

Apathy has been noted to be a very disabling symptom in several neurological and psychiatric disorders, especially dementia. There have been several case reports and one open trial using psychostimulants in the treatment of apathy (Ng and O'Brien, in press). An early RCT in 44 withdrawn and apathetic geriatric patients compared methylphenidate with placebo (Kaplitz, 1975). Methylphenidate was associated with a positive outcome, but, by current standards, there were several methodological shortcomings. Herrmann *et al.* (2008) recently conducted a randomized double blind crossover trial comparing methylphenidate (10 mg b.i.d.) to placebo in 13 patients with significant apathy. There were two phases of two weeks with either drug or placebo separated by a one-week washout. Patients demonstrated a significant improvement on the primary outcome, the Apathy Evaluation Scale, when on methylphenidate but also had a greater proportion of adverse effects. Two patients experienced severe adverse events including agitation, delusions, irritability and insomnia, which ceased when methylphenidate was discontinued.

Whilst the Cochrane Review found no evidence to support the general use of psychostimulants in depression, including the newer medication modafinil, the above studies would suggest that this class of drugs may still have some potential in old age psychiatry. Randomized placebo-controlled studies are still needed as well as the study of longer-term outcomes and potential adverse effects.

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Neurodegeneration and the structure of time: clinical evidence for philosophical reasoning

I enjoyed the recent editorial by Förstl (2008) on time. Here he presents a different way of thinking about what might be happening to people with neurodegenerative diseases and the consequent difficulties for their carers. I was not so sure, however, how the neuropathology was meant to contribute to philosophical discussions about the nature of time.

A general point, which in my view explains why so many discussions about the neurological basis of mental experience simply miss the philosophical concern, is that we can give both causal and constitutive accounts of mental phenomena. We can adapt the distinction made famous by Jaspers (1923) between the explanations of natural science (*Erklären*) and the understandings of human science (*Verstehen*) and talk about causal explanation and

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constitutive understanding. The neuropathology of the dementias does indeed, as Förstl usefully demonstrates, provide a causal explanation of the mental phenomena that underpin the experience of time for people with dementia. There is more to be said, however, about the nature of time. That is, further philosophical concerns relate to the concept of time; and talk of the neuropathology simply passes by such conceptual understanding. Nonetheless, Förstl also gestures at constitutive accounts of time for people with dementia: the loss of the past for those with Alzheimer's disease; the loss of "a laminar flow of consciousness" in dementia with Lewy bodies; or the loss of a sense of the saliency of the future in frontotemporal degeneration. Perhaps it is these accounts, rather than the neuropathology, that give us a better purchase on the conceptual concerns of the philosophers.

As a way to add more detail to such accounts, consider the descriptions given by Sabat (2001) in which people with moderate to severe Alzheimer's

dementia, despite performing poorly on formal tests of memory, demonstrated new learning by recalling events or information from previous meetings with Sabat. This might incline us to give further causal explanations in terms of neuropathophysiology or cognitive neuropsychology; it should also suggest something about perspective. Some philosophers of time are keen to emphasize that time is judged from a perspective. Theories of relativity cause problems for our normal perception that the present and the future are distinct. The person with dementia similarly demonstrates how the past might seem to be the present. The interruption of the apparent flow from past to present to future has something to say about one of the other important theories concerning time.

In 1908, McTaggart published his thesis that time was not real (McTaggart, 1993). He distinguished between the “A series,” according to which time has the properties of being past, present and future; and the “B series” according to which time can be ordered by thinking of things in dyadic relations, as something being earlier than, or later than, or simultaneous with something else. McTaggart argued that the A series was essential to time because it represented change and time is the measure of change. According to McTaggart, the B series does not capture this notion of essential change, because it always represents time as set (as it were in concrete): the discovery of amyloid plaques and neuritic tangles occurred earlier than the cure for Alzheimer’s disease, even though the cure has not yet been achieved. These two times are set and relative to each other without a sense of one having been the present and now being the past and the other being the future but potentially becoming the present. Meanwhile, McTaggart argues that the A series is incoherent, because any particular time, in order to show change and thus be time, must demonstrate all of the properties of past, present and future. Yet this is incoherent because no time can be past, present and future. Needless to say, there have been various philosophical opinions about McTaggart’s arguments!

The experience of dementia, however, is relevant. It is possible in dementia to have a completely coherent sense of one thing having happened before something else, without a perfect sense of when that might have been. The properties of the A

series may well be lost in the sense that change is not recognized. I no longer recognize my wife, for instance, because she is only 21-years old and the woman in front of me is much older. But perhaps I am happy enough to accept the help of the older woman (or the care assistant) because I have a sense of something like this having happened before, even if I cannot point to the past when it occurred. This would argue in favour of the properties of the B series being a valid way to characterize time in some sorts of dementia. Yet, recalling the point about perspective, there may be other ways in which I can measure change apart from by my (temporal) memory; it may be that some form of emotional memory (or connotation or recognition) allows me to point to the past and anticipate the future, as shown by the descriptions of Sabat (2001). In other words, the properties of the A series ring true, and yet it might be that at some points past and present seem one.

In short, the real lives (the narratives perhaps) of people with dementia provide fodder for philosophical ponderings. But this is more obvious in constitutive accounts, which attempt to give us understanding of the lived experience of dementia, rather than in the causal explanations of neuropathology.

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