

Conclusion

Is the tide turning?

In 2014, the UK government implemented the Children and Families Act, a major piece of legislation aimed at reforming child rights. With regard to children on the autistic spectrum, the most important change effected by the Act was that it linked up domains of state intervention that had previously been separate. The 2014 Act eradicated the system of 'statements' that were so crucial to the expansion of the autism diagnosis from the 1980s to the 2000s, and replaced them with 'Education, Health and Care Plans' that cover not only educational provision but also health and social care support. This expansion of autism rights across multiple domains has since led to an increase in parental appeals against local authority services, as well as demands that autistic children receive greater support from the entire social support system. There has also been a growth in the number of children with 'autistic spectrum disorder' who have Education and Health Care Plans. In England, in 2012, there were 44,000 children with autistic spectrum disorder with a statement of special educational need. In 2015, there were 54,000 children with autistic spectrum disorder with a statement or an Education, Health and Care Plan. In 2016, there were 57,211.¹

As this book has argued, the metamorphosis of the autism concept occurred following radical changes in the construction of child rights in the late 1950s. The integration and education of large groups of children who had previously been excluded from the education system, and from society at large, led to the creation of numerous laws for autism and a reversal in the meaning of the term. Although this latest change

in the construction of child rights is not as dramatic as that which was instigated in 1959, the Children and Families Act 2014 nevertheless has led to significant alterations to the ways in which autism is managed.

Since 1959, parents and the new autism psychologists had been adamant that children with autism should be primarily diagnosed, administered and treated within the education system and that the health or social welfare systems should merely support this process. Education authorities and the government Education Department retained overall responsibility for autistic children as a population group. This arrangement originated in the context of repressive legislation in the 1950s. The new autism psychologists wanted to define 'social impairment' and demand educational rights, and they did not want to be dictated to by medical agencies, or social service agencies who were constructing their own understandings of social deprivation and policy intervention. Since the 1960s, policy towards childhood autism in Britain has been almost wholly managed via the education system, with other professionals acting only as agents to support this. It is only recently that this has begun to change. The Autism Act 2009 began this transition with the legal and political acknowledgement that autistic children become autistic adults, ensuring that autism was listed specifically in policy documents relating to social care for autistic people when they left the education system. The Children and Families Act 2014 further expanded the significance of the category within wider health and welfare management in the UK, ensuring that multiple agencies acknowledge that they have an obligation to provide services to those on the autistic spectrum.

It is highly likely that this expansion of the domains in which the administration and authority of autism is discussed, debated and enacted upon will lead to further and significant alterations in the meaning of the term and new 'styles of reasoning' about it. Such changes will also have an impact on neuroscientific, genetic and epidemiological studies, even though all of these approaches often claim to bypass historical, social and political factors. We are in the midst of these changes and any predictions would be hasty, but this change could easily lead to the end of the epidemiologically defined population-based autism that had been driven by the desire to prove educational rights. This could be replaced with the formation of a concept that is demarcated via the law concerning wider social welfare provisions. To add to these changes, DSM-V (2013) has now dropped the category of Asperger's and

fused the 'social' and 'communication' aspects of Lorna Wing's 'triad of impairments', putting 'autism' all on one wide spectrum. Whilst this in many ways expands the category, it has also destabilised it. Perhaps this could lead to another kind of metamorphosis? It does appear that our current concept of autism is approaching its zenith as 'the fastest growing neurodevelopmental disorder in childhood', as it is often touted.² It is questionable whether there is anywhere else for it to go from this peak.

Recently, several new challenges have been levelled at autism researchers. Ever since Jim Sinclair's radical criticism of models of autism in the early 1990s, 'Don't Mourn for Us', the autism rights movement has been growing exponentially and generating new ways to consider what it means to be autistic. Adherents of the 'neurodiversity' movement argue that autism is not an illness, a disorder, nor even always a disability, but merely a different kind of thinking. In fact, if one looks back at the history, this argument can be seen as simply an extension of fact that 'autism' came to define an increasingly diverse field of symptoms. As the boundaries of autism expanded to define a model of child development that, by its own definition, was merely non-typical, or not statistically significant, it is no wonder that individuals seek to challenge the idea that merely being developmentally not-typical necessarily makes them sick or ill. Whilst many biomedical researchers are still flummoxed by the 'neurodiversity' movement, some now openly talk of 'neurodiversity' themselves and refer to those without a diagnosis as merely 'neurotypical'.³ The neurodiversity movement has led to a shift in approach as researchers concede to a growing and increasingly powerful distinctive discourse of autism rights, social justice and reflection on the creative aspects of autism and early infantile development.

