REGAINING CONSCIOUSNESS

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ABSTRACT: This paper draws on the central ideas of John Dewey's 'pragmatic technology' – as explored by Larry Hickman in his book of that name published in 1992, and, secondly, on the understanding that reality can be understood to be 'natural but not naturalizable' (Margolis, 2002). It thus takes issue with the 'naturalizing' assumptions (specifically the 'causal closure of physics') which deny any initiating role for the mind, currently prevalent within biologist understandings of cognitive science, Rortyan neo-pragmatism, and interpretations of the future role of Artificial Intelligence. I argue both that any attempt to resolve the 'mind-body problem' in naturalizing terms is logically untenable in terms of Dewey's pragmatic 'tools of enquiry', and further that the ongoing attempts to resolve/ discuss the problem while ignoring this impasse, have resulted in some significant negative consequences within the real world. The paper acknowledges more recent work on consciousness within the pragmatist tradition, but argues that this is either compatible with Dewey's understanding of body-mind, and thus widens the argument without changing it, or else it differs in ways which may be incompatible with the arguments of the paper, which seek to engage with dominant thought systems *outside* of pragmatism. I argue that a relativist stance will disallow this wider engagement. The paper concludes with a discussion of current arguments concerning alternative 'natural', immaterial (and thus not physical) approaches to understanding consciousness.

Keywords: pragmatic technology; consciousness; naturalism; relativism

Introduction

According to biological determinist thinking in cognitive science, 'however complex the connectivity, the mind is just chemistry and physics' (Plotkin, 1998:98) and in Rortyan neo-pragmatism: 'Physicalism is probably right in saying that we shall … be able to predict every movement of a person's body (including those of his larynx and his writing hand) by reference to microstructures in his body' (Rorty,1980: 354) – that is, the mind and the body are both 'naturalizable', the mind has no independent initiating capability, and the discussion is locked into this constrictive materialist framework. My central question is then 'but what if the mind is *not* material, and is therefore *not* definable in terms of (Newtonian) chemistry and physics?' It seems we must then look for an alternative philosophical method, able to accommodate an immaterial mind and consciousness along with a material body – we must, in other words, seek an answer which is 'natural but not naturalizable'.

Drawing on Dewey's pragmatic technology I argue that any solution to the problem in its current form fails as 'the appropriate transformation of a problematic situation by means of [intelligent] instrumentalities of enquiry, whatever form those instrumentalities may take' (Hickman, 1992: 45). Dewey's all-encompassing concept of 'technology', developed from his earlier ideas of the significance of 'experiment' in reaching the truth, achieving consensus, and thus resolving 'problematic situations', provides a dynamic conceptual framework within which to assess human endeavor and advance very widely. His 'instrumentalities' are the 'tools of enquiry', his 'technology', and his philosophical 'method' as the 'criterion for theory selection'. [It is interesting to note that in philosophy Nietzsche believed that 'The most valuable insights are methods' (Nietzsche, 1901)]. This 'technology' is the method I employ in the arguments which follow, while my additional, and equally important, concern is with the more often ignored situation of *inappropriate* tools or 'technologies' of inquiry. Concerning these Hickman explains Dewey's position as follows:

> When what is commonly called technology fails to be intelligent it does not, strictly speaking, deserve the name 'technology'. It should instead be termed repetition of habitual behavior, acquiescence to the temptation of personal gain in economic or political spheres, or perhaps even laziness or stupidity (Hickman, 1992: 11-12).

I hope to show that the tools of enquiry employed to discuss/ resolve the mind-body problem in its present 'naturalizing' incarnation do 'fail to be intelligent' – that they can be shown to be inappropriate, and that they may be seen to fall very neatly into the categories of failure identified above. But first we should remember that Dewey

himself saw no distinction between the mind and body – they were a single concept, 'body-mind'. Also, he saw no issue arising from the fact that the mind is 'not physical' (Hickman, 1992: 44). It has only been others, from Rene Descartes to the present, who have been so concerned by this issue – and, I believe, with some quite serious unintended consequences.

