment, the universe or 'cosmos' - *psyche*, as in 'psychology', the mind, incorporating all the characteristics of subjective experience, including emotion, desire, thinking memory - and *nous*, or the 'noetic faculty', sometimes identified with the heart. This last is the means by which we enter into relation with 'God' or 'Heaven' or 'Eternity'.

This view of things of course presupposes that terms such as 'God', 'Heaven', 'Eternity' correspond to a reality and are not just a pleasant, or perhaps unpleasant, fantasy. Thus the world as we experience it through the senses in space and time exists in a larger context that incorporates, but also extends, space and time. The argument further runs that our life within the confines of space and time, of body and soul, *aisthesis* and *psyche*, is a preparation for entry into this larger framework after our bodily death. The role of the material world, the Universe, in this conception, is as a support mechanism, analogous to the placenta that fulfils the bodily needs of the baby growing in its mother's womb. The role of religion - in the Christian understanding specifically the role of the Church and of ascetic discipline - is to awaken and develop the noetic faculty by which, even in the framework of body and soul, space and time, we can have some experience of the wider supratemporal framework that is our destined future.

In this talk I want to discuss some of the ideas that are held by people for whom the only reality is the world as they experience it through the senses - the world confined to space and time, body and soul, *aisthesis* (sensation) and *psyche* (mind). I want to stress straightaway that although this is not my view, I'm not intending to launch a polemic against it. Quite the contrary, I have a great deal of respect for the intellectual integrity of many of the people operating within what seems to me to be a rather limited framework, and since it is no part of my conception to deny the existence of the material world and for example, the interaction of mind and brain, the science of neurology, there is a large area of research, indeed almost the whole area covered by their world view, in which there is no room for disagreement between us at all.

## AND MIND AND BODY

The specific problem I want to address here is the 'mind-body' problem. The literature on this is enormous. It could indeed be said to engage the whole of philosophy, the whole of psychology, the whole of neurology, of theology, perhaps indeed the whole of physics. And yet it is doubtful if any progress has been made since the days when it was discussed in the schools of Athens. And before.

The problem, very briefly, is that there appears to be two types of 'stuff' in the world. On the one hand there is 'matter', which can be analysed in terms of what we call the laws of physics. On the other hand, there is subjective experience or, using the term very broadly, 'consciousness', which does not seem to be analysable in terms of the laws of physics.

The connection between these two kinds of stuff is very close. Leaving aside any experience we may have of angels, ghosts or demons, we never encounter the phenomenon of consciousness independent of the material object known as a brain - and even if we do encounter angels, ghosts or demons, we experience them in our own consciousness which is, or seems to be, inseparable from a brain. On the other hand, it is only as experienced within consciousness that the material world, including the existence of the brain, can be known. What we are studying when we study the material world can never be anything other than a phenomenon of consciousness. This is the basis of Immanuel Kant's famous assertion that the 'thing in itself', independent of our perception of it, is forever inaccessible to us; and we know that certain crucial aspects of our experience of the world - notably colour and sound - can only exist within consciousness. Hence the distinction Locke draws between secondary qualities, including colour and sound, which can only exist because of the peculiar nature of eyes and ears, and primary qualities, essentially measurable qualities, essentially weight and measurable size, which he thought could be relied on as real objective characteristics of the material world. His view was challenged by Berkeley who argued, indeed demonstrated, that the supposed primary qualities were as much dependent on our human sensibility as the secondary ones.

## THE CHALLENGE OF PSYCHO-PHYSICS

I've called this talk 'Materialist Theories of Consciousness' but it might have been more accurate to have called it 'Monist - or Epiphenomenalist - Theories of Consciousness'. 'Monism' is the view that there is only one stuff in the Universe so in some way, matter and consciousness must be the same stuff. A hard materialist monism maintains that subjective experience is a pure product, or 'epiphenomenon', of the mechanical, unconscious operations of the brain: 'the brain secretes thought as the liver secretes bile' to use the famous (and to my mind quite unexceptionable) formulation of Pierre Cabanis, author of a *Rapport du physique et du moral de l'homme* published in 1805.

There is however a different kind of monism or epiphenomenalism which I discussed in a talk I gave here some eleven years ago under the title *Notes towards a definition of spirituality*. This takes the view that it is subjective experience that is the stuff of reality and what we think of as being physical reality or matter is best understood as a complex of 'sensations' and that such sensations, including Locke's secondary qualities, were measurable and could therefore be studied objectively. So the study of physics is inseparable from psychology and the study of psychology inseparable from physics and the two together become 'psychophysics'.

One of the leading figures associated with this approach was the Austrian physicist, Ernst Mach (1838-1916). Mach traces his central idea back to a moment in his youth when, after having been very impressed at the age of fifteen by reading Kant's *Prolegomena to any future metaphysics*. 'the superfluity of the rôle played by "the thing in itself" abruptly dawned upon me. On a bright Summer day in the open air, the world with my ego suddenly appeared to me as *one* coherent mass of sensations, only more strongly coherent in my ego.'<sup>1</sup> (p.30, fn)

So the world should be understood exactly as it is experienced - as a complex of sensations - not as something that is in itself independent of those sensations and somehow produces them:

'For us the world does not consist of mysterious entities which by their interaction with another, equally mysterious entity, the ego, produce sensations, which alone are accessible. For us, colours, sounds, spaces, times are provisionally the ultimate elements whose given connections it is our business to investigate ...' (pp.29-30)

This did not inhibit scientific research. It just meant that what the physicist was analysing was sensations, not any other reality assumed to exist independently of the sensations, giving rise to sensations:

