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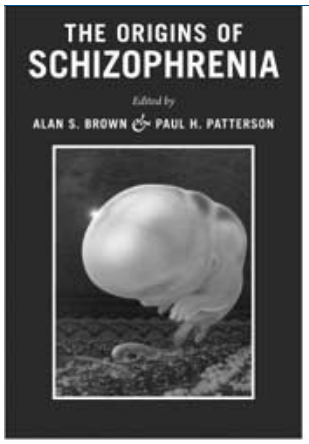
Book reviews

Edited by Allan Beveridge, Femi Oyebode and Rosalind Ramsay



The Origins of Schizophrenia

Edited by Alan S. Brown & Paul H. Patterson.
Columbia University Press. 2011.
£55.00 (hb). 448 pp.
ISBN: 9780231151245

Like many researchers, I would guess, I tend to avoid reading, let alone reviewing, books on my subject. My prejudice is that monographs tend to push niche views, whereas multi-author books often lack coherence and the chapters tend to recycle already published data which are usually well out of date by the time of publication. However, I was attracted by the bold title of this one, the reputations of the editors, and by the nagging doubt that during 20 years of digging around in the human genome for the origins of schizophrenia I might benefit from getting a wider perspective. I was not disappointed.

The main focus of the book is on environmental risk factors, although genetic and epigenetic factors are also covered. The book is split into chapters on clinical studies and those on preclinical models and, in the case of maternal infection, prenatal nutrition and maternal stress, there are complementary chapters in both sections. Other putative risk factors that are covered include paternal age, obstetric complications, cannabis use, and vitamin D deficiency. The chapters are generally well written by experts (the two do not always go together), accessible to the general reader (ditto), and tend to take a balanced view (double ditto). Helpfully, each is prefaced with a list of key concepts and ends with a list of key areas for future research.

The work is framed very strongly within the prevailing paradigm that the origins of schizophrenia are to be found in the interplay between genetic and environmental factors during brain development, and the basis for this view is outlined in an overview chapter. Evidence in favour of a number of the environmental risk factors covered is accumulating thanks to improved epidemiological methodology, but we are still some way from understanding mechanisms. One hope is that findings from new genomics approaches will focus attention on key processes, and early indications are encouraging but too recent to have been integrated into environmental models. A second approach to mechanistic studies is the use of animal models. Although these have been developed, and elegantly so, for factors such as maternal infection, vitamin D deficiency, malnutrition and maternal stress, the problem remains of determining whether neurodevelopmental and behavioural consequences of an environmental manipulation in rodents really model the human disease process. The identification of rare high penetrance mutations in schizophrenia now offers the possibility of developing genetic animal models with high construct validity and the impact of specific environmental manipulation on these might be helpful in this regard.

One striking issue that is not addressed, other than in passing, is that most of the genetic and environmental risk factors for schizophrenia are not specific to the disorder and many, including most of the environmental factors discussed and many of the genetic findings, seem to confer risk to a range of adverse neurodevelopmental outcomes such as intellectual disability, epilepsy, attention-deficit hyperactivity disorder and autism. It seems to me that we should be viewing what we call schizophrenia not as a discrete disorder, but as part of a continuum of liability occurring as a consequence of early brain disruption and that this needs to be taken into account when modelling mechanisms in rodents. This challenges the animal modellers to refine the mapping of their phenotypes on human psychopathology, which is dimensional and crosses disorders, and this in turn requires clinical neuroscientists to understand more fully the neurobiological underpinnings of clinical symptoms and syndromes.

Another omission is the emerging evidence that early childhood maltreatment confers risk to schizophrenia, which is surprising given that this has been modelled in rodents, and the largely neurodevelopmental focus leaves no room for a discussion of possible psychological and social risk factors. These issues notwithstanding, this is an excellent introduction to the origins of schizophrenia, which brings together a large amount of recent work in a readable and critical manner.

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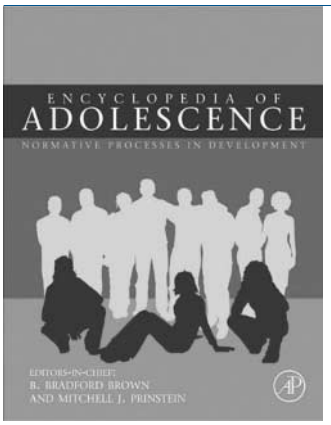

Encyclopedia of Adolescence: Normative Processes in Development

Edited by B. Bradford Brown & Mitchell J. Prinstein.
Academic Press. 2011.
£715.00 (hb). 1294 pp.
ISBN: 9780123739155

Almost everything we know about adolescence has come from research conducted during the past quarter of a century. This volume, the first of three, is a distillation of quality research, presented in an engaging style, with extensive cross-referencing, impressive breadth and not a hint of dumbing-down. This volume presents alphabetically organised articles from psychiatry, psychology, biology, history, sociology, public policy expertise, education, geography, literature and anthropology. Within all of these disciplines, there are many definitions of adolescence, yet a characteristic element is that adolescence is a transition whose purpose is equipping children for adulthood.

