

Introduction

Perceiving, describing and modelling child development

Autism is an essential concept used in the description of child development and its variances. Yet the phenomenal success of autism *diagnoses* is relatively recent. Today, autistic spectrum disorder is regarded as a developmental condition with genetic and biochemical correlates that often persists into adulthood. In 2009, the Autism Act became the first ever 'disability-specific' legislation to be passed in the UK, demonstrating the significance of the autism diagnosis to reframing approaches to mental health care, social welfare provision and individual rights in the UK. In 2013, EU Aims, a major initiative to develop new treatments for autism, received the largest grant for any mental health problem in the whole of Europe, revealing the cultural capital and potential for revenue generation held by the diagnosis. All major works in developmental psychology, educational psychology, child psychiatry, and now adult mental health, discuss autism and its implications. Teachers, social workers, health visitors, general practitioners and other front-line service providers receive training on the signs and management of autism. Parent groups, self-advocates and others campaign, publish, blog and broadcast on their experiences of autism and make sure that autism awareness is raised and remains so. The literary world has also woken up to the significance of autism, with, for example, Mark Haddon's *Curious Incident of the Dog in the Night-Time* (2003) part of a growing genre of autism fiction in the English language. Other media and artistic representations of autism also flourish in Britain and abroad.¹ This is perhaps not surprising given the increasing number of children and adults who receive the diagnosis, or indeed who self-identify with it. A 2009 study by Simon Baron-Cohen and colleagues claimed the UK

child prevalence rate of autistic spectrum disorder could be as high as 157 per 10,000, or 1 in every 64 children.²

Yet it was not always like this. Just forty years ago, hardly anyone had heard of autism. The condition of autism was thought to affect just 4–5 per 10,000 people and was thus considered extremely rare. There were some psychological specialists who wrote on the subject of autism in the 1960s, but they largely regarded ‘autism’ as a normal developmental stage in the formation of human relationships, characterised by hallucinatory and imaginary thinking, which they thought some children were never able to overcome. This is not the ‘autism’, or autistic spectrum, that we know today. In fact, an important part of this book covers the major transition, indeed complete reversal, in the meaning of autism that occurred in the late 1960s and 1970s, and was fully embraced by the 1990s. In this book, I argue that it was this reversal in the meaning of autism that enabled the expansion of the category; the growth in diagnoses; the expansion of health, educational and social services for individuals diagnosed with autism; and the general cultural phenomenon that autism has become today.

Since the late 1990s, there has been a growing interest in why autism has become so prevalent in the UK and elsewhere in the world. The sociologist Gil Eyal has written convincingly of the impact of major changes in the institutional care of children diagnosed with ‘mental retardation’ that took place in the 1960s in many parts of the USA and Europe. He has argued that deinstitutionalisation provoked new questions about children’s psychological development and enabled the formation of new networks of expertise uniting psychologists, psychiatrists, therapists and parents, thereby expanding the territory where autism could be discussed and increasing its prevalence.³ In 2006, the autism researcher Paul Shattuck used data on the enrolment of children in special education programmes across the USA from 1994 to 2003, demonstrating that whilst more were diagnosed with autism, fewer were diagnosed with ‘mental retardation’ and ‘learning disability’. In fact, the category of ‘developmental delay’ had also increased somewhat during that period, yet no one had thought to interrogate the ‘epidemic’ of ‘developmental delay’.⁴ Autism researchers whose working lives have overseen these transitions, such as Michael Rutter, have also argued that changes in the way that children have been assessed and treated for developmental abnormalities of all kinds have led to increases in

the application of the autism diagnosis.⁵ Lorna Wing, whose work was critical in establishing the idea of the 'autistic spectrum' in the late 1970s, has always maintained that she did, indeed, expand the category of 'autism' so that it included more cases.⁶

Controversies surrounding the MMR vaccine, and the use of mercury in vaccines, have only sparked further speculation about what, exactly, has been fuelling the ever-growing diagnosis of autism. The debate was particularly vitriolic in the late 1990s and 2000s.⁷ Yet the discussion on the changing kinds of categorisation of autism has led us to a point where only the staunchest anti-vaccine campaigners would argue that changes in the way that children and adults have been assessed and diagnosed have not been responsible for most of the reported increase in prevalence. There may be other factors, but understanding conceptual change is arguably just as important as researching those factors. Today, 'autism', 'the autistic spectrum' and its conceptual cousins encompass so many different presentations that to say that anything 'causes' autism necessarily warrants a considerable amount of clarification. *The Metamorphosis of Autism* seeks to explain why this is the case.

If diagnostic changes have occurred over time, the historical reasons for these changes and their relation to wider theories of child development are still little understood. Sociologists, journalists, philosophers, literary critics and others have offered different explanations as to why more people are now diagnosed with autism than in the past. Madjia Nadesan's *Constructing Autism* (2005) was the first book that tackled the 'construction' of autism, arguing that the current framework for understanding autism has largely been formed through the auspices of cognitive science. The philosopher Ian Hacking has written on the way in which autism has become a dominant trope in online communications and pointed out that non-interactive autistic ways of being are in fact supported by the new Internet computer technologies so common in the contemporary world. Stuart Murray has illuminated the ways in which autism has been represented in literature, the media and the arts, and how these diverse fields have directed wider understanding of autism in the public domain. Chloe Silverman has shown how parent groups have been critical in determining research agendas for autism. Journalist, Steve Silberman's eloquent popular book *Neurotribes* builds on the idea of neurodiversity to explain how the recent increased visibility of autism is related to the past.⁸ Other authors have stressed the external factors that influence how autism has been

described and thought about by researchers, parents, autistic people and others.⁹ All of this work has highlighted the fact that autism is not, by any stretch of the imagination, a simple disease category. This fact has, in some ways, been echoed in scientific literature that now refers to 'the autisms' as a diverse group of psychological conditions with different causes.¹⁰

Although several scholars have examined the increasing prevalence of autism, no one has explained why autism, *in particular*, as opposed to any other descriptive concept in psychology, has grown in such immense proportions and gone on to achieve such a celebrity status within popular culture. Furthermore, no one has explored how changes in the description and understanding of child development have helped to fuel reported increases in prevalence and have influenced the definition of autism now dominant internationally. This book argues that increased rates of autism are, in large part, a product of a major transition in the way that general child development has been thought about, reflected upon, conceptualised and perceived. This major transition in the psychological description of childhood began to take place in the 1960s in Britain and was fully established by the 1990s. The British context is particularly important in the story that is told in this book. A unique political, cultural and legal climate in Britain in the 1970s and 1980s, along with the development of new sociological and epidemiological techniques of enquiry, supported the ever-increasing dominance of the autism category to describe developmental atypicalities in children up to the 1990s. It was in this cultural climate, in which researchers were preoccupied with developing a purely 'scientific' and 'acultural' version of child psychiatry, that the transformation of autism into a global category was made possible.