'Bodies do not produce sensations, but complexes of elements (complexes of sensations) make up bodies. If, to the physicist, bodies appear the real, abiding existences, while the "elements" are regarded merely as the evanescent, transitory appearance, the physicist forgets, in the assumption of such a view, that all bodies are but thought-symbols for complexes of elements (complexes of sensations). Here, too, the elements in question form the real, immediate and ultimate foundation which it is the task of physiological-physical {sic - PB, distinctly and deliberately not physiological-psychical} research to investigate.' (p.29)

Mach is not arguing that the world exists only in minds - therefore that the world when unobserved by a human mind subsists in an extra-human mind. Mach was an atheist. In his view our minds are simply places where elements that exist whether we exist or not are associated and experienced in a particular way:

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<sup>1</sup> Ernst Mach: *The Analysis of Sensations, and the relation of the physical to the psychical*, Chicago and London, Open Court Publishing Company, 1914. Mach's book was originally published in German in 1897 but was much revised in subsequent editions. I have used the 'Forgotten Books' facsimile reprint.

'I have the sensation green, signifies that the element green occurs in a given complex of other elements (sensations, memories). When I cease to have the sensation green, when I die, then the elements no longer occur in the ordinary familiar association. That is all. Only an ideal mental-economical unity, not a real unity, has ceased to exist. The ego is not a definite, unalterable, sharply-bound unity. None of these attributes are important; for all vary even within the sphere of individual life; in fact their alteration is even sought after by the individual. *Continuity* alone is important ... But continuity is only a means of preparing and conserving what is contained in the ego. The content, and not the ego, is the principle thing ...' (pp.23-4)

Mach's name survives as a measurement of sound<sup>2</sup> and also (by a process we may be able to explain when we come to Richard Dawkins' notion of 'memes') as a brand name for Gillette razor blades.

The reason I've started with him is that he was at the centre of a controversy that could be said to have been the springboard for the development of Soviet philosophy. The Soviet Union has a particular interest in this discussion because of course materialism was its basic obligatory philosophical idea. Taking 'religion' as being an ideology that binds a society together we could call it the basic 'religious' idea. But in the very early days of the Bolshevik tendency which came into existence in 1903, three of the seven editors of the leading Bolshevik paper proclaimed themselves to be admirers of Mach. In particular, Alexander Malinovsky, whose name in revolutionary politics was Alexander Bogdanov (1873-1928), wrote a three volume book outlining a complete philosophy which he called 'Empirio-Monism'.

The 'monism' in the name reflects the conviction that there is only one stuff in the world or at least only one stuff that can be the object of attention. The 'Empirio' refers to Empiricism, the ancient doctrine that we can only know what is given us by the senses. Mach called his philosophy 'Empirio-Criticism' and he was a frequent contributor to a journal called *The Monist*. Where Mach favoured the word 'sensation' to describe the only stuff of the universe, Bogdanov preferred 'experience'. The political attraction of the doctrine for Bogdanov was the view that reality is created through human experience, in particular by human labour. Science is not a matter of passively recording the characteristics of a given external world but of actively organising the chaos of our sensations or experience in the service of our own human interests. Bogdanov felt that he had strong support for this view from Marx, in particular the first of Marx's *Theses on Feuerbach*:

'The chief defect of all hitherto existing materialism - that of Feuerbach included - is that the thing, reality, sensuousness, is conceived only in the form of an object or of contemplation but not as human sensuous activity, practice, not subjectively ...' (my emphasis - PB).

So Marx is calling for a subjective, practical, active conception of the material 'thing'.

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<sup>2</sup> I originally had 'heat' but have been corrected by an old friend, Dermot Hogan.

## EVOLUTION - FROM NATURE TO MECHANICS

Mach wrote a reflection on 'mechanics' which argued that the whole history of human thought could be understood as a struggle with the chaos of sensations, an attempt to order it according to human needs, that is to say, to reduce the unpredictable and irregular to the predictable and regular, hence converting nature into mechanics. Bogdanov wrote two novels - *The Red Star* and *The Engineer Menni* - which envisage life on Mars as a Utopia in which, I quote 'Peace reigns among people, it is true, but not with nature: and there can be no peace with nature. It is such an enemy that even in its defeat it is still a threat.'<sup>3</sup> (p.92)

*Empirio-Monism* has not to my knowledge been published in English but in his later book, *The Philosophy of Living Experience*<sup>4</sup>, he defines 'matter' as 'resistance to effort' (p.45):

'If we found ourselves in a world where everything was arranged according to our wishes, without requiring any effort on our part, then we would perceive that world as immaterial.' (p.43) But 'all resistance presupposes something that experiences its resistance and a world in which there is nothing but matter would be no better than a walking stick with only one end.' (p.46)

With regard to the discoveries of scientific research that might seem to go beyond immediate sensory experience:

'for precise knowledge there is no need to understand that light is a wave-like movement of ether; it is sufficient to assert that certain mathematical formulas can be applied to the phenomenon of light which are consistent with formulas that could be inferred by a mechanic for the transmission of vibrations in solid, elastic bodies. This gives us a practical orientation towards light, and nothing more is needed.' (pp.140-141)

Bogdanov sees the Universe as 'an uninterrupted chain of development of forms that proceed along a path of struggle and reciprocal action from the lowest forms of organisation to the highest. Logically and in theory, this universal chain of progress would have originated in complete lack of organisation - pure chaos of the elements of the Universe. The highest level achieved up to the present is the human collective with its objective - regular organisation of experience, which it works out in its labour - world building.' (p.235)

Our direct perceptions are themselves symbols created by our sensory mechanism, but, even more obviously, our mathematical calculations, ideas of the constitution of the atom, of molecular structure etc are symbolic. Their value is that they 'work', they find practical applications, but they do not represent an absolute truth. Indeed, following the argument of both Mach and Bogdanov, far from bringing us closer to 'nature' - the world as it is independent of our perception of it - they

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<sup>3</sup> A. A. Bogdanov: *L'Etoile Rouge*, Lausanne, L'Age d'Homme, 1985. There is an English translation - *The Red Star*, Indiana University Press, 1984.