My exploration starts with the question: 'if successful tools of enquiry – from the sticks selected by Neanderthals, to the mathematics and physics required to discover quantum mechanics – are selected on the grounds of their known suitability for solving a particular problem (known because reason and prior experience point clearly in that direction) what tool can be selected to enable productive enquiry into the relationship between body and mind, when we are endeavoring, more insistently than ever, to rely on the limitations of the 'causal closure of physics'? *Mechanisms* of mind are extensively and increasingly understood, but intelligence and consciousness are not. We can operate brilliantly within the physical sphere, but we cannot initiate the life force of, for instance, the stem cell, nor can we examine consciousness in terms of genetic codes, as their discoverers, Watson and Crick, emphasized that such coding has no handle on consciousness (although Watson reneged somewhat on this concession later (Lewontin, 2000:147)). In fact 'Genetic material is quite inert' (Lewontin, 2000:141). 'It is not self-reproducing…it makes nothing and…organisms are not determined by it'. And if mind and consciousness are *not* material how can their relationship with the body be solved in purely material (physical) terms?

Naturalizing

The idea of 'naturalizing' is explored by Joseph Margolis in his book *Reinventing Pragmatism* (2002). He explains:

> Nearly all naturalists (that is 'naturalizers') support the following doctrines: (1) truth-bearing explanation is ultimately causal; (2) causal explanation is constrained by 'the causal closure of the physical'; (3) all description, analysis and explanation of mental and cultural phenomena are paraphrasable in accord with doctrines (1) – (2) if admissible at all, or else they conform to some version of supervenientism, that is with the notion that there cannot be a determinate change at the mental (or cultural) level without a corresponding change at the physical level (Margolis, 2002: 6)

He concludes that "'natural but not naturalizable' may yet prove to be the best short statement of pragmatism's late discovery of itself. In a fair sense that is what Putman and Rorty disputed – and what the entire Eurocentric world has, in modern times, always debated" (2002, 6 – 7).

Those within the naturalizing school will of course allow for a difference between the nature of mind and the nature of body – but only insofar as the material body remains the initiating mechanism – whether it is seen as either 'epiphenomenal' or 'supervenient' the mind cannot independently initiate anything. And both of these explanatory terms are notoriously hard to pin down as they involve a conception of mind as dependent upon the body but whether caused by, or simply accompanying, the physical phenomenon is unclear. The Stanford Encyclopedia of Philosophy (2019) claims that 'most current writers presume that epiphenomenalism is to be avoided, and they go to great lengths to try to show that they have avoided incurring that anathema, despite maintaining the sufficiency of physical causation'. Concerning supervenience the same source explains that "Some philosophers believe it possible for some A to supervene on some B without being entailed by B. In such cases it may seem puzzling why A should supervene on B and equivalently why changes in A should require changes in B. [An example is] the supervenience of mental properties (like the sensation of pain) on physical properties (like the firing of 'pain neurons')" (Encyclopedia of Philosophy, Stanford, 2019). Thus, some confusion arises concerning these terms even within the ideas of their protagonists and of those authorities who comment upon them.

We may take Richard Rorty as perhaps the most prominent member of the neo-pragmatist naturalizing school.

