Minds Beyond Brains

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S.1

Before I go any further and start to consider implications and possibilities for 'extended minds', it might be a worthwhile exercise to spend a little time thinking about just what it is that we might, or might not, be intent upon extending.

Of course, getting a grasp of what a 'mind' is or what it is constituted by is a notoriously difficult problem, or at least notoriously difficult for the philosophically-inclined amongst us, and it is not my intention here to address any of those profound difficulties in any great detail; but there are a couple of salient points that I think are worth being aware of in order to make what follows a touch more coherent.

I am assuming that we are all familiar with how the traditional story of mind and the mental goes – the problems of Cartesian dualism and everything that has followed from that; the cultural entanglement of minds with notions of souls and their eternal existence that can be traced all the way back to the very origins of Western philosophy; the difficulty of ascribing intentionality and creative imagination, of consciousness and freewill, to a purely physical system, and so on; so I have no real desire, or need, to go over that well-trodden ground again. I would, however, like to briefly acknowledge two issues (from several possibilities) in our current conversation on the topic of minds that seem particularly relevant, and these are

ELIMINATIVISM
and
COGNITIVISM

The argument for eliminativism is, as I understand it, essentially quite simple:

After 2,500 years, or so, of talking in one way or another about 'minds' we are not really any clearer as to what a mind is than when we started.

1. That one of the main aims of philosophy is to try to achieve clarity of concepts in order to help sort truth from falsity and that we are unable to make any claims regarding greater clarity with regard to the concept of mind.
2. (Conclusion) Therefore, given the amount of time and effort that has gone into not getting any clearer as to what a 'mind' is, would it not be better to simply abandon it as a lost cause and to get on with talking about what we can be clear on with regard to human behaviour and intelligence?

Or, as Andy Clarke succinctly puts it in his paper 'Memento's Revenge':

"We just don't know a mind when we see one. Could the reason for this be that there simply aren't any there?"

I have to say that I am not entirely unsympathetic to this point of view. My metaphysical preferences usually tend towards the deflationary, and I mostly feel philosophically anxious at any suggestion that involves explaining one not-terribly-clear state of affairs by reference to something else that is even murkier in character!

Furthermore, is it the case that those who claim scientific expertise in matters of human behaviour and intelligence, and other connected issues, require the somewhat cloudy notion of mind in order to make the points that they wish to make? I suspect not. Cognitive psychology, and related disciplines, can tell us all that they desire to tell us about the human condition talking solely in terms of cognitive function, behaviour, and the like, without having to make reference to 'mind' or the 'mental'. That they do, I would suggest, is more a consequence of the embedded vocabulary of an

inherited conceptual framework. The point is that they don't have to, and we would all understand what it is that they were telling us if they didn't.

This argument is even more apposite when extended to the various neuro-disciplines that dominate our scientific thinking about human activity. Talk of brains does not need recourse to any such obfuscatory metaphysical entity as a mind; oncologists, cardiologists, and other body-part specialists do not suffer for having such a lack, and I am confident that we could sit down later and come up with all sorts of less-mystifying metaphors to help the neuro-specialists convey what they know without having to refer to something that, it would appear, none of us know.

As it happens, I am going to be arguing that 'mind' *is* a concept worth keeping, and it is a *useful* concept, but only because what it refers to is 'extendable' (or, really, that there was never a time when it wasn't extended) – but if my argument doesn't hold water (and there is every chance that it will leak like a colander!), then I may well find myself at the very front of the eliminativist queue.

The second issue that I would like to touch on is that of 'Cognitivism'. Cognitive psychology, having been the dominant mode of psychological inquiry, has recently tended to morph into the multi-disciplinary affair that goes under the name of 'cognitive science' with its interplay with neuro-cognition and neurobiology, and has taken with it those fellow travellers from the social sciences and the humanities whose main topic of interest is getting to grips with the tricky and complex animals that we are.

It seems to have become something of a given that the key assumption made by the majority of those labouring as 'cognitive scientists', at least from the literature that I have had access to, is that the most effective way of setting about this project is to do so in terms of neural processes and the functional topography of the brain. To the extent that they talk about mind and the mental (although I have just suggested that they probably don't have to) they tend to do so, for the most part, with the implicit assumption of mind-brain identity.