<sup>4</sup> Alexander Bogdanov: *The Philosophy of Living Experience*, translated, edited and introduced by David Rowley, Leiden, Boston (Brill), 2016. Available on the internet at [https://monoskop.org/Alexander\\_Bogdanov](https://monoskop.org/Alexander_Bogdanov). The book was originally published in St Petersburg in 1913, republished in Moscow, 1920 and 1923.

represent a struggle with nature, an ordering, a reduction to regular repeatable formulae of what is fundamentally disordered and unrepeatable (a view of 'nature' or 'matter' that in turn echoes the classical philosophical idea of matter as 'hyle' - chaos).

## BEFORE CONSCIOUSNESS

Bogdanov was attacked savagely by the man usually regarded as the pioneer of Marxist philosophy in the Russian Empire, Georgi Plekhanov, in his little book *Materialismus Militans*<sup>5</sup>, arguing that there is a real material world, that it exists independently of the human mind, that it is reflected more or less accurately in the human mind and that it has its own order which can be understood by the human mind. This was a continuation of a long struggle on Plekhanov's part against various attempts to combine Marxism with the other philosophical tendencies of the time, in particular 'neo-Kantianism'. Plekhanov was aligned with the 'Menshevik' wing of the Russian Social Democratic movement and for Lenin it was embarrassing that so many of the philosophical innovators should have been attracted to Bolshevism. The result was *Materialism and Empirio-Criticism*<sup>6</sup>, actually Lenin's longest book, the fruit of a year's concentrated study and destined, of course, to become virtually the Bible for philosophy in the Soviet Union. It was probably directed as much against Plekhanov as against Bogdanov and his friends, as Lenin needed to wrest the leadership in philosophical matters out of Plekhanov's Menshevik hands. It is a more interesting and impressive book than Plekhanov's largely because although, like Plekhanov, he indulges in intemperate abuse of his enemies, he does give substantial extracts from their writings. Written from a clearly defined point of view and with an obvious political polemical intent, it still gives a useful and wide-ranging account of the intellectual atmosphere of the time. One of the first writers on the Bogdanov-Lenin controversy, Karl Ballestrem, describes it as 'a philosophical catastrophe'.<sup>7</sup> I cannot agree. I think it is a powerful defence of the capacity of the human mind through its sensations to reach objective truths about the world assumed to be external to our consciousness of it, a powerful defense of the way in which most of us experience and interact with the world ('naive realism' as it is known to the philosophers). I think he does detect many of the weaknesses and inconsistencies of the Machist attempt to construct a half way house between pure Idealism and pure Materialism. As myself a pure Idealist I exult in it and feel it deserves more attention than I am giving it here.

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<sup>5</sup> G.V.Plekhanov: *Materialismus Militans*, Moscow, Progress Publishers, 1973. The book was originally published as three separate articles in 1908 and 1910.

<sup>6</sup> V.I.Lenin: *Materialism and Empirio-criticism - critical reflections on a reactionary philosophy*, Moscow, Progress Publishers, 1970. The book, written in 1908, was first published in 1909.

<sup>7</sup> Karl G.Ballestrem: 'Lenin and Bogdanov', *Studies in Soviet Thought*, Vol 9, No 4 (1969), pp.283-310. 'Philosophical catastrophe' on p.283. Of course he is not just thinking of the book's own merits but of its subsequent use in Soviet philosophy.

Both Plekhanov and Lenin attach great importance to the existence of the world prior to the appearance of human beings capable of experiencing it, capable of sensation. Lenin recognises that this does not pose a problem for a consistent idealist such as Hegel: 'Hegel's absolute idealism is reconcilable with the existence of earth, nature and the physical universe without man, since nature is regarded as the "other being" of the absolute idea' (p.60). But it does represent a problem for Bogdanov, who claims to be a materialist but who has still declared that experience or sensation is the stuff of reality. Bogdanov said in reply:

'When G. Plekhanov convinces us that 'our planet' existed earlier than humanity, he of course has in mind the earth, its specific position in the solar system, its subordination to the laws of inertia, gravity, etc. But what does it mean if one says that the earth is, and always has been, subordinated, let us say, to the law of gravity? According to this law, the attraction of bodies is proportional to their masses and inversely proportional to the distance between them. It is clear that the action of this law presupposes the measurement of mass and distance using, moreover, long-standing, exact measures which were worked out by consensus among people. This presupposes the algebraic operations of multiplication, raising to the square, division, which are carried out, clearly, by people. Throw out the 'social practice' of measurement – the establishment of units of measures, calculations, etc. – and nothing remains of the law of gravity. So if it is said that the law of gravity operated before there were human beings, then this is not the same as saying that it is independent of human beings.

'What we have here is simply conditional transference of our activity beyond its historical bounds. If humanity existed millions of years ago, and if it had utilised the same methods of measurement and calculation as we do, then it would have been able to comprehend astronomical phenomena with the help of such a law.

