**Book Reviews**

**Reviewer**

**Paula Clarke**, Lecturer in Childhood and Inclusive Education, University of Leeds.

*A History of Autism: conversations with the pioneers*

Adam Feinstein (2010)
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In this book Feinstein documents the history of autism, reflecting on key theories, the contribution of influential figures and the experiences of individuals identified as having autism. Feinstein interviewed the world’s leading experts in autism and subsequently compared, contrasted and seamlessly synthesised their contributions into a lively and very readable account. Taking a chronological approach, each chapter focuses on a particular period in time, or a key theme – such as teaching or assessment. A really nice feature of the book is the inclusion of portrait photographs; putting faces to the names of the experts adds a personal dimension and prompts consideration of the human stories behind the key moments in autism’s history.

The introduction presents a discussion of the origins of autism and its first descriptions, and includes an overview of current understandings and future directions in the field. The opening chapter introduces the reader to Hans Asperger and Leo Kanner. It incorporates memories from people who knew and worked with both these pioneers and traces the very earliest accounts and mention of autism. Reflecting on political influences and the impact of two world wars, the discussion is securely placed in its historical context. The two men are described in detail and comparisons are made between their personalities and approaches to the study of autism. Well chosen quotes and excerpts from their lectures serve to create a comprehensive picture of their respective contributions to the understanding of autism.

The next chapter documents developments that took place in the 1950s. It reports on the work of psychiatrists from around the world who were influenced by Kanner’s seminal 1943 paper. Attention is paid to the discussions that were prevalent at this time concerned with the relationship between autism and schizophrenia. Furthermore, consideration is paid to the different terminology, categories, and labels that were beginning to emerge to describe the characteristics of autism. Towards the end of the chapter, the inspiring story of Jeanne Simons and the Linwood Centre is told. Furthermore, the work of Carl Fenichel is introduced – thus begins a thread that runs throughout the book concerned with teaching approaches and educational provision for individuals identified as having autism.

Attention in the subsequent chapter is then turned to early causal explanations of autism and in particular to Bruno Bettelheim’s controversial ‘refrigerator mother’ theory. Its impact and origins are discussed, and the views of many key figures are expressed. Following this, chapter 4 provides an overview of the reactions to this theory and the establishment of support groups and charities in the early part of the 1960s. It also details some incredibly important developments in research into autism that occurred at this time, such as the recognition of language impairment, investigations into the biological and neurological explanations of autism, and early epidemiological studies. The history of the National Autistic Society is documented, with contributions and reflections from Lorna Wing, one of its founders. Following this there is some in-depth coverage of the first examples of autism, specific educational provision, and the importance of Sybil Edgar’s contribution to the development of teaching methods. Events happening in the UK are placed in an international context, and links and comparisons are made with developments in other parts of Europe, Australia and the US.

Chapter 5 continues the educational theme and explores the contributions of, arguably, two of the most influential figures in the development of teaching approaches – Eric Schopler and Ivar Lovass. Feinstein skilfully selects and explores accounts of these two men, providing in-depth portraits of their personalities as well as key features of their work. The TEACCH and ABA-Lovass approaches are compared and contrasted with particular reference to their underlying theoretical principles and the values and beliefs of their creators.

Following this the story moves to research developments in the 1970s investigating the cognitive and biological explanations of autism. The contributions of experts such as Michael Rutter are discussed and a number of seminal papers published at this time are reported. In addition to the classic works by Lorna Wing and Judith Gould on the concepts of an autistic spectrum and the Triad of Impairments, genetic explanations and considerations of the broader phenotype of autism are outlined. In this chapter there is also recognition of the influences of autism researchers such as Beate Hermelin, Neil O’Connor and Uta Frith, whose rigorous experimental approaches continue to inspire many working in the field today.

Chapter 7 explores the area of diagnosis and the development of assessment tools and schedules. The evolution of the
diagnostic criteria for autism is conveyed with extensive reference to a variety of perspectives on the characteristics and features that define autism. Drawing on the views of Dorothy Bishop, Cathy Lord and Michael Rutter, a useful appraisal of two of the most commonly used assessment tools is included. Towards the end of this chapter, there is also an interesting section that discusses the diagnostic criteria for Asperger’s syndrome that combines ideas from a wide array of experts including Francesca Happé, Christopher Gillberg, Patricia Howlin, Fred Volkmar and Tony Attwood.