This is not to say that they do not have good grounds for making this implicit assumption. There are clearly established links between brain malfunction and mental dysfunction, and since the unfortunate experience of poor old Phineas Gage and the iron rod through his pre-frontal cortex we have had substantial evidence that that most intimate expression of who we are, our personality, is in some way grounded in the complex cellular structure that resides within our skulls.

So are the cognitivists right in coming to this implicit assumption? Is it really the case that mind is reducible to a function of the brain? And is this simply further fuel for the bonfire that is eliminativism?

If, as I have already intimated, we can find that the concept of mind continues to serve a useful explanatory function in discussing a key feature of what it is to be human, and if we can give support to this idea by thinking of the mind in terms of being 'extended', then we will clearly see that we are going to have to hold a position in which mind is not identical with, nor reducible to, brain states and neural processes. That this lack of identity must be so is obvious, by virtue of the fact that if we *can* extend the mind, it seems somewhat incoherent to argue that we can extend the brain because although there is still a great deal left to be found out about this central organ of intelligence, we at least know where it is located… don't we…?

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So, with those points in mind, let us now move on to where the idea of the extendibility of the mind, at least in its current form, springs from and consider some of its entailments and implications.

Probably as good a place as any to start from is Andy Clark and David Chalmers' 1998 paper, helpfully entitled 'The Extended Mind'. This is by no means the first statement of a position arguing for an

externalist theory of mind; both Hilary Putnam and Tyler Burge had constructed arguments for an externalist account of the mental in the form of ‘semantic externalism’ and ‘social externalism’ respectively prior to Clark and Chalmers, and I think there are very strong cases to be made for this position being developed in the work of William James, Mikhail Bakhtin, and the ‘ecological psychology’ of J.J. Gibson amongst other perhaps not-so obvious contenders (such as the later Wittgenstein). It is also the case that this position is one that can be uncovered, without trying too hard, in the pragmatist metaphysics of John Dewey. But most philosophers and social scientists who engage with the concept, whether favourably or not, usually start out by referencing Clark and Chalmers, and I see no reason to buck this trend.

Their exposition of the extended mind thesis is, in my view, a very well argued position that offers the opportunity, as a good philosophical argument should do, for following several lines of inquiry, any of which have the capacity to take one down all sorts of interesting theoretical lines of thought. What I don’t want to do at this juncture is to get caught up in the minutiae of the argument that Clark and Chalmers are making, as fascinating as that would be. So I am not going to discuss the idea that the ‘mental’ is fundamentally a term arrived at by way of privileged perspective; nor am I going to dwell on issues arising from Otto’s notebook, or critical analysis of the ‘Parity Principle’. What I am mostly interested in, in the context of this weekend, is drawing out the wider implications of the position presented, simply for the speculative fun of trying to find out where their argument might take us – whether it presents us with a difference that will make a difference of the kind that will be of some strategic use in our ongoing project of making sense of our experience both collectively and individually.

In order to do this, in order to ascertain what might be the wider implications of an understanding of minds as extended, as Clark and Chalmers see it, we would do well to ‘top-and-tail’ the essay and have a closer look at how they open their pitch and their concluding remarks.

Clark and Chalmers are quite clear from the off as to the position that they are promoting in their talk of ‘extended minds’. They make brief acknowledgement of Putnam’s ‘semantic externalism’, but go on to say that they are advocating a “very different sort of externalism”, which they label “an *active externalism*, based on the active role of the environment in driving cognitive processes.”

What are we to make of this claim? At first sight it does not seem that controversial to me. In whatever way we understand minds and their relationship to brains, other than, perhaps, for some variations on a theme of idealism, we are likely to acknowledge that cognition is best understood as a response to the environment within which one is having to cognise. Even for the most reductionist forms of neuro-cognition, or for a unidirectional Standard Computational Model of mind, we are likely to be happy with an account that involves information inputs from the external environment being internally processed in some way so as to give rise to, or cause, the ideas, thoughts, beliefs, etc. that serve to motivate our actions and behaviours in ways that involve us acting within and upon that external environment.

This much seems pretty straightforward. So what is it about the position that Clark and Chalmers are seeking to promote that makes this particular account of the mental somewhat controversially problematic? What is it about ‘extendedness’, in this context, that has led to a degree of controlled outrage in some quarters?

I think that the heart of the controversy is the implication that follows from Clark and Chalmers’ discussion of ‘active externalism’ in which the “active role of the environment in driving cognition” is seen not simply as the environment *causing* mental events (in such a way as to understand cognitive function as being an adaptive response to our needs in coping with our environment) but that under certain circumstances, circumstances that can be seen to be of some significance, the role of the environment in the cognitive process has to be understood as *constitutive of* the cognitive process.