Recent years have seen the autism rights movement take new turns in critical reflection. New initiatives have sprung up in Britain that attempt to relocate autism within a new psychoanalytic model, such as the Critical Autism Forum in Nottingham, which reclaims psychoanalysis as a critical analytic tool in relation to autism under the auspices of the neurodiversity and autism rights movement.⁴ Similarly, the Critical Autism Network, a global collaborative project based in Britain and funded by the Leverhulme Trust, aims to 'develop a challenge to dominant understandings of autism as a neurological deficit, instead focusing on autism as an identity that is discursively produced within specific sociocultural

contexts'. Again, it does this within the autism rights and neurodiversity movement.⁵ Elsewhere new research in the *Lancet* is arguing that parenting skills can lead to long-term amelioration of symptoms in children with autism. All This would have been unthinkable in the 1990s or even 2000s. Other initiatives, such as Nicola Shaughnessy's major Arts and Humanities Research Council project 'Imagining Autism', seek to challenge the circumscribed models of autism put forward in the epidemiological, statistical, mathematical model of autism using new ways of engaging with the theory of child development and childhood imagination and creativity.⁶ These changing 'styles of reasoning' about autism are being driven by legal, political and social change as much as scientific developments. They are generating new perspectives on autism, sometimes highlighting research that had subsided whilst Wing's research was dominating the field.

At the same time, several researchers have started to re-examine the relationship between schizophrenia and autism, opening up the difficult territory that distinguishes diagnoses that explore both social reality and reality. In 2009, Judith Rappoport and colleagues at the US National Institute of Health 'revisited' the link that had previously been drawn between autism and childhood schizophrenia, arguing that schizophrenia and autism are sometimes seen in the same patients and that autism and other developmental disorders may be a risk-factor for schizophrenia.⁷ Other similar studies have followed.⁸ This re-association between these disorders represents a sea change and perhaps another reframing of the problem, perhaps simply because the DSM-III and later publications have led to so much co-morbidity, particularly in childhood disorders, that these connections can no longer be ignored. If the categories of autism and schizophrenia are linked in the future through scientific models of neurodevelopment and epigenetic studies, there may be another radical shift in the description of infantile thought on the horizon. This shift to rethink autism in relation to childhood schizophrenia and hallucination has been contemporaneous with an increased acceptance that there may be multiple 'autisms'.⁹ It is also concurrent with new approaches to the rights of autistic individuals. At any rate, tides are definitely turning, approaches are definitely shifting and we may well see more former models of autism being resurrected.

'It is important to be aware, in the process of this resurrection, that the second autism served a phenomenally important role in assuring

independent rights for individuals so classified. Changes in the law in the 1980s and 1990s required fixed models of autism to assure children's rights. Returning to earlier models, and advocating neurodiversity, are important projects, but these projects must be embarked upon with an informed awareness of the importance of the second autism to ensuring child rights. In other words, it is imperative that child rights are supported in the throws of this massive conceptual change and that the neurodiversity movement doesn't unwittingly lead to an erosion of such rights.

Some of the central questions raised in the controversies over the first autism in the 1940s have resurfaced in new forms. These are most evident in Michael Rutter's well-known studies on Romanian orphans who had been seriously deprived during the early stages of their development.¹⁰ In 2007, Rutter argued that around one in ten of these severely deprived children showed 'quasi-autism' that was very similar, though not identical, to 'ordinary autism'. All the children with 'quasi-autism' showed 'theory of mind' deficits, a finding that confirms the universality of that concept to cover general relational and social difficulties.¹¹ Furthermore, deprived orphans adopted after six months were likely to show 'theory of mind' deficits even if they did not show full-blown 'quasi-autism'.¹² Interestingly, Rutter and colleagues have argued that infants who are severely deprived during the first six months of life do not develop 'quasi-autism', whereas those who were deprived for longer periods do have a tendency to do so. This finding essentially revisits the controversial discussions between Melanie Klein and Anna Freud about the nature of thought during the first six months of life and whether infants during this phase were dominated by 'primary narcissism', as Anna Freud had argued. In essence, Rutter now argues that environmental circumstances can affect the development of 'quasi-autism', a finding that is less contentious when phrased in new language. Legal, political and social developments and new models of children's rights and disability rights are influencing these changes.¹³ Elsewhere, psychologists such as Vasu Reddy are re-interrogating the formation of the self in early infancy in relation to parental, and other social and cultural factors.

