Chapter Four

The Voice of Reason

All our dignity, then, consists in thought.

It is upon this that we must depend, not on space and time,

which we would not in any case be able to fill.

Let us labour, then, to think well: this is the foundation of morality.

Blaise Pascal

Medical interpretations of intellectual disability have never existed in isolation. Even when first formulated they had to contend with religious interpretations founded upon moral notions of sin and guilt. Those that did emerge as scientifically informed medical understandings of the cause and manifestation of intellectual disability, however, still carried with them moral markers that made of this difference an immorality (or amorality) now rendered as an abnormality. Although medical interpretations dominated the assessment and treatment of idiocy throughout the nineteenth century—and while medicine has never lost its role in the overall diagnosis and interpretation of intellectual disability—there was considerable debate by the end of the century as to who was actually best qualified to make a diagnosis (Rose 1985: 101-102).

The power struggle between medical practitioners and psychologists to diagnose and categorise intellectual disability was ultimately influenced by the development of the intelligence test. Intelligence testing also marked the emergence of psychology as a rigorous scientific discipline in its own right, a discipline in search of hard factual evidence based on precision, testing, accuracy and statistical data (Rose 1985: 117; cf. Hanson 1993). The intelligence
tests' seemingly accurate and numerical assessment of cognitive capability gave to the interpretation of intellectual disability an absolute and quantifiable specification that had previously been lacking in medical interpretations. When intelligence tests were first introduced they became a powerful tool for clarifying the concept of mental retardation, and by 1914 had become the accepted method for "discovering the mentally slow" (Luckey 1967: 170-172). They were designed specifically for this purpose and, to this day, one of the most common uses of intelligence tests is for the diagnosis of mental retardation (Aiken 1996: 276).

Those with a measured intelligence quotient (IQ) of less that 70 on an intelligence test were—and still are, according to the World Health Organisation's classification—deemed to be intellectually disabled (Bijou 1992: 309; Bullock & Trombley 1999: 519-520; Schalock et al. 1994: 183). More specifically, the test was used to categorise levels of intellectual disability such as profound, severe, moderate and mild retardation, each of which was associated with particular IQ ranges (Accardo & Whitman 1996: 194; Woods 1983: 3-15).\(^1\) Levels of intelligence were also ultimately used to determine the

\(^1\) Those with an IQ below 25 were considered to be profoundly mentally retarded, those with an IQ between 25 and 35 severely mentally retarded, those with an IQ between 35 and 50 moderately retarded, and those with an IQ between 50 and 70 mildly retarded (Accardo & Whitman 1996: 194; Woods 1983: 15-17; cf. Aiken 1996: 277-279; Judge 1987: 34; Bijou 1992: 310; Scheerenberger 1987: 12 for slightly different correlations of IQ scores with levels of retardation). These categories broadly relate to the earlier terms of idiot, imbecile, moron, and feeble-minded respectively. The change in terminology in the field of intellectual disability is sometimes hard to keep up with, especially as there is a tendency to use different terms in the United Kingdom, the United States and Australia at the same time. In the United Kingdom, the use of the generic terms "mental deficiency" and "mental subnormality" in the early twentieth century were subsequently changed to "mental handicap" and then "mental retardation" (Jenkins 1988b: 8; Woods 1983). The term now officially used to describe intellectual disability in the United Kingdom is "people with learning difficulties" (Jenkins 1998b: 8). In the United States mental retardation was originally called feeble-mindedness but officially became developmental disability through legislation enacted in 1970 (Kearney 1996: 22). In Australia, people with mental retardation and an intellectual disability have historically been termed "idiots" or "mental defectives" (Ashton 1995: 152), and are now also officially known as people with a developmental disability.
educability of children, with those having an IQ below 50 considered ineducable, and those with an IQ between 50 and 70 educationally subnormal (Rose 1985: 141; Ryan & Thomas 1987: 111; Woods 1983: 115).²

As an indicator of how influential intelligence testing has become, the condition of intellectual disability is now defined explicitly by reference to IQ and behaviour. The American Association on Mental Retardation defined intellectual disability in 1992 as "significantly subaverage intellectual functioning" occurring in the developmental period and associated with limitations in at least two of the following adaptive skills: "communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work" (cited in Schalock et al. 1994: 182). This recent definition of intellectual disability signified the transition from solely emphasising individual cognitive abilities to a growing concern with an individual's interaction with his or her environment. It accommodated for changes that were occurring in the areas of service provision and special education, as well as acknowledging that intellectually disabled people have the capacity to learn and develop. However, as Coles et al. point out, despite the recent stress on social skills and adaptation, the "individual's cognitive abilities nevertheless remain a central construct" in definitions and interpretations of intellectual disability (Coles et al. 1996: 187; cf. Accardo & Whitman 1996: 194). And, as Joanna Ryan has also argued:

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\text{\ldots whilst there is considerable argument about the precise criteria for defining mental deficiency, and especially about where to draw} \\
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² Such terminology emphasises adaptive behaviour rather than mental deficiency, as Lewis Aiken (1996: 278) points out. The National Association for Retarded Children (USA) have utilised a different classificatory system, only one that stresses relative functional independence rather than potential educability. The terms they proposed were "marginally independent" (IQ = 50 to 75), "semi-independent" (IQ = 25 to 50) and "dependent" (IQ = 0 to 25) (Aiken 1996: 278).
the line between 'defective' and 'normal', we do still have a reliable idea of how people who are clearly mentally deficient differ from those who are said to be of normal deficiency (Ryan 1973: 37-38; my emphasis).

While medical researchers often take for granted these deficiencies, instead focusing on determining the underlying biological causes of intellectual disability, psychologists have tended to focus specifically on the functioning of the mind and on assessing levels of intellectual impairment (Hodapp & Dykens 1994: 675). Despite their differences, however, the development of psychological assessments of intellectual disability has reinforced and perpetuated the symbolic scheme of reason and normality that the medical model adheres to. Both medical and psychological interpretations of intellectual disability have perpetuated the notion that reason, which is identified with levels of intelligence, is a necessary criteria of normal humanness and sociality. Consequently, intellectually disabled people are often denied an existence as social beings who are able to utilise symbolic systems. Their limited abilities to classify and figure the world beyond a confined environment are taken as a lack of reason. Such clinical interpretations have thereby overlooked the fact that mutuality and sociality make us human as much as extendable knowledge. Human personhood is shaped as much through the symbolic mediation of social relations as it is through the mediation of human, knowing relations with the non-sentient world. In short, sociality can be built through restricted codes even though these codes remain restricted.