'If we completely abstract ourselves from humanity and its methods of labour and cognition, then there would be no physical experience, no world of regular phenomena. There would remain only the elemental spontaneity of the universe, which would know no laws, since it could not measure, calculate, or communicate. In order to understand it and to master it, we are obliged once again to introduce humanity, which would exert its efforts to struggle with that spontaneity, to know it, change it, and organise it. Then, once again, we would obtain physical experience, with its objective – i.e. socially worked-out and socially useful – regularity.' (pp.218-9)

Interestingly, much the same idea is expressed by Heidegger in *Being and Time*<sup>8</sup> (Dasein being Heidegger's term for human reality):

"There is truth only insofar as Dasein is and as long as it is. Beings are discovered only when Dasein is and only as long as Dasein is are they disclosed. Newton's laws, the law of contradiction, and any truth whatsoever, are true only so long as Dasein is. Before there was any Dasein, there

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<sup>8</sup> Martin Heidegger: *Being and Time*, translated by Joan Stambaugh, Albany (State University of New York Press) 2010. Originally published in 1927. The two page references refer to the English translation and the standard German edition.

was no truth; nor will there be any after Dasein is no more ... Before Newton's laws were discovered, they were not "true". From this it does not follow that they were false ... The laws became true through Newton, through them beings in themselves became accessible for Dasein ... That there are "eternal truths" will not be adequately proven until it is successfully demonstrated that Dasein has been and will be for all eternity. As long as this proof is lacking, the statement remains a fanciful assertion which does not gain legitimacy by being generally "believed" by philosophers ...' (p.217/227)

But we are left wondering why Bogdanov (and Mach) were so anxious to dissociate themselves from Kant's 'thing in itself' which, one would have thought, is the only possible option for anyone who believes in the existence of matter distinct from its existence in consciousness (or Consciousness). The 'thing in itself' is surely the only means by which the existence of matter can be defended against the powerful idealist arguments of George Berkeley.<sup>9</sup> And again one wonders why Bogdanov and Mach should be so anxious to distance themselves from Berkeley. Their understanding of the object, the perceived body, as a 'complex of sensations' is, as Lenin joyfully proves, pure Berkeley. The thing in itself saves them (should they wish to be saved) from Idealism, which presupposes that consciousness is something other than the consciousness of individuals. It may be noted that the founder of the school of psycho-physics, Gustav Fechner, could be called an idealist, taking idealism as a form of epiphenomenalism in which matter is an epiphenomenon of consciousness, the reverse of the definition I gave earlier of materialism. The only book of his that, to my knowledge, has been translated into English is an early, non-scientific text called *The Little Book of life after death*<sup>10</sup>, published with an introduction by the American philosopher William James whom we shall encounter again shortly. According to James: 'God, for Fechner, is the totalised consciousness of the whole universe, of which the Earth's consciousness forms an element, just as in turn my human consciousness and yours form elements of the whole earth's consciousness.' (p.xvii) Although this could be called 'panpsychism' we will see shortly that it is very different from the panpsychism that has recently come to attention through the work of Galen Strawson.

## CONSCIOUSNESS AS A REFLEX ACTION

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<sup>9</sup> The dominant philosophical movement of the time was 'Neo-Kantian' and both writers were perhaps anxious to distance themselves from it. David Rowley tells us that Bogdanov initially developed his Empiriomonism in arguments with Nikolai Berdyaev (subsequently to be known as a leading Christian philosopher) when they were both exiles in Vologda at the turn of the century. Berdyaev, according to Rowley, was trying to develop a moral justification for revolutionary activity on the basis of Kant's idea of Justice as an *a priori* moral category. Bogdanov was attempting to develop an empirical theory of knowledge that excluded *a priori* categories. Following this account, then, Empiriomonism began as a reaction against Kant. David Rowley: 'Bogdanov and Lenin - epistemology and revolution', *Studies in East European Thought*, Vol 46, No 1 (March 1996), pp.1-19.

<sup>10</sup> Gustav Theodor Fechner: *The Little Book of Life after Death*, Boston (Little, Brown and Company) 1904. Originally published in German in 1836.



But the main problem that concerns us here is not a problem of Idealism but of Materialism, and neither by Lenin nor by Plekhanov is it properly addressed. Empirio-Criticism was basically an attempt to overcome the dualism of matter and consciousness by dissolving the material world into consciousness. Plekhanov and Lenin wished to re-assert the integrity of the material world. But they did not challenge, or attempt to explain, the integrity of the conscious self that observes the material world, even if they studiously avoid calling it 'soul' or 'spirit'. Implicitly therefore the dualism of matter and consciousness (or, if you prefer, 'spirit') was left intact - the problem that empirio-critics were attempting to address was shrugged away. Materialism, like Mach's Empirio-Criticism and Bogdanov's Empirio-Monism, is a monist theory. But if matter, independent of how we experience it, is the only stuff in the Universe, then how do we account for experience? Obviously in some way it is generated by the physical brain. Neurologists will tell us that subjective experiences are accompanied by perceptible events in different parts of the brain - 'neurons firing'. Yet subjective experience as a product of neurons firing seems to be an effect that is radically different from the cause. And the problem is immediately posed: if subjective thoughts and feelings are a pure product of neurons firing, what is the impulse that causes the neurons to fire?

Here, to continue with our discussion of materialism in the Soviet Union, it may be worth remembering that Ivan Pavlov (1849-1936) continued to work in Russia after the revolution. Pavlov's research on dogs encouraged a theory of the mind function as an automatic reflex reaction to external stimuli. In an address in 1925 to a congress celebrating the work of the Russian chemist Dmitri Mendeleev (1834-1907), discoverer of the periodic table, Trotsky, in trouble but not yet finally deprived of power and influence, said<sup>11</sup>:

'Psychology is similarly related to physiology. It is not for nothing that physiology is called the applied chemistry of living organisms. Just as there exists no special physiological force [he is referring to the "special force" Vitalists thought was necessary to explain life - PB] so it is equally true that scientific, ie materialist psychology has no need of a mystic force - soul - to explain phenomena in its field, but finds them reducible in the final analysis into physiological phenomena. This is the school of the academician Pavlov; it views the so-called soul as a complex system of conditioned reflexes which in their turn find, through the potent stratum of chemistry, their root in the subsoil of mechanics and physics.'

