

Society and Psychosis

Edited by
Craig Morgan
Kwame McKenzie
and **Paul Fearon**



CAMBRIDGE

Medicine

CAMBRIDGE

www.cambridge.org/9780521689595

This page intentionally left blank

Society and Psychosis

Psychiatry is in the process of rediscovering its roots. It seemed as if the long history of interest in the impact of society on the rates and course of serious mental illness had been forgotten, overtaken by the advances of neuroscience and genetics. However, as our knowledge of physiological and genetic processes improves, it becomes increasingly clear that social conditions and experiences over the life course are crucial to achieving a full understanding. Old controversies are giving way to genuinely integrated models in which social, psychological and biological factors interact over time, culminating in the onset of psychosis. This book reviews these issues from an international perspective, laying the foundations for a new understanding of the psychotic disorders, with profound implications for health policy and clinical practice. It will be of interest to academics, researchers, clinicians and all those who work with people with a serious mental illness.

Craig Morgan is Senior Lecturer at the Institute of Psychiatry, King's College London, UK.

Kwame McKenzie is Professor of Psychiatry at the University of Toronto and the University of Central Lancashire, and Senior Scientist and Clinician at the Centre for Addictions and Mental Health, Toronto, Canada.

Paul Fearon is Senior Lecturer and Head of the Section of Epidemiology and Social Psychiatry at the Institute of Psychiatry, King's College, London, UK.

Society and Psychosis

Craig Morgan

Section of Social and Cultural Psychiatry, Health Service and Population Research Department, Institute of Psychiatry, King's College London, UK

Kwame McKenzie

University of Toronto, Canada; University of Central Lancashire, UK

Paul Fearon

Section of Epidemiology and Social Psychiatry, Department of Psychological Medicine and Psychiatry, Institute of Psychiatry, King's College London, UK



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press

The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org

Information on this title: www.cambridge.org/9780521689595

© Cambridge University Press 2008

This publication is in copyright. Subject to statutory exception and to the provision of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published in print format 2008

ISBN-13 978-0-511-38073-0 eBook (Adobe Reader)

ISBN-13 978-0-521-68959-5 paperback

Cambridge University Press has no responsibility for the persistence or accuracy of urls for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Every effort has been made in preparing this publication to provide accurate and up-to-date information, which is in accord with accepted standards and practice at the time of publication. Although case histories are drawn from actual cases, every effort has been made to disguise the identities of the individuals involved. Nevertheless, the authors, editors and publishers can make no warranties that the information contained herein is totally free from error, not least because clinical standards are constantly changing through research and regulation. The authors, editors and publishers therefore disclaim all liability for direct or consequential damages resulting from the use of material contained in this publication. Readers are strongly advised to pay careful attention to information provided by the manufacturer of any drugs or equipment that they plan to use.

Contents

	Contributors	<i>page</i> vii
	Acknowledgements	x
1	Introduction	
	Craig Morgan, Kwame McKenzie and Paul Fearon	1
2	Climate change in psychiatry: periodic fluctuations or terminal trend?	
	Julian Leff	11
	Part I Theoretical and conceptual foundations	23
3	Social science, psychiatry and psychosis	
	Craig Morgan	25
4	Conceptualising the social world	
	Dana March, Craig Morgan, Michaeline Bresnahan and Ezra Susser	41
5	Genes and the social environment	
	Jennifer H. Barnett and Peter B. Jones	58
	Part II Social factors and the onset of psychosis	75
6	Society, place and space	
	Jane Boydell and Kwame McKenzie	77
7	Childhood adversity and psychosis	
	Helen Fisher and Tom Craig	95
8	Family environment and psychosis	
	Pekka Tienari and Karl-Erik Wahlberg	112

9	Adult adversity: do early environment and genotype create lasting vulnerabilities for adult social adversity in psychosis? Inez Myin-Germeys and Jim van Os	127
10	Migration, ethnicity and psychosis Kwame McKenzie, Paul Fearon and Gerard Hutchinson	143
	Part III Social factors and the outcome of psychosis	161
11	Social factors as a basis for treatment Richard Warner	163
12	Public attitudes, stigma and discrimination against people with mental illness Graham Thornicroft and Aliya Kassam	179
13	Outcomes elsewhere: course of psychosis in ‘other cultures’ Kim Hopper	198
	Part IV Models and conclusions	217
14	Theories of cognition, emotion and the social world: missing links in psychosis Paul Bebbington, David Fowler, Philippa Garety, Daniel Freeman and Elizabeth Kuipers	219
15	Society and psychosis: future directions and implications Craig Morgan, Kwame McKenzie and Paul Fearon	238
	Index	252

Contributors

Jennifer H. Barnett

Department of Psychiatry
University of Cambridge
Box 189
Addenbrooke's Hospital
Cambridge
UK

Paul Bebbington

Department of Mental Health Sciences
University College London (Bloomsbury
Campus)
Wolfson Building
48 Riding House Street
London
UK

Jane Boydell

Section of Epidemiology and Social
Psychiatry
Department of Psychiatry and Psychological
Medicine
Box 63
Institute of Psychiatry
De Crespigny Park
London
UK

Michaeline Bresnahan

Department of Epidemiology
Mailman School of Public Health
Columbia University
Presbyterian Hospital
722 West 168th Street
New York, NY
USA

Tom Craig

Section of Social and Cultural Psychiatry
Health Service and Population Research
Department
Box 33
Institute of Psychiatry
De Crespigny Park
London
UK