As with medical diagnoses of intellectual disability, psychological interpretations are based on an empirical combination of observation and testing. Focusing specifically on the functioning of the mind and behaviour, psychological assessments also label intellectually disabled people as deficient and abnormal beings (Sacks 1986: 163-172; Shaddock et al. 1993: 52). In fact, as
Nikolas Rose points out, the entire development of psychology as a discipline has been profoundly based on studies of the "abnormal" (Rose 1985: 22-3). Like medicine, psychology pathologises the intellectually disabled, searching for deficits and aberrations from taken for granted norms, only this time in terms of a capacity for abstract reasoning measured as specific mental skills and communicative ability. These skills are decontextualised, isolated, abstract skills which depend upon a capacity for language; although it is language in its limited linguistic, verbal and literate sense rather than as the capacity for symbolic representation and mediation. Despite the recent interest in social skills and adaptation, psychological assessments and interpretations still tend to separate intellectually disabled people from their contextual environment. They still tend to test such social skills as acquired rather than applied skills. By not recognising or acknowledging intellectually disabled people’s preexisting capacity for symbolic representation, mutual interdependence and sociality, psychology, like medicine, has made the social aspect of intellectually disabled people's lives secondary and obscure.

In this chapter I outline the history of psychological theories of intellectual disability, focusing in particular on the practice of psychometric testing as a significant factor in the diagnosis and classification of intellectual disability. I also explore some criticisms of intelligence testing and look at the latest developments in psychological interpretations of intellectual disability. I focus particularly on individual development, learning and social skills acquisition, and explore the influence of these more recent interpretations of intellectual disability on contemporary institutional practices. I draw again on my family’s medical and psychological records to elucidate the role that these clinical assessments have played in the perception, interpretation and treatment of intellectually disabled people.
I also analyse the central place that reason has played in interpretations of normal humanness and meaningful sociality. I explore the association of reason with intelligence, in particular its identification with specific skills such as abstract reasoning, numeracy, and language. By isolating certain mental operations as the definitive mark of intelligence, and of reason and normal humanness, psychological assessments have radically decontextualised our sense of what constitutes humans as persons. It is these characteristics that perpetuate the underlying perception of intellectually disabled people as abnormal and outside the realm of mutual sociality. The practices of management and training that exist in institutional environments, as well as the forms of relatedness between staff and consumers, have reinforced these perceptions and interpretations. These practices are informed by clinical assessments, perceptions and interpretations, which are themselves shaped by the symbolic scheme of reason and normality.

**Reason, Intelligence and the Development of Psychology**

One of the most enduring and central themes in the history of philosophy is the idea and ideal of reason and rationality as the defining attribute of humanity (Damasio 1994: 52; Lloyd 1993). According to Genevieve Lloyd, reason is thought "to express the real nature of the mind"; and it is through reason and the cultivation of rational thought that the unwieldy passions associated with the body are supposedly transcended (Lloyd 1993: 6).\(^3\) In such

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\(^3\) Rousseau argued that while the truth unfolds, it must also be cultivated through Reason perceiving the truth and purity of Nature (Lloyd 1993: 58). Similarly, though in a different way, Hegel claimed that "Reason . . . is the conscious certainty of being all reality". It is "the sovereign of the world", "the substance of the universe", which unfolds in History through the dialectic process of Becoming (Hegel, cited in Russell 1989 [1946]: 704-706). For Hegel, the mind, Reason, and human History are "all part of a grand unfolding of Nature into its self-conscious realisation as the Absolute" (Lloyd 1993: 70).
rationalist philosophies—which date back to Pythagoras but are most readily associated with Descartes—the intellect, rather than sensory experience or revelation, has been regarded as the source of knowledge and the necessary grounds for belief (Russell 1989 [1946]: 55-56).

This celebration of reason as the necessary attribute of humanity and the source of true knowledge has also influenced, and been influenced by, Christian theology. In pictorial representations of the cosmos, such as those done by Robert Fludd in the early sixteenth century, the truth of God was portrayed as entering the soul through the three higher faculties of Reason, Intellect and Mind (Godwin 1979: 48, 70; cf. Dante 1985 [1314]). The body, in contrast, was reviled as "vile" and "corruptible" matter (Fludd, cited in Godwin 1979: 71). Idiots were variously thought not to have a rational soul or the capacity for divine illumination, although some, like the Platonists, did acknowledge that they had a corporeal soul (Goodey 1994: 216). Whereas for Fludd the soul, as distinct from reason, the intellect and mind, was also essential for the realisation of the truth of God (and nature), Enlightenment philosophers relegated this capacity to the mind, and particularly to rational, abstract reasoning. Reason, however, has not only operated as a philosophical

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4 The celebration of reason and rational thought as the sole source of truth, although a debatable philosophical assertion since its inception, has come under increasing fire over the past century from a number of perspectives. Not only has there been a reassertion of the belief that knowledge can only be attained through the senses (Merquior 1985: 17), but contemporary science and philosophy has been pervaded by a critique of the concept of a universal truth as either existent or knowable. Nietzsche, among others such as Artaud and Dostoyevsky, has been used as a source of inspiration for critiquing the celebrated place of reason (Felman 1989; Nye 1988). His own struggle with madness has gained revelational status as Western writers, philosophers and artists grapple with the consequences of the over-determinism of reason and rationality in Western notions of what constitutes humanness. While some, such as Deleuze and Guattari (1984), theorise madness as a more essential state of being, as potentially liberating and capable of rupturing the capitalist structure, there are others such as Foucault (1995 [1961]) who have sought to trace the consequences of our emphasis on reason and rationality for those who do not conform to its demands.

5 The incorporation of the soul as an essential attribute of humanity did of course exist in the sixteenth century philosophies of those such as Descartes and Spinoza. However, the emphasis began to shift to deductive abstract reasoning rather than spiritual revelation as
and theological concept; it has also affected the way in which we interpret human nature. As Lloyd puts it:

Reason has figured in Western culture not only in the assessment of beliefs, but also in the assessment of character. It is incorporated not just into our criteria of truth, but also into our understanding of what it is to be a person at all, of the requirements that must be met to be a good person, and of the proper relationship between our status as knowers and the rest of our lives. Past philosophical reflection on what is distinctive about human life, and on what should be the priorities of a well-lived life, has issued in character ideals centred on the idea of Reason; and the supposed universality and neutrality of these ideals can be seriously questioned (Lloyd 1993: xviii).