However, the roots of our current understanding of autism can be traced further back into the early twentieth century and to the vast psychological expertise established in Britain in this period. The fact that we now tend to perceive problems of child development in relation to autism is a by-product of many historical factors that I will explore in this book. It was by no means inevitable that the current autism concept would be the one that superseded all other categories governing mental atypicalities in infancy and throughout child development. Other terms such as 'childhood psychosis', 'childhood schizophrenia', 'autoerotism', 'primary narcissism', 'subnormality' or 'mental deficiency'

have all, at times, shared meanings with autism, and could have easily taken centre stage if historical factors had been any different. This book argues that several factors converged in the 1960s that meant that prior meanings of autism began to be refashioned, resulting in the 'autism' and 'autistic spectrum' that we know today. In the 1960s, psychiatric epidemiology was regarded as a new tool with which to challenge theories of the unconscious in child development. By the 1990s, psychological theories on the significance of unconscious instinctual drives to the development of pathological forms of infantile thought were virtually obsolete. They had been superseded and subsumed within new neuroscientific models for understanding genetics and psychiatry. This wider background in the history of psychological theory is fundamental to understanding the phenomenal growth of the autism category. One of the main arguments made in this book is that the meaning of autism was, and still is, inherently tied up with the construction of children's rights. By exploring different models of children's access to education, financial support, welfare and social work assistance, it is easy to see how children's rights to be valued as social subjects have been tallied with different understandings of their subjective development.

The growth of the autism category was associated with the development of new models through which to identify, articulate, measure and understand infantile and child thought. The new models were deliberately pinned against the first wave of theories of the infantile unconscious that had been framed around Freudian psychoanalysis. If one were to simplify this, one could say that this is a story about how psychoanalysts were proved wrong. But the story is far more complicated, as the new epidemiological autism psychologists did not prove psychoanalysts wrong but instead did something far more insidious – they appropriated their concepts. This book is about how English psychologists in the 1960s appropriated models of the unconscious infantile mind and then rebuilt them. In particular, it is about how they appropriated the concept of autism, which was, and has always remained, the kernel of all descriptions of the development of modern subjectivity and self-identity.

The growth of the autism diagnosis is unlike the growth in any other psychiatric diagnosis in the post-war period. Several medical historians have drawn attention to increases in the diagnosis of psychiatric conditions such as anxiety, depression or attention deficit hyperactivity

disorder (ADHD), for example.¹¹ However, all of these conditions can be directly associated with increased drug prescriptions that have encouraged diagnosis amongst medical professionals, the key drugs in the aforementioned conditions being Valium, Prozac and Ritalin, respectively. It is easy in these instances to look to large pharmaceutical companies in order to consider the reasons for the growth of psychiatric disorders in which there are clear drug treatments. Autism is different. There has been no wonder drug associated with autism. The diagnosis has grown for reasons that are far more complex and far more interesting. Autism is unique because it has come to infuse all language used to describe the making of the modern self since the 1990s. *The Metamorphosis of Autism* explores how this has happened. This involves a total suspension of our current models for thinking about child development and the development of the self, and a journey back to a time when infancy, childhood and identity are almost unrecognisable.

Methodology and the importance of historical enquiry

The methodological approach to the subject of autism in this book is primarily historical in that archival and primary sources have been placed at the centre of my analysis. I explore not just changes in the conceptual history of autism, but also the legal and institutional networks in which those changes occurred. There is no particular critical approach that I have applied wholesale to this history. I have not 'thought with' a single theory, but I have drawn significantly from methods developed in the history and philosophy of science as well as the sociology of scientific knowledge. The work of Nikolas Rose, Ian Hacking and John Forrester, in particular, has been critical in guiding my approach to the way that different sciences or 'styles of reasoning' come into being, and, more importantly, how those 'styles of reasoning' have influenced the law, the government and political approaches towards individuals.¹² In analysing the history of child development, I am thus also analysing how particular scientific approaches to children came into being and how they influenced the law and approaches to children's welfare, education and care via governmental and other agencies. The broad goal is to explore the way that scientific knowledge and legal and institutional change have impacted on perceptions of self-identity in children.

Autism is a by-product of this history that has become increasingly important in the recent past.

As well as being about autism, this book is about the way that children's lives have been managed and governed by psychological experts via legal and political changes. It engages with Nikolas Rose's work on the links between political power and psychological expertise in Britain. It does not follow the theory of 'governmentality' wholesale, but instead draws attention to both professionals and non-professionals who challenged dominant theories of 'self governance', presented new ways to think about the development of individuality in children and also pushed for changes in the law to reflect this. The theory of autism was one of the central theoretical tools that they used in order to do this. In this sense, my book draws inspiration from Mathew Thomson's work, *Psychological Subjects* (2006), which has broken down many of Rose's claims on the importance of psychological theory to transforming the national psyche. However, instead of pointing out the places where psychological theory did not have an impact, *The Metamorphosis of Autism* argues that a parallel psychology was developed that presented different and more puzzling models of individuality, human relations and social development that contradicted psychological experts who claimed to have a theory of human relations based on wider political models of social interaction. The book explores these other models in depth and argues that they offered the potential for new types of political engagement.

One of the critical points concerning the history of the governance of everyday life in Britain, highlighted by Rose, is the fact that the idea of 'the social' is not a timeless entity but has its origins in the mid nineteenth century. It was only in the early twentieth century that the 'social sciences' began to achieve their most powerful form in political thought and in the government and management of individual lives via the definition of workers' rights and the provision of welfare, educational and other 'social' services. This model of society united individuals under moral obligations to provide, and be provided with, programmes of mass schooling, public housing and other mass social ventures. In roughly the last thirty years, there has been a weakening of this 'social' model and new and more diverse forms of identity have taken over in raising moral and political consciousness.¹³ These changes in how the 'social' is perceived are associated with wider political changes such as

the growth of neoliberal economic models. This book tracks these significant changes in approaches to society, government and political and economic life, pointing out the importance of theories of child development to shaping ideas about social life and individuality. It looks in depth at how 'social development' in children has been described, formulated and understood, and how its antithesis has also been conceptualised. Again, autism plays a larger role in this longer and broader history than has previously been acknowledged.

Of course, many historians are more than savvy to the complex interweaving between psychological sciences, social theory and political and legal change, even if they do not allude to the theory of 'governmentality'. The work of Thomson, as well as Rhodri Hayward, Michal Shapira and others, has been central in opening out debates about the role of psychological theory in relation to political ideology and government policies in the UK.¹⁴ Furthermore, historians of social policy, public health and medicine have also raised important questions about the wider influence of scientific and sociological research on government policy concerning families, child welfare and education in the twentieth century.¹⁵ The history of the family and the establishment of health and social welfare policies have all had an impact on how society and social development is viewed. In this book, I seek to demonstrate that it is imperative to acknowledge this broader history of child health, education and welfare when writing the history of autism. Autism is not, and never has been, a minor esoteric subject, but one that has a significant bearing on how we think about social identity.