Rutter clearly has an appreciation of the impact of the law and society on psychological categories and argued in 2011 that there should be two versions of classifications used in the DSM: one aimed at all

professionals working in front-line, caregiving and administrative capacities, and one aimed at researchers who seek to explore neuroscience, epigenetics and environmental factors in the causation of mental states. He references the case of autism as an example of how categorisation practices could be better.¹⁴ Because the epidemiological model of autism became fused with the child rights and disability rights model of autism by the late 2000s, it makes sense that new taxonomies and new styles of thinking about autism are now on the horizon. It is likely that these will break down and problematise the 'autisms' and their relation to social, educational and welfare rights. It is likely that another metamorphosis of autism, prompted by the 'neurodiversity' movement, is now on the horizon.

Rethinking social development

This book has described the origins and foundations of autism as a concept and the role of British researchers in appropriating the concept, making it their own via epidemiological exploration, and then promoting it to the rest of the world. This was an important project that enabled a complete transformation of models for thinking about child development. Nikolas Rose's work on the spread of 'human relations' psychology as important to the development of social models and modes of governmentality has been critical in explaining how the psychological sciences have enabled complex models of self-governance in Britain. Yet, from the 1960s, such models have been placed under an increasing amount of pressure as radically new models of identity development in children began to come to the fore. In these new models, children could be regarded as social subjects with social rights regardless of their actual engagement in an idealised model of 'the social' and 'society'. The new autism was a critical concept for rethinking psychology and social development in the 1960s and it became increasingly important over the ensuing decades. Theories of the second autism have since been used to promote a model of global children's rights centred on the idea that all children have the right to be considered as social subjects, even if they are not fully 'social' in the sense promoted by social scientists and human relations theorists of the previous generation.

In Rose's later work, he has argued that 'the social', as tied to a single national model of government, has been reconstructed within a new

global neoliberal model of governance in which new kinds of communities are advised, managed and governed by expert authorities.¹⁵ The growth of neuroscientific approaches to social engagement are regarded merely as extensions of 'technologies of the self' in which subjects are beholden to expert opinions offered by 'psy' experts and other authorities. These are simply veiled in new neoliberal ideologies.¹⁶ The argument in this book is that new models of autism and social engagement are not just an extension of previous models of governance as characterised by the growth of 'human relations' psychology. In fact, the rise of autism and new models of social engagement have radically reformulated ideas about social engagement. The metamorphosis of the concept of autism is a reflection of this fact. The rise of the second autism has been associated with the development of important new models of self-identity that do not slot easily into a model of growing 'technologies of the self' within a wider framework of governmentality. These new models of social engagement are direct reactions to the Tavistock model of human relations and have increasingly demonstrated that individuals do not need to succumb to pressures to become social beings. The Autism Act 2009 was a critical piece of legislation that upheld such models and demanded that the law acts to support the welfare and care of autistic individuals without forcing them into a wider framework of self-governance. The concept of autism has redefined how we think about individual rights and child rights. If there is another metamorphosis of autism on the horizon, it will be shaped in a very different political and legal climate to that which supported the first autism.

The Mental Deficiency Act 1913 and the growth of psychological services for children in the early twentieth century led psychologists to develop a new language with which to conceptualise the problem of severe mental pathology in infants and children drawing from the study of psychopathology in adults. Up until the 1950s, the concepts of childhood schizophrenia and autism were used to reframe central issues in child development based on the idea of infantile hallucination. However, this foundational work for the autism concept was conducted in a unique historical climate in Britain where a population of children were hidden from the gaze of important early child psychology researchers. Psychologists such as Melanie Klein, Susan Isaacs and

John Bowlby were influencing government policy towards children as recipients of welfare and education but their approach was blinkered. 'Mentally defective' children were neglected as subjects of sustained psychological research and 'styles of reasoning' around autism were limited by the fact that a major section of the population was not included in the studies.

The Mental Health Act 1959 saw the hidden population of children begin to reappear in families, schools, hospitals and clinics. Most importantly, they were finally acknowledged as individuals with rights in the eyes of the law. It was this moment of rediscovery that encouraged the first epidemiological study of the 'autistic' and that simultaneously shifted the focus of child psychology away from the kernels of desire for relationships and human interactions, and towards the limitations on their thoughts about social interactions. The expansion of the epidemiological method in child psychiatry and developmental psychology led to new standardised measures of sensory-motor function and language ability. A child's behavioural and linguistic 'stereotypies' could be correlated with similar 'stereotypies' in other children through cohort studies. These studies gave rise to new scientific facts about infantile psychology. Victor Lotter's behavioural items for autism were developed to enable reproducible studies that would not be affected by the subjective judgements of individual researchers. It was in response to these changes that statistical researchers such as Lotter, Lorna Wing and Rutter transformed the meaning of autism from 'a withdrawal into fantasy', as in the Piagetian description of the concept, to an inability to fantasise that could be calculated through a sum of cognitive measures. It was through the work of Lorna Wing that the theory of 'social impairment' reached its pinnacle and from which models of 'theory of mind' and 'executive function' impairments sprang. It is important to note that these were not merely 'cognitive models' of autism but that they were premised on a very significant claim to knowledge within a total model of psychiatric epidemiology. Furthermore, they were developed in order to ensure all children's rights to live within society as social beings.