In *Philosophy and the Mirror of Nature* he initially uses traditional analytical philosophical tools to dispel any idea of an independent mind. He concludes that "we shall treat the intentional as a sub-species of the functional" (Rorty, 1980:32) and that "insofar as dualism reduces to the bare insistence that pains and thoughts have no places, nothing whatever hangs on the distinction between the mind and the body" (Rorty, 1980: 22). To be fair, Rorty admits that he is "painfully aware of the lacunae in the story [he has] told", and he continues his defense of materialism later in the book when he argues that "the fact that people discourse whereas things do not" is only a trivial difference because "once we can figure out how to translate what is being said there is no reason to think that the explanation of why it is being said should differ in kind (or proceed by different methods) from an explanation of locomotion or digestion" (Rorty, 1980:347). In *Contingency, Irony and Solidarity* he goes further in expressing a positive aversion for reason: "One way of seeing edifying philosophy (his substitute for epistemology) *as* the love of wisdom is to see it as the attempt to prevent conversation from *degenerating* into enquiry" (Rorty, 1980: 372) (emphasis added). Here the opposition between the stances of Rorty and Dewey is perhaps most starkly illustrated. For Dewey productive enquiry is the crux of discovery and knowledge, leading to human advance in all fields, with intelligent reasoning being its essential element, while for Rorty productive enquiry is impossible. Philosophical issues will find different paradigms and will in time simply 'fade away'. Within such thinking, there would seem to be no place for 'productive enquiry' and no possibility of coming to any conclusion concerning the relationship between mind and body – beyond a pre-determined elevation of the physical body to unassailable dominance, since all things are deemed physical. It would also seem to entail that, from a Deweyan perspective, any conclusion concerning the mind-body problem, or indeed any other problem, within this thinking, must lack appropriate tools of enquiry, since 'conversations' are all we can have, and these must not 'degenerate into enquiry' – in other words intelligent selection of the tools of enquiry is impossible.

Rationality and Relativism in Contemporary Pragmatism

Recent additions to ideas of consciousness within the pragmatic naturalist tradition are generally supportive of Deweyan conceptions of body-mind, in that the body and mind are seen as interdependent. Regarding perception, imagination and conceptualization as "poles on a continuum," Mark Johnson, for instance, considers imagination as central to human meaning-making and rationality (Johnson, 2013: 167). He understands imagination as not simply an adjunct of, but necessarily constitutive of, understanding, while Richard Shusterman's heightened consciousness of the body and John Ryder's arguments for the significance of both aesthetic awareness and power in addition to knowledge, in constituting human consciousness, all enrich conceptions of consciousness without delving into the material or physical nature of consciousness itself. They suggest however that single, unassailable claims to truth will be unattainable, as has traditionally been the stance of pragmatism.

While each of these examples may be seen as broadly compatible with Dewey's conception of body-mind, there remains an unexamined aspect of current pragmatist thinking which is, I believe, of greater ultimate significance. There is no space in this paper to assess the increasing intrusion of 'soft' relativism within contemporary pragmatist thinking, but its pervasiveness is suggested when a thinker in this tradition believes that "As a pragmatist I remain committed to the possibility that the skeptics could be right" (Thompson, 2021: 95). He sees this as inhibiting his ability to refute a claim which troubles him, despite its proponents' rejection of scientific proof. While pragmatism has always challenged dogmatic positions, a 'soft' relativism such as this would undercut the force of any arguments which could be put forward in defense of, or in opposition to, currently popularly ac-

cepted knowledge claims. More worrying still may be the contention of another leading thinker in the pragmatist tradition who argues that we cannot challenge Chinese citizens who defend their form of government as preferable to western democracy (Ryder, 2024). Here, I would argue that, with a single blow, Dewey's painstaking project of building democracy, of seeing it as a project 'yet to be achieved' is undercut. Pragmatism has no further handle on it.

For the purposes of the arguments in this paper, and in order to engage with currently dominant thought systems *outside* of the pragmatist tradition, an understanding of pragmatism must be established which avoids 'soft' relativism while at the same time avoiding dogmatic claims to truth. Such a position is established by Joseph Margolis both within his concept of 'robust relativism' (Margolis, 1991) and in his later development of Pierce's conception of 'adaptive truth' (Author 2020; 2022). Importantly both positions acknowledge intelligent rationality to be a shared human quality enabling a consensus about the 'best available' truth to be reached within context. I would argue that this position is also strongly implied by Dewey's pragmatic technology in which intelligence is an essential element in resolving 'problematic situations' and, in interacting with other organisms through language (which Dewey understood as the 'tool of tools' (Hickman, 1992:44)) is able to reach consensus. Unless a shared rationality is assumed, no consensus could be reached through this 'technology' while the efficacy of the conclusions is established through their successful deployment in practice.