The association of reason with that which is taken to be true, good, and natural has therefore influenced interpretations of what it means to be a person, of what constitutes the nature of human nature, and what is required to fulfil the criteria of normal humanness. While of course there are other ideals that inform a sense of personhood in Western culture, such as beauty, physical prowess, wealth and power—and while of course the interpretation of intellectual disability has no "consistency, coherence, or consensus within cultures" (Jenkins 1998b: 222; author's emphasis)—I argue that rational thought is the attribute most central to our perception of what constitutes a "real" and "normal" person. Whereas those who are lacking in beauty, strength, wealth and power still have to deal with the consequences of their situation, they are rarely thought to exist outside, or on the margins of, humanity, sociality and

the means through which the truth of God's universal laws of nature could be perceived and proven (Hampshire 1956: 59-66, 105-141).

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culture in the way that intellectually disabled people so often are. This is because reason is considered to be the normal and necessary attribute that makes human social life possible and, indeed, meaningful.

The association of reason with normality, and the connection of these to clinical interpretations of intellectual disability, has a history that dates back to the first medical definitions of idiocy. John Locke, who is considered the founder of modern psychology, was the first to argue that idiocy was first and foremost a problem that resides in the faculties of the mind (Goodey 1994: 217). Rather than upholding the Galenic propensity to search for physiological causes, Locke claimed that what characterised idiocy was an inability for abstract reasoning. For Locke, abstract reasoning was the mental faculty necessary for the association of ideas, understanding, and knowledge (Goodey 1994: 216-222). As Locke comments in Book II (chapter 11, paragraph 11-12) of the Essay Concerning Human Understanding:

How far idiots are concerned in the want or weakness of any, or all of the foregoing Faculties, an exact observation of their several ways of faltering, would no doubt discover. For those who either perceive but dully, or retain the Ideas that come into their Minds but ill, who cannot readily excite or compound them, will have little matter to think on. Those who cannot distinguish, compare, and abstract, would hardly be able to understand, and make use of Language, or judge, or reason to any tolerable degree but only a little, and imperfectly, about things present, and very familiar to their Senses. And, indeed, and of the forementioned Faculties, if wanting, or out of order, produce suitable defects in Mens' Understanding and Knowledge (cited in Goodey 1994: 219).
For Locke, "all knowledge, and hence mind itself, comes about by mental associations among sensory impressions" (Aiken 1996: 9), and the faculty of abstract rational thought was what made sense of these sensory impressions. This capacity to reason through the faculty of abstraction and discrimination was considered the essential and defining property of humans, and that which distinguishes us from animals (Goodey 1994: 240). By linking the capacity for reason and abstraction with knowledge, understanding, truth, and communication, Locke inadvertently condemned idiots to a state of imperfection, deficiency and abnormality. They were also considered to have little or no capacity for meaningful social action or interaction.

Locke's general interpretation of idiocy as an incapacity for abstract reasoning has been incorporated into contemporary psychological definitions and perceptions of intellectual disability (Goodey 1994: 250). His notion of abstract reasoning has also become one of the most central and defining features of the concept of "intelligence" (Aiken 1996: 19-20). Although intelligence has also been associated with mechanical and social skills, it is the understanding and managing of abstract ideas and symbols that are thought to constitute the higher, linguistically oriented aspects of reason and intelligence (Drever & Collins 1928: 9; Sacks 1986: 164). It is these skills that supposedly allow for understanding, knowledge, communication and meaning. Such interpretations of reason and intelligence have seriously undermined the intelligent and meaningful component of other, more concrete, modes of expression (Sacks 1986: 164). As Edgar Miller points out, "a strong theme in modern psychological conceptualizations of idiocy is that... afflicted individuals are unable adequately to process and derive proper meaning from the incoming information that is provided by the senses" (Miller 1996: 362).

Although idiocy has continued to be defined as a condition associated with dysfunctions in the faculties or processes of the mind, there have also been
slight divergences since Locke's definition as to what these specific mental problems actually constitute. In 1801 Pinel argued that idiots were marked by a "total or partial obliteration of the intellectual powers and affection" (Pinel 1962 [1801]: 172). Writing thirty years later, Esquirol claimed that idiocy was a condition most readily associated with a lack in language and speech (Binet & Simon 1976 [1905]: 336). For Séguin idiocy was a consequence of abnormal connections between sensory perception and the functioning of the mind, whereas for Howe "The poor idiot could not understand much of the spoken words by which reason manifests itself" (Howe 1976 [1848]: 45; author's emphasis).

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Scientific studies that sought to prove direct correlations between the brain, intelligence and cognitive functioning have a history in medico-psychological research dating back to the late eighteenth century (Judge 1987: 35-37; Gould 1996: 176). In breaking with dualist philosophies that radically separated the mind from the body/brain, phrenologists such as Franz Joseph Gall and Paul Broca studied possible connections between the shape of the cranium, cranial capacity, and the various functions of the brain (Damasio 1994: 14-16; Gould 1996: 22-23; Hanson 1993: 200-204). By the 1890s, intelligence was generally considered to be a collection of mental faculties (Aiken 1996: 19), and Alfred Binet, who is heralded as the founder of intelligence testing, actually began his psychology career in the footsteps of Broca and Gall by seeking to equate

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6 In Descartes Error: Emotion, reason and the human brain, Antonio Damasio (1994) eloquently describes the importance of phrenological endeavours of the eighteenth and nineteenth centuries. He argues that, long before their time, phrenologists perceived that the brain was not an amorphous, singularly functioning organ but rather a composite of many sites, each with its own specialised functions. Damasio acknowledges that phrenologists also posited many erroneous theories that left their indelible mark on later neurological and physiological research but maintains that their interpretation of brain specialisation has subsequently been proven to be correct (Damasio 1994: 14-16).
levels of intelligence with the cranial capacity of children's skulls. By the end of the 1890s, however, Binet was beginning to doubt the veracity of any such correlations and began questioning the unscientific and hidden biases that affect such measurements (Gould 1996: 176-8).