The claim that statistical inference should be used as the basis of scientific knowledge is not an invention of autism researchers in the 1960s. Such a claim can be traced back to the work of Karl Pearson, Francis Galton and Cyril Burt. However, historical contingencies

impacted on the way in which children were organised and administered within the school system, the juvenile justice system and the maternity and child welfare system in the early twentieth century that affected the model of psychology that was developed before the 1959 Mental Health Act was passed. The work of Burt, Isaacs, Winnicott and Bowlby had some very specific agendas, and some very specific omissions, that characterised it. For example, although Burt was obsessed with norms, means, averages and generalities, he was not concerned with children who lay beyond those norms and left them to deficiency institutions. Furthermore, he thought of instinct theory in terms of its impact on individuals and so his reasoning about psychological development drew just as much from the individual case as it did from the statistical sample. The problem was that this individual case was always a child with 'normal' intelligence. In the post-war period, researchers such as Bowlby were interested in encouraging policy-makers to think about the flaws of institutional care. The fact that they worked in child guidance clinics and everyday community institutions, far removed from the tragic drudgery of institutional care for mental defectives in the 1950s, meant that they were not able to see beyond the cultural vacuum, and the ethical nightmare, that mental deficiency law had created. However, when mental deficiency law came to be seriously challenged in the mid-1950s, the application of Bowlby's views at policy level seemed increasingly inconsistent. Why was mother love deemed so important for 'normal' children but so unimportant for 'defective' children who remained in institutional care? The contradiction in government policy towards 'defective' children in the immediate post-war period no doubt fuelled the need for quantitative accuracy regarding the problems and needs of this borderline population.

The meaning of 'autism', as both a defining state in the development of individuality and an aspect of schizophrenic thinking, has always been dependent upon the broader gestalt of psychological theory and the institutional structures that have supported it. It is for this reason that the closure of mental deficiency institutions had such a profound effect on the theoretical structures of child psychology. Statistical child psychology as it developed in the 1960s used epidemiological studies in order to answer questions about

the development of *all* infantile thought in a new social context. Researchers such as Rutter, Lotter and Wing used epidemiology to understand social development in children. They thereby transformed psychological questions about children's individual unconscious desire for relationships into statistical questions about how a total population of children behave in relation to others. In doing so, they developed a 'style of reasoning' about child development that relied extensively on epidemiological studies.

When epidemiologists employed statistical methods to understand the development of the infantile mind, they appropriated the concept of autism because the explanation of it was imbued with so much potential. The potential of the concept has since been fulfilled, in the sense that it has been readily applied to increasing numbers of children. However, its meaning remains problematic within general psychiatry due to its complex history and dissociation from the key concept of descriptive psychopathology – hallucination. Whereas the Piagetian, Isaacian and Kleinian theories of autism that had dominated until the 1950s had constructed autism and primary narcissism as the 'pre-social' stages of development that later re-emerged in pathological psychosis, the psychology of 'autistic spectrum disorders' would regard these early stages of thought in infancy as a defect, deficiency or shortcoming that could only be surmounted via a full-blown interaction with the social world. As it blossomed in the 1980s and 1990s, Wing's autistic spectrum psychology organised theories of mental development around the contention that infants and children could be 'deficient' or 'impaired' in their ability to engage in the social world. More importantly, however, the social world was no longer thought to be constructed from phantasy and hallucination concerning the body and bodily functions. Now the social world was created in the very material of statistical and epidemiological studies, in the logic of collecting and collating. Detailed observations of infants shifting their eyes, reaching for toys and moving objects around were no longer just of interest to psychologists studying intellectual development or psychoanalysts studying human desire. These now featured in a new discourse of collective social impairment. When the theory of instincts lost its discursive power, after child psychologists had to succumb to the reality of a 'mentally defective' population, mothers no longer held the descriptive power that they had previously held as the harbingers

of social reality. Child psychologists now came to construct 'the social' in a domain entirely separate from family life. Although psychoanalytic theory was influential within government policy in the 1960s and 1970s, it was simultaneously being stripped of its descriptive terminology and the language that supported all of its major contentions concerning childhood psychopathology. The science of 'mental defect' posed a challenge to these psychoanalytically influenced all-too-perfect constructions of children's social and emotional development, and it was a challenge that was virtually impossible to overcome. New 'styles of reasoning' around autism took account of multiple and varied forms of child development, but they did so in a way that was restricted by the scientific models used to formulate them. Epidemiological sciences became the quintessential element of autism research, so much so that it was hard to see beyond the figures.

