Brainfulness

John Launer

I want to start 2013 by putting forward two provocative ideas. One is to challenge the conventional division between the brain and the rest of the body. The second is to promote the concept of 'brainfulness'. Neither idea is entirely original. Both emerge from ways of thinking that have been around for some time. If you do a web search for 'brain-body divide' and brainfulness, you will find a large number of results, although if you follow them up, you will find they are rather insubstantial. I suggest that 2013 is the time to develop these two ideas further.

The brain-body divide is, self-evidently, an artificial one. No doctor needs to be reminded that the brain is contiguous with spinal cord and peripheral nervous system, which in turn are contiguous with our muscles. In embryological terms, our eyes, skin, and the lining of some of our gut are derived from the same ectodermal tissue as the brain. Although there may be sound pragmatic reasons in medicine for declaring that the thing we call a 'brain' starts and finishes in particular places, a moment's reflection will make it obvious that this is arbitrary. It has only been established by convention. There is no intrinsic reason to define the brain as stopping at the medulla and pons rather than at the cauda equina, for example, or indeed the finger tips.

In reality, we know that our 'brains' are in a constant state of two-way communication with all our other bodily parts and organs. Our sentience doesn't consist only in what our brain tells us: it resides in the combined information that passes to and fro, both electrically and chemically, between every one of our senses, and between every one of our cells. It also encompasses our responses to the people we happen to be looking at, talking with, or embracing. The person you see opposite you—your friend, your spouse, or yourself in the mirror—is in effect nothing but an extended and intercommunicating brain, dressed up in clothes and wearing shoes.

This might seem to be a rather abstract point, more suited to a philosopher's dining room than deserving the attention of doctors. I think such a view would be

wrong. One of the most passionate and longstanding debates in the medical world relates to the so-called 'mind-body problem', or 'mind-brain problem'.¹ This debate is especially active in areas of research like unexplained pain, where patients and doctors, unless they are careful, can get into pointless squabbles about whether problems are 'all in the mind'.² Although there are fundamentalists who argue that any disorder can be created only by the body, and others who argue pretty much the opposite, most people these days seem to agree that such extreme positions are unhelpful. A more useful stance, sometimes described as 'dual aspect monism', regards body-based explanations and mind-based explanations just as different perspectives on the same phenomena.³

MIND IS EMBODIED

Such an approach, helpful as it is, still stops short. Mind exists and is embodied, but not just inside our heads. It inhabits our entire, sensate, indivisible beings. Two areas of neuro-science support such a view. The first is the study of the emotions. Research shows that our feelings are at the same time somatic, interactive and rational.^{4 5} At any given moment, our senses will be computing the opportunities and risks that other people and the external world present to us. At the same time, all the different parts of the body contribute information about our internal physiological state. Our nervous system converts this computation into subjective experiences, and triggers the corresponding thoughts and actions.

Other evidence comes from studies of consciousness. These are helping us to understand how we become aware of our feelings and actions only retrospectively.⁶ Strange as it may seem, the neural networks that mediate consciousness let us know what is happening some time after it has actually happened. Mind is like a running commentary that is a little way behind the race itself. To paraphrase Pascal, the heart has its reasons, of which reason knows nothing...until later on.

There is one remaining piece of the jigsaw to be fitted in, and that is 'mindfulness'. The practice of mindfulness has been much promoted in recent years.⁷ Based originally on Buddhist meditation practices, it has now

moved into the mainstream of psychological treatment. Mindfulness has been defined as 'the self-regulation of attention so that it is maintained on immediate experience'.⁸ Maintaining such attention can deflect us from dwelling on negative thoughts or emotions, on excessive rationality or on selfish or aggressive purposes. Not surprisingly, there is evidence that training in mindfulness, and mindful meditation, can reduce stress, depression and a whole range of other problems.⁹

Much as I admire the mindfulness movement, I believe its emphasis on mind may lead to some of the same difficulties as the mind-body debate. What we lack is a concept that anchors mind in brain, while expanding our notion of brain itself, until it becomes synonymous with our whole selves. I would like to nominate 'brainfulness' as precisely that concept. If we are going to use it, we will need to understand that 'brain' does not mean the large pulsating gelatinous mass that sits with your skull. The brain consists of far more than this. To be brainful, I suggest, is to observe your own physical responsiveness to yourself and others: from within, from moment to moment and from the top of your head to the tips of your toes.

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Correspondence to Dr John Launer, London Deanery, Stewart House, London WC1B 5DN, UK; jlauner@londondeanery.ac.uk