Paul Fearon

Section of Epidemiology and Social
Psychiatry
Department of Psychological Medicine and
Psychiatry
Box 63
Institute of Psychiatry
De Crespigny Park
London
UK

Helen Fisher

Department of Psychiatry and Psychological
Medicine, and Social, Genetic and
Developmental Psychiatry Centre
Box 63
Institute of Psychiatry
De Crespigny Park
London
UK

David Fowler

School of Medicine, Health Policy and
Practice
University of East Anglia
Norwich
UK

Daniel Freeman

Department of Psychology
Box 77
Institute of Psychiatry
De Crespigny Park
London
UK

Philippa Garety

Department of Psychology
Box 77
Institute of Psychiatry
De Crespigny Park
London
UK

Kim Hopper

Nathan Klein Institute for Psychiatric
Research and Mailman School of Public
Health
Columbia University
722 West 168th Street
Sociomedical Sciences #928
New York, NY
USA

Gerard Hutchinson

Psychiatry Unit
Department of Clinical Medical Sciences
University of the West Indies
Mount Hope
Champs Fleurs
Trinidad

Peter B. Jones

Department of Psychiatry
University of Cambridge
Box 189
Addenbrooke's Hospital
Cambridge
UK

Aliya Kassam

Health Service and Population Research
Department
Box 29
Institute of Psychiatry
De Crespigny Park
London
UK

Elizabeth Kuipers

Department of Psychology
Box 77
Institute of Psychiatry
De Crespigny Park
London
UK

Julian Leff

Department of Psychiatry and Psychological
Medicine
Box 63
Institute of Psychiatry
De Crespigny Park
London
UK

Dana March

Department of Epidemiology
Mailman School of Public Health
Columbia University
Presbyterian Hospital
722 West 168th Street
New York, NY
USA

Kwame McKenzie

Centre for Addictions and Mental Health
University of Toronto
455 Spadina Av.
Toronto
Canada

Craig Morgan

Section of Social and Cultural Psychiatry
Health Service and Population Research
Department
Box 33
Institute of Psychiatry
De Crespigny Park
London
UK

Inez Myin-Germeys

Department of Psychiatry and
Neuropsychology
Maastricht University
PO Box 616 (Location DOT10)
6200 MD Maastricht
The Netherlands

Ezra Susser

Department of Epidemiology
Mailman School of Public Health
Columbia University
Presbyterian Hospital
722 West 168th Street
New York, NY
USA

Graham Thornicroft

Health Service and Population Research
Department
Box 29
Institute of Psychiatry
De Crespigny Park
London
UK

Pekka Tienari

Department of Psychiatry
The University of Oulu
PO Box 5000
90014 Oulu
Finland

Jim van Os

Department of Psychiatry and
Neuropsychology
Maastricht University
PO Box 616 (Location DOT10)
6200 MD Maastricht
The Netherlands

Karl-Erik Wahlberg

Department of Psychiatry
The University of Oulu
PO Box 5000
90014 Oulu
Finland

Richard Warner

Department of Psychiatry
University of Colorado at Boulder
233 UCB
Boulder, CO
USA

Acknowledgements

We would like to thank Sonya Levin for early assistance, and Dr Helen Billinge for invaluable help with referencing and proofreading.

Introduction

Craig Morgan, Kwame McKenzie and Paul Fearon

Psychiatry has recently rediscovered its roots. It seemed as if its long history of interest in the impact of society on the rates and course of serious mental illness had been forgotten, overtaken by the inexorable advance of neuroscience and genetics. However, as our knowledge of the physiological and genetic processes linked to psychosis has advanced, it has become increasingly clear that social conditions and experiences over the life course are important in the aetiology of psychosis. Old dichotomies and controversies are giving way to genuinely integrated models, in which social, psychological and biological factors are seen to interact over time, culminating in the onset of psychosis. The influence of society extends beyond onset to shape course and outcome, with important implications for public policy and service delivery. In this context, it is useful to take stock of what is currently known about the links between society and psychosis, limitations to this knowledge, unanswered questions and future research priorities. *Society and Psychosis* aims to do this.

Categories and continua

There have been many attempts to define psychosis. Wing (1978), for example, gave a relatively narrow description: 'A 'psychotic' state is one characterised by delusions or hallucinations, in which the individual is unable to differentiate his grossly abnormal thought processes from external reality and remains unaware of his deficiency.' (pp. 44–5.) Less restrictive definitions include hallucinatory experiences that the sufferer realises are abnormal and, more broadly still, others include disorganised speech and grossly disorganised behaviour (APA, 1994). Psychotic symptoms can occur in a range of disorders identified in the *Diagnostic and Statistical Manual* (APA, 1994) and the *International Classification of Diseases* (WHO, 1992), including schizophrenia spectrum disorders, affective disorders, a range of brief psychotic disorders and grief reactions.