Whereas pre-epidemiological definitions of autism were criticised for relying too heavily on the description of subjective mental states, in particular the attribution of hallucinatory and delusional experiences, post-epidemiological descriptions of autism relied just as heavily on the description of social norms, assuming a shared understanding of what constituted 'society'. These were arguably just as abstract as definitions of mental states, although epidemiological researchers did not view it this way. In descriptions of the early stages of socialisation in the first two to three years of life, one could argue that 'the social' could be measured quite successfully through behavioural criteria such as reaching to be carried, seeking eye contact and engaging in conversation with others – and similar behaviours explored in instruments such as the ADOS. However, as children got older, their engagement with 'the social' became increasingly difficult to define and increasingly difficult to measure. In many studies, the term 'social' then came to be bandied about in way that was not particularly useful for epidemiological study. It was because of this that Simon Baron-Cohen, Alan Leslie and Uta Frith's work in the late 1980s was so important. It promised to provide a deeper theory to explain social abnormalities.

Just as psychoanalytic models of autism had influenced wider theories of child psychology since the 1920s, and just as 'Bowlbyism' had dominated policy approaches to nursery provision in the post-war period, the new epidemiologically defined 'autistic spectrum' would have a huge influence on wider theories of child development

and children's right, particularly from the 1980s onwards. After the 1960s, models of 'social development' in children could no longer employ progressive evolutionary descriptions of increasing mental functions as they tallied with increasing social complexity as in the models of McDougall and Burt. Radical critique of these sociological approaches increasingly gained ground. The Seebohm reforms and ensuing reflections on the complexity of 'the social' as managed through administrative systems also had a huge impact. The Education Act 1981 (1983) further supported such reflections, as did Margaret Thatcher's denigration of 'society' and the increase in neo-liberal approaches to active social citizenship. By the 1980s, it was not just ideas about autism, 'social' impairment and atypical development that had changed, but also ideas about 'normal' social development in children.

In fact, research on theory of mind, and the ways in which one individual projects intentions onto another, was a pretty low-key topic for a long time. No one was very interested in Frith, Leslie and Baron-Cohen's first article on 'theory of mind' in the 1980s, leaving Frith exasperated at the lack of engagement.¹⁷ In the early 1990s, in line with growing epidemiological studies of autism, the first research on 'mirror neurons' emerged via studies on monkeys, generating greater interest in the brain mechanisms by which humans were able to empathise or share mental states with others.¹⁸ Baron-Cohen has been the central scholar to latch on to this work and to associate it to autism research. However, as Allan Young has argued, there is still much controversy around the way that mirror neurons work in empathising processes and all of the findings must be viewed in relation to what he calls the 'neo-Darwinian back story' of the social brain, tracing back to the 1960s.¹⁹ As Young points out, since the 1980s, neuroscientists have also been describing what they refer to as 'the cognitive unconscious' or 'the new unconscious', using computer models and metaphors to describe the way that 'preattentive perceptual processes' and 'memory traces' support higher mental processes in humans. This 'unconscious' is one of self-regulation and is thus often contrasted with 'the conflict and drama of the psychoanalytic unconscious'.²⁰ Nevertheless, even within cognitive psychology, claims are clearly made about the way that the unconscious 'social brain' directs behaviour. Because autism has always been such a crucial concept in the development of theories of the origins of

the unconscious mind, and in the description of social engagement in infants and children, it is no wonder that interest in empathy, mirror neurons and the social brain has heightened in an international context. The 1990s thus witnessed both a boom in autism diagnoses and a burgeoning of research into mirror neurons and the social brain.

At the same time, new theories of social development emerged in child development studies. Social development was no longer an achievement; it was more of an engagement with multiple agencies. For example, in 1986, Martin Richards, who established the Medical Psychology Unit at the University of Cambridge, together with Paul Light from the University of Southampton, published *Children of Social Worlds*, a text that examined the impacts on the process of psychological development made by institutions of family life, the status of children within the legal system, the work roles of parents, schooling and education, gender difference and the ability to acquire communication skills. In 1991, Paul Light drew attention to major 'changing perspectives on cognitive development during the past decade'. As summarised in the preface:

Piaget's theory has informed the popular image of the child as a solitary thinker struggling to construct a personal understanding of the mathematical and logical properties of the physical world. But this image is now giving way to a view of the child being initiated into shared cultural understandings through close relationships with parents and teachers, as well as siblings and peers.²¹

Any child who was a solitary thinker who struggled to understand the mathematical and logical properties of the world was now on 'the autistic spectrum', an anomaly within a new model of the development of relationships that shunned psychoanalytic models and argued that social engagement occurred through other kinds of 'social' engagement that, ironically, were actually being described at a more abstract level. Instead of drawing from the psychoanalytic theory of human relationships, these texts increasingly drew from cognitive models in order to describe how children became social subjects. Now that the new model of autism was accepted as the absence of social development, 'social development' in children also came to be redefined.