When exploring how scientific theories of autism have impacted health and education practices, and government policies, towards children, I have not only examined the impact of that scientific research, but have also reflected on what kind of theories and ideas about autism have been formulated at different periods of time. It is in this aspect of my work that I have drawn most strongly from the history and philosophy of science and Hacking's 'styles of reasoning', which he developed in his work on the rise of statistical thinking.¹⁶ Hacking's work illustrated the importance of statistical methods in the social and biological sciences as they enabled a new science of the state centred on probabilistic laws. In this work, he also articulated six 'styles of reasoning' within scientific thought, one being statistical analysis of regularities of populations. John Forrester later argued that one should also add 'thinking in

cases' as another style of reasoning, in which individual cases served as exemplars with scientific and legal thought.¹⁷ Drawing from these arguments, in my analysis of the sciences of autism, I pay particular attention to the way that psychologists, psychoanalysts, epidemiologists and social scientists investigated autism and generated scientific knowledge about autism. In particular, in the second half of the book, I explore how statistical sciences prevailed over individual case histories in the expanding sciences of autism, and what this meant for the description of social development and individuality in children.¹⁸

The Metamorphosis of Autism thus fuses primary archival analysis of government reports, administrative records, scientific papers and individual case histories with theoretical reflections on the way that models of social development and individuality in children have been produced. It tells a history of autism that is framed by archival sources which reveal the individual, social and political consequences of autism as a concept, yet that also reflects in depth on the conceptual history of autism itself. It is thus not what one may call a classic conceptual history, as it seeks to engage firmly with the historical forces that have structured changes in the meaning of autism and that have enabled individuals to employ the concept in different settings. It explains how knowledge about child development has altered due to factors such as legal, political and economic changes, as well as wider international developments in the theory of child development or wider shifts in approaches to disability.

How Britain stole the idea of autism

The main thesis of this book is that the current global category of autism was forged from a refashioning of child development. A group of researchers based in Britain, and primarily in London, were responsible for this refashioning. The first international definitions of autism employed in the International Classification of Diseases and the *Diagnostic and Statistical Manual* were drawn almost exclusively from the work of two highly influential researchers in Britain: Lorna Wing and Michael Rutter. Wing, Rutter and their contemporaries used the modern metropolis of London as a base from which to restructure dominant tropes concerning the development of self-identity and

to reformulate these as part of a new model of identity development. Autism was a central concept that had framed much critical thinking on the development of self-identity since the early twentieth century, and it is unsurprising that they turned to this concept in order to challenge psychological stagnation and to rethink the central tenets of child development.

The early twentieth century witnessed the first sustained attempts to scrutinise infantile thought as part of a wider project to understand the origins and development of mental illness in adults. Sigmund Freud was obviously the central figure who explored the infant's mind in an effort to explain how early traumas affected later psychological processes.¹⁹ However, other towering figures in descriptive psychopathology were also turning their attention to the infant mind at this time. The concept of autism was coined in 1911 by the German psychiatrist Eugen Bleuler to describe a symptom of the most severe cases of schizophrenia, a concept he had also created. According to Bleuler, autistic thinking was characterised by infantile wishes to avoid unsatisfying realities and replace them with fantasies and hallucinations. 'Autism' defined the subject's symbolic 'inner life' and was not readily accessible to observers.²⁰ Psychologists, psychoanalysts and psychiatrists in Britain used the word autism with this meaning throughout the 1920s, up until the 1950s. Throughout this period, the words 'psychotic', 'schizophrenic' and 'autistic' held many similar meanings and were associated with adult schizophrenia, in particular Bleuler's description, and a lack of contact with reality. However, in the 1960s, many child psychologists in Britain challenged the contentions about infantile thought assumed by Bleuler and others and created new methods to validate child psychology as a science, in particular epidemiological studies. 'Autism' was then completely reformulated as a new descriptive category to serve the needs of this new model of child development.

From the mid-1960s onwards, child psychologists in Britain used the word 'autism' to describe the *exact opposite* of what it had meant up until that time. Whereas 'autism' in the 1950s referred to excessive hallucinations and fantasy in infants, 'autism' in the 1970s referred to a complete lack of an unconscious symbolic life. For example, Michael Rutter, a leading child psychiatric researcher from the UK's Maudsley Hospital who conducted the first ever genetic study of autism, claimed in 1972 that 'the autistic child has a deficiency of fantasy rather than an

excess.²¹ The meaning of the word autism was then radically reformulated from a description of someone who fantasised excessively to one who did not fantasise at all.

The Metamorphosis of Autism traces this radical transformation of the concept of autism in Britain, exploring the reasons behind the shift and the impact that it has had on psychological sciences relating to infants and children. It argues that the change in the meaning of autism was part of a more general shift in Anglo-American psychiatric reasoning that sought to understand psychological problems through epidemiological studies rather than individual cases. Epidemiological methods shifted and morphed central concepts in psychology, in particular the concept of autism. The diagnostic practices required of English psychiatric epidemiology in the 1960s continue to influence contemporary theories and descriptions of autism and to affect the way that government entities have managed and assessed child populations in relation to psychology.

This book locates changes in psychological theory in Britain in relation to larger shifts in the political and social organisation of schools, hospitals, families and childcare. Historical work on children and families has highlighted the importance of developing industrial economies to the establishment of welfare services for infants and children in the late nineteenth and early twentieth century. This research has been positioned within broader historical debates concerning the problem of national efficiency and the implementation of policies to improve the health of populations. The development of advanced systems for the protection of infant life improved methods for the collection of statistical data on the prevalence of infant mortality and childhood illnesses. Deborah Dwork's work on the infant welfare movement has highlighted the way that statistics on the crude birth rate at the end of the nineteenth century began to drive the establishment of policy measures to improve the survival chances of infants.²² Lara Marks has shown how debates that were raised over high levels of infant mortality in Poor Law institutions impacted upon the provision of maternity services and outdoor relief for expectant mothers following the 1907 Report to the Royal Commission on the Poor Laws.²³ It was thus through the application and study of statistical evidence that arguments were first put forward to comprehensively alter institutional care for infants, children and mothers.