Coverage of developments in the 1980s and 1990s is provided in the next chapter. Here the now well-established and extensively studied cognitive theories are explored. Incorporating reflections from the researchers themselves and their colleagues, the seminal research undertaken by Simon Baron-Cohen, Uta Frith, Francesca Happé, Sally Ozonoff, Marian Sigman, Sally Rogers and others is described. As someone who, as a psychology undergraduate, began reading journal articles about autism in the late 1990s, I am reminded of the impact that such work had on me and on my contemporaries.

By incorporating the views of experts from a large number of different countries, chapter 9 explores worldwide perspectives on autism. It documents important developments and highlights factors that have been particularly influential in different regions and cultures – the level of detail making for a fascinating and highly informative overview. This leads to the final chapter of the book which considers a range of perspectives on the characteristics, offering suggestions about how to re-phrase, follow up, and contextualise questions to increase the accuracy and reliability of the information obtained. In order to provide evidence to support the information obtained using other methods, he also discusses the benefits of conducting observations in natural contexts such as play and classroom environments.

While this book has been written largely for other clinicians and health professionals with the aim of promoting consistency in diagnosis, I believe that it is a worthwhile read for anyone interested in the identification of autism. It may be particularly valuable for parents or teachers who wish to find out more about what to expect once a child has been referred to a clinician for assessment. However, it should be noted that, while many of the underlying principles and observations in the book are likely to be universally applicable, it is written from an American perspective. Consequently, some of the specific details may not be relevant for, or consistent with, contexts in other areas of the world.

The structure of this book follows a typical sequence of activities that take place in a clinical assessment of autism. This provides a clear thread and makes it easy to dip in and out of, as well as to read in its entirety. The first chapter presents a succinct timeline of key developments in the history of the diagnosis of autism. Following this, chapter 2 reflects on the referral process and preparation for an autism assessment. Emphasis is placed on parent–clinician interaction and the importance of careful analysis of any previous assessments.

The third chapter focuses on how to conduct the assessment itself and the author expresses his views on the uses of screening tools, questionnaires and observation schedules. Valuable points are raised about the strengths and drawbacks of the different measures and some discussion is provided about the difficulties associated with measuring cognitive ability in individuals identified as having autism (a topic that is returned to in chapter 11).

Chapter 4 details areas to consider when gathering historical information about an individual’s health and development, and includes a variety of questions that may reveal information relevant to the autism diagnostic criteria. The DSM-IV-TR criteria (Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition – Text Revised) is reproduced in the subsequent chapter and is then referred to in chapters 6, 7 and 8 which cover the areas of social impairment, language impairment and behaviour concerns. Gallo explores ways of asking parents about specific features and characteristics, offering suggestions about how to re-phrase, follow up, and contextualise questions to increase the accuracy and reliability of the information obtained. In order to provide evidence to support the information obtained using other methods, he also discusses the benefits of conducting observations in natural contexts such as play and classroom environments.

In places, brief reference is made to relevant research and theory that links closely to the specific diagnostic criteria; however, I feel that the rich clinical knowledge documented in this book could be more explicitly placed within a research context. I would have appreciated some extended
discussion about the extent to which research had shaped clinical practice and how the experiences of clinicians had informed research agendas.

Chapters 9 and 10 comprise Gallo’s experiences and suggestions with regards to the diagnosis of teenagers and adults – tackling areas such as employment and dating, marriage and relationships. Chapter 11 moves beyond the diagnostic criteria of the core features of autism to highlight a variety of associated factors including eating habits and sensory integration. Following this, the penultimate chapter tackles the issue of differential diagnosis and the relationship between autism, high functioning autism, Asperger’s syndrome, pervasive developmental disorder not otherwise specified (PDDNOS) and other diagnostic categories. Again, taking a lifespan perspective, Gallo reflects on how features and characteristics of autism may manifest differently at different times, in part as a result of strategies and services that have influenced an individual’s development.

The closing chapter is concerned with how to provide feedback on an autism diagnostic assessment. While this provides another insightful overview, I cannot help but feel that the book ends too soon. I would have liked to have read a further chapter on events post diagnosis, taking into consideration follow-up evaluations, ongoing support and the processes involved in making educational and therapeutic recommendations.

Throughout the book there are many real life examples interwoven into the commentary, which serve to highlight issues. Also of note are ‘Dr Gallo’s pearls of wisdom’ that feature in most sections – these are tips and insights that flag up particular features of autism or provide clarification of concepts and offer assessment suggestions. Gallo also includes a copy of a questionnaire that he devised as well as a selection of sample reports.