There was also widespread concern towards the end of the nineteenth century over how to diagnose and recognise those whose disabilities were less obvious, those who were classified as feeble-minded and whose mark of disability was hidden from view (Rose 1985: 97-102). As well as this, there were growing concerns about the inordinate emphasis given to medical diagnoses of idiocy and feeble-mindedness, especially when it came to issues of educational placement (Rose 1985: 101-2). The eventual solution to these problems was resolved through the widespread development and application of intelligence testing. Rather than measuring the size and shape of skulls as the means for understanding the functioning of the brain, intelligence tests drew on the performative abilities of individuals recognised as particular abstract mental processes. Rather than measuring the external characteristics of a person's

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7 F. Allan Hanson (1993: 204) has argued that the advent of modern testing procedures that "measure the differing capacities of individuals" had their roots in Darwinian theory. In opposition to Hobbes, Rousseau, Locke, Hegel and Marx, who all essentially believed in the fundamental equality of humankind, Darwin's theory of evolution was based on the necessary differences between humans out of which natural selection occurs. However, and this is an important point that Hanson does not pick up on, this process of evolution required that some species would disappear as the more successful ones adapted more fully to the environment. Francis Galton applied Darwin's notion of variation to the human and social realm and developed a systematic process of measuring and identifying these differences (Aiken 1996: 7-8; Hanson 1993: 205). Through his Anthropomorphic Laboratory that was set up in London in the 1880s, Galton measured and collated numerous human abilities, including variations in visual, auditory and weight discrimination, strength, memory, speed of perception, sensitivity to pain and head size (Aiken 1996: 8). These measures of sensorimotor skills upheld Locke's empirical philosophy that the senses were the doorway to intelligence, the measurement and hereditary nature of which Galton was particularly interested in (Aiken 1996: 9). In order to successfully deal with his mass of material Galton devised "the notion of the standard deviation and the statistical concept of correlation" (Hanson 1993: 205). This process set up the concept of the norm, of a basic and central standard of measurement and assessment of human differences. What began as a measure of difference and variation therefore became an evaluation of that difference in relation to a norm (cf. Gleason 1989).
body, intelligence tests examined the internal workings of the mind (Gould 1996: 23; Hanson 1993: 271).

**Measuring Intelligence**

The development of testing and measuring intelligence as a wide-scale and state-sanctioned endeavour had its origins in late nineteenth century France with the work of Alfred Binet and his student, Theodore Simon. Binet and Simon bemoaned the lack of scientific precision in psychology and believed that a specific diagnosis of idiocy had to be based on objective, quantifiable facts rather than vague subjective interpretations. Rather than rely on the imprecise categories of idiot, imbecile, feeble-minded and moron, as was the trend of medical practitioners in late nineteenth century France, Binet and Simon sought a measurement that would objectively categorise a person both in relation to their innate intellectual abilities and in relation to all other people. They believed that a universal measure of intelligence would transcend the boundaries and idiosyncrasies of cultural nomenclature by providing statistical data untainted by caprice, subjectivity or indifference. It would allow for comparison, both across cultures and within an individual, especially with regards to assessing whether there have been (or indeed can be) changes in a person’s intellectual capability. It would also allow for the assessment of treatment and training procedures, and for an investigation of whether idiocy can, in the end, ever be cured (Binet & Simon 1976 [1905]: 333).

Binet and Simon took as their primary assumption Esquirol’s definition of idiocy as "a weakness of the intelligence" (Binet & Simon 1976 [1905]: 342) and Pinel’s interpretation of it as a deficiency of intellectual faculties (Rose 1985: 33). Esquirol had also associated idiocy with a deficiency in language and speech (Binet & Simon 1976 [1905]: 336), and the tests that Binet and Simon devised
emphasised linguistic capabilities as central features if intelligence. Reminiscent of Locke, Binet and Simon's definition of intelligence was also based on the "ability to judge well, to comprehend well, [and] to reason well" (Aiken 1996: 19). Binet and Simon argued that an accurate classification of idiocy, although often combined with other observable physical symptoms, must take as its first principle the fundamental and determining cause of the problem as inferior states of intelligence. As they put it:

If the physician gives a child a diagnosis of profound idiocy or of imbecility, it is not because the child does not walk, nor talk, has no control over secretions, is microcephalic, has the ears badly formed, or the palate keeled. The child is judged to be an idiot because he is affected in his intellectual development (Binet & Simon 1976 [1905]: 342).

Binet and Simon believed that developing a test to measure intelligence would create a "precise basis for differential diagnosis" (Binet & Simon 1976 [1905]: 335). They argued that within the category "idiot" there existed a wide variety of states and types of intelligence in need of scientific differentiation. These differences, they believed, were not so much of type as of degree. As Binet and Simon put it: "These inferior states are indefinite in number, being composed of a series of degrees which mount from the lowest depths of idiocy, to a condition easily confounded with normal intelligence" (Binet & Simon 1976 [1905]: 331). Therefore, it was the scientific ordering of differences between idiots that was necessary. The consequences of this, as Rose argues (1985: 141), had an overwhelmingly administrative and pedagogic aspect.

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8 Working in the United States of America at the same time as Binet and Simon in France, Naomi Norsworthy also concluded that the difference between "ordinary children and defectives" was one of degree rather than of kind (cited in Luckey 1967: 172).
In their 1905 article, "Upon the Necessity of Establishing a Scientific Diagnosis of Inferior States of Intelligence", Binet and Simon outlined their reasons for establishing a measure of intelligence, stating that it was in response to a French Government directive to provide clear and precise criteria by which to distinguish "defective" from "normal" children. The purpose of this was ostensibly to weed defective children out of ordinary schools and provide them with special education (Binet & Simon 1976 [1905]: 331; cf. Digby 1996: 12-3; Gould 1996: 178-183; Hanson 1993: 208-212; Luckey 1967: 171; Rose 1985; Ryan 1973: 38-39). With the introduction of compulsory education throughout much of Europe, North America and the Western world in the late nineteenth century, the problem of children who were seemingly ineducable, or less easily educated, caused considerable problems for teachers. These difficulties were exacerbated by the problems associated with diagnosing idiocy and assessing the potential educability of such people (Aiken 1996: 5; Digby 1996: 12; Rose 1985: 101-2). The development of the intelligence test was seen as a remedy to this problem, and was devised specifically to assess mental deficiency.9

This assessment of intelligence and potential for educability had an altruistic basis, and drew on Séguin's belief that "defective" children could and would benefit from special training. However, despite Gould's (1996: 182-183) defence of Binet, it is clear that this altruism was marred by the perception of idiocy as a state that one did not wish upon others without absolutely irrefutable evidence. As Binet and Simon wrote: "To be a member of a special

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9 Similarly, the first use of the intelligence test in North America was for the sole purpose of measuring and assessing mental deficiencies (Hanson 1993: 209). Henry Goddard, director of the Vineland Training School for Feeble-Minded Boys and Girls in New Jersey, initially wanted to test the accuracy of Binet's tests, and concluded that "Binet had certainly evolved a very remarkable set of questions . . . that . . . did work with amazing accuracy . . . [and that] whatever defects or faults they do have . . . the tests do come amazingly near what we feel to be the truth in regard to the mental status of any child tested" (Goddard 1976 [1910]: 358). Goddard translated the 1905 Binet-Simon Intelligence Scale in 1908 and then went on to revise and standardise this scale in 1910 (Aiken 1996: 16; Goddard 1976 [1910]).
class can never be a mark of distinction, and such as do not merit it, must be spared the record" (Binet & Simon 1976 [1905]: 331). To be classified as subnormal was the worst punishment a child could endure, and one that would effect his or her entire life. Consequently, Binet and Simon believed it was imperative that procedures based on "the precision and exactness of science should be introduced into [their] practice wherever possible" (Binet & Simon 1976 [1905]: 331).