Harry Hendrick's work has explored how state surveillance and implementation of policies to improve both the material conditions of

children, and their physical health, began to shift focus to the improvement of their mental health or minds with the rapid development of psychological sciences in the interwar period.²⁴ It is true that psychological sciences became more dominant in descriptions of child development during the interwar period and that interrogating and understanding these sciences is critical to understanding both childhood and theories of self-governance in the twentieth century. However, most research on the history of twentieth-century psychology and education in Britain has focused on intelligence testing as *the* most significant practical tool that has influenced the development of psychological theory.²⁵ Whilst it is correct that intelligence testing enabled a mammoth administrative and bureaucratic system that supported child psychological sciences, this book seeks to understand the lesser-known administrative and bureaucratic systems that shaped and produced new psychological theories and sciences to measure and quantify autism and 'social impairment' and which were just as influential in guiding government policy towards children, particularly in the second half of the twentieth century. Historical work on the concepts of 'feble-mindedness' and 'mental deficiency' and their management in children prior to the 1960s (when these categories became obsolete) has demonstrated that 'mental deficiency' and its offshoots were as much related to social exclusion as to educational and intellectual potential.²⁶ It is particularly significant that from the 1960s onwards, when new theories of psychological development and autism began to gain ground, the social exclusion of 'mentally deficient' children was falling into disrepute and institutions for 'mental defectives' were being closed down. There is a complicated history that follows these closures where children came to be integrated slowly into special educational services and later into mainstream classes.²⁷ This history is intertwined with changes in the organisation of wider forms of residential care for children and, above all, major changes in the organisation of state-run social services.²⁸ This book focuses specifically on Britain to understand how first the expansion, and then the closure, of institutions for 'mental deficiency' stimulated the development of new practical technologies to measure, classify and organise children who did not fit within the mainstream education system. It is by tracing the history of psychology in this context that the book explains shifts in the application and meaning of autism.

Much research into autism at a critical period of its transformation in meaning – from the 1950s to the 1970s – took place at the Institute of Psychiatry in London, an institution established in 1948 as the largest teaching centre for psychiatry in Britain. The institute also housed the Occupational Psychiatry Research Unit, later renamed the Social Psychiatry Research Unit in 1958, which was funded by the Medical Research Council (MRC). It was there that researchers broke new ground in social-scientific and epidemiological work on psychological problems. This book argues that the intellectual climate created at this institution built on significant research agendas in British sociology and epidemiology in order to develop a unique concept of autism that has since become the international standard for research in autism via international classificatory systems. The MRC Developmental Psychology Unit, affiliated to University College London, was also important in expanding this model, as was the British Experimental Psychology Society. There are several significant individuals who played an important part in this transition in Britain, in particular Mildred Creak (1898–1993), Neil O'Connor (1917–97), Beate Hermelin (1919–2007), Jack Tizard (1919–79), John Newson (1925–2010), Lorna Wing (1928–2014), Elizabeth Newson (1929–2014), Michael Rutter (b. 1933), Uta Frith (b. 1941) and Simon Baron-Cohen (b. 1958).

Nevertheless, this book does not begin in the late 1960s when changes in the meaning of autism began to trickle through into psychological theory and make radical changes to our understanding of children's social, emotional and intellectual development. It is only by viewing these changes in context that one can fully appreciate the major alteration in descriptions of child development that occurred and their relevance to how differently we now think about children's thinking, development and play. So, this story is traced back to early-twentieth-century Britain and to early attempts to describe and understand 'social development' in children. These are placed in the context of the Mental Deficiency Act 1913, and the appointment of Cyril Burt as the first 'official psychologist' in the world. This book traces early attempts to classify, organise and investigate the total child population using psychological methods. It positions this history as the background to understanding changes in the observation, assessment and management of child populations that enabled the contemporary concept of autism to be formulated.

The argument of this book is that concepts of child development are intimately connected to the legal and social setting in which they are formulated. Contemporary concepts of autism are as strongly connected to our current techniques for modelling, mapping and understanding society as earlier concepts of 'mental deficiency' and 'childhood schizophrenia' were to mapping, modelling and conceptualising British society in the 1930s. This is not to say that autism is merely a 'social construct' without any bearing on the reality of psychological development and its atypicalities. As Ian Hacking has eloquently argued, the term 'social construct' has in some ways outgrown its usefulness for historians and others who want to think critically about the development of psychological ideas that interweave the biological and the social.²⁹ Hacking introduced the idea of 'looping effects' to demonstrate the interrelation between ideas, on the one hand, and human development, on the other, as both biological and psychological facts. *The Metamorphosis of Autism* argues that understanding the broader background and setting in which autism developed provides us with a much more detailed and nuanced understanding of what, exactly, autism is and what it has become. This does not aim to invalidate the category. In fact, it confirms its significance and power, as well as the complexities of its meaning. This book should thus be useful to all those who critically reflect on the question of what autism *is*, whether they be scientists, clinicians, parents, historians, sociologists or anyone else. It argues that what autism is can only be fully understood when viewed in relation to a wider history of child development and education and welfare policy.

It is relevant to note here that there are only two concepts of child psychology that have ever been granted their own Act of Parliament in the UK. The first of these was 'Mental Deficiency' (1913) and the second was 'Autism' (2009). The reason for this is that both concepts have attracted public strategies for betterment and improvement, albeit in very different ways. What is more, both concepts have served as receptacles for new public strategies to intervene in the lives of children and adults. Whereas the 1913 Mental Deficiency Act did this via what was ultimately a project of social exclusion, the 2009 Autism Act does it in the spirit of children's rights to inclusion and acceptance within society. It is for this reason that the growth in diagnoses of autism cannot be regarded as an extension of psychiatric authority, but rather as part of a wider change that has ensured the legal rights of children to

express their individuality and autonomy. This book explores the changes that this has effected in our understanding of child development. The growth of the autism category has been accompanied by a belief that there is a biochemical reality in differences in children's responses to parents and to the social world. Children are no longer just recipients of care; they have a say in this care too. The concept of autism gave such approaches psychological legitimacy and aimed to protect the rights of children so defined. However, it did not do so in the model of mental deficiency legislation, where children's autonomy became subsumed under the diktats of medical professionals. On the contrary, autism legislation seeks to protect the autonomy of children and adults with the diagnosis. It protects autistic autonomy in the eyes of the law. Autism thus became a statement of the authenticity of budding individuality in child development.

Think about it this way: the formation of the concept of intelligence and the development of intelligence tests at the start of the twentieth century did not simply bring to light a facet of human thought processes that had existed, yet never been exposed. The development of this concept and these tests completely transformed the way that society functioned. Intelligence tests enabled easier screening and separation of children based on intelligence levels, first justifying the assessment and complete social exclusion of children with IQs below 50, and later, in 1944, enabling the development of tests for eleven-year-olds and the establishment of the tripartite secondary school system covering grammar, secondary modern and technical schools. It also led to the establishment of an institutional empire built on measuring this newly discovered entity and added 'intelligence' to the tools of social-scientific researchers, who could correlate it with their other analytic categories – class, race, family size, etc. Researchers looked, and still look, for its genetic correlates, constantly searching for further confirmation that this psychological category has a basis in the brain. Biological correlates for intelligence may well exist, but the important point here is that society, law and public life were all transformed by the concept.