The importance of clinical expertise, experience and knowledge is emphasised in all stages of the diagnosis process, with warnings drawn from examples about the implications of not being fully confident and informed when making a diagnosis. Gallo stresses the need for early identification but also recognises the many challenges involved in trying to establish a diagnosis. He highlights the value of taking time over decision making and using a variety of methods to obtain the information needed.

In summary, this book is an accessible guide to diagnosis that brings clinical expertise to the fore. As a non-clinical research psychologist, my instinct is to find out more. I believe it would be of real value to compare and contrast Gallo’s experiences and ideas with those of other clinicians working in different contexts. This ‘bigger picture building’ could also be enriched by obtaining the accounts and perspectives of parents, associated professionals and individuals who have experienced the assessment process.

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The next three chapters focus on perceptual processing and attention to perceptual details. Mottron, Dawson and Soulhières (chapter 5) place emphasis on the ability to recognise patterns and group perceptual features together as being of key importance in explaining savant skills. The role of perceptual pattern completion is discussed and the authors suggest that this could be important in explaining skills such as calendrical calculation. Plaisted, Grant and Davies (chapter 6) present a complex picture of perceptual skills and suggest that, in some circumstances, perceptual grouping may be qualitatively different in autism. Furthermore, evidence of difficulties in some aspects of perceptual processing (such as magnocellular functioning) are presented. Snyder (chapter 7) presents the idea that savant skills can be explained by privileged access to low-level perceptual information that is uninhibited by top-down processes. Here, links are made between the concepts of privileged access, hyper-sensitivity to sensory information, and enhanced perception of details.

Moving on from cognitive explanations, chapters 8 to 11 investigate the neural basis of talent. Woollett, Spiers and Maguire (chapter 8) present research on the memory feats of taxi drivers which utilise neuroimaging techniques to examine the relationships between acquisition of expertise and the structure and functioning of the brain. Cowan and Frith (chapter 9) report a study which used functional magnetic resonance imaging (FMRI) to explore the processes involved in calendrical calculation. The chapter opens with a highly detailed review of this area which documents a variety of explanations that have been suggested to explain this ability. Data from two autistic savants, in the form of measured peaks of activation that occurred during mental arithmetic and calendrical calculation, is discussed with reference to cognitive explanations. In chapter 10, Wallace, Happé and Giedd continue the theme of calendrical calculation in a case study of an individual with savant skills in two areas, art and calendrical calculation. They present data from a wide range of behavioural measures and cortical thickness imaging. Casanova and Trippe (chapter 11) then provide a short but informative review of research on patterns of cortical connectivity in autism which relate to the development of superior abilities.

Chapters 12 to 15 broadly examine creativity and artistic expression in individuals identified as having autism. Chapter 12 gives a personal perspective on autism and talent. Here Temple Grandin provides reflections on her own thought processes and describes a form of visual thinking. Making analogies to internet image searching, she explains how pictures are used to build concepts and how she extracts 'basic principles' (p. 142) from multiple sources of information. Following this is a review by Heaton (chapter 13) of research into enhanced music perception in individuals identified as having autism. Areas for future developments in developing musical potential and studying the relationships between music and emotion are discussed. Chapters 14 (Drake & Winner) and 15 (Cardinal) are on the topic of visual art. Drake and Winner provide an overview of research on precocious realists and discuss the influences of culture on drawing style. They also report a study that investigates the processes involved in creating realistic drawings and test the hypothesis that superior realistic drawing skills are related to visual segmentation skills. Cardinal then discusses the drawing and painting styles of autistic savants and analyses the aesthetic and communicative features of examples of their art work.

The final two chapters explore the representation of autism in the media. Chapter 16 (Hacking) reflects on the autobiographies of four individuals with autism and explores the contribution that they have made to current knowledge and understanding. Themes raised here are also picked up in the final chapter which turns attention to common stereotypes of autism. Draaisma (chapter 17) makes reference to famous films and books and explores the extent to which the characters are realistic portrayals of individuals identified with autism. One of the main points raised is the over-representation of talent and special ability in autism by the media.

Together these chapters offer a wealth of ideas; they generate fascinating questions and hypotheses that open up many more potential areas for research. Importantly, this book places a spotlight on the abilities of individuals with autism, drawing attention not only to specific skills but also more general aspects of processing. This book dispels misconceptions and provides an accurate, rich and complex picture of autistic talent. I would highly recommend it.

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