



BOOK REVIEW

The Descent of Madness. Evolutionary Origins of Psychosis and the Social Brain

By Jonathan Burns. Pp. vii + 275. Non-members: R355 (incl. P&P), SAMA members: R320 (incl. P&P). Book Promotions. 2007. ISBN-978-58391-743

In his quest for a reasoned explanation and understanding of the origin of madness in mankind, Jonathan Burns takes the reader on an epic exploration of the evolution of the mind/brain linking evidence from a diversity of scientific disciplines including biology, sociology, psychology and anthropology.

He comments that despite the valuable insights provided by sound scientific studies in these various disciplines, the origin of serious mental illness, in particular schizophrenia, remains elusive. He suggests that research has reached a 'dead-end' because of the absence of any unifying hypothesis that integrates evolutionary data into a *single conceptual framework*.

Modern psychiatry has avoided an evolutionary pathway to explain psychotic phenomenology since it is difficult to prove. Burns suggests that with increasing evidence amassing from research it is timely to generate new ideas that attempt to integrate biological evidence with the evidence from other disciplines involved in evolutionary science. He argues that recent insights from unrelated fields, primatology, palaeoanthropology and developmental psychology, can be drawn together to formulate a scientifically satisfying theory of madness.

This is the central theme and purpose of the book.

While Burns is cautious in his assumptions, and mindful of having to provide robust data to 'win converts' to his hypothesis, he suggests provocatively that the constraints of evidence-based medicine may blinker researchers from thinking creatively in attempting to unravel the complexities of the origin of madness.

His point of departure for the rationale of an evolutionary model for psychosis is based on the consistency of the cross-cultural incidence and clinical picture of schizophrenia globally. He develops his argument by suggesting that schizophrenia may have emerged at a time when human beings were evolving and migrating across the world. The non-extinction of the disorder during human evolution suggests that over the millennia it may have bestowed a certain evolutionary advantage on mankind. Since there is some evidence that certain gifted and creative individuals manifest traits of madness, or have first-degree relatives with schizophrenia,

it has been suggested that schizophrenia is compensated for by genetically related individuals who display distinct highly specialised and adaptive traits.

As the archaic mind left no fossilised record, Burns borrows a convenient *cabling* methodology from archaeology to draw together the strands of evidence from diverse scientific disciplines in an attempt to construct a reasonably sound hypothesis. But over time the scientific method has failed to provide robust proof of the origin of psychosis.

So does Burns succeed in convincing the reader of the truth by way of his unifying evolutionary hypothesis?

Weaving though the highways and byways of the immense and varied landscape of information in the book, it is clear that the quest for the origin of psychosis will likely be an ongoing one. However, Burns does succeed in pulling together sufficient relevant facts and insights in his critical analysis of research to formulate a plausible neurogenetic theory as the reason for the occurrence of psychotic illness in modern man. He argues that the capacity for madness in our species probably occurred during the neurodevelopmental evolution of the highly complex social and cognitive abilities of the human brain. Changes in gene expression, specifically of regulatory neurodevelopmental genes, may have altered the developmental trajectory of vulnerable frontoparietal and frontotemporal cortical circuitry over millennia, resulting in aberrant connectivity in the evolution of man's highly complex social brain. 'The same genes that drive us mad have made us human' (Faulks 2005).

In summary, while *The Descent of Madness* is not an easy armchair read, it is a scholarly work. The text is densely packed with references from multiple scientific disciplines, including the molecular neurosciences, and is peppered with numerous political, historical, philosophical and theological extracts. The occasional digression of the narrative into chatty anecdotes about the author's personal life journey is a welcome distraction in the maze of information presented in the 200 pages of text. In my opinion the book will appeal to a range of professionals – in particular students and researchers in the human, behavioural and neurosciences – and for anyone seeking a deeper and more comprehensive understanding of psychotic illness.

Burns makes no claim to having discovered the meaning of the existence of madness in humans, and admits that his theories are speculative and difficult to validate. But he is hopeful that his ideas will encourage others to further their exploration of the extraordinary complexities of the human mind/brain and its capacity for madness, and in that quest, to use innovative and creative thinking in searching for the truth.

Denise White