The consequences of 'carrying on regardless'

While consideration of issues concerning the acceptance of an immaterial mind being compatible with a material (physical) body, might be deemed purely 'academic' I contend that they have had some serious consequences in the real world. These are particularly consequent upon the 'biologism' which dominates much contemporary thinking. Some of these are explored in detail by Richard Lewontin in his book *It ain't necessarily so – the dream of the human genome and other illusions* (Lewontin, 2000). As he contends:

> Intelligence, acquisitiveness, moral rectitude are not *things,* nor the natural attributes of things, but mental constructs, historically and culturally contingent. The attempt to find their physical site in the brain and to measure them is like an attempt to map Valhalla. It is pure reification, the conversion of abstract ideas into things and their natural properties. While there may be genes for the shape of our heads, there cannot be any for the shape of our ideas (Lewontin, 2000:9)

However, it is exactly this kind of mistaken reasoning which a general understanding of all things as physical currently allows. Lewontin argues that the understanding which was encouraged by the promise of mapping the human genome created an unfounded speculation that it would lead us to understand of "what it is to be human" and that it would "transform our capacities to predict what we may become" (Lewontin, 2000:137). It also created, as Lewontin argues, "a medical model of normalcy, including social normality, and it dictated a therapeutic, or preemptive, attack on deviance" (p150). Thus ideas of racial and class distinctions could gain legitimacy once again and the political agenda of eugenics reappeared when human deviance appeared to gain a new foothold. Lewontin gives the following example to illustrate that this confusion had penetrated to the highest level of scientific understanding: he explains that "when the editor of *Science* was asked why the funds devoted to the human genome project should not rather be given to the homeless, he replied 'what these people don't realize is that the homeless are impaired… indeed no group will benefit more from the application of human genetics" (Lewontin, 2000: 165). That is, social misfits are in that condition because of some physical/ mental impairment. Here Dewey's concern for inappropriate tools of enquiry leading to "acquiescence to the temptation of personal gain in ... the political sphere" is given legitimacy – as the

politics underpinning eugenics has a dark history. Even those with an innocent wish to understand or enhance human wellbeing through a revived interest in the field are mistaken when basing their enquiries on genetic insights into human behavior or intelligence. The confusion that currently exists can be illustrated by the entry for 'eugenics' in Wikipedia which refers to the resurgence of interest in the field sparked by the mapping of the human genome, but notes that "applications generally are more focused on the reduction of genetic diseases than on improving intelligence" — the implication being, however, that either would be a viable field of enquiry given our new genetic understanding. Similarly, the economic temptation of personal gain which Dewey recognized can be identified in the excitement amongst pharmaceutical companies anticipating the profits which would follow from the completion of the sequencing of the human genome, despite the known facts of genetic material failing to point to many of the hoped-for profitable outcomes.

Further, in regard to the selection of inappropriate tools of enquiry within this same field, potentially the most tragic of all may have been the decision taken in 1993 by the US Congress to cancel the 'Supercollider' particle accelerator project after about US$2 billion had already been spent on it. This decision might, at a pinch, be categorised as falling into Dewey's catch-all category for inappropriate technologies – that some are selected on grounds of either 'laziness or stupidity'. Let me explain further. The potential of the Supercollider Project included the achievement of nuclear fusion (as opposed to nuclear fission) and through this to the discovery of a source of a limitless and safe energy. Although this potential outcome was never guaranteed, the premises of the enquiry were founded on the same acknowledged scientifically valid principles as the early discoveries of relativity and quantum mechanics which made the end of the 19th and first half of the 20th centuries such a highly productive and exciting times for human advance. They were thus an appropriate technology in Deweyan terms for attempting to achieve this scientific breakthrough. However, delving into this field on the internet nowadays yields almost nothing to suggest this objective of the supercollider project, nor is the fact mentioned that one of the chief incentives for Congress re-directing the funds was to reinvest them in – the human genome project. Perhaps that is just too bitter an understanding to take on board in the year 2024, but for the purposes of this paper it is an ultimate example of the application of an inappropriate technology in Deweyan terms, 'lazy' because the mechanistic limitations of the human genome were known, but not taken into account, and 'stupid' because an informed search for such a source of limitless energy could have been seen as worth spending almost anything to achieve, while several additional discoveries in the field of physics were also becoming available through the project but could not be followed through. Let me hasten to add that I appreciate that many useful medical advances have been achieved through greater genetic understanding, just not any related to human existence or human nature beyond the purely physical, and certainly nothing as significant as the potential reversal of climate change.