From a historical perspective, the concept of autism has many similarities to the concept of intelligence. The formation of this concept did not merely reveal an aspect of human thought that had lain dormant until that time. It completely transformed the ways in which we think about psychological development. Ever since psychological researchers

developed tools to measure autism, these have been used to assess, categorise and sort children within the education system. Most importantly, the category was used to support the novel idea that children previously considered 'ineducable' could actually be educated.

Although it is usually considered that laws to ensure the rights of all children to be educated were enacted at the end of the nineteenth century, it was actually only in 1970 that *all* children in the UK were granted the right to be educated regardless of whether or not they had the supposedly correct levels of intelligence. It was the autism category that was fundamental in driving this transition in children's rights. The 1970 Education (Handicapped Children) Act paved the way for autism to be regarded as a unique impairment that required specialist education, leading to a transformation in the way that schools managed their intake and organised their classes via an expansion in the employment of educational psychologists, speech therapists and teaching assistants. The formation of autism as a measurable entity also encouraged epidemiological and social-scientific work that provided information about numbers of cases and offered political solutions for managing this new population. It also added a further analytic category to social-scientific and neuroscientific analysis and enabled an explosion of studies into environmental, biochemical, genetic and other sources of autism. Whether or not anyone was 'autistic' before diagnostic and measurement systems were developed is a moot point: people are now 'autistic' in a very different way than previously, and also in a very different social context than previously. If autism is a kind of 'social impairment', then surely this is significant.

Several scholars have interrogated, scrutinised and analysed the history of intelligence tests.³⁰ Adrian Wooldridge, Gillian Sutherland and others have explored the history of intelligence tests in relation to schooling and access to education, describing the significance of these tests as a tool of modern British government and as the fulcrum on which psychological sciences fused with educational policy.³¹ Many have probed the life and works of Cyril Burt and accusations have flown as to whether his data was accurate or whether he had faked it in his desire to demonstrate the heritability of intelligence.³² There has been a fascination with the controversies and uses of intelligence tests throughout the twentieth and twenty-first centuries. However, no one has examined the importance of the development of new psychological

tests that competed with intelligence testing and their impact on the education system, despite the fact that the impact of 'social impairment' and 'autism' tests has been phenomenal.

In the 1950s, researchers at the Maudsley Hospital and the Institute of Psychiatry found the intelligence test to be lacking in its ability to measure the capacities of one particular group of children deemed 'psychotic', 'schizophrenic' or 'autistic', following leads from the description of psychopathology in adults. This loss of confidence in intelligence testing was also associated with an international realisation, following the Second World War, that intellectual improvement and compulsory schooling did not necessarily make for a peaceful and happy social order.³³ In the 1960s, new testing instruments and schedules were developed specifically for 'schizophrenic', 'psychotic' and 'autistic' children who did not fit into neat categories of intellectual ability. It was this that stimulated a new form of reasoning about mental development in children, which was accompanied by the foundation of a new system of social networks formed between mental deficiency institutions, the Maudsley Hospital, the Institute of Psychiatry, King's College Hospital, Rudolph Steiner Schools and other institutions for special education. It was through these networks that a new form of psychology came into being that began to undermine previous individual psychology based around intelligence tests. This generated a new 'style of reasoning' about child psychology. In the course of the book, I refer to this as 'spectrum-making' and argue that it has increasingly come to play a part in definitions of childhood and individualism in the late twentieth and early twenty-first century. This new technology of 'spectrum-making' directed and drove important practical and political considerations in British education concerning children's rights to schooling as well as their rights to be respected as autonomous individuals.

The Metamorphosis of Autism also explores how government entities have dealt with the psychological category of autism. It looks at how populations of children have been assessed and managed, and how psychological categories have changed in response to that management and government. It focuses on changes in the meaning of autism, but views this in relation to wider theories of child development and socialisation. Indeed, it points out that it was a necessary prerequisite for current theories of autism that educational, social and political systems already existed to observe and study children's psychological development, as

without these the paraphernalia of contemporary autism measurement could not have been conceptualised or developed. In other words, child development could not have been redefined had it not already been defined in the first half of the twentieth century in relation to a prior era of social science guided by the science of intelligence testing and psychoanalysis. Sociological sciences of the late 1960s marked out new territory for assessing and analysing society.³⁴ These were significant to the redefinition of child development and to the creation of autism as we understand it today.

Early child psychology and its limitations

The establishment of modern psychology was only made possible through the emergence of evolutionary sciences in the middle of the nineteenth century.³⁵ With regard to child psychology, Susan Isaacs, who established the Department of Child Development at the Institute of Education, was critical in formulating an early theory of 'social development in young children' that was used to inform education policy and to educate the general public about the basic tenets of child psychology. Isaacs also propagated and developed the work of the Swiss psychologist Jean Piaget. Along with Melanie Klein and Margaret Lowenfeld in Britain, she established a way of thinking about children's play and socialisation that would remain steadfast until theories of autism came to replace it. This book looks in detail at theories of socialisation and instinctive motivation in children from the 1920s until the 1950s in Britain. It also looks at controversies over the description of social development and its absence in children, investigating early theories of autism. Most importantly, it examines why mental deficiency law, and theories of mental deficiency in infants and children, prevented psychologists from developing comprehensive models of autism and social development prior to the 1960s.

Of all the classic texts in developmental psychology written from the 1910s to the 1950s, very few were concerned with the thought processes of children considered to have 'mental defect' or very low intelligence levels. Susan Isaacs' work focused on children in a typical nursery setting and considered the implications of early development to the education of typical children. Cyril Burt, even though he focused on social outliers such as 'backward' and 'delinquent' children, never attempted

to describe the thought processes of those who were regarded as incapable of carrying out basic mental operations. In fact, Burt considered 'delinquents' as the true puzzles for psychological enquiry and the most significant psychological types who deviated from the norm. This was also the case for many involved in the Child Guidance Movement, such as William Moodie and Margaret Lowenfeld, because child guidance clinics did not accept children thought to have a 'mental defect' and were focused on the 'adjustment' of other children, of whom 'delinquents' then formed the most demanding group in terms of social adaptation. Sigmund Freud's daughter, Anna Freud and Melanie Klein, wrote about psychoanalysis and severe psychopathology, but even they were not attempting to treat children with major intellectual impairments. Even John Bowlby, who wrote widely on attachment theory as a facet of general psychology, never reflected on attachment behaviour observed in 'mental defectives'. For the most part, the study of 'mental defect' prior to the 1960s was left to medical specialists who had been unfortunate enough to be placed in what were then regarded as provincial backwater deficiency institutions, rather than cutting-edge centres of medical specialism. These were people such as Brian Kirman and Leslie Hilliard, whom barely anyone has heard of.