And if we accept cognitive function as being paradigmatic of the mental, then the environment, the 'world out there', has to be understood in some substantive way as being constitutive of our minds. In consequence of this, a fundamental aspect of ourselves, one that we have traditionally and intuitively understood almost wholly in terms of subjective experience (in that my mental states are solely mine and no one else's, and therefore are as internal and private as anything can be) is somehow constituted by worldly aspects of objective reality – which seems to leave us with something of a paradox on our hands: to whit, how can the objective be taken to constitute something that we take to be definitively subjective?

Now the whole issue of 'subjectivity' and 'objectivity' is, to say the least, philosophically vexing and covers far more ground than we have time to go into here, so what I have to say on the matter as it relates to our discussion of 'extended minds' is going to have to be, at best, perfunctory but I do think that there is a speculative point worth making in this regard.

So, the reason that I am raising the issue in this context is that Clark and Chalmers' discussion of the possible 'extendedness' of minds may well provide us with one strong possibility for deflating this metaphysical vexation, and whilst deflation is not necessarily a solution to a problem, it can certainly go a long way to diminishing a problem sufficiently enough to reduce its level of concern.

So, I think the argument might go something like this:

- Following the neo-Kantian adaptation of the Subject-Object dichotomy, we find that, on one level, 'subjective experience' comes to be used in such a way as to identify reflexive consciousness. (By 'reflexive consciousness' I am referring to that level of conscious awareness whereby we understand perception, thought, and the like as they occur so as to pertain to the self and one is self-consciously aware of these experiences.)
- From being identified in this way, 'subjectivity' comes to stand as an essential mark of the mental; in other words, 'subjective experience' became recognised as a specifically human condition of the type that could differentiate us from all other sentient species (at least, up until that point when philosophers began to think in post-Darwinian ways that encouraged them to ask such questions as "what is it like to be a bat?").
- As a consequence of this, despite the overall success of the philosophical rejection of ontological dualism, the vocabulary available to us for the purpose of discussing our experience of being consciously self-aware cognitive agents in the world has become inextricably tied in to this 'semantic dualism' (which along the way became dressed up as 'property dualism') of subjective internalism and objective externalism with all of the neo-Kantian metaphysical difficulties (and epistemological limitations) that this state of affairs brings with it.

In other words, the Kantian metaphysical separation of subject and object continues, and enhances, the 'Bifurcation of Nature' – a term used by Alfred North Whitehead to denote what he, and others such as William James and John Dewey, understood, in perhaps differing ways, as the fundamental Platonic error that determined how we were to misunderstand our place in nature; a position that was provided with a modern confirmation through Cartesian ontology, encouraging us to regard our essential nature as removed from being truly situated in the world and leading to what I have come to refer to as 'the epistemological gap' that has reinforced the Platonic barrier between us and our environment.

The 'extended mind' thesis, as presented to us by Clark and Chalmers seems to me to provide a sound basis for the work of breaking this barrier down, and I think that this is what they intend to imply in the closing line of their original presentation of this thesis: that "… once the hegemony of skin and skull is usurped, we may be able to see ourselves more truly as creatures of the world."

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At this stage I feel it is important to emphasise that the implications that I am drawing from the Extended Mind thesis are not anything that is explicitly stated by Clark and Chalmers. As I pointed out in my opening statements of intent, mine is a purely speculative paper; a vehicle for my musings on what extending the mind might offer us for further development in the ongoing philosophical project of getting to grips with what it is to be human. Having said that, I think that there is considerable support for these positions to be found elsewhere in Clark's continuation of this project.

It is also, I believe, important to not be thinking of Clark and Chalmers as providing us with their own 'what if' speculative scenario as to how we might start to think of minds in light of new technological developments for cognitive enhancement that enable us to consider possibilities that previously belonged solely to the realm of science-fiction. Clark and Chalmers are providing an account that is based on some pretty solid empirical research into how cognitive function might have evolved in the first place, and why human cognitive function has subsequently evolved to the level that it has. The interesting question that arises from this, is why has it taken us so long to get to this non-disassociated-from-the-world understanding of how mental function (specifically in the form of cognitive process) came about? But that is not any different a question than asking why we once thought we were at the centre of the entire universe.