The purposes of classification and diagnosis in psychiatry are the same as in the rest of medicine. That is, diagnosis is intended to communicate information about

symptoms, aetiology, prognosis and optimal treatment. In relation to psychotic mental disorders, there have been recurrent questions about whether specific diagnoses, particularly schizophrenia, provide such information reliably. For example, it has long been acknowledged that the outcome of schizophrenia is variable. While the textbook account – that approximately a third recover, a third have an episodic course and a third have a continuous course – may need to be revised as new research emerges, there is, nevertheless, clear heterogeneity in outcome for those diagnosed with schizophrenia (and those with other psychotic disorders) (Menezes *et al.*, 2006). Likewise, responsiveness to antipsychotic medication is not uniform, and there is a sizeable minority of subjects who remain resistant to most common forms of treatment. Furthermore, an increasing body of recent research suggests that large numbers of people in the general population experience psychotic (or psychotic-like) symptoms: 10–15% in some studies (Verdoux and van Os, 2002). As a consequence, the debate has resurfaced on whether psychotic disorders are discrete entities, marked by a clear disjunction from normal experience, or whether they lie on a continuum with normality (van Os *et al.*, 2000). This debate is fuelled by research in cognitive psychology focusing on specific psychotic symptoms, such as hallucinations and delusions, rather than on diagnostic categories (see Chapter 14). The lack of diagnostic specificity of such positive psychotic symptoms is one observation that has led some to argue that it is negative symptoms (e.g., blunted affect, asociality, anhedonia, poor self-care, etc.) that are at the core of schizophrenia. This is also contributing to the renewed debate about the validity and utility of schizophrenia as a diagnostic entity (Bentall, 2003; Lieberman and First, 2007).

This book is concerned with psychosis in a broad sense, and the tension between whether the focus should be on psychotic symptoms, conceived as lying on a continuum with normality, or on discrete diagnosable psychotic disorders will be evident throughout these pages. As this issue remains unresolved, this tension is welcome; research from both perspectives promises to increase understanding and in time will, hopefully, contribute to resolving this debate. This is not simply an academic point. Efforts to understand and treat psychosis will depend to a large degree on accurate conceptualisations, and it may be that our current efforts are hampered by lack of clarity over what the unit of investigation should be: symptoms, such as delusions and hallucinations, or categories, such as schizophrenia and bipolar disorder. This is one of the central issues in psychosis research.

A final point on this is necessary. While this book is concerned with psychosis in a broad sense, as much of the existing research focuses on schizophrenia, this will frequently be used as an example, on the basis that understanding schizophrenia in particular may give us insights into psychosis in general.

Changing views of the epidemiology of schizophrenia

One of the basic tenets of the epidemiology of schizophrenia has been that the incidence is more or less uniform around the world (Crow, 2000). The WHO multi-country studies of the 1970s and 1980s contributed much to establishing this orthodoxy, particularly the finding from the Determinants of Outcomes of Severe Mental Disorders (DOSMeD) study that there were no statistically significant differences between the 12 centres studied in the incidence of narrowly defined schizophrenia (Jablensky *et al.*, 1992). The apparent invariance of schizophrenia has been taken as evidence that the disorder is primarily genetic; the usual variability that would be expected if the occurrence of schizophrenia was influenced by local social environments was simply not evident (Crow, 2000).

In recent years, new research and meta-analyses have challenged the interpretation that schizophrenia, even narrowly defined, has a uniform incidence (Cantor-Graae and Selten, 2005; McGrath *et al.*, 2004). A comprehensive meta-analysis of 100 incidence studies by John McGrath and his colleagues (2004) at the University of Queensland found marked variations in the incidence of psychosis by place and persons. For example, the variation in incidence rates between sites covered in the studies reviewed was more than fivefold. The review further confirmed higher rates in urban centres and in migrant groups, this latter finding being replicated in a more specific review (Cantor-Graae and Selten, 2005). In fact, from the beginning, the interpretation of a uniform incidence did not go unchallenged. A number of commentators pointed out that, although statistically non-significant, there was a twofold difference between the highest and lowest reported incidence rates for narrow schizophrenia in the DOSMeD study, and, for broadly defined schizophrenia, there were marked differences between the various centres (Kleinman, 1991). As McGrath (2007) has commented, it seems that the contours of the epidemiology of schizophrenia are not flat after all.

An uneven epidemiological terrain does not, in itself, point towards a particular aetiology, but it does open the door for investigating causes through the lens of differences in incidence between populations and places.

The aetiology of psychosis

The causes of schizophrenia and other psychoses have been the subject of intense research efforts and frequently acrimonious debates. In the crudest terms, these debates have centred on the question of whether the causes reside in individual biology, intrapsychic conflict or socioenvironmental stress. At various points there have been attempts to bridge these positions within biopsychosocial frameworks (e.g., Engel, 1980). However, it is arguable that, for all the lip service paid to some

kind of vague biopsychosocial model of aetiology, at various points one side or other has dominated. In the past 20 years, for example, the dominant view has been that schizophrenia (psychosis) is a genetic brain disease, the onset of which is the product of a neurodevelopmental process (Andreasen, 2000). Social factors, if they have been assigned a role at all, have been relegated to the status of triggers, serving merely to hasten the onset of a largely biologically determined disease. This view, however, is changing.

The proposition that socioenvironmental factors are aetiologically important in psychosis has, in the past, been undermined by two particular problems. First, as schizophrenia and other psychoses are often preceded by a period of functional decline, leading to problems in maintaining social relationships and employment, it is extremely difficult to determine the causal direction of any association between markers of socioeconomic adversity and schizophrenia. Second, the mechanisms by which society impacts on individuals to increase risk of schizophrenia and other psychoses have been poorly specified. The numbers of people who are exposed to adverse social conditions, traumatic life events, and so on, far outstrip the numbers who ever experience serious mental illness. The types of adverse social conditions associated with psychosis are not specific (they are also associated with a range of other disorders), and most people who are exposed do not develop a serious mental illness. If such experiences are relevant to the onset of psychosis, how is it that such a relatively small proportion develops schizophrenia? The chapters in Part II of this book address these questions directly.