The same is true of 'society':

'Society is a product of the development of primary matter, like the earth's crust or the amoeba. In this manner, scientific thought with its methods cuts like a diamond drill through the complex phenomena of social ideology to the bed-rock of matter, its compound elements, its atoms with their physical and mechanical properties.'

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<sup>11</sup> Leon Trotsky: 'Dialectical Materialism and Science', talk given on 17 September 1925, *New International*, Vol 6, No.1, February 1940, pp.24-31. Available through the Trotsky page on [www.marxists.org](http://www.marxists.org). I have it from this source and can't give precise page references.

The conditioned reflex certainly provides a means of explaining the relation between a purely material, physical or chemical, force and something that could be called 'behaviour'. But it still doesn't seem to account for actual subjective experience. Pavlov was explicitly following the intuition of René Descartes in the seventeenth century who explained all animal behaviour in terms of reflexes and concluded that it could all be accounted for without positing any such thing as conscious awareness. For Descartes, conscious awareness was a property of the soul which existed uniquely in human beings and hence he has been taken as the whipping boy, one might say, for 'Cartesian dualism' - the view that there are two sorts of stuff in the Universe, spirit and matter. But his real innovation was, more than anyone before him, to explain behaviour in materialist terms as a purely mechanical or automatic response to external stimuli transmitted through the nervous system. A hard materialist view would simply extend this stimulus-response mechanism to the whole of human behaviour and eliminate or marginalise the importance of subjective awareness.

## CONSCIOUSNESS AND EVOLUTION

In our own time, one of the most prominent spokesmen for materialism - understood here as the view that consciousness is an epiphenomenon of matter - is Daniel Dennett, author of the ambitiously titled *Consciousness Explained*.<sup>12</sup> Dennett is closely associated with Richard Dawkins and with Dawkins' central thesis of the 'selfish gene' - the idea that the driving force of evolution towards ever more complex life forms is the drive of a 'replicator' to survive and reproduce itself. The term 'gene' to describe a replicator is a term of convenience. More precisely Dawkins would talk of 'any stretch of DNA beginning and ending at arbitrarily chosen points on the chromosome' (*The Extended Phenotype*<sup>13</sup>, p.87). Dawkins argues against the way in which most people probably understand 'natural selection' or 'survival of the fittest' - that it is the adaptations of whole organisms or even of whole species that drive the process. For Dawkins 'Evolution is the external and visible manifestation of the differential survival of alternative *replicators*. Genes are replicators: organisms and groups of organisms are best not regarded as replicators. They are *vehicles* in which replicators survive at the expense of other replicators. Vehicle selection is the process by which some vehicles are more successful than other vehicles in ensuring the survival of their replicators.' (p.82)

In *The Selfish Gene*<sup>14</sup> he provocatively describes the whole organisms, ourselves included, as 'lumbering robots' (p.19) created by the replicators to ensure their own survival and reproduction. This occurs through the Darwinian process of natural selection in which the replicators band

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<sup>12</sup> Daniel C. Dennett: *Consciousness Explained*, Penguin Books, 1993. First published by Little, Brown and Company, 1991.

<sup>13</sup> Richard Dawkins: *The Extended Phenotype*, Oxford University Press, 2008. First published 1982, revised and extended in 1999.

<sup>14</sup> Richard Dawkins: *The Selfish Gene*, Oxford University Press, 2006. First published in 1976.

together initially into small, single cell, life forms. Mutations that occur arbitrarily are passed on to the copies (copying themselves is what makes replicators replicators). If they are harmful to the life form that serves as their vehicle then it will be at a disadvantage and may die out; but if they are beneficial the life form is at an advantage and may flourish. A whole chain of such adaptations occurring over billions of years eventually produces us. His own account is of course much more convincing than my summary!

We have seen Bogdanov, the disciple of Mach, arguing that the Universe is a ceaseless drive from chaos to ever higher forms of organisation. Which suggests that Nature (since Bogdanov certainly believes that Nature precedes the emergence of human brains) has an end in view - to overcome its own chaos - and has fashioned human minds as a means of furthering this aim. Such a view dovetails with the Marxist view of a continual progress towards a Socialist future. But the Marxist view is dependent on the 'dialectic' as a motor for change, for movement in a progressive direction, borrowed from Hegel, a process originally designed to show the progress of philosophical discussion - thesis, antithesis, synthesis. In Hegel this use of an intellectual method as an engine for progress makes sense since he is an Idealist and sees Mind as the fundamental reality, but it is difficult to reconcile with a thoroughgoing materialism since matter by definition cannot have needs or formulate ends (and according to the Second Law of Thermodynamics it has a perpetual tendency towards decay). Dawkins, like Bogdanov, sees evolution as a drive towards ever greater organisation and complexity but with his 'selfish gene' he proposes a motor for the process which does not imply any sort of teleology, any preconceived end that would in turn imply some sort of transcendental consciousness. To quote Susan Blackmore: 'Put into Richard Dawkins's language, if there is a replicator that makes imperfect copies of itself only some of which survive, then evolution simply must occur.'<sup>15</sup> Nonetheless it still seems to me that something resembling consciousness is implied in the 'will' of the replicator to survive and to replicate itself, not to mention the immense ingenuity required to develop such useful vehicles as ourselves.