A more recent development, also illustrative of concerns which can be raised by a narrow biologism, concerns Artificial Intelligence (AI). Popular understanding, as well as the understanding of leading actors in the field, have been responsible for a widespread belief in the continuity between artificial and natural intelligence, ignoring the aspects of intelligence and consciousness which are non-material and which involve such attributes as intuition, individual ethical awareness, compassion and the ability to judge the wider influence and value of AI programmes themselves. Since understandings of the nature of intelligence as simply part of a biological system and 'nothing more than chemistry and physics' also ultimately eliminate these attributes, the gulf between artificial and human intelligence is elided. Arguments can have little power to convince the public that the highly advanced al-

gorithms underpinning present and future AI programmes are all mechanistic and all initially established by human agency. No natural 'life force' exists to give them immaterial, independent mindfulness. They will however be accepted as natural to the extent that their origins are 'naturalizable' and their initiators are hidden. Prominent figures in this field currently encourage this stance. For instance, Elon Musk considers that "for the moment, AI has a lot of shortcomings and still requires human assistance". He believes, however, that while "Biological intelligence can serve as a backstop, as a buffer of intelligence, [in the future] almost all intelligence will be digital" (Musk, Milken Institute, 27th Global Conference, 2024).

Alternative 'natural' positions

The evidence for an immaterial mind and consciousness is intuitive, it is 'common sense', but it is still inconclusive in philosophical or scientific terms, although the evidence in its favour is gaining momentum. It was a conclusion of my paper published in *Metaphilosophy* in 2006, where I argued that 'to try to explain advanced consciousness entirely in terms of the material and physical mechanisms that predate life and the central nervous system itself must be a severely inadequate strategy' (Author, 2006: 80). (I could have added that emergentist arguments are inadequate here as the two entities in question are from entirely different categories of existence).

I also argued that currently we are concentrating purely on what *makes* the difference within biological systems, ignoring the lack of any understanding of what *is* the difference – that is, the difference between organic life and inorganic life – and between consciousness and unconsciousness. This elision would also seem to entail that we recognize *no* definable difference between the organic and the non-organic which again would seem to entail that there *is* no difference between life and non-life. Common sense is surely severely strained here. An interesting small example of how scientists at the highest level assume that non-materiality cannot be grasped as real in itself, was given in a 2017 issue of the Cambridge alumni magazine CAM, whose leading article concerned the force of gravity. The author noted concerning gravity that 'we know what it *does* but we do not know what it *is'*, implying that the non-material cannot be known unless definable in material terms.

This is a theme taken up by Thomas Nagel in 2012 in his book *Mind and Cosmos: Why the Neo-Darwinist Conception of Mind is Almost Certainly False*. He argues that "one of the legitimate tasks of philosophy is to investigate the limits of even the best developed and most successful forms of scientific knowledge". He also believes that "we must resist the temptation to assume that the tools of the kind we now have are in principle sufficient to understand the universe as a whole". He asks "if physics and chemistry cannot fully account for life and consciousness, how will their immense body of truth be combined with other elements in an expanded conception of the natural order that cannot accommodate those things?" Nagel here is clearly in agreement with Dewey (and Margolis) in that he believes in "the aim of finding an integrated, naturalistic explanation of some kind". He also believes we should consider alternatives that "make mind, meaning and value as fundamental as matter and spacetime in an account of what is"[1].

But it seems that the beginnings of a new epistemology and of a new ontology are appearing, assisted by the discoveries of quantum theory, which classical pragmatist philosophy should have a strong interest in pursuing. That this link should come to us through the experimentation sparked by an exemplary Deweyan 'problematic situation' is appropriate for the arguments in this paper. James Clark Maxwell one of the nineteenth century's most respected theoretical physicists, noted that "the real reward for the labour of careful measurement" is "the discovery of new fields of research" and

[1] The absence of page numbering for the Nagel book is due to its access being from a Kindle copy.