There are at least three developments that are contributing to the renewed interest in the role of the social environment in the aetiology of psychosis. First, as already discussed, it is becoming clear that there are notable variations in the incidence of psychosis both between and within countries. The higher incidences in urban centres and in migrant and ethnic minority groups, in the absence of concrete evidence one way or the other, at the very least suggests that there are social factors that occur more commonly in these settings and groups and that merit further study. Second, there has been a series of recent studies that have overcome the problem of direction of causation by using data from large population-based registers and prospective cohorts (Janssen *et al.*, 2004; Pedersen and Mortensen, 2001). These have continued to produce findings that link exposure to negative social experiences and circumstances prior to the development of psychosis and subsequent onset (e.g., Spauwen *et al.*, 2006). Where the extent of exposure, either in terms of frequency or severity, has been measured, some of these studies have found evidence of dose–response relationships, such that the greater the exposure to, say, sexual abuse, the greater the risk of psychosis (e.g., Janssen *et al.*, 2004). Finally, and perhaps most importantly, one consequence of the recent rapid advances in neuroscience and genetics is that we are beginning

to understand how social experience along the life course interacts with genotype, and impacts on biological development, to shape adult outcomes. These insights are now being used to produce biological models linking adverse social experiences, including childhood trauma, and adult psychosis (e.g., Spauwen *et al.*, 2006; Teicher *et al.*, 2003). All of the chapters in this book that address aetiology reflect this development; they all propose candidate mechanisms that, at least in theory, could account for the observed associations between the various social exposures and psychosis. Vague notions of susceptibility or diathesis, proposed in the past, are being replaced by concrete evidence-based biological mechanisms linking social experience with brain development and psychosis (Teicher *et al.*, 2003).

Course and outcome of psychosis

In contrast to the controversy that surrounds the possible role of socioenvironmental factors in the aetiology of psychosis, it is generally accepted that the social environment can influence the course and outcome of psychosis. Over 30 years ago, Wing and Brown (1970) showed how living in long-stay institutions contributed to the development of behaviours and symptoms that had been assumed to be intrinsic features of schizophrenia. There is now a considerable body of research showing that critical and hostile (i.e., high expressed emotion) home environments can increase the risk of relapse, particularly in the absence of antipsychotic medication (Kavanagh, 1992). Further, negative social attitudes and responses towards those with psychosis exclude many from opportunities for employment and productive social relationships, opportunities that have been shown to promote recovery (Warner, 2000). The finding from the WHO DOSMeD study, that outcomes are better in developing than in developed countries, is usually interpreted in these terms (Jablensky *et al.*, 1992), i.e., as reflecting the fact that responses to psychosis in the developing world are less stigmatising and sufferers are more readily reintegrated back into family and social groups. This interpretation, however, has never been fully tested and new analyses are beginning to question whether the course and outcome really is more benign in the developing world (Patel *et al.*, 2006).

Research further shows that interventions designed to modify social environments and promote social reintegration can improve course and outcome (Leff and Warner, 2006). The classic example is family intervention to reduce levels of expressed emotion (Kuipers *et al.*, 2002). However, the use of specific targeted social interventions in routine mental health care is sporadic at best, and research on social interventions is swamped by that on psychopharmacology. To a degree, the introduction of novel antipsychotic medication has provided further impetus to psychopharmacological research; whether these deliver the advertised benefits over and above first-generation neuroleptics is questionable (Jones *et al.*, 2006; Lieberman

et al., 2005). In contrast, research on psychosocial interventions is slight; again, however, there are signs of change, particularly with an increasing number of studies of cognitive interventions for psychosis (e.g., Kuipers *et al.*, 2006).

Society and psychosis

The primary purpose of this book is to reflect these current trends in the study of society and psychosis, and to contribute to developing an agenda for future research. There have been many swings and trends in psychosis research, as noted above. In Chapter 2, Julian Leff sets the scene by surveying the shifting fashions of psychiatric research. By reflecting on his own involvement in research over the past 30 years, and analysing trends in the publication of psychosocial and biological papers in the *British Journal of Psychiatry* and the *American Journal of Psychiatry*, Leff argues that the wider social, economic and political context often determines what research is funded and published. It is for future analyses to assess the external pressures that are shaping current shifts towards more fully integrated biopsychosocial models of psychosis. The hope is that, with each shift, we move closer to a fuller understanding that allows for more effective interventions.

Theoretical and conceptual foundations

The first part of the book provides a series of orientating chapters. In attempting to understand the relationship between society and psychosis, there is much that can be learned from the social sciences. The historical relationship between psychiatry and the social sciences, however, has been fraught, and scepticism concerning the role of the social environment in the aetiology of psychosis is reflected in continuing scepticism about the value of the social sciences. In Chapter 3, Craig Morgan provides an overview of this often acrimonious relationship and outlines a number of areas in which the social sciences can provide important contributions to current efforts at investigating links between society and psychosis. In Chapter 4, Dana March and her colleagues provide an introduction to conceptualising the social world. To understand how social conditions and experiences impact on individuals, we need conceptual tools that allow us to define and measure what are continual social processes. As research now shows broad associations between relatively crude variables (e.g., urbanicity, migration) and risk of psychosis, there is a need to move on to investigating directly the social processes that potentially underpin these relationships. In this, basic conceptual and theoretical work will be essential.