## DOES CONSCIOUSNESS EXIST?

Daniel Dennett was trained as a philosopher and studied in Oxford under Gilbert Ryle. Ryle in 1949 published a book called *The Concept of Mind*<sup>16</sup> in which he famously coined the phrase 'the ghost in the machine' to ridicule the body/soul dualism, the idea that there is, located somewhere in the material body, an immaterial soul. But Ryle, so far as I can see, belongs in the line of the 'empiricist' philosophers for whom sensation or experience and the reality that provoked the sensation/experience are simply one and the same thing understood in two different ways. There aren't two things - an object existing in the external world (Descartes' *res extensa*) and its reflection existing in a mind (Descartes' *res cogitans*). That would be dualism. Ryle, as Dennett remarks in an

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<sup>15</sup> Susan Blackmore: *The Meme Machine*, Oxford University Press, 2000. First published 1999, p. 10

<sup>16</sup> Gilbert Ryle: *The Concept of Mind*, London (Hutchinson's Universal Library) 1951. I have it in an ebook without page references.

introduction to the Penguin reissue of *the Concept of Mind*, declines to mention any other writer working in the field: 'One of the idiosyncrasies of the book is that there are no footnotes and no references. No thinker living in 1949 is mentioned or quoted anywhere in its pages, in spite of the fact—perhaps because of the fact?—that those rollicking pages often purport to be demolitions of contemporary confusions. The only person from the twentieth century who is mentioned even in passing is Freud, and Ryle has nothing controversial to say about Freudian ideas.' (para 6)<sup>17</sup>

But Ryle nonetheless follows in a line of English language empiricist philosophers reflecting on the mind and its place in nature, to coin a phrase. Mention might be made here of the American 'pragmatic' philosopher, William James and of Bertrand Russell. In an essay called *Does Consciousness Exist?*<sup>18</sup> James denies the existence of consciousness, or at least of an individual consciousness. Starting from the Machian view 'that there is one primal stuff or material world, a stuff of which everything is composed' and that this stuff can be called 'pure experience' he goes on:

'To consciousness as such nothing can happen for, timeless itself, it is only a witness of happenings in time in which it plays no part. It is, in a word, but the logical correlative of "content" on an Experience of which the peculiarity is that *fact comes to light* in it, that *awareness of content* takes place. Consciousness as such is entirely impersonal.'

He says (I am paraphrasing slightly) 'a given undivided portion of experience, taken in one context of associates, plays the part of a knower, is a state of mind, of "consciousness"; while in a different context, the same undivided bit of experience plays the part of a thing known, of an objective "content". In a word, in one group it figures as a thought, in another group as a thing.'

James coined the phrase 'stream of consciousness' but by it he meant that consciousness is not a distinct place in which things happen; it is the succession of things that are happening. It is not a vehicle carrying a content. It is the content. James's thought was continued by Bertrand Russell in his *The Analysis of Mind*<sup>19</sup>:

'It is especially sensation, I think, which is considered by those realists who retain only the object. Their views, which are chiefly held in America, are in large measure derived from William James and before going further it will be well to consider the revolutionary doctrine which he advocated. I believe this doctrine contains important new truth and what I shall have to say will be in a considerable measure inspired by it. This is explicitly the case with Mach's *Analysis of Sensation*, a book of fundamental importance in the present connection. William James's view was first set forth in an essay called *Does Consciousness Exist?*' (pp.21-2)

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<sup>17</sup> Daniel C. Dennett: 'Re-Introducing The Concept of Mind' in the Penguin 2000 edition of *The Concept of Mind*. I have it from the internet and can only give paragraph not page references.

<sup>18</sup> William James: 'Does "Consciousness" Exist?', *Journal of Philosophy, Psychology, and Scientific Methods*, No 1, 477-491, 1904. I have it from the internet at the rather remarkable Classics in the History of Psychology site - psychclassics.yorku.ca so I cannot give page references.

<sup>19</sup> Bertrand Russell: *The Analysis of Mind*, London (George Allen and Unwin) 1922

After summarising James's argument he refers to 'other modern tendencies, also hostile to "consciousness"' notably the behaviourists:

'in their observation of the behaviour of human being, they have not so far found any evidence of thought. True, we talk a great deal, and imagine that in so doing we are showing that we can think, but behaviourists say that the talk they have to listen to can be explained without supposing that people think. Where you might expect a chapter on "thought processes" you come instead upon a chapter on "the language habit." It is humiliating to find how terribly adequate this hypothesis turns out to be.' (pp.26-7)

Which brings us back to Ryle who, I think, follows Russell quite closely. Russell had said (p.6):

'The stuff of which the world of our experience is composed is, in my belief, neither mind nor matter but something more primitive than either. Both mind and matter seem to be composite and the stuff of which they are compounded lies in a sense between the two, in a sense above them both, like a common denominator.' (pp.10-11)

And Ryle says:

'It will also follow that both Idealism and Materialism are answers to an improper question. The "reduction" of the material world to mental states and processes, as well as the "reduction" of mental states and processes to physical states and processes, presupposes the legitimacy of the disjunction. Either there exist minds or there exist bodies but not both. It would be like saying, Either she bought a left hand and a right hand glove, or she bought a pair of gloves, but not both.'

I confess, though, though, that I find Ryle difficult to follow despite the folksy avuncular style in which *The Concept of Mind* is written. In saying that both mental states and processes and physical states and processes exist and are complementary he is saying that they both exist but what is the 'mental state' if it isn't 'the ghost in the machine'. Throughout *The Concept of Mind* Ryle seems to be arguing against the existence of an internal mental life and asserting what might appear to be a purely behaviourist approach - we are what our bodies do. he says, for example:

'Overt intelligent performances are not clues to the workings of minds; they are those workings. Boswell described Johnson's mind when he described how he wrote, talked, ate, fidgeted and fumed. His description was, of course, incomplete, since there were notoriously some thoughts which Johnson kept carefully to himself and there must have been many dreams, daydreams and silent babblings which only Johnson could have recorded and only a James Joyce would wish him to have recorded.'

Yet even if Samuel Johnson's internal stream of consciousness was a trivial inconsequential thing compared to his fidgeting and fuming, it still existed and still has to be accounted for.