These changes were contemporaneous with changes in the meaning of autism. These were new descriptions of the society that housed

psychological development, born of the work of the Institute of Psychiatry-trained epidemiologists and psychologists. This model was particularly receptive to the psychology of the 'autistic spectrum' because this psychology provided new agency to the child himself or herself. Gone were the days of adults imposing their views of evolutionary development on the blank canvas of the infant brain; now that infant had autonomy and the democratic potential to alter the perception of himself through statistical patterning. If more children glanced away from the psychologist's gaze, looked blankly at their questions and played with their toys as if they were scientific instruments, these actions would be collected, recorded and analysed as part of the psychology of the social. This voice, this agency was the psychology of the autistic spectrum writ large because the individuals it represented were the most disadvantaged. It is for this reason that a 'social impairment' became simultaneously a deficiency and a benefit.

By the mid-1990s, psychology textbooks began to address the 'personal, social and emotional' development of children, drawing distinctions between these different areas to ensure that 'social development' was distinguished from general emotional and personal growth.²² These were also spurred by legal changes concerning the organisation of childcare and education. In 1996, *Desirable Outcomes for Children's Learning on Entering Compulsory Education* introduced national guidelines for the education of preschool children and promoted the idea that children should achieve a number of 'personal' and 'social' skills before they entered into compulsory education at age five.²³ In 2000, these goals were revised under Blair's Labour government as the Early Learning Goals of the statutory *Curriculum Guidance for the Foundation Stage* for children aged 3–5 years. *Birth to Three Matters* was also published as non-statutory guidance for children under the age of three.²⁴ These guidelines and goals focused on the need for children to develop early social skills. New practical guides were then written to promote 'social' learning in children and these treated the development of relationships as a cognitive and educational issue.²⁵

The theory of the 'social brain' now thrives in neuroscientific studies, given further support from research in 'mirroring' and 'mirror neurons', first reported in the late 1990s.²⁶ The neuroscientist Chris Frith, husband of Uta Frith, argued that emotions are mirrored in others,

developing the idea that humans' capacity to empathise is related to a social part of the brain that enables one to understand the thoughts and feelings of others.²⁷ Together the Friths also argued for the idea of a 'social brain.'²⁸ Baron-Cohen developed these ideas particularly in relation to empathy.²⁹ The fact that these theories of the social brain have arisen from the study of individuals who apparently *lack* social capacities, is somewhat ironic. However, this irony is easier to appreciate when one realises that these new theories of the 'social brain' developed from a unique historical context in Britain when children who were previously considered extraneous to psychology were integrated into psychological studies. The consequences of this change spread far wider than the study of just autism. They have entered into all descriptions and studies of infants and children who display mental atypicalities and have influenced international theories of psychological development. 'Autism' is a defining concept that has altered our perception of how infants and children think.

How models of social development affect society

The epidemiological approach to autism has enabled researchers, parents and others to think about gene/environment interactions in psychological development in more detail than early-twentieth-century developmental psychologists would ever have thought possible. The globalisation of Wing's 'triad of impairments' enabled the epidemiological model of autism spectrum psychology to be applied in countries across the world where the collection of vast amounts of genetic data, and mouse models of 'social impairment', encouraged researchers to look at how multiple genetic abnormalities can manifest themselves as 'autism'. These studies now seek to analyse the entire autism spectrum, the possible genes involved and the potential environmental factors that could trigger the development of this spectrum condition. There is nothing particularly clear-cut about this approach. It does not approach autism as disease entity but rather as a psychological presentation that has some bearing in biological facts. This conceptualisation of autism has some similarities to the instinct model of autism and social development that originated in the 1920s and 1930s, which regarded autistic thought as a critical point of reflection on a wider model of biological

drives in infants and children. What distinguishes the current genetic model is its basis in epidemiological studies of total populations rather than an individual child's troubled relationships.