Perhaps the one area with the greatest potential for clarifying the nature of the relationship between the social environment and risk of psychosis is that of gene–environment interaction. As more research emerges, showing that the impact of a specific environmental factor, such as life events or cannabis

consumption, on the risk of psychosis is influenced by genotype, this will become an increasingly important area of study. In Chapter 5, Jennifer Barnett and Peter Jones provide a detailed conceptual and methodological overview of gene–environment interplay in psychosis. The ideas introduced here are picked up and illustrated with specific examples in many of the chapters in the second part of the book. The prominence given to gene–environment interactions in these chapters further emphasises the extent to which the social and biological are being combined in current psychosis research.

Social factors and the onset of psychosis

The social environment can be considered at different stages and at different levels: for example, at the level of the individual, the family or society. The chapters in the second part of the book review specific areas of research, setting out what is currently known, the limitations to what is known and, as appropriate, methodological issues and challenges for future research.

In the first of these, Chapter 6, Jane Boydell and Kwame McKenzie examine ecological-level research, an area gaining increasing attention, partly because of the repeated finding that rates of psychosis are higher in urban centres (van Os, 2004), and partly because of increasing interest in social capital and mental illness (e.g., McKenzie and Harpham, 2006). In Chapters 7 and 8, research on early childhood adversity and intrafamilial factors is reviewed. These are contentious areas. In Chapter 7, Helen Fisher and Tom Craig consider the evidence for a link between forms of childhood trauma, including sexual and physical abuse, and the risk of psychosis. Their review reaches a more tentative conclusion than other recent commentators in this area (Read *et al.*, 2005), pointing to important methodological issues for future research. Fisher and Craig present a preliminary theoretical framework as a guide for subsequent research. In Chapter 8, Pekka Tienari and Karl-Erik Wahlberg examine research on families and psychosis. This is a particularly sensitive topic given the unfortunate history of families, particularly mothers, being blamed for causing schizophrenia. As Tienari and Wahlberg explain, families do not cause psychosis. It may, nonetheless, be that certain forms of communication within families impact on child development in such a way as to increase vulnerability to later emotional and mental disorder. Where there is also a genetic susceptibility, the two may interact to increase risk of psychosis. However, these are not predestined pathways, and individual resources and subsequent positive experiences may be protective. The potential links between early adversity and later adversity is one of the themes of Chapter 9, in which Inez Myin-Germeys and Jim van Os consider research on adult adversity. While reviewing the field in general, Myin-Germeys and van Os also present data from a series of innovative studies assessing the impact of daily hassles on the development and exacerbation of psychotic symptoms. It is apparent

from this work that a range of different factors operate over the life course to increase susceptibility to psychosis. The development, or exacerbation, of psychotic symptoms in the vulnerable may be provoked by specific life events or regular daily stresses.

In the final chapter in this part, Chapter 10, Kwame McKenzie and his colleagues focus on migration, ethnicity and psychosis. Within a broad review of this field, they focus in detail on the evidence that the African-Caribbean population in the UK is at greatly increased risk of psychosis and, from this, propose a preliminary sociodevelopmental model of psychosis.

Social factors and outcomes

The third part of the book contains three chapters focusing, broadly, on social responses to psychosis and their effects. In the first, Chapter 11, Richard Warner shows that social interventions can impact positively on the course of psychosis and sufferers' quality of life. In Chapter 12, Graham Thornicroft and his colleagues provide a detailed and wide-ranging review of literature on stigma and psychosis. Schizophrenia remains heavily stigmatised, and sufferers frequently experience discrimination and social exclusion. Such adverse societal responses may worsen outcomes and quality of life for those with schizophrenia. What Chapter 12 makes clear is the need for urgent strategies to tackle stigma and promote social reintegration. In Chapter 13, Kim Hopper reviews the intriguing finding that the outcomes of schizophrenia may be better in developing than developed countries; a finding that, as noted above, has long been considered as evidence that social and cultural contexts are major determinants of course and outcome.

Models and conclusions

In parallel with a resurgence of interest in social factors and psychosis, there has been a rapid development of research from a cognitive psychology perspective, focusing on specific symptoms and examining the role of variables, such as attributions and emotion, in the aetiology of psychosis (e.g., Bentall, 2003). In much of the book, the focus is very much on how social experience interacts with biology to increase the risk of psychosis. A further framework for linking these is a cognitive model of psychosis. In Chapter 14, Paul Bebbington and his colleagues review this expanding field and explain how a cognitive model can provide a further explanatory link between social adversity and psychosis; a framework, moreover, that retains the important role of biology and, arguably, begins to resemble a genuinely biopsychosocial model of psychosis.

In the final chapter, we present a formulation of the state of the art of research into the impact of society on psychosis, and offer thoughts on an agenda for future research. However, distinguishing social from biological research, particularly in relation to aetiology, is increasingly artificial. Studies on the impact of social

factors will need to take account of the potential mediating role of a number of biological variables, including genotype and biochemistry. There appears to be an emerging consensus that new research needs to be undertaken with, rather than in isolation from, specialists in the biological and psychological sciences. Integration of different fields and different types of knowledge is the way forward for research into psychosis and is reflected throughout the chapters of *Society and Psychosis*.