REDUCING THE EMPIRE OF CONSCIOUSNESS - DENNETT

This is the task that Dennett sets himself. Dennett's introduction to the Penguin reissue of *The Concept of Mind*, praises it as 'one of the most original and influential - if still hugely underestimated - works of philosophy of the century.' (para 3) But he complains nonetheless that 'It seems to have been a point of unexamined faith for Ryle that whatever the scientists might learn about mechanisms of the brain, however necessary these were in grounding our behavioural dispositions, they would shed scant light on the questions that interested him.' (para 9) Indeed, it could be said that however much philosophers may aspire to being hard-nosed materialists there is within the discipline an intrinsic bias towards subjective experience since its chief concern has always been the life of the mind - the very thing materialism finds difficult. Ryle as a philosopher seems to be engaged in the quixotic adventure of observing his own mind in order to establish that there is no such thing in his mind as an observer. Dennett determinedly goes beyond the discipline of philosophy into disciplines such as neurology and artificial intelligence. But he is essentially continuing Ryle's assault on the ghost in the machine, which he calls 'the Cartesian observer', a little self that observes and co-ordinates all the other activities that are going on within the brain. He proposes what he calls a 'multiple drafts model' by which large numbers of essentially reflex operations take place processing the chaos of sensations received by the senses: 'We don't directly experience what happens on our retinas, in our ears, on the surface of our skin. What we actually experience is the product of many processes of interpretation - editorial processes, in effect. They take in relatively raw and one-sided representations and yield collated, revised, enhanced representations.' (p.126) They remain separate but, like self replicating genes, they band together: 'When a portion of the world comes in this way to compose a skein of narratives, that portion of the world is an observer. That is what it is for there to be an observer in the world, a something it is like something to be.' (p.137).

The phrase 'a something it is like something to be' is a reference to the famous article by Thomas Nagel, *What is it like to be a bat?*<sup>20</sup>, which argues that what is distinctive about consciousness is the feeling of what it is like to be something. Dennett concludes: 'The idea that consciousness is a mode of action of the brain rather than a subsection of the brain has much to recommend it.' (p. 166) And he explains the evolution of this strange object through the need for the 'phenotype' (that is the manifest extension of the selfish gene) - to adapt to unforeseen circumstances: 'All brains are, in essence, anticipation machines.' (p177)

We might feel though that the process by which Dennett converts 'a portion of the world' into 'an observer' owes more to his literary skill than to any scientific method (perhaps in this respect resembling Ryle's pair of gloves or Bogdanov's two ends of a walking stick). Dennett admits that he hasn't really succeeded in explaining consciousness though following after Ryle he might have got closer to it. Again in the introduction to Ryle he says:

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<sup>20</sup> Thomas Nagel: 'What Is It Like to be a Bat?' *The Philosophical Review* LXXXIII, 4, October 1974, pp. 435-50.

'In short, what Ryle has succeeded in doing is to reduce the empire of the mind over a considerable area. This is an important achievement, and one that is brilliantly effected, but it does not fulfill Ryle's professed intention of entirely exorcizing the ghost in the machine. The movements of the ghost have been curtailed but it still walks, and some of us are still haunted by it.' (para 8)

#### ENLARGING THE EMPIRE OF CONSCIOUSNESS - STRAWSON

One of those who may still be haunted by it is Galen Strawson. Strawson, who has advanced the cause of 'panpsychism' (that consciousness must be understood as an intrinsic property of matter) may be one of the people Dennett has in mind when he says: 'the defenders of the ghost and its kin today are ever more on the defensive (though their sallies, from their ever more precarious toehold in common intuition, have become desperately extravagant)'. (para 8) Strawson in his turn<sup>21</sup> complains that 'Dennett is a prime example' of those who 'are so in thrall to the fundamental intuition of dualism, the intuition that the experiential and the physical are wholly and irreconcilably different, that they are prepared to deny the existence of experience, more or less overtly, because they are committed to physicalism, or physicism.' (p.5)

'Physicalism' is Strawson's term for materialism. He maintains that he is himself a physicalist. He says 'I am happy to say, along with many other physicalists, that experience is "really just neurons firing", at least in the case of biological organisms like ourselves' but 'there is a lot more to neurons than physics and neurophysics record (or can record).' (p.7)

He complains that for Dennett, physical reality, or matter, is confined to what can be understood through the laws of physics, ie that it is non-experiential. Strawson calls this physicism. Dennett, he says, claims to recognise the existence of consciousness ('his term for experience') but 'In the case of experience, to say that it exists but is really just something whose nature can be fully specified in wholly non-experiential, functional terms, is to deny its existence ... this particular denial is the strangest thing that has ever happened in the whole history of modern thought.' (p.5)

Strawson's dilemma is that, like everyone else we have been discussing, he wishes to consider himself a 'monist' not a 'dualist', yet he believes that 'experience' is radically other than non-experiential matter. He cannot believe that it could have emerged out of non-experiential matter:

'You can get liquidity from non-liquid molecules as easily as you can get a cricket team from eleven things that are not cricket teams. In God's physics [I must stress that Strawson, as determinedly and aggressively as Dawkins, doesn't believe in God - PB], it would have to be just as plain how you get experiential phenomena from wholly non-experiential phenomena. But this is what boggles the human mind' (p.15). 'The experiential/non-experiential divide, assuming it exists at

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<sup>21</sup> Galen Strawson et al: *Consciousness and Its Place in Nature - does physicalism entail panpsychism?*, Exeter and Charlottesville (Imprint Academic) 2006.

all, is the most fundamental divide in nature (the only way it can fail to exist is for there to be nothing non-experiential in nature)' (pp.17-18).

