

Is it Time Schizophrenia Research Left the Museum?

Science is one of very few human endeavors with at least the potential for true progress. But the scientific process can be painful and frustrating when the evidence base is incomplete and inconsistent, and progress appears slow. The efficiency of this process can be optimized by a thorough understanding of previous hypotheses that have contributed to the generation and interpretation of the current evidence base. As a field, different disciplines use a range of strategies to deal with this uncertainty and frustration. One understandable strategy is to revisit the writings of creative researchers from previous decades in order to seek inspiration. If the results of current research can be nested within an historical framework, it can provide comfort to the anxious researcher and add credibility to the concepts and data espoused. Conversely, disciplines that are too reliant on past models may unwittingly hinder paradigm shifts.

We wish to respectfully suggest that the field of schizophrenia research has developed an unhealthy reliance on historical figures. We speculate that the bewildering complexity of neuropsychiatric disorders, and our imperfect understanding of neuroscience, may have contributed to this “retreat” to past paradigms. While we are mindful of scientific hubris, we argue that this type of intellectual insecurity will not optimize discovery.

We wish to respectfully suggest that the field of schizophrenia research has developed an unhealthy reliance on historical figures.

What evidence is there to suggest that our field is too focused on the past? How could schizophrenia research, one of the most energetic areas of neuropsychiatric research, be accused of being backward looking? (Loyal disciples of Kraepelin and Bleuler should look away now.) While we cannot precisely quantitate the influence of historical figures on our field, many readers would have sat through conference presentations where the speaker embeds the rationale for their study by first citing the work of figures like Kraepelin, Bleuler, Schneider and Langfeldt. Similarly, many presentations conclude with the reassurance that the findings were consistent with research conducted in the late 19th or early 20th century. But, are we being unfair—what about other comparable fields? Would those involved in multiple sclerosis research feel obliged to link their works to the writing of Jean-Martin Charcot? How many presentations at immunology conferences feature photos of key historical figures such as Medawar and Burnet (in contrast to presentations that feature photographs of Kraepelin and Bleuler)? A check of the Google scholar database using the software “Publish or Perish” located 140 psychiatric papers per year that cite Bleuler or Kraepelin (probably missing many that simply name, but not specifically cite them as references). With respect to historical figures in neurology, Wernicke and Broca attract less than one quarter of the annual citations compared to Bleuler and Kraepelin (we realize that Wernicke is an important psychiatric theorist as well; taking this into account would make the imbalance even more striking). We do not propose that this metric is a precise index of our concerns, but it suggests (at least) that there is variation in how different fields cite the opinion of researchers from previous centuries.

From one perspective, it is understandable that our field does not want to wander too far away from our scientific founders. Despite decades of back-breaking work, we still have to rely on an imperfect syndrome as an interim diagnostic label. Like a ship at sea, it seems we are forced to do our running repairs without the benefit of

a “dry dock.” We lack a complete understanding of brain function; we remain uncertain about the etiology and pathogenesis of this group of disorders. However, there has been exponential growth in basic neuroscience and applied cognitive neuropsychiatry research in recent decades, and there is abundant material suitable for new conceptual frameworks (e.g., the value of dimensional models for psychopathology, evidence about shared genetic architecture between diverse diagnostic categories, etc.). For example, much progress has been made in understanding the role of epigenetics in brain function, and of the importance of social cognition in understanding the phenomenology of schizophrenia

*Like a ship at sea, it seems we are forced to do our running
repairs without the benefit of a “dry dock.”*

As part of a wider scientific process, schizophrenia research should not be overly reliant on past paradigms. We are not doing our historical giants justice by using them as a pedestal to elevate ourselves, claiming to stand on their shoulders. A tremendous outburst of creativity, discussion, and controversy was catalyzed by the European flowering of scientific psychiatry in Kraepelin’s and Bleuler’s time. Concepts were not only hotly discussed, but also profoundly altered in that discussion. It is the spirit, and not the content, of their work that should be kept current. We need the scientific courage to look for inspiration in contemporary science. Of course, this has always occurred in schizophrenia research (e.g., the discoveries related to genetics and imaging). But we argue that undue reverence for historical figures can hinder this healthy process. It is time schizophrenia research left the museum.

*John McGrath
Andreas Meyer-Lindenberg*

Addresses for correspondence: John McGrath, MD, Queensland Brain Institute, University of Queensland, St. Lucia, QLD 4072, Australia (e-mail: john_mcgrath@qcmhr.uq.edu.au); Andreas Meyer-Lindenberg, Department of Psychiatry and Psychotherapy, Central Institute of Mental Health, University of Heidelberg J5, 68159 Mannheim, Germany (e-mail: a.meyer-lindenberg@zi-mannheim.de). Editorial accepted for publication August 8, 2012.