Such opposing claims of biochemical difference in children had a different meaning depending on the historical and legal context. Biological descriptions of childhood schizophrenia before the 1960s were framed within a legal model that supported medical interventions and exclusion. A diagnosis of childhood schizophrenia by Kenneth Cameron in the early 1950s, for example, could lead to a regime of forced insulin-shock treatment followed by a lifetime of institutional commitment and exclusion from the rest of 'society'. A diagnosis from Lauretta Bender in the USA could be even more detrimental to a child's later ability to function as a social being. However, legal changes that ensued from the late 1950s to the early 1990s turned the diagnosis of autism from a one-way ticket to lifetime institutional commitment into a positive description of children's individuality. The fact that autism advocates now campaign so loudly that they are proud of their diagnosis and do not wish for it to be seen as a disorder or a problem, but rather as a positive affirmation of their being, is confirmation of the success of these legal and conceptual transformations. After legal changes ensured that the autism diagnosis was accompanied by legal rights to education and social acceptance, in particular after the law affirmed the rights of child expression more generally, then biochemically different beings were no longer regarded as threats to the social order and recipients of social care, but rather as actors who had a right to their individual thoughts and expressions. Post-1989, biological psychiatry changed – it was no longer the repressive state-protected diagnosis of a psychiatrist, because children's autonomy was now protected in law. Autism thus became a statement of the authenticity of children's individuality.

The category 'autism' has been used to label increasing numbers of children in Britain, particularly since the 1990s, and these increases were largely driven by changes in the administration of institutional care and education for children. This increase in diagnoses of autism has been associated with the accession of a new model of children's rights. The 1981 Education Act (1983) and the Children's Act 1989, spurred further by the rise of Thatcherism and neoliberal approaches to social welfare in which individual rights were championed, were the drivers for

these changes. This supported the growth of autism as a category and supported further laws that put this model of autistic children's rights into practice. By the 1990s, the new epidemiologically defined version of autism had already taken on a life of its own. Researchers, parents and others were debating its possible increase, children were being diagnosed with the problem internationally, schools were developing new ways to teach children with autism and to manage them in classrooms and education systems, adults were also acknowledging their condition, some self-diagnosing, and developing a new discourse for understanding what autism was. It was this model of autism that held such a wide international appeal and which has since prevailed across the globe.

Through the application of more and more tests for impairments in social engagement, communication and imagination, the new autism psychologists sought to discover the meaning of early infantile thought. The psychology of intelligence testing became a mainstay of government policy and intervention from the 1910s to the 1960s in the UK, and presented a scientific model that could also be used as a powerful administrative tool by the government. Likewise, theories of autism have adopted a similar role since the 1980s. Tests for autism have become part of everyday life; they have shaped understandings of child development for everyone from government officials and policy advisers to educational psychologists and teachers to parents and, not least, to children themselves. A lot of information has been collected but, similarly to intelligence tests, these tests have reached a limit in their applicability as the basis for wholesale genetic theories, as well as arguments for social policy engagement to support their logic. Just as Steven J. Gould radically debunked the scientific theory of intelligence in the early 1980s,³⁰ today autism advocates are presenting a critical challenge to the idea of the 'autistic spectrum' as a useful scientific instrument to think about genetic abnormality, pointing out that it embraces individuals who have been excluded due to society's own limitations, and should now be embraced and appreciated for the skills and abilities that they can offer. This has led to a championing of the idea of autism as biochemical 'difference' rather than illness. If one looks at the history of autism as a central concept of child development, it is clear that the affirmation of autistic individuals' rights to be autistic and their claims to de-medicalise the entire concept of autism are just a natural

progression from the recognition that autism needed to be released from state control in deficiency institutions, into the hands of schools and parents, and eventually children and adults with the diagnosis. At its core, this is a debate about rights. It is part of the democratisation of the topic of autism, which was, in its previous incarnation, limited to medical, psychological and government officials.

The first generation of statistical psychologists, including Burt, had been interested in using psychological techniques in order to measure IQ and delinquency levels and to make comments about meritocracies and the way that society should be organised in order to ensure economic prosperity. The new autism psychologists did not do this. Tizard, in particular, strongly believed that 'mentally handicapped' children could be educated and integrated into society. Rutter believed that social scientific work could help to break 'cycles of disadvantage' by exposing social organisation for what it really was. Unlike a model of 'governmentality' in which all individuals are induced to govern themselves, the new autism psychologists integrated new ideas about dependency and self-awareness that bypassed the idea of social dependence. The second autism encouraged the recognition of individuals with atypical forms of 'social development' and ultimately did not seek to enable their compliance as social subjects. This is why the rise in autism, the rise in recognition of children's rights and the rise of neoliberalism go hand in hand. All these phenomena have presented new ways for conceptualising the individual within a social context. The growth in the application and the study of autism as a 'social impairment' has paralleled legal changes that have championed the rights of children no matter what their mental impairments may be. This new model of social welfare and human relationships has become increasingly desirable in an international context. Nevertheless, we are beginning to see seismic shifts again, not only in the meaning of autism as the neurodiversity movement takes on the 'impairment' model, but also in social policy, as the 2014 Children and Families Act redefines the way that social care, provision and support is provided to all children.