Binet and Simon argued that the definitions of idiocy by Locke, Itard and Séguin, upon which some of the earliest tests of "intelligence" were based including Galton and Cattell’s sensorimotor tests, were too simple and sensory in nature to adequately measure the complexity of intelligence (Aiken 1996: 10). The assumed correlation between intelligence and sensorimotor skills upon which such tests were based was eventually disproved in the early years of the twentieth century (Aiken 1996: 9-10). In comparison to intelligence tests, studies of motor and sensory perception were also considered to be "tests of the less complex mental processes" (Luckey 1967: 171-172). Instead of focusing solely on sensorimotor and perceptual skills, Binet and Simon developed a test that assessed a child’s capacity to solve problems. Consequently, their 1905 intelligence test diagnosed and assessed idiocy in terms of specific and diverse mental abilities. These included abilities for abstract reasoning, memory, numeracy, comprehension, time orientation, object comparison, knowledge, and the combination of ideas into wholes (Aiken 1996: 13). In order to measure such skills Binet and Simon included in

10 James McKeen Cattell visited Galton's Anthropomorphic Laboratory in London and was familiar with Galton's particular form of "mental tests". Cattell then went on to develop these tests back in the USA (Aiken 1996: 7).

11 Binet actually included sensorimotor skills in the earlier tests that he devised with Victor Henri, along with a complex mix of other tasks, abilities and observations, including moral judgement, mental addition, the recall of a series of digits and even cranial capacity (Aiken 1996: 11).
their test "tasks such as the naming of designated objects, comparisons of lengths of lines, repetition of digits, completion of sentences, and comprehension of questions" (Rosen et al. 1976: 327), as well as visual coordination, cognisance of food and objects, suggestibility, drawing from memory, and distinctions between abstract terms (Aiken 1996: 12). Their test ultimately assessed a child's capacity for judgement, comprehension and reasoning through verbal and perceptual materials, although the emphasis was always on the higher and more complex verbal abilities which came at the end of the test (Aiken 1996: 13).

Binet and Simon revised their initial test in 1908 in order to group the questions in terms of their difficulty for different ages rather than on the basis of their difficulty per se (Aiken 1996: 13; Rosen et al. 1976: 328). The "mental age" (MA) of the child was thus devised, and this represented the "age" at which the child had last been able to answer the questions. This revised test sought a comparison between different levels of mental ability and as such was based on the a priori assumption that a standard or normal level of intelligence could be correlated with age. Intelligence in Binet and Simon's model was therefore intrinsically bound up with theories of development. Binet and Simon sought to clarify the standard abilities of children at different ages and at different points in their intellectual development. As Henry Goddard—who translated and standardised the Binet-Simon Intelligence Scale in 1908 and 1910—acknowledged, by interpreting these normative abilities as "so fundamental and human that they do not depend upon training, [Binet] is able to say that to us, any normal child who has lived in the world three years is able to do such and such things" (Goddard 1976 [1910]: 357).

In 1916 Lewis M. Terman also revised and standardised the original Binet-Simon intelligence test and scale (Hanson 1993: 209). This new test, which Terman called the Stanford-Binet Intelligence Scale, is still in use today,
although since 1916 it has been revised three times, in 1937, 1960, and 1986 (Aiken 1996: 84-89). These tests include the measurement of perceptuo-motor skills and verbal tasks, as well as memory, judgement, interpretation, and abstract reasoning (Aiken 1996: 87-88). As well as popularising the use of intelligence testing in North America, Terman was also the first to incorporate the intelligence quotient (IQ) in his tests as a singular mark of intelligence. Devised by William Stern, a German psychologist who also developed Binet and Simon's intelligence tests, the IQ is a relative rather than absolute measure of intelligence. As the ratio of mental age to chronological age, the IQ produces a score that oscillates around the standard norm of 1 (or 100 when converted to a percentage) as indicative of average intelligence (Hanson 1993: 210-212; Luckey 1967: 172).12

Through the development, standardisation and application of intelligence tests by Binet, Simon, Terman, Goddard and others during the first decades of the twentieth century a new way of defining, assessing, and diagnosing idiocy was devised. Idiocy was a dysfunction of intelligence; the consequence of an inferior or abnormal cognitive ability. It was based on the association of reason with intelligence as an observable, testable and measurable phenomena. Such quantifications ultimately allowed for distinctions to be made between normal and abnormal levels of intelligence, the latter which then came to be associated with gradations of intellectual disability. Intellectually disabled people's

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12 Terman's test, which was further revised by Robert Yerkes to allow for mass testing through the use of multiple choice questions, also represents the first mass application of the intelligence test, given with disastrous results, to army recruits in the USA preparing for World War One (Hanson 1993: 210-212). Goddard and Terman were both involved in this testing, the results of which were to be used to classify the sort of work each recruit should do. The average mental age of white American males, as Hanson points out, turned out to be 13, with those from other ethnic backgrounds recording even lower age levels. This difference in ethnic scores has been a crucial factor in criticisms levelled at intelligence testing, notwithstanding the fact that the tests were used to weed out potentially intellectually undesirable immigrants to the United States.
deficiencies, abnormalities and incapacities have subsequently been quantified, measured and assessed by reference to such tests.

F. Allan Hanson (1993) has outlined the increasing dependence on testing in Western societies, in particular in North America, and argues that "our addiction to testing influences both society and ourselves as socially defined persons" (Hanson 1993: 1). Hanson’s analysis encompasses both the way in which tests define and produce certain kinds of persons, as well as the means used to sustain a level of surveillance and domination over them (Hanson 1993: 3-4). While such an analysis tends towards totalising the cultural construction of identity with problematic consequences for issues of agency, it does highlight the role played by these constructions in shaping the way we think about and perceive others. Intellectually disabled people have been constructed as lacking in intelligence for their failure to adequately pass the tests that are supposed to measure intelligence.