Even renowned international researchers in child development, such as Arnold Gesell in the USA and Jean Piaget in Switzerland, did not seek to delve into the thought processes of 'mental defectives' as they were too busy documenting the behaviour and thought processes of, previously undocumented, *typical* infants. In short, all these psychologists helped to create a myth of child psychology as an absolute science, relating to a total population group, which was not consistent with the actual range of possible childhood thoughts and emotional processes.

This all began to change in the 1960s, when psychological researchers shifted their attention to the actual total population of infants and children, rather than just those ones who were lucky enough to escape certification. This initially happened following pressure from medically trained psychiatrists who were working in cosmopolitan medical institutions such as the Maudsley Hospital in London. These professionals were the first to come across children who were living on the borderline of certification and who often displayed multiple medical and psychological atypicalities. Mildred Creak, Elwyn James Anthony and Kenneth Cameron from the Maudsley were amongst the first to challenge general theories of child development based on their observations

of what they saw as severe psychopathology in infancy and childhood. In the USA, Leo Kanner and Laretta Bender held similar positions and also sought to challenge convention. This book demonstrates how and why the approach in Britain was unique in its challenge to conventional psychological and sociological theory, and why it went on to dominate the scene of autism research from the 1960s.

Nikolas Rose's influential work on the psychological sciences in Britain in this period, *Governing the Soul*, placed a lot of emphasis on the work of the Tavistock Clinic and the Tavistock Institute of Human Relations as providing the dominant theoretical model that enabled the spread of psychological theory via government networks and health, education and social care agencies in Britain in the 1940s and 1950s. Key 'psy' professionals in this story include Melanie Klein, Anna Freud, John Bowlby and Donald Winnicott. They were all psychoanalytically oriented, although many presented a more palatable and user-friendly version of psychoanalytic theory. Their main interest was in human relationships and thus their theories were easily adaptable and transferable to industrial firms, management consultancies and government policy advisers. Rose's argument is that these professionals enabled, even compelled, individuals to govern themselves, and he also presents this as a success model for neoliberalism.³⁶ He is correct in identifying these professionals as critical in framing government policies in the immediate post-war period and up until the early 1990s. However, these were precisely the professionals that new psychologists interested in autism and 'social impairment' sought to overthrow from the 1960s onwards, finally succeeding in the 1990s. The psychology of autism 'spectrum-making' was a psychology that was based not on the study of human relationships but rather its obverse. By exploring the origins of the 'autistic spectrum', this book thus aims to reveal the undercurrent of psychological professionals who did not think that the soul could be governed and who campaigned and protested that the psychology of human relationships was not the answer to many of the pressing questions of human existence. *The Metamorphosis of Autism* thus throws contention and controversy into Rose's otherwise benign picture of psychological intervention. It also argues that the psychology of autistic spectrum-making has now largely replaced the psychology of human relationships, in particular in relation to child development.

In wider work on the history of psychiatry, German Berrios has argued that professional consensus on the nature of particular mental

symptoms always has a major impact on clinical practice.³⁷ Many have noted that the development of psychometric tests and statistical methodologies, driven by the demands of the *Diagnostic and Statistical Manual*, have transformed adult psychiatry.³⁸ Several historians have examined the social and economic reasons for the growth in adult psychiatric categories such as depression, multiple personality disorder and post-traumatic stress disorder.³⁹ There has been a fascination with neuroscientific approaches to psychiatric categories since the 1960s and the reasons why these changes took place.⁴⁰ The history of child guidance, psychiatric theories of 'cultural deprivation' and the growth of the ADHD diagnosis have been explored in the USA.⁴¹ However, British research on the history of child psychiatry and its interactions with government policy and education planning is distinctly lacking. This book demonstrates how the growth of the autism category in children in Britain has influenced wider understandings of psychiatric disorder and neurological dysfunction, in particular relating to concepts of schizophrenia, psychosis and delusion.

The history of child psychology in Britain has largely been compartmentalised into the history of child guidance,⁴² the history of intelligence testing,⁴³ the history of special education⁴⁴ and the history of psychoanalytic theory.⁴⁵ There is very little work that has been done specifically on the history of child psychiatry in Britain, and this is important because it was via the discipline of child psychiatry that the psychology of autism spectrum-making began to gain a foothold and later entered more mainstream theories of children's psychological development. Several practitioners have provided important information on how this began to happen, although they have not explained the significance of these shifts in relation to general psychology and social organisation.⁴⁶ Hendrick has demonstrated the degree to which much twentieth-century UK child law has been influenced by psychological theory, yet no one has examined the impact of the law on child psychiatry and autism research and thus the significance of autism to the organisation of contemporary British cultural and political institutions.⁴⁷ Concepts of individuality in childhood were rewritten through changes in the meaning of autism, changes in the theory of child development and subsequent changes to the rights of people who were given, or who appropriated, the autism diagnosis. With this background, we should not be surprised to see the growth of the self-advocacy movement in relation to autism, as this is merely an affirmation of the social and

legal changes that followed the development of autism spectrum-making and the redefinition of child development that began in the 1960s. In fact, the category of autism has been hugely influential in shaping contemporary health, education and welfare policy in the UK and in establishing autonomy and social rights for those who could be classed within the autistic spectrum.

The Metamorphosis of Autism seeks to clarify this through a detailed historical account of how legal, institutional and educational changes in the UK affected the diagnosis of autism. It shows how autism has been shaped through the business of British social administration. In addition to the Mental Deficiency Act, social and political changes stimulated by the 1959 Mental Health Act, the 1981 Education Act and the 1989 Children and Young Person's Act, for example, also pushed forward new approaches and ways of thinking about autism and child development. One important aspect of these changes was the construction of a unique model of children's rights in which the right to education, broadly defined, was secured for all children no matter what their intellectual level, followed by the right to have their identity respected.

I argue that this is a particularly important dimension to the global understanding of autism as it was primarily researchers in Britain, drawing from unique social-science research methods developed at the Institute of Psychiatry and related Medical Research Council units, who provided the first thorough methodological frameworks for identifying, measuring and calculating autism via their input to international classification and diagnostic tools. Their influence has become even more important in recent times. For example, the exemplary figurehead of this movement, Michael Rutter, worked internationally in the 1980s to establish the Autism Diagnostic Interview and the Autism Diagnostic Observation Schedule, now often publicised as the 'gold standard' for autism diagnosis worldwide.⁴⁸ Researchers such as Michael Rutter, Lorna Wing, Uta Frith and Simon Baron-Cohen have generated unique models of children's social development and play that have had a wider impact on general theories of child development. By arguing that autistic children lack the capacity for imagination or 'mentalisation', Frith and Baron-Cohen extended Rutter and Wing's contention that such a construction of child thought should be applied for the purposes of epidemiological science. What was once, in the 1960s, a necessity for the critique of individualistically minded

psychoanalytic theories, such as those of Melanie Klein and Susan Isaacs, has become a psychological model in and of itself. In fact, it is the seemingly atheoretical nature of current models of autism that have been the secret to their success. No one can criticise the concept because it is essentially based on an absence of information about child thought, into which various concepts of impairment, deficiency and lack have been placed. This book explores early theories of social and intellectual development in infants and children and looks at the connections established between psychological researchers and government administrators. It argues that these networks help to frame and understand changes in the meaning of autism.