The point of these narratives is to bring to our attention such diverse topics as child prodigies and how to teach them; neuroplasticity and a more detailed understanding of the selective elimination of brain cells and connections adolescents use least,

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based on their experiences; and the evolutionary function of music. Unwilling to play down the evolutionary advantages of many facets of adolescence our profession would sometimes seek to pathologise, these encyclopedic entries are deftly edited, ever careful to draw the reader's attention to related material in other entries, broadening and extending our collective understanding, There are some surprises; for instance, I was not expecting to learn that the evidence for the benefits of high self-esteem is very weak.

If I had to choose one chapter for you to dip into, to be convinced of this work's quality, it would be the chapter on creativity in adolescence. In this chapter, the four strands of adolescent creativity – personal dimension, creative process, creative product and environment – can be seen as leitmotifs for the rest of this volume. Similarly, the entries on why adolescents develop motivational systems and studies on risk- taking shed a different shade of light on near every aspect of social and psychological development.

If the old adage that it takes a village to raise a child is true, then it must be truer still that it takes a global community of interdisciplinary experts to explain adolescence. If you truly want to really know how social and cultural life shapes adolescent neurobiology, it's all in these pages. With so many international cross-disciplinary contributors, this could have been a patchwork ragbag of a book about adolescence. But it isn't. This is a gallery of unique and brilliantly rendered portraits of today and tomorrow's adolescents, curated with flair and aplomb.

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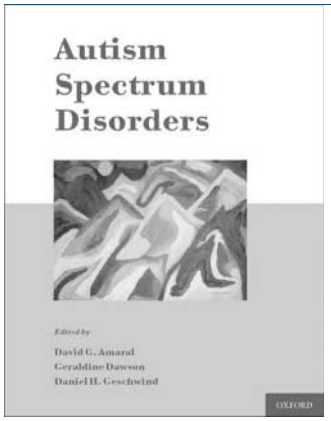

Autism Spectrum Disorders

Edited by David Amaral, Geraldine Dawson & Daniel Geschwind.
Oxford University Press USA. 2011.
£150.00 (hb). 1520pp.
ISBN: 9780195371826

Autism Spectrum Disorders through the Lifespan

By Digby Tantam.
Jessica Kingsley Publishers. 2011.
£75.00 (hb). 576pp.
ISBN: 9781843109938

Autism spectrum disorder (ASD) is one of the two new kids on the block in clinical adult psychiatry (the other being adult attention-deficit hyperactivity disorder). Whereas most psychiatrists have had just a glimpse of the newcomers on the corner of their street, a number of recent official publications obligate services to make provision for individuals with ASD. In addition, the National Institute for Health and Clinical Excellence has just published guidelines on the identification and diagnosis of ASD making it a 'current and present' issue for all psychiatrists. In the past, adult ASD had often escaped general psychiatrists' notice. The publication of these two books is timely, relevant and indeed significant.

The first volume, edited and authored by leading researchers in the field of ASD, mainly from across the Atlantic, provides a summary of the current knowledge on recent advances in the developmental psychology, neurobiology, genetics and much more related to the disorder. Laid out in eleven sections ranging from diagnosis to public policy and comprising 83 chapters, this scholarly book provides a panoramic view of research findings in various aspects of the subject that include less known areas such as animal models in autism, neuropathology and associated conditions such as seizures, and allergy. It incorporates topics on immunology, gastroenterology and infectious diseases related to ASD.

Clinicians will find the ten chapters under the section on psychiatric comorbidities particularly informative. The chapters on the relationship between obsessive–compulsive disorder (OCD) and ASD and the three chapters on broader autism phenotype are particularly instructive. Developmental features of ASD, their developmental trajectories and findings from the psychological research into the brain bases are well covered. The book, however, is highly skewed in the direction of biological and developmental psychological research and less focused on practical applications and treatment. The section on best practices focuses more on diagnosis and there is little on management. The book provides an authoritative review of a fast-developing area of research into ASD and should be a reference text for both child and adolescent psychiatrists as well as paediatricians. All psychiatrists who want to update their knowledge on the subject would find more than a few chapters that are important to their area of work.

Autism Spectrum Disorders through the Lifespan is a single-author book based on the clinical experience and interests of Professor Tantam, a well-known British authority on the subject. Divided into two parts, sciences basic to ASD and clinical aspects of the disorder, this book too attempts to cover ASD in its entirety, but it is the clinical focus and personal approach that sets it apart. The most impressive feature (and unusual for an adult psychiatrist) is that Professor Tantam takes a developmental approach to ASD and discusses the presentations during infancy, childhood, adolescence and adulthood, illustrating this with a number of case examples. More importantly, he makes the point that people with ASD are likely to be referred to mental health services at times of transitions between developmental stages when new skills or new forms of adaptation are called for. In addition, comorbidity with psychiatric conditions such as OCD and social phobia is likely to be high and Tantam points out the paucity of research in this area. Clinicians will find useful the tables on assessing rigidity, non-verbal expression in ASD, social aloofness, social phobia and OCD. Unfortunately, the chapter on Asperger syndrome in adulthood is comparatively short. A particular omission is lack of ASD questionnaires and rating scales. One other criticism of the book is that it is overinclusive and, at times, idiosyncratic. For example, topics marginal to ASD such as prosopagnosia, rare genetic syndromes and epilepsies are discussed in some detail. The book would have benefitted from more robust editing.