The definition of intelligence and reason that is both assessed and reinforced through these tests has been implicitly interpreted within the parameters of decontextualised, isolated and abstract mental operations. Intelligence testing ultimately relied on the capacity for, and development of, abstract mental and linguistic abilities. The reliance on language in intelligence tests was recognised as a problem when it came to assessing those who lacked the required verbal and written communication skills (Luckey 1967: 172). Consequently, other tests were developed, such as the formboards of Healy and Witmer, and the Merrill-Palmer Test which relied on gestures rather than spoken communication (Aiken 1976: 205; Luckey 1967: 173). However, these tests were fundamentally assessments of abstract mental processes, and this became the hidden marker of normality, sociality and reason, a marker that is still dominant in contemporary definitions of intellectual disability. Rather than grounding abnormality in the physical as medicine has done, psychological interpretations
of intellectual disability have grounded reason and intelligence in certain abstract mental procedures, measurements and tests. As the most dominant and influential form of this, intelligence testing has embodied certain concepts of reason that have never been rendered in physical terms in the medical model. This clinical interpretation has fundamentally affected the institutional perception, management and treatment of intellectually disabled people. The psychological and medical records of my siblings attest to the ongoing reliance on intelligence tests and IQ scores as a means for diagnosing and assessing intellectual disability.

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In November 1962, when specialists at the Alder Hay Children’s Hospital in Liverpool were trying to determine the cause of Stephen’s epileptic seizures, they noted that there was “no evidence of intra cranial calcification” (26/11/62). Apart from prescribing drugs for the epilepsy and performing numerous medical tests over the following three years, both on him and my three other older siblings, it was not until August 1965 that the first of many intelligence quotient (IQ) tests was performed. In keeping with the original purpose of Binet’s IQ tests, Stephen was tested by the local school and child health doctors from the Public Health Office in Wallasey to determine whether or not he was fit to attend a ‘normal’ school. At the age of five and a half, he was made to perform the Revised Stanford-Binet Form L-M and was given an IQ of 38 and a mental age (MA) of one year and eleven months. Stephen was considered mentally deficient and it was suggested to my parents that he attend the special education school close by, which had been set up to provide for children who, on the basis of their intellectual capabilities, did not fit into mainstream education.

The principal paediatrician at the Alder Hay Children’s Hospital wrote to Dr R in Perth that “This boy [Stephen] is definitely retarded, both from the physical and the mental points of view” (21/12/65). He based this assessment on the Stanford-Binet test
done in 1965 and a number of EEG and urine chromatography tests performed over the previous three years. That single test was the only mention of IQ and mental age for any of my siblings during the time that we lived in England. Within six weeks of arriving in Australia, however, and over the intervening 35 years, there have been numerous examinations of my siblings’ psychological and intellectual capabilities. These, combined with medical examinations and social adaptability tests, have consistently diagnosed my brother and two sisters as mentally retarded, though the degree to which they were considered to be retarded has varied over time. The original IQ result was regularly referred back to as the hallmark, the yardstick, against which all subsequent tests were compared. It became indicative of whether there had been any improvement or deterioration in my siblings’ retardation, or whether they were to remain forever fixed at a particular level of intellectual impairment.

Miss L—the psychologist from the University of Western Australia’s Department of Psychology who tested and observed Maryla and Stephen on our arrival in Fremantle—focused particularly on their language (in)ability and performance on formboard tests.\(^\text{13}\) She also described my siblings’ behaviour during testing and how they related to my parents. Because Stephen had no speech he was tested on the ‘performative’ items of the Binet and Randell’s I’s test. It was noted that he passed “the straightforward formboards and other tasks where the requirements were more or less self evident, at a good 4 year level”. However, as Miss L comments, “he did not comprehend identification and matching tests above the 3 year level”. She deduced from these tests that Stephen’s “manual dexterity and space-form perception” was at three-quarters the normal age, “but consider[ed] his language, conceptual and

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\(^{13}\) The use of formboards, or cut-out shapes that fit onto indents in a board, was first adopted by Itard and Séguin in their training of idiot children (Drever & Collins 1928: 12-13). The formboards were incorporated into the Stanford-Binet Intelligence Scale by Terman as performance tests to assess the capacity for concrete problem solving in children without relying on linguistic ability (Aiken 1996: 6; Drever & Collins 1928: 12-13).
comprehension level [to be] considerably lower”. She says this despite acknowledging that Stephen “appeared to understand everything his mother said to him” (15/2/66).

Maryla was also tested in 1966 at an age of 4 years and 4 months. Miss L wrote of Maryla that she was “hyperactive and distractible but not excessively so. The most obvious abnormality [being] a speech disturbance” (21/3/66). After testing Maryla on Randell’s I’s Performance test Miss L deduced that Maryla’s median age was 3 years 6 months, and her IQ was 80±5. The Peabody Picture Vocabulary Test (PPVT)\(^{14}\) assessed Maryla’s verbal skills at 3 years and 4 months but Miss L concluded that her “comprehension and use of language [was] below this level and not within ‘normal’ range either in quality or content”. She commented that Maryla “has a history of delayed development in motor skills as well as speech and [that] it is possible that the ‘turns’ are secondary to the abnormal development”. However, Miss L also wrote that Maryla “was surprisingly good on manipulative tasks — passed two items at age level (formboards)”. She notes that this “is similar to the performance of her brother Stephen . . . [and] the picture seems to be one of inconsistent development and selective disturbance of function” (21/3/66).

Through tests administered at the Grosvenor Diagnostic Centre the same ‘discrepancy’ was observed between verbal and formboard tests, the latter “which [Stephen] performed with insight and foreplanning”. Yet the concluding impression was that “Stephen’s overall level of social and intellectual development appears to fall within the upper half of the moderately retarded range” where “verbal skills fall well below the moderately retarded range but some performance abilities extend to a good mildly retarded level”. The mean result between these disparate results produced a diagnosis in the “upper half of the moderately retarded range” (25/5/67). As someone who did not rely on spoken language to communicate, it is not surprising that my

\(^{14}\) The Peabody Picture Vocabulary Test (PPVT) measures receptive vocabulary and intellectual functioning through the use of images rather than spoken words (Aiken 1996: 205).
brother “could succeed at none of the verbal items of this [Merrill-Palmer\textsuperscript{15}] scale at its lowest limits—18 months to 2 years” (25/5/67).