Despite the clear importance of investigating social aspects of psychosis and all the work that has been done to date, there is still much more that needs to be done. Scientists always seem to conclude with a call for more research. We argue for a different type of research, using new methodologies and conceptualisations, which will help us to link knowledge of the social world with knowledge of genetics, biology and psychology to increase our understanding of psychosis.

REFERENCES

- American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders*, 4th edn. Washington, DC: American Psychiatric Association.
- Andreasen, N. (2000). Schizophrenia: the fundamental questions. *Brain Research Reviews*, **31**, 106–12.
- Bentall, R. (2003). *Madness Explained: Psychosis and Human Nature*. London: Allen Lane.
- Cantor-Graae, E. and Selten, J. P. (2005). Schizophrenia and migration: a meta-analysis and review. *American Journal of Psychiatry*, **162** (1), 12–24.
- Crow, T. J. (2000). Schizophrenia as the price that *Homo sapiens* pays for language: a resolution of the central paradox in the origin of the species. *Brain Research Reviews*, **31**, 118–29.
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *American Journal of Psychiatry*, **137**, 535–44.
- Jablensky, A., Sartorius, N., Ernberg, G. *et al.* (1992). Schizophrenia: manifestations, incidence and course in different cultures. A World Health Organization ten-country study. *Psychological Medicine. Monograph Supplement*, **20**, 1–97.
- Janssen, I., Krabbendam, L., Bak, M. *et al.* (2004). Childhood abuse as a risk factor for psychosis. *Acta Psychiatrica Scandinavica*, **109**, 38–45.
- Jones, P. B., Barnes, T. R. E., Davies, L. *et al.* (2006). Randomized controlled trial of the effect on quality of life of second- vs first-generation antipsychotic drugs in schizophrenia: cost utility of the latest antipsychotic drugs in schizophrenia study (CUtLASS 1). *Archives of General Psychiatry*, **63**, 1079–87.
- Kavanagh, N. (1992). Recent developments in Expressed Emotion and schizophrenia. *British Journal of Psychiatry*, **160**, 601–20.
- Kleinman, A. (1991). *Rethinking Psychiatry: From Cultural Category to Personal Experience*. New York: The Free Press.
- Kuipers, E., Leff, J. and Lam, D. (2002). *Family Work for Schizophrenia: A Practical Guide*, 2nd edn. London: Gaskell.

- Kuipers, E., Garety, P., Fowler, D. *et al.* (2006). Cognitive, emotional, and social processes in psychosis: refining cognitive behavioural therapy for persistent positive symptoms. *Schizophrenia Bulletin*, **32** (suppl. 1), s24–s31.
- Leff, J. and Warner, R. (2006). *Social Inclusion of People with Mental Illness*. Cambridge: Cambridge University Press.
- Lieberman, J. A. and First, M. B. (2007). Renaming schizophrenia. *British Medical Journal*, **334**, 108.
- Lieberman, J. A., Stroup, T. S., McEvoy, J. P. *et al.* (2005). Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. *New England Journal of Medicine*, **353** (12), 1209–23.
- McGrath, J. (2007). The surprisingly rich contours of schizophrenia epidemiology. *Archives of General Psychiatry*, **64**, 14–15.
- McGrath, J., Saha, S., Wellham, J. *et al.* (2004). A systematic review of the incidence of schizophrenia: the distribution of rates and the influence of sex, urbanicity, migrant status, and methodology. *BMC Medicine*, **2**, 13.
- McKenzie, K. and Harpham, T. (eds) (2006). *Social Capital and Mental Health*. London: Jessica Kingsley.
- Menezes, N. M., Arenovich, T. and Zipursky, R. B. (2006). A systematic review of longitudinal outcome studies of first-episode psychosis. *Psychological Medicine*, **36** (10), 1349–62.
- Patel, V., Cohen, A., Thara, R. *et al.* (2006). Is the outcome of schizophrenia really better in developing countries? *Revista Brasileira Psiquiatria*, **28** (2), 129–52.
- Pedersen, C. and Mortensen, P. (2001). Evidence of a dose-response relationship between urbanicity during upbringing and schizophrenia risk. *Archives of General Psychiatry*, **58**, 1039–46.
- Read, J., van Os, J., Morrison, A. P. *et al.* (2005). Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. *Acta Psychiatrica Scandinavica*, **112**, 330–50.
- Spauwen, J., Krabbendam, L., Lieb, R. *et al.* (2006). Impact of psychological trauma on the development of psychotic symptoms: relationship with psychosis proneness. *British Journal of Psychiatry*, **188**, 527–33.
- Teicher, M. H., Andersen, S. L., Polcari, A. *et al.* (2003). The neurobiological consequences of early stress and childhood maltreatment. *Neuroscience and Behavioral Reviews*, **27**, 33–44.
- van Os, J. (2004). Does the urban environment cause psychosis? *British Journal of Psychiatry*, **184**, 287–8.
- van Os, J., Hanssen, M., Bijl, R. *et al.* (2000). Strauss (1969) revisited: a psychosis continuum in the general population? *Schizophrenia Research*, **45**, 11–20.
- Verdoux, H. and van Os, J. (2002). Psychotic symptoms in non-clinical populations and the continuum of psychosis. *Schizophrenia Research*, **54** (1–2), 59–65.
- Warner, R. (2000). *The Environment of Schizophrenia*. London: Routledge.
- Wing, J. (1978). *Reasoning about Madness*. Oxford: Oxford University Press.
- Wing, J. and Brown, G. (1970). *Institutionalism and Schizophrenia*. London: Cambridge University Press.
- World Health Organization (1992). *The ICD-10 Classification of Mental and Behavioural Disorders (International Classification of Diseases)*, 10th edn. Geneva: World Health Organization.