The entire basis for autism, in its second metamorphosis, rested on the possibility that statistical, epidemiological and genetic studies would, in the future, be able to define the concept itself. Dominant descriptions of autism, such as Baron-Cohen's, state that the potential of 'autistic' thought lies in its capacity to think mathematically,

scientifically and logically. This is not a coincidence but a reflection of the way that epidemiological models have been developed to measure the concept and make claims as to its scientific accuracy. In many ways, the second definition of autism was merely a reflection of the instruments that have been used to measure, contain, control and identify aspects of the infantile mind that are just unknowable. In fact, the way that this impenetrable part of the infantile psyche has been conveyed has a lot more to say about the society that has fabricated it than about the infantile mind itself. If the tide turns again, and if autism experiences another metamorphosis, this will also be accompanied by new 'styles of reasoning' about society, individuality and the right to have individual children's needs recognised. The potential of autism to reshape these diverse domains of human knowledge should not be underestimated.

Notes

- 1 Department for Education, Statistics (2016), online: www.gov.uk/government/statistics/special-educational-needs-in-england-january-2016. Statistics (2015), online: www.gov.uk/government/statistics/special-educational-needs-in-england-january-2015; Statistics (2012), online: www.gov.uk/government/statistics/special-educational-needs-in-england-january-2012.
- 2 E.g. Hidalgo et al., 'Sociodemographic differences in parental satisfaction'.
- 3 Interview with Uta Frith, Bonnie Evans, 17 December 2014. Frith stated that the neurodiversity movement presented a challenge to her work. Others such as Francesca Happé readily use the language of the neurodiversity movement, e.g. Happé, 'Autism and the concept of psychological normality'.
- 4 Critical Autism Forum, Nottingham: <http://blogs.nottingham.ac.uk/criticalmoment/2015/01/05/critical-autism-forum-launch-weekend-report> (accessed 25 October, 2016).
- 5 Critical Autism Network: www.open.ac.uk/health-and-social-care/research/critical-autism-network/ (accessed 26 October 2016).
- 6 www.imaginingautism.org (accessed 29 October 2016).
- 7 Rapoport et al., 'Autism spectrum disorders and childhood-onset schizophrenia'.

- 8 E.g. Meyer et al., 'Schizophrenia and autism'; Waltereit et al., 'Interaction of neurodevelopmental pathways and synaptic plasticity'; Devanna and Vernes, 'A direct molecular link'.
- 9 Coleman and Gillberg, *The Autisms*.
- 10 E.g. Rutter et al., 'Specificity and heterogeneity in children's responses to profound institutional privation'; Rutter, 'Developmental catch-up, and deficit, following adoption'.
- 11 Rutter, Kreppner et al., 'Early adolescent outcomes of institutionally deprived and non-deprived adoptees'. This built on an earlier study of a smaller group of children: Rutter, Anderson-Wood et al., 'Quasi-autistic patterns following severe early global privation'.
- 12 Colvert et al., 'Do theory of mind and executive function deficits underlie the adverse outcomes'.
- 13 E.g. Reddy, & Rossmannith, 'Structure and Openess in the Development of Self in Infancy. *Journal of Consciousness Studies*, Volume 23, Numbers 1–2, 2016, pp. 237–257(21).
- 14 Rutter, 'Research review: Child psychiatric diagnosis and classification'.
- 15 Rose, 'The death of the social?'
- 16 Rose and Abi-Rached, *Neuro*; Rose, *Powers of Freedom*.
- 17 Interview with Uta Frith, Bonnie Evans, 17 December 2014.
- 18 Di Pellegrino et al., 'Understanding motor events'.
- 19 Young, 'The social brain and the myth of empathy'.
- 20 Hassin et al., *The New Unconscious*.
- 21 Light et al., *Child Development in Social Context, vol. II: Learning to Think*, p. x.
- 22 Barnes, *Personal, Social and Emotional Development of Children*; Dowling, *Young Children's Personal, Social and Emotional Development*.
- 23 School Curriculum Assessment Authority, *Nursery Education*.
- 24 Qualifications and Curriculum Authority, *Curriculum Guidance for the Foundation Stage*.
- 25 Evans, *Personal, Social and Emotional Development*; Leach, *Personal, Social and Emotional Development*.
- 26 Rose and Abi-Rached, *Neuro*, p. 145.
- 27 C. D. Frith, 'The social brain?'
- 28 Frith and Frith, 'The social brain'.
- 29 Baron-Cohen, *Zero Degrees of Empathy*.
- 30 Gould, *The Mismeasure of Man*.