By 1967 the results of the Merrill-Palmer test for intelligence had given Stephen an IQ of 45 and a mental age of 3 years and 1 month. He was 6 years and 10 months old. In 1969 the same tests produced a slight improvement in verbal skills, but not above the 2 year level, while on the performance tests he recorded a result of 5 and a half to 6 years of age (12/5/69). Stephen was still considered to be below the mildly retarded level, even on the performance tasks. In February 1975, during his final assessment at Grosvenor by a third psychologist using the same Binet L-M test, Stephen was given an IQ “below 30” and a mental age of 3-0 years indicating a “severe degree of intellectual handicap” (24/2/75). He was 14 years and 7 months of age. This result was referred to in all subsequent correspondence as the final assessment of Stephen’s intellectual disability.

Ursula was also tested at Grosvenor on our first visit in May 1967 and was given an IQ of 54 and a MA (mental age) of 2-0 years. She was 3 years and 7 months old. In 1969, just five days before she died, Ursula was again tested using the Merrill-Palmer Scale of Mental Tests. She was very upset, anxious and easily distressed, as the report indicates, and whether or not her performance was due to this, the psychologist noted that “Ursula refused many items, and consequently began failing at the 18 month level, though she did achieve some successes in the 3-1/2 to 4 year range i.e. in form-board type items”. Consequently “no real estimate can be made of her intellectual level except to say that the I.Q. obtained from testing, which would place her at the upper end of the moderately retarded range, seems to be lower than her hypothesised potential which would appear to be at least within the mildly retarded range” (12/5/69).

\textsuperscript{15} The Merrill-Palmer Scale is a performance test of a number of skills including "forms or other objects to be manipulated, as well as copying, remembering words and sentences, and matching or discriminating between forms" (Aiken 1996: 176). It is used as a popular non-verbal substitute for the Stanford-Binet Intelligence Scale (Aiken 1996: 176).
As with Stephen and Ursula, Maryla was also tested during these visits to Grosvenor, although for her I have reports up to the present day. These reports continue to use the IQ and MA as indicative of intelligence, comprehension and social abilities. In 1967 it was noted that Maryla “was not sufficiently co-operative for her intellectual abilities to be assessed adequately”. This was partly owing to her “bizarre behaviour” during testing (12/5/67). Her MA was given at somewhere between 48 and 65 months using a combination of the Merrill-Palmer and the Peabody Picture Vocabulary Test. In 1969 a more precise assessment was recorded. On this occasion the Stanford-Binet test gave Maryla an IQ of 37 and a MA of 3 years and 1 month, while on the Merrill-Palmer she recorded an IQ of 54 and a MA of 4 years and 1 month. In March 1974, specialists from the NSW Education Department used the Binet Scale L-M to test Maryla once again, this time giving her an IQ of 35 and a MA of 3 years and 5 months. She was 12 years and 4 months old at the time.

In 1977, having already moved to Stockton Hospital, Maryla was once again intellectually assessed using the PPVT and the Stanford-Binet Form L-M. At 15 years and 8 months of age she was given a MA of 1 year 9 months and an IQ of less than 30 on the PPVT, and a MA of 3 years 10 months and an IQ of less than 30 on the Stanford-Binet test. The Clinical Psychologist who did the testing deduced that on “the basis of this assessment, Maryla would appear to be functioning within the severe range of mental retardation”, the results indicating that she has “deteriorated” since the tests done in 1974 (5/7/77). He suggests that this might be due to a recent ward change as it parallels a recent “regression in behaviour generally” and possible “adjustment problems”. In 1986, after an assessment using the same tests gave consistent results that “are comparable with those of previous testing” (ie. a MA of 2 years 7 months and an IQ of less than 40 on the PPVT, and a MA of 3 years 7 months and an IQ of less than 30 on the Stanford-Binet), Maryla was once again placed “in the severe range of mental retardation” (28/7/86). While recent correspondence from Stockton has generally been more concerned with behaviour modification and
individual service plans than intelligence testing and assessment, the classification of severe mental retardation drawn from these earlier tests remains consistent. These are referred to in any correspondence regarding possible community placement and other management and training plans for Maryla.

The Loss of Meaning

The interpretation of the mind primarily as a tool for reasoning has tended to overshadow many of the other complex and inter-related functions and attributes of the mind, including its relationship with the body and emotions (Damasio 1994: 197-199). It has also tended to prioritise only certain types of mental abilities as rational and capable of producing meaning. The focus on intelligence, and on the performance of tests to measure relative intelligence and mental age, indicates that at the heart of such practices is the very issue of reason itself. The mind has been prioritised as a tool for reasoning rather than as an entity through which symbolic meaning is created and communicated. Humanness has been defined according to reason, which has itself been associated with specific mental processes rather than with the capacity for sociality and engagement in social relations.

The positivist interpretations upon which anthropology’s “practical reason” have been based are not dissimilar to such accounts of intelligence and reason. Writing about the development of anthropology, Sahlins explains that:

Mind appears in Morgan’s theory as the instrument of cultural development rather than its author . . . Passive rather than active, simply rational rather than symbolic, the intelligence responds reflexively to situations it does not itself produce and organise, so that in the end a practical logic—biologic in the earlier stages,
technologic in the later—is what is realized in cultural forms (Sahlins 1976: 58).

In such accounts, the propensity to create culture and engage in sociality is only recognised as a product of a certain kind of mind. This mind is one that has responsive and rational capacities rather than creative and symbolic capabilities. The minds of those who are different, along with their actions and interactions, are perceived as abnormal aberrations rather than potentially productive of meaning and culture. This is the crux of the matter, the ultimate source to which I trace this distinction between some actions as meaningful and others as abnormal. The mind is perceived as the source of culture and sociality. Yet this mind depends on an association of reason with intelligence that excludes the different capabilities and products of some minds, and hence the people associated with them. Some people are normal, others abnormal. Some create and reproduce meaning, others never can. Some are considered enculturated and social beings, others unenculturated and asocial. Intellectually disabled people are considered incapable of creating meaning. They may use language, but not to convey meaning to others (Kanner 1944: 214). While this is often the accepted *clinical* view, it also extends to anthropological accounts of intellectually disabled people. Craig MacAndrew and Robert Edgerton (1970: 28) argued that profoundly retarded people have a "dramatically impaired"

16 Kanner's early descriptions of infantile autism included a comment about meaning. He claimed that although some of the children he studied developed the ability to speak, they did not use language "to convey meaning to others" (Kanner 1944: 214). This, combined with the notion that autistic people cannot relate to others, serves to isolate them in a world of abnormality and asociality. Consequently, as David Leser (1996: 45) writes, it is assumed that "Autism sets up barriers that somehow engulf a child, making their world unfathomable to us and, indeed, our world unfathomable to them". This attitude towards autism was echoed in a recent television report (ABCTV 11/2/2000). In this programme the commentator stated that autistic children live in a "frightening world" with "no speech, no imagination, no social skills". Rather than leaving them in this isolated world, however, the report described a new therapy based on mimicking the actions and gestures of these children in attempts to draw them into the socially meaningful world represented by the therapists (cf. Gleason 1989; Goode 1980b).
capacity for culture and that this is related to their "lack of language skills". As they put it, while such people "respond to some symbols, they create symbols only rarely if at all" (MacAndrew & Edgerton 1970: 28).