Climate change in psychiatry: periodic fluctuations or terminal trend?

Julian Leff

Introduction

The direction of research and practice in all fields of medicine is determined by a multiplicity of pressures, including government policy, public demands, economic factors, technical advances and the intellectual zeitgeist. All of these operate in psychiatry, but in addition the social and psychological elements of psychiatric conditions are so prominent that they apply extra pressure. With a few exceptions, such as Alzheimer's disease and Huntington's chorea, the underlying pathology of psychiatric illnesses remains unknown or at best controversial. This situation nurtures the flourishing of many theories and opinions in the domains of biology, psychology and sociology. Opposing camps have grown up with adherents from psychology and sociology in one camp (humanist) and proponents of biological explanations in the other (reductionist, according to the humanists). Over the past decades there have been regular pleas from integrationists to merge differences between the two camps and develop a holistic biopsychosocial approach (e.g., Engel, 1980). Major barriers to this resolution have been the absence of a unifying language to describe the integrated phenomena, and the scepticism of biologists about the ability of the humanists to adopt a 'hard-nosed' scientific approach to the testing of their theories (see Clare, 1980; Sedgwick, 1982).

As a result of the polarisation of these two camps, there has been a struggle for the ascendancy of one over the other that has continued throughout the last century (Sedgwick, 1982). The theoretical disputes have been closely paralleled by arguments over the clinical practice of psychiatry. The current political emphasis on evidence-based medicine has brought theory and practice closer together, and has sharpened some of the arguments between the two camps. It has been recognised that much of what psychiatric professionals do in their daily practice is without an evidence base (www.cochrane.org/colloquia/abstracts/capetown/capetownPB19.html). We should not feel too dejected about this since the same

is true for a high proportion of medical, surgical and obstetric practices (www.medlib.iupui.edu/ebm/home.html).

Influences on research output

Innovations in the practice of psychiatry can influence the direction of research. The introduction of psychoanalysis at the opening of the twentieth century, which in time came to dominate the training of US psychiatrists, had a limited impact on training in the UK. Psychoanalysts did not espouse quantitative research, and psychotherapists were equally averse to scientific evaluation until recently. Eric Kandel (2005), one of the three psychiatric Nobel Laureates, abandoned his psychoanalytic training in the 1960s to pursue a research career focused on elucidating the mechanisms of neural signal transduction, studying sea snails and mice. While the introduction of electroconvulsive therapy (ECT) and insulin coma stimulated evaluative research, which supported ECT and made insulin coma obsolete (Ackner *et al.*, 1957; Brandon *et al.*, 1984), there has been no randomised controlled trial (RCT) of leucotomy, which is still in active use in some countries. During a recent visit to Chile, I was told that a neurosurgical unit in one of the psychiatric hospitals in Santiago was performing three leucotomies a week.

Three decades ago, I was a member of a small committee set up by the UK Medical Research Council to design a randomised controlled trial in conjunction with some neurosurgeons. It failed to materialise because the neurosurgeons refused to accept even a waiting list control, on the grounds that their intervention represented the last resort of desperate patients who could brook no further delay. This type of clinical opposition is another force determining what research comes to fruition and eventual publication. Increasingly, ethical committees play a determining role in what research is acceptable and what is rejected. Many studies that were mounted and published in past years would now fall at this hurdle.

The development of specific psychoactive drugs and their introduction into clinical practice from the 1950s onward have created a vast industry of research, which floods the market with papers and has contributed to the multiplication of specialist journals. Innovations in the organisation of psychiatric services have also stimulated an extensive research effort, although not on the same scale as psychopharmacology and drug trials. This is partly because of the extensive financial support by the pharmaceutical industry of trials of their products, and partly because of the time it takes to evaluate a complex organisational change. For example, the Team for the Assessment of Psychiatric Services (TAPS) spent 13 years evaluating the policy of UK governments (both left and right) of replacing psychiatric hospitals with community services (Leff *et al.*, 2000). The development of new psychological treatments, such as cognitive behavioural therapy and family

interventions for schizophrenia, has also given birth to a growing research literature (e.g., Kuipers *et al.*, 1998; Leff *et al.*, 1985), although, again, this is no rival to the millions of words expended on the value of medication.

In the biological arena, technological advances in brain imaging and in the visualisation of neural processes in the brain have also led to an expansion in specialist journals and in a burgeoning literature. For example, *Biological Psychiatry* was launched in 1976, *Human Brain Mapping* in 1993, *Neuroimage* in 1993 and an e-journal, *Public Library of Science (PLoS) Biology*, in 2005. The completion of the human genome project in 2003 and the refinement of molecular genetics are beginning to have an impact on psychiatric publications, which are certain to grow exponentially over the next decade.

Another major growth area in the psychiatric literature comes from a surprising source: the official classificatory systems for psychiatric diseases. The introduction of the nosological category post-traumatic stress disorder (PTSD) into the US Diagnostic and Statistical Manual, DSM-III, in 1980 and into the WHO International Classification of Diseases has resulted in a huge number of articles on this subject. Certainly, research was conducted on psychological reactions to traumatic events previously, but not on the current scale. Part of the impetus for this in the USA is that the cost of services for an officially recognised diagnostic entity can be reimbursed by the Health Insurance companies.