The Metamorphosis of Autism argues that the concept of autism was crucial to the formation of child psychiatry as a discipline from the late 1920s to the 1950s, and that it was accorded a central role within wider psychological theory during this period. In the 1960s, a number of very specific and unique historical factors converged that enabled a radical reconceptualisation of the frameworks for understanding infantile thought and its 'pathologies'. The way in which 'autism' was defined began to characterise certain schools within child psychology. Child psychiatrists, hoping to carve out a field of 'developmental psychopathology' through the use of epidemiological studies used 'autism' as a means to quantitatively capture what was then regarded as an elusive and unconscious stage of thought. In doing so, psychologists of the 1960s and 1970s rewrote the theory of social development, socialisation and the significance of play in infants and children. They were able to do this because they harnessed the explanatory capacity afforded to them by including total populations of children, in particular those who had previously been written off as 'mentally defective' and placed in institutional care. The category of autism took on a significant new role for those involved in implementing changes for the education of children previously regarded as 'mentally deficient' or 'subnormal'. It is only within this historical context that we can begin to understand why this thing called 'autism' has been perceived at different times as a psychiatric disorder, an illness, a disability, a neurodiversity label, a childhood developmental stage and a normal mental state.

This book is divided into two parts. The first half of the book, 'The first autism: the observation and description of child development before 1959', explores theories of social development in children from

the 1920s to the 1950s in Britain. Chapter 1 explains how legal and institutional networks, framed around the concept of intelligence, affected children's rights to education and welfare support. It explains why children regarded as 'deficient' in thought were both physically and philosophically removed from the institution of child psychology in the early twentieth century, and why 'the first autism' therefore rested on quite a shaky legal and institutional support base.

Chapter 2 examines a series of major debates and controversies that erupted in the 1940s about the way children's thought could be investigated and explored. The outbreak of the Second World War had forced psychologists, psychiatrists, social scientists, anthropologists and others to challenge theories of human instincts in child development and to clarify the nature of socialisation in children. The theory of autism was critical to the reconstruction of instinct theory in the light of war and this led to many disagreements and debates. These controversies were silenced when the war drew to a close and psychologists shifted their attention to buttressing and reinforcing the aims of the welfare state in its provisions for children. John Bowlby's theories of the importance of 'maternal love' and the dangers of 'maternal deprivation' were the archetype of this post-war marriage of political and psychological aims, which quelled much anxiety about the precision of theories of ego development in an effort to re-establish supposedly 'traditional' family roles in support of child development. Although controversies about autism were then brushed under the carpet, they had not disappeared and would later re-emerge in new forms.

Chapter 3 looks in detail at a unique children's 'psychotic clinic' set up in London at the Maudsley Hospital in the 1950s. It argues that this clinic was unique in its critical outlook and patient population and bucked the trend of uniting political and psychological aims when thinking about children's social development. The clinic had sympathies with radical critiques of the adult asylum system and of the unhealthy tie that existed between the law and psychiatry, which were then causing a stir within critical thought and public policy. However, its scope was limited in the 1950s due to the continuation of restrictive laws on 'mental deficiency'.

The second half of the book, 'How autism became autism', looks at the dramatic change in the meaning of autism that occurred in the 1960s. It was not until deficiency institutions began to be closed down,

following the 1959 Mental Health Act, that psychologists started to develop new models of autism. Chapter 4 explores the crisis of government that developed regarding the number of 'psychotic' children who were entering the public domain when large long-stay institutions closed. The Institute of Psychiatry's Social Psychiatry Research Unit in London became a dominant force in calculating the number of children with psychological problems and presenting these to government departments that acted accordingly in structuring social services to cater for these groups. The first ever epidemiological study of autism was conducted in Britain, primarily for administrative purposes, and set the scene for a new model of child psychology that united psychological and political aims, yet did so in a way that was far less overt and overbearing than the pre-1959 model symbolised by Bowlby's theories and articulated in Rose's theory of 'governmentality'. This new, reformulated, statistical, measurable, epidemiological model of autism transformed the meaning of autism and opened up original models of political engagement and new ideas about children's rights that had previously been unthinkable.

Chapter 5 looks at how changes in the organisation of education and social services for all children in 1970 gave further support to the concept of autism that was being developed in London's Social Psychiatry Research Unit. For example, the Local Authority Social Service Act 1970 led to the establishment of 'social service' departments within local authorities separate localities designed to facilitate social functioning for all. These united previously disparate services. It was in this climate that the description of autism as a kind of 'social impairment' was solidified and that the concept began to attract important legal significance in attributing rights to individuals diagnosed with the condition. The 1981 Education Act (enacted in 1983) and the 1989 Children's Act continued to bestow legal significance on the concept of autism and encouraged increases in its application within administrative circles. This also supported a broader definition of autism as a 'spectrum' and the development of increasing numbers of schedules and tests for measuring autism and 'social impairment'. The legal changes of the 1970s and 1980s thus supported the efforts of the new autism psychologists and enabled them to establish the psychology of the autism spectrum as the dominant model for understanding child development and its variations.

The final chapter argues that epidemiological research on autism in the 1960s and 1970s pioneered at London's Institute of Psychiatry has come to define global attempts to analyse and understand what, exactly, autism is. This has happened primarily via the engines of the *Diagnostic and Statistical Manual* and the International Classification of Diseases. Autism is currently a global phenomenon, yet has very specific conceptual roots. Many of the most popular global diagnostic instruments for autism were developed by researchers trained at the Institute of Psychiatry and related institutions in Britain, hence the importance of understanding the historical context described in this book. With these instruments, many epidemiological studies have been conducted worldwide, building on the original UK study. Reported increases in diagnoses since the 1990s have stimulated a huge interest in autism as a phenomenon and supported the psychology of the 'autistic spectrum' as a way to understand social development. The emergence of the Internet in the early 1990s has also driven international collaborations between research groups, as well as parent groups and self-advocacy groups. This chapter explores how these changes have been associated with wider global changes relating to the definition and construction of children's rights. It argues that studies of autism have almost become status symbols, and demonstrations of advanced approaches to child rights, within the developing world.

