The conceptual nervous system of J.A. Gray:
Schizophrenia and consciousness

This special issue is the second of two that honour Prof. Jeffrey Gray and were occasioned by his official retirement. The first special issue must now be a memorial rather than the Festschrift that we had hoped to deliver to him.

The first special issue (Neuroscience and Biobehavioral Reviews, 2004, No 3) concentrated on state and trait aspects of anxiety—a topic that primarily engaged Jeffrey in the first part of his academic endeavours, culminating in “The Neuropsychology of Anxiety: an enquiry into the functions of the septo-hippocampal system” (Gray, 1982).¹ In the year following publication of this seminal work he moved from Oxford to London to take up the Chair in Psychology at the Maudsley Institute of Psychiatry and concurrently shifted his focus of interest towards schizophrenia and consciousness (Gray, 1995). The rule for including the contributors to Jeffrey’s Festschrift was that the authors were all people who have worked with Jeffrey and whose work, as evidenced by their papers, has been strongly influenced by him. There were insufficient potential contributions to create a special issue on consciousness but, as luck would have it, a book by Jeffrey on the subject (Gray, 2004) was published just before his death.

The papers in this special issue will speak for themselves and to many aspects of Jeffrey’s theory of “the neuropsychology of schizophrenia” (Gray et al., 1991). Together with his book on consciousness and the first of these special issues there is coverage of an amazing range of neuropsychological territory within what is fundamentally a single theoretical integration. Jeffrey himself would have been the last to suggest that this integration was complete. But perhaps his greatest contribution to those who worked with him was an unswerving credo. He passed on to us the belief that ultimately there could be a proper integration of mental and neural constructs, each informed by and consistent with the other. “It can lead us not just to a theory of... psychology... nor only of... neurology..., but to an integrated neuropsychology... which will blur (as blurred it must one day be) the division which at present separates our two languages, of brain and mind” (Gray, 1982, p. 3). Not least he attempted to show by example that it could be achieved.

One aspect of this endeavour requires particular comment. In modern times, with grant applications and the like driving our professional lives, it is safer and simpler to stick with simple theories that apply to limited areas (often ignoring data more than a decade old). If one’s range is narrow enough and one’s theory sufficiently diffuse one can argue that the theory is ‘better’ than his theories, at least for one’s own limited area. But a crucial feature of Jeffrey’s theorising is its dependence on and continual development and reuse of a limited set of fundamental concepts intended to apply to a very wide range of data. As scientists, we are supposed to use Occam’s razor, ‘Pluralitas non est ponenda sine necessitate’,² and this surely cuts the bulk of competing theories to the ground.

Jeffrey Gray, then, tried to view the mental and neural world in terms of a coherent ‘conceptual nervous system’ (Gray, 1975; Hebb, 1949). In it anxiety, schizophrenia and consciousness (and much more) were all bound together by fundamental underlying neural/cognitive processing concepts such as that of a comparator (Gray, 1995, 2004). This special issue takes an in depth look at one fascinating corner of this much larger picture.

References


¹ This was later updated and the theory modified slightly by me to create a second edition (Gray and McNaughton, 2000).
² Propose plentiful parameters only when pushed. Gulielmus de Occam: Quodlibeta, V.Q.i.


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