



The Cognitive Neuroscience of Schizophrenia

Christopher D. Frith

Psychology Press, 2015, £29.99

ISBN: 978 1 138811 62 1

Acclaimed as seminal in its field, *The Cognitive Neuroscience of Schizophrenia* by Chris Frith, originally published in 1992, has been rereleased as a 'Classic Edition' in 2015. It is obvious why the book was well-received by researchers and clinicians who wished to link brain and mind. Apparently it was common to joke that 'it is easy to recognise the brains from schizophrenic patients because they are the ones which look normal' (p13). This book offered a different perspective. This sentence also illustrates a health warning: concerns about the stigmatising effects of language apparently weren't at the forefront of authors' minds in the 90s.

The book helpfully opens with a review of what has changed over the past two decades since the book was first published.

Chapters thereafter introduce the DSM-III-R schizophrenia diagnosis (we're now on DSM-5); review what was known in the early 90s about brain 'abnormalities'; philosophise on the relationship between mind and brain; explore 'behavioural abnormalities'; 'positive symptoms'; communication style in schizophrenia; and finally a model is sketched which introduces schizophrenia as a 'disorder of self-awareness'.

The notion of 'cognitive' taken in the book is broad and will be familiar to those who have delved into the cognitive sciences literature: cognitive processes are 'hypothetical computational processes that underlie all our behaviour and mental experience. Most of these processes occur outside our conscious awareness' (p8). Frith sees cognition as an important hypothetical level of explanation which was 'prematurely consigned to the dustbin of history, as being a fanciful and unnecessary stage between brain and behaviour' (pxxi). So although there is plenty of brain talk, Frith also focuses on ideas of information processing in the cognitive tradition.

What's in it for readers of a critical disposition? Firstly, the book provides a concise guide to historical research and prejudices of many of those who are still working in the field. As the frequency of brain studies increases exponentially, it will be helpful to know that many of the problems the field discovered in its infancy are still here with us in the 21st century. Media reporting of brain studies can mask the reality of a science. My favourite summary given by Frith is his humble starting assumption that 'experimental psychology can reveal at least as much about how the brain works as analysis of urine samples' (pxv). A range of examples

are given of factors which threaten the validity of comparisons between different groups of patients, for example the impact of drug treatment, of having spent extended periods of times in an inpatient unit, difficulties choosing an appropriate comparison group – what variables should be matched and which allowed to differ? These are difficulties which still clearly apply to modern studies.

Of interest in relation to ongoing debates about diagnosis versus formulation, a concise case is made for studying the signs and symptoms of schizophrenia rather than trying to explain at the level of diagnosis. Frith argues that diagnostic definitions are ‘essentially arbitrary’ (p7). To be validated there must be ‘some independent marker of schizophrenia, such as a characteristic neuropathology or a missing enzyme’, none of which exists. Frith argues that the problem is the attempt to explain ‘schizophrenia’ rather than ‘specific symptoms associated with schizophrenia’. Evidence is provided that ‘there is a common mechanism underlying symptoms, which cuts across diagnosis’ (p11), which will be familiar to many in the present era of transdiagnostic theories.

There is an ongoing trend of studies applying statistical factor analysis to checklists completed by clinicians or service users or to scores from cognitive tests such as executive functions. Factor analysis is correlation in disguise. Frith summarises the problem: ‘the factors you get out are entirely determined by the measures you put in’ (p10). So the discovery of a dimension which does not have an underlying causal theory using such a technique is as arbitrary as is a diagnosis. This will be useful to rehearse

given rumours that DSM–6 will be more dimensional in nature and there are hints of this in the DSM–5 appendix on personality disorders.

The book is interesting as a historical document, illustrating the thinking and work of a hardcore cognitive neuroscientist making a case against diagnosis. There are plenty of examples of results worth chasing. To give one example, an oft-cited correlation between tongue and chin muscle activity and verbal hallucinations (p60) appears not to have replicated particularly well. However, it’s difficult to know what to do with the review – and most of the book is a review. Readers’ first response to an empirical claim could reasonably be: what has changed in the last twenty years? Typing searches becomes tiresome after the first few pages of results. The main conceptual advances since 1992 appear to be, more studies, higher resolution brain imaging, more complex methods of analysis, less interest in the idea of an intervening cognitive-level of explanation, and a preference for mathematical models over boxology. The book is worth a read if you are into history and either already know the latest results or don’t mind doing a lot of homework; perhaps one to request for the library rather than to add to your bookshelf.

Andrew J. B. Fugard