Hence he argues for 'panpsychism' - that all matter must be in some sense 'experiential'. This does not mean, however, that he attributes experience to stones, tables and mountains: 'I don't believe this for a moment.' (p.26) Human consciousness hasn't emerged out of stones, tables and mountains but out of the particles of matter human beings share with stones, tables and mountains - electrons, protons, neutrons and the like: 'I believe that one could in principle create a normally experiencing human being out of a piano. All one would have to do would be to arrange a sufficient number of the piano's constituent electrons, protons and neutrons in the way in which they are ordinarily arranged in a normal living human being. Experience is as much a physical phenomenon as electric charge.' (p.187)

I'm not sure how (or if) Strawson envisages the subjective experience of an electron, proton or neutron. He uses the term SESMET (subject of experience that is a single mental thing, p.247) and favours a principle he calls 'smallism', saying 'the causal effect of anything on anything will have an experiential aspect, will indeed be experiential, and that is why even microsubjects - ultimate sesmets - may be said to have sensation and may even be said to have intentionality ...' hence 'there is no more difficulty in the idea that ultimate sesmets have sensation and intentionality and represent things than there is in the idea that one particle exerts attractive or repulsive force on another - for those are in fact the same thing.' (p.260)

I don't entirely understand why Strawson on the one hand and Dennett and Dawkins on the other should be quarrelling with each other (though from what I've seen the polemic is mainly on Strawson's side). It seems obvious that Strawson's panpsychism would remove the most obvious objection to Dawkins' 'selfish gene' - that the replicator, in wanting to survive and reproduce itself, is behaving in a way we normally associate with consciousness. The addition of the sesmet could only facilitate the evolutionary scheme proposed by Dawkins and its extension into the realm of consciousness proposed by Dennett.

#### THE MEME AND THE ULTIMATE SESMET

Having extended that, I think, very useful idea to the atheists, I think I have to finish here, but I do so very reluctantly because I haven't discussed what seems to me to be one of the most interesting ideas - possibly the most novel, possibly the only novel idea - advanced in the recent literature, Richard Dawkins's idea, taken up enthusiastically by Dennett, of 'memes' - memorable, copiable ideas that lodge in the mind and act as replicators, multiplying themselves in numerous different minds through conversation, words on a page, TV chat shows. Like genes they act for their own sake quite independently of the needs of their vehicles - ourselves - and, also like genes, some of them happen to be good for us (evolution by natural selection for example) and some of them bad



(perhaps in Dawkins's eyes the doctrine of the Trinity would be an example). According to Dennett:

'The haven all memes depend on reaching is the human mind, but a human mind is itself an artefact created when memes restructure a human brain in order to make it a better habitat for memes ...' (*Consciousness Explained*, p.206)

Hence:

'Human consciousness is itself a huge complex of memes (or more exactly meme-effects in brains)' (p.210)

and

'Thousands of memes, mostly borne by language but also by wordless "images" and other data structures, take up residence in an individual brain, shaping its tendencies and thereby turning it into a mind.' (p.254)

And another idea I would like to discuss at greater length is one thrown out by Strawson which is that instead of talking about lots of small units we might think in terms of a single large unit of experience in which we all, together with everything else in the material/physical world, participate: 'Might we in the end have to posit a universe-wide sesmet in order to posit the existence of many sesmets in a dimension that allows for their interaction? I've been assuming that the answer is No, but I would not be much troubled of it were Yes ... because a universe wide sesmet would have no more to do with dogmatic religion than the view that there is a single universe ...' (p.260)

Of course, as an adherent of dogmatic religion, I find the idea of a single universe-wide sesmet in which everything lives and moves and has its being very attractive; and the first thought that occurred to me when I came across the idea of memes was that the subjective experience it suggests - the feeling that the mind is full of forces that are pursuing an agenda of their own, not anything we might want or need ourselves - rather resembles the traditional Christian idea of a mind that is a battleground between angels and demons. I will therefore end with an extract from what might be called a poem on the struggle between the memes and the ghost in the machine, René Daumal's *Holy War*<sup>22</sup>, written at the time of the 1939 war:

'I shall try to speak then of the holy war.

May it break out and continue without truce! Now and again it takes fire, but never for long. At the first small hint of victory, I flatter myself that I've won, and I play the part of the generous victor and come to terms with the enemy. There are traitors in the house, but they have the look of friends and it would be so unpleasant to unmask them! They have their place in the chimney

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<sup>22</sup> René Daumal: *La Guerre Sainte, suivi de Les dernières paroles du poète*, Eds Gallimard, 1990, p.202. Originally published in the review *La Fontaine*, 1940. This translation, by D.M.Dooling, obtained off the internet at [www.gurdjieff.org/daumal1.htm](http://www.gurdjieff.org/daumal1.htm)

corner, their armchairs and their slippers; they come in when I'm drowsy, offering me a compliment, or a funny or exciting story, or flowers and goodies—sometimes a fine hat with feathers. They speak in the first person, and it's my voice I think I'm hearing, my voice in which I'm speaking: "I am ... , I know ... , I wish ... " But it's all lies! Lies grafted on my flesh, abscesses screaming at me: "Don't slaughter us, we're of the same blood!"—pustules whining: "We are your greatest treasure, your only good feature; go on feeding us, it doesn't cost all that much!"

And there are so many of them; and they are charming, they are pathetic, they are arrogant, they practice blackmail, they band together ... but they are barbarians who respect nothing—nothing that is true, I mean, because they cringe in front of everything else and are tied in knots with respect. It's thanks to their ideas that I wear my mask; they take possession of everything, including the keys to the costume wardrobe. They tell me: "We'll dress you; how could you ever present yourself properly in the great world without us?" But oh! It would be better to go naked as a grub!