Following on from this, it is also important to note the limitations that Clark and Chalmers are keen to impose upon their claims in making sure that we know that their discussion of mental function is related only to cognition and that they are not including consciousness in their description of mind as an extended phenomenon. Clark reinforces this in 'Supersizing the Mind', his 2011 book-length development of Extended Mind, where, in reference to the original paper he states, "…we allowed that (at least as far as our own argument was concerned) conscious mental states might well turn out to supervene only on local processes *inside the head*…"

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Having made those points, I would like to move on to another way in which I think Extended Mind theory provides us with useful insight into making sense of our experience of the mental by providing support for arguments against neural reductionism. By 'neural reductionism', I mean those views that identify the brain, or the CNS, as all that there is when it comes to talking about all aspects of mental function, thereby claiming that the brain is both necessary and sufficient for mind (such as I suggested was the implicit dominant mode for cognitivism). Now some of us might not see anything particularly problematic about this, especially those of us who tend towards a physicalist metaphysics. However, our neuro-enthusiasm in this respect is leading us into ways of thinking about ourselves and, perhaps more importantly, about each other that are both prone to being logically fallacious (e.g., the 'dual-subject fallacy' and the 'mereological fallacy', to name but two) and being psycho-socially unhelpful.

Clearly the brain must be recognised as a necessary condition for all of our psycho-functions, all those personal and inter-personal events that take us to the very heart of what it is to be a person, such as consciousness, language, personality, intelligence, and emotion, but, in our enthusiastic absorption of the ongoing stream of exciting new findings that the multiple neurosciences are feeding us, it feels to many of us that this fervour, bordering upon obsession in some quarters, is rather passing over some fundamentally important facets of humanity to the extent that we feel driven to point out, with occasional indignation, "I am something more than the sum of my action potentials/synaptic transmissions/myelinated pathways …"; and you can decide for yourself whichever fascinating fact of neurology you might wish to reduce yourself to.

I think that what extending the mind enables us to do, as physicalists (the dualists amongst us have all sorts of other difficulties to contend with) - and by 'extended' I am including the multiple variations of embodied, embedded, enactive, and situated – is to grasp that there is more to being a person than the amalgamated actions of the organs that reside within the skull. By extending the mind we can, to paraphrase Hilary Putnam, get a clear grasp of the likelihood of the mind not being "all in the head".

At this point, I think we can revisit my earlier comments regarding eliminativism and see why we have good grounds for hanging onto the concept of mind in the face of this radical materialist position in a way that, perhaps, will allow us to sensibly disentangle ourselves from some of the metaphysical conundrums that may have encouraged some to flock to the eliminativist banner in the first place, and to also see that these good grounds are provided for us by Clark and Chalmers' initial arguments for why we should recognise the mind as extended.

If you recall, central to this thesis is the idea that, under certain significant circumstances, we need to understand some mental functions as incorporating external aspects as well as the more traditionally understood internal aspects. From this we can identify a concrete example of the idea that 'mind' does not denote an ontological category, some special type of 'thing', and neither does it identify an attribute belonging to some other sort of thing. What mind denotes under these extended circumstances is a *relationship* which is specifically the relationship of a conscious cognitive organism to its environment. And this is made clearer by Clark in his conclusion to 'Supersizing the Mind, where he writes, "… [the] human mind, viewed though this special lens [of extendedness], emerges at the productive interface of brain, body, and social and material world."

In this respect mind is clearly more than the neural processes that underpin it. An extended mind requires an extended supervenience, and we do well to understand mental processes as an interactive dynamic of internal and external aspects, and to better understand this phenomenon I would confidently suggest that we need to acknowledge this dynamic inter-relatedness rather than simply dwelling on reducing it to its constituent elements. Extending the mind "beyond the hegemony of skin and skull", I would argue, provides us with the conceptual tools with which to do this.

Further reading (not references as such!):

Clark, A. & Chalmers, D.: 'The Extended Mind' (1998); *Analysis* 58 pp10-23.

Clark, A.: 'Where Brain, Body & Mind Collide' (2008); from Knappett & Malafouris (ed.): 'Material Agency' (Springer).

Clark, A.: 'Memento's Revenge' (2010); from Menary (ed.): 'The Extended Mind' (MIT).

Clark, A.: 'Supersizing the Mind' (2011) (OUP).

Harries, J.: 'Are Beliefs "In the Head"' (2015); PhilSoc Review.