Policies of the bodies funding research also exert an influence on the type of research conducted. The main government funding body for psychiatric research in the USA is the National Institute of Mental Health. Representatives of the National Alliance for Mental Patients, a non-governmental organisation, sit on the key committee and influence decisions about funding. This organisation is strongly in favour of biological research, and reputedly against any project involving the measurement of relatives' expressed emotion, because of the presumed imputation that families play a part in causing psychiatric illnesses. In the UK, the main government supported funding body is the Medical Research Council, which is genuinely independent of government policies. However, it has policies of its own that determine what types of research applications are likely to be successful. The UK Department of Health has a relatively large research budget and regularly calls for applications in specific areas. These are closely linked to government policy, which influences priorities for research (HMSO, 1995).

The rise of biological research

The net effect of this plethora of influences (see Table 2.1) on the balance between psychosocial and biological research is hard to predict, but prediction should not be attempted without taking into account macro-social changes, which may constitute

Table 2.1 Some influences on the balance between biological and psychosocial research

Introduction of new treatments – biological or psychosocial
Resistance by practitioners to evaluation of their therapies
Increasing control by ethical committees
Technological advances in brain science
Unravelling the human genome and refining molecular genetics
Policies of funding bodies
Incorporation of new disease categories in official systems of classification
Grass-roots ideological movements
Governments of the right or the left

the main overriding factor. Brown (1985) charts the rise and decline of the community mental health movement in the USA, pointing out that cycles of institutional change and reform have been common. The first stirrings of the revolution in psychiatric care were apparent in the UK before World War II, but it was the experiences of military psychiatrists in the war that changed the custodial atmosphere in many psychiatric hospitals in the UK and the USA and initiated an increase in the discharge of patients into the community. This began before the introduction of chlorpromazine into clinical practice in 1955: some British psychiatric hospitals had begun to reduce their beds a few years before this (Leff, 1997).

The shift in the locus of psychiatric care was officially endorsed and facilitated in the USA by the Community Mental Health Centers Acts of 1963 and 1965. These were components of the larger social welfare package of the New Frontier and Great Society programmes of Presidents Kennedy and Johnson. Brown (1985, p. 149) considers that, ‘the last era of general optimism was the community mental health period, roughly located in the decade and a half from 1960–1975 . . . many of the great promises of this approach were not met. In this failure we can locate the preconditions for the rise of a new biologism, a more strictly biomedical and asocial view of mental health and illness.’

The community mental health movement partly came to grief because of the aspirations and activities of its front-line workers. Many of them were young idealistic people who viewed themselves as agents of social change and came into conflict with local landlords and politicians. They had no chance against vested interests because of their naivety and political inexperience. The movement mainly foundered because in 1973 US President Nixon illegally impounded community mental health centre funds already appropriated by Congress. Brown (1985, p. 166) asserts that, ‘such activities were made possible by the rightist government policies of the Nixon period, characterised by domestic espionage, international destabilisation and support of reactionary coups, and disruption of liberal and radical groups

involved in antiwar, civil rights and feminist activities.' He predicted that, 'Current rightwards trends in the 1980s could potentiate a renewed interest in a wide range of authoritarian responses, including psychotechnology.' (p. 166.)

In the UK, we have seen regular swings between left-leaning and right-leaning governments, with distinctly different attitudes to social change. One of the most dramatic shifts is attributable to UK Prime Minister Margaret Thatcher, who famously declaimed, 'There is no such thing as society!' (*Women's Own* magazine, 31 October 1987), and insisted on altering the name of the UK's Social Science Research Council by heading it the 'Economic and Social Research Council'. Thatcherite economic policies have not been repudiated, and the great social reforms of the post-war Attlee government are currently being eroded by a Labour government that lurches to the right. It is characterised by belligerence abroad, increased surveillance of the domestic population and restriction of civil rights. The latter includes a proposed amendment to the Mental Health Act, which, if enacted, will allow for patients in the community to be forced to take medication against their will. If Brown (1985) is correct in linking rightist government policies to the fostering of biologism, then we should be able to detect this effect in the balance between biological and psychosocial publications in the psychiatric literature. We can ask whether there is a natural periodicity in the swings between biological and psychosocial research, or whether we can perceive a tendency towards inexorably increasing biologism in recent years that will eventually eclipse psychosocial research. The problem of detecting such a tendency is equivalent to the arguments over climate change, except that the time period available for scrutiny is less than 100 years instead of many millennia. It is worth stating my perception that the pendulum swings in psychiatric fashion in the USA are much more extreme than in the UK. For instance, in the early Woody Allen period a regular visit to a psychoanalyst was a part of everyday life, whereas today psychoanalysis is a beleaguered form of therapy in the USA.

Searching for trends in the psychiatric literature (1) Method

Ideally, it would be desirable to chart the number of research projects in psychiatry funded per year and determine the ratio of psychosocial to biological studies. This is impractical on account of the number of fund-giving organisations that exist around the world. It is necessary to make compromises in order to collect usable data. To identify some of the broad trends in the psychiatric literature I made three decisions. First, I decided to restrict my investigation to two countries only: the USA and the UK. The great bulk of psychiatric research emanates from these two sources. As an indication of their domination, between 1992 and 2001, these two countries contributed more than 50% of mental health publications in the world psychiatric