"the development of new scientific ideas" (Kumar, 2009: xviii) – an idea overlapping neatly with Dewey's pragmatic technology. In the 1890s leading physicists in Germany were intent on solving the 'blackbody problem' or the relationship between temperature, range of colours and the intensity of light emitted by a hot iron poker. This was part of the intense commercial rivalry in the field of electricity between Germany, Britain and the USA. It was eventually solved by Max Planck in the year 1900 with the added discovery that energy comes in distinct 'packets' known as 'quanta' – thus founding the science of quantum mechanics.

The nature of reality revealed by sub-atomic physics has enabled ideas of an isomorphism being increasingly considered between the apparent nature of mind and consciousness and that suggested at a physical level by the very different world of quantum mechanics (different, that is, from the purely material, mechanistic, world of Newtonian physics). This is perhaps the link which we need to enable a scientific breakthrough to a holistic understanding of body-mind. Quantum mechanics, while still an incomplete system of thought, includes the apparent influence of the observer on outcomes of observation, it indicates non-local reality and the indivisibility of matter – a different reality than is available to us through Newtonian physics and one consistent with the immaterial nature of mind. It is a theme I touched on in the *Metaphilosophy* article and it has been explored at some depth more recently by George Williams in an article: 'Quantum Mechanics, Metaphysics, and Bohm's Implicate Order' (Williams, 2019).

Williams discusses how David Bohm, distinguished professor of physics at UC Berkley and friend and associate of Albert Einstein, developed ideas of an 'implicate order' involving an indivisible stratum of matter, consciousness and intelligence. He notes:

> Bohm also took a bold, additional step by arguing that this high-dimensional space is foundational to both matter and consciousness. Bohm (2002) described his implicate order as a version of neutral monism, which takes the fundamental basis for both consciousness and matter as neutral, neither mind-like nor material: So we are led to propose further that the more comprehensive, deeper, and more inward actuality is neither mind nor body but rather a yet higher-dimensional actuality, which is their common ground and which is of a nature beyond both' (Williams, 2018: 265)…And therefore active information, based in the implicate order, could also be seen as an important link or bridge between mind and matter. Thus, our thoughts and feelings can also be characterized as a continuing of unfoldment and enfoldment from the implicate order. Bohm (1990) also noted that the implicate order may serve as a means of expressing consistently the actual relationship between mind and matter, without introducing something like the Cartesian duality between them (Williams, 2018: 273).

Williams also argues that "All facts we possess about the world (objective or subjective) arrive to us through our consciousness. Thus, our conscious experience possesses a stronger ontological status than…mathematical abstractions [and] this argument applies to all of our world's ultimates (electrons, quarks, strings) for which our understanding is still incomplete…All facts we possess about the world (objective or subjective) arrive to us through our consciousness".

Conclusion

These ideas of immateriality thus remain speculative, or else they are based on logic and everyday experience, while the conception of naturalizing involving the 'causal closure of physics' appears rather to represent a clinging to well established scientific facts and a fierce denial of the immaterial as perhaps smacking of the spiritual, if not the occult. While all of the arguments remain inconclusive, the weight of evidence appears currently to be moving in favour of immateriality.

This paper has, therefore, sought to lay a tentative foundation for Margolis's idea that "'natural but not naturalizable' may yet prove to be the best short statement of pragmatism's late discovery of itself". It has demonstrated through Dewey's pragmatic technology the value

of productive enquiry into contemporary issues beyond philosophy itself, and used Joseph Margolis's carefully crafted ideas of 'robust relativism' and 'adaptive truth', to avoid dogmatic positions in a productive enquiry which enables the 'best available' truth to be established, while at the same time avoiding a self-defeating relativism. I believe that this is within the spirit of the classical pragmatists, and especially of John Dewey, whose encouragement to engage with global issues could not be more pertinent at a time when the world faces existential threats as never before.

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