The main premise of this book is that autism is not, and has never been, a concept or an idea that is easy to pin down, and that it is only possible to understand the phenomenon of autism if it is explored in relation to a wider history of childcare and education and a wider history of theories of child development and child psychology. It thus seeks to rethink the meaning of autism through its historical past. The definition, diagnosis and meaning of autism are important topics that affect the people diagnosed and their families; the structure of health, education and social care services; and neuroscientific research agendas and the money that is spent on them. The rise of autism is partly a story of how psychologists have employed testing methods in order to manipulate the organisation of educational, health and welfare services for children. By placing the concept of autism back into a wider history of psychology, I demonstrate how longer disciplinary and professional concerns, etiological hypotheses, psychological doctrines and socio-economic conditions have enabled the concept to take root

and flourish. *The Metamorphosis of Autism* argues that it was a unique social, cultural and political climate in Britain in the 1960s and 1970s that sparked a radical transformation in the autism concept and which is critical to understanding today's neuroscientific research into autism, as well as today's global interest in autism as a phenomenon.

Notes

- 1 Murray, *Representing Autism*.
- 2 Baron-Cohen et al., 'Prevalence of autism-spectrum conditions'.
- 3 Eyal et al., *The Autism Matrix*; Eyal, 'For a sociology of expertise'.
- 4 Shattuck, 'Diagnostic substitution and changing autism prevalence'.
- 5 Rutter, 'Incidence of autism spectrum disorders'.
- 6 L. Wing, *The Autistic Spectrum*, pp. 20–21.
- 7 An excellent discussion of this controversy can be found in Murray, *Autism*.
- 8 Nadesan, *Constructing Autism*; Hacking, 'Autism fiction'; Murray, *Representing Autism*; Silverman, *Understanding Autism*; Silberman, *Neurotribes*.
- 9 E.g. Hollin, 'Constructing a social subject'; Verhoeff, 'What is this thing called autism?'; Feinstein, *A History of Autism*; Waltz, *Autism*. Singh, J Multiple Autisms.
- 10 Coleman and Gillberg, *The Autisms*.
- 11 Healy, *The Anti-depressant Era*; M. Smith, *Hyperactive*; Horwitz, *Creating Mental Illness*.
- 12 Forrester, 'If p, then what? Thinking in cases'; Rose, *Governing the Soul*; Rose, *Politics of Life Itself*; Hacking, *The Taming of Chance*; Hacking, *The Social Construction of What?*; Miller and Rose, 'The Tavistock Programme'.
- 13 Rose, 'The death of the social?'
- 14 Hayward, *The Transformation of the Psyche*; Hayward, 'Sadness in Camberwell'; Shapira, *The War Inside*.
- 15 E.g. Harris, *The Health of the Schoolchild*; Smith, *Nutrition in Britain*; Welshman, *From Transmitted Deprivation to Social Exclusion*; Hendrick, *Child Welfare: England 1872–1989*; Lewis, 'Anxieties about the family'; Thomson, *Lost Freedom*.
- 16 Hacking, *The Taming of Chance*.
- 17 Forrester, 'If p, then what?'
- 18 Ian Hacking did, in fact, later develop an interest in autism as a topic of enquiry, although he has focused on autism and narrative and has not addressed broader questions of autism sciences in relation to statistical

- and case sciences and the organisation of social, educational and medical services for children as I do in this book. See Hacking, 'Autism fiction'; Hacking, 'Autistic autobiography'; Hacking, 'How we have been learning to talk about autism'; Hacking, 'Humans, aliens & autism'.
- 19 E.g. 'Three essays on the theory of sexuality', in Freud, *Standard Edition*, vol. VII.
 - 20 Bleuler, *Dementia Praecox or the Group of Schizophrenias*, p. 63.
 - 21 Rutter, 'Childhood schizophrenia reconsidered', p. 327.
 - 22 Dwork, *War Is Good for Babies and Other Young Children*.
 - 23 Marks, 'Medical care for pauper mothers and their infants'.
 - 24 Hendrick, *Child Welfare: England 1872–1989*.
 - 25 Sutherland and Sharp, *Ability, Merit and Measurement*; Wooldridge, *Measuring the Mind*.
 - 26 Wright and Digby, eds, *From Idiocy to Mental Deficiency*; Thomson, *The Problem of Mental Deficiency*; M. Jackson, *The Borderland of Imbecility*.
 - 27 Wright, *Down's: The History of a Disability*; Borsay, 'Disability and education in historical perspective'; Cole, *Apart or a Part?*; Ford et al., *Special Education and Social Control*.
 - 28 E.g. Fink, 'Inside a hall of mirrors'.
 - 29 Hacking, *The Social Construction of What?*.
 - 30 Steven J. Gould's classic text, *The Mismeasure of Man*, was perhaps the most widely quoted, well-known and controversial academic text on the subject. Gould used historical examples to demonstrate the prejudices behind intelligence testing.
 - 31 Simon, *Education and the Social Order*; Wooldridge, *Measuring the Mind*; Sutherland and Sharp, *Ability, Merit and Measurement*.
 - 32 Mackintosh, *Cyril Burt*; Joynson, *The Burt Affair*.
 - 33 Vicedo, *The Nature and Nurture of Love*. Shapira, *The War Inside*.
 - 34 Savage, *Identities and Social Change in Britain since 1940*.
 - 35 Spencer, *The Principles of Psychology*; Young, *Mind, Brain and Adaptation in the Nineteenth Century*; Foucault, *Folie et déraison*. Rose, *The psychological complex*.
 - 36 Miller and Rose, 'The Tavistock Programme'; Rose, *Governing the Soul*; Rose, *The Psychological Complex*.
 - 37 Berrios, *The History of Mental Symptoms*.
 - 38 Shorter, *A History of Psychiatry*.
 - 39 Healy, *The Anti-depressant Era*; Hacking, *Rewriting the Soul*; A. Young, *The Harmony of Illusions*.

- 40 Rose and Abi-Rached, *Neuro*; Casper, *The Neurologists*.
- 41 K. Jones, *Taming the Troublesome Child*; M. Smith, *Hyperactive*; Raz, *What's Wrong with the Poor?*.
- 42 E.g. Thom, 'Wishes, anxieties, play, and gestures'; Stewart, *Child Guidance in Britain, 1918–1955*; Levene, 'Family breakdown and the "welfare child"'
- 43 E.g. Wooldridge, *Measuring the Mind*; Sutherland and Sharp, *Ability, Merit and Measurement*.
- 44 E.g. Cole, *Apart or a Part?*; Borsay, 'Disability and education in historical perspective.'
- 45 Van der Horst, *John Bowlby*; Riley, *War in the Nursery*.
- 46 Cameron, 'Past and present trends in child psychiatry'; Warren, 'You can never plan the future by the past'; Hersov, 'Child psychiatry in Britain'; Wardle, 'Twentieth-century influences'; Rutter et al., *Research and Innovation on the Road to Modern Child Psychiatry*; Neve and Turner, 'History of child and adolescent psychiatry.'
- 47 Hendrick, *Child Welfare: England 1872–1989*.
- 48 E.g. Lubetsky et al., *Autism Spectrum Disorder*, p. 30.