

Neuron firing and hiring

Dirk Lindebaum and Mike Zundel on the perils posed by the application of brain science to management practice

An article in these pages recently warned that neuroscientific approaches to psychology are no substitute for deep theoretical intuition.

The piece, “Brain scans go deep, but you need intuition for light-bulb moments” (Opinion, 16 May), caught our eye because a similar “neuro-peril” also faces organisational research.

A number of recent publications in management journals have suggested that we are on the brink of a revolution in the way we understand and influence how organisations work. Fanned by technological and methodological advances in the study of the brain, neuroscientific approaches appear to many to offer novel theoretical and empirical insights to management disciplines.

Perhaps the most fertile territory for organisational neuroscience is the area of leadership. Some advocates argue that even such a complex phenomenon as this can be reduced to the neural activity of individual brains, at which level it can

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be studied and modified. The findings of these brain analyses can then be retranslated to higher-order phenomena.

Such an approach, it has been claimed, would permit not only scientifically grounded explanations of what causes and constitutes “good” leadership, but could even open up the prospect of modifying brain patterns to directly improve leaders’ behaviour.

This, of course, is just the latest incarnation of a well-established reductionist tradition in organisational research.

As we argue in a forthcoming issue of the journal *Human Relations*, reducing such a socially complex and recursive phenomenon as leadership to neural activity is subject to serious limitations.

One problem is that the disciplines of organisational research and neuroscience employ fundamentally different terminology. Where, for example, the former speaks of leadership as a relational and recursive phenomenon, the latter talks in terms of neurons either firing or being dormant. This incompatibility could only be addressed by the formulation of what philosophers call

“bridging laws” to connect the disparate domains. Yet, so far, advocates of organisational neuroscience have revealed very little about what these laws might be.

We doubt that the study of brain processes could ever be a substitute for studying the complex and interrelated patterns that characterise actual leadership on the ground. Individual brain processes may also lead to very different results in practice, since they are merely part of a wider array of biological, social and material factors that, together, constitute leadership.

This is not to suggest that there is no place for neuroscience in our discipline, but we are worried about the sweeping suggestions made for the possible application of its methods. In particular, much-publicised proposals to use the approach to identify effective and even inspirational leaders prompt a series of ethical concerns.

As one of us argues in a forthcoming exchange with advocates of organisational neuroscience in the *Journal of Management Inquiry*, some researchers have gone so far as to suggest that organisations could employ neuroscience techniques to single out “deficient” leaders lacking inspirational qualities, who would then be subjected to in-depth diagnostic assessment and treatment – albeit non-invasive – to redress their failings.

This approach would effectively pathologise the behaviour of people who might well act in comparatively normal and healthy ways. The overt medical overtone is particularly significant since it apparently legitimises the application of a range of neuromedical interventions to remedy the diagnosed condition of what one study terms “brain profile deficiencies”.

Above all, we are concerned that the availability of increasingly detailed depictions of brain processes could progressively dehumanise what are essentially social processes. Neurons do not lead: human beings do. Neglecting this fact risks far more than the destruction of good management practice: subjecting people to neuroscientific modifications in the pursuit of organisational ends could seriously undermine individuals’ well being and integrity.

Dirk Lindebaum is reader and Mike Zundel is senior lecturer in the University of Liverpool Management School.