Due to this assessment, and following Edgerton's lead, the sociocultural study of intellectual disability has tended to focus on social issues such as deinstitutionalisation, adaptation to the community, and the stigma associated with being labelled "mentally retarded" rather than on the possibility of meaningful interactions with severely mentally disabled people. Yet my research has shown that severely intellectually disabled people do have the capacity to create and engage in symbolic, patterned behaviour, albeit in a limited and restricted form. The jigsaw puzzles and bits and pieces that my siblings used represent the purposeful production of a symbolic life. It has been through engaging with such symbolic activities that a mutual sociality has been mediated and my siblings' social identity supported. My intellectually disabled siblings may not have used language in conventional ways, nor expressed normative dispositional behaviours, but their capacity to create recognisable, repetitive and patterned modes of symbolic systems through their particular uses of objects provided the grounds for social engagement. In this sense, the jigsaws and bits and pieces became symbols of sociality. While my siblings' very real deficits in intellectual ability affected their range of symbolic expression, they did not entail an incapacity for sociality.

The identification of humanness, intelligence and reason with particular linguistic skills, symbolic expressions and mental operations has profoundly influenced the perception and interpretation of intellectual disability. This association has undermined and denied the creativity, humanness and sociality of intellectually disabled people, whose means of interacting with others,

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17 These sociocultural studies are the focus of chapter five.
expressing themselves and making meaningful the world are generally embodied in very specific practices rather than the abstract and isolated skills measured in intelligence tests. As John Gleason emphasises in his observation of the meaning in profoundly intellectually disabled people’s actions and interactions:

To see relationships among human systems and people is not the same as isolating variables and seeking correlations; rather, it is to explore the meaning in an event in a spatial and temporal context that respects the persons’ patterns of interaction, communication and participation (Gleason 1994: 248).

As far as my siblings were concerned, there was no acknowledgment that an inability to conform to the testing procedures, that a failure to achieve a "normal" level of intelligence, could be indicative of a difference that cannot solely be interpreted in these terms. While there appears to be some consistency in the results of the intelligence and performance tests that my siblings have undergone since 1965, there is also a constant and underlying theme that suggests that my brother and two sisters all scored well on formboard and spatial tests. Interestingly, these abilities were responded to with surprise by those administering the tests.

The skills that my siblings did have, skills that I observed and admired as a child—such as their method of doing jigsaw puzzles, Maryla’s collecting and patterning of bits and pieces, and Stephen’s skill at balancing both himself and objects in a precarious manner—were given no serious credibility. They were not considered as evidence of an intelligence, of a different ability, adaptability and way of being in the world. Neither were they acknowledged as creative expressions, as the symbolic means through which my siblings expressed their particular forms of sociality and communicated with others. Instead, these skills
became indicative of an inconsistency in development. They suggested an aberration in the expected pattern of overall intellectual ability. As Gleason (1989: 7-8) and Johnson (1998: 71) have pointed out, intelligence and adaptability tests always stress intellectually disabled people's abilities rather than what they can do, "The focus becomes the handicap and the remediation of deficit areas rather than what the individual is doing", comments Gleason (1994: 256) and, as such, intellectually disabled people are rarely perceived as doing anything meaningful unless it correlates with socially prescribed behaviours and interactions. Notes from the medical and psychological records of my siblings are evidence of the way in which intelligence and reason has been associated with the capacity for meaningful human interaction. The presumption of asociality where particular forms of reasoning ability are lacking is evident.

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18 Those people who exhibited particularly "unusual" skills were commonly known as "idiot savants", a term coined by John Langdon Down in 1887 (Treffert 1989: xxvii). In his study of this phenomenon and its history, Donald Treffert concluded that such people lack abstract reasoning and cognition, emotional expression and communication, and are aloof, hyperactive, impulsively driven and self-absorbed (Treffert 1989: 9-26). Treffert argues that idiot savants' special abilities do not rely on general intelligence, and are mimetic rather than creative, suggesting a different brain circuitry that bypasses the ones used in daily reckonings (Treffert 1989: 54). Treffert believes that these people exist in a world that lacks comprehension, relevance and meaning. The skills that they obviously have, be they mathematical, musical or artistic, are performed without understanding and represent a combination of functional and structural brain disorders—though Treffert stresses the need to emphasise the functional aspect of the disorder rather than its structural component (Treffert 1989: 230). What is most disturbing about Treffert's Extraordinary People: An exploration of the Savant Syndrome, is his desire to discover what it is that allows for such extraordinary skills so that the rest of the population can harness them (Treffert 1989: xiii). Treffert also perpetuates negative interpretations of intellectually disabled people, stressing their supposed lack of originality, creativity, communication, comprehension and meaning. Tragically, some of the people Treffert profiled lost their unique abilities once they were socialised into 'normal' behaviour patterns. In the case of one set of twins who communicated with one another through numbers, when they were separated they no longer had their mathematical mode of communication and became locked in an isolated world where no-one understood their means of communicating (Treffert 1989: 36-42, 80-1; cf. Sacks 1986: 199). Alternatively, Oliver Sacks argues that such people "may be truly and creatively intelligent, and not just have a mechanical 'knack', in the specific realms—musical, numerical, visual, whatever—in which they excel . . . and it is this intelligence which must be recognized and nurtured" (Sacks 1986: 184; author's emphasis).
There are numerous examples in the medical notes of my sibling’s seemingly strange behaviour or appearance: “The younger sister . . . is undoubtedly slow and has a funny gait” (7/4/66); “she was quite friendly with me—almost too friendly showing no shyness or anxiety to me as a person but is reported to be very anxious when out of doors” (7/4/66); “I thought [Stephen’s] behaviour was decidedly hyperkinetic. He would concentrate for a few minutes at a time with certain toys but generally he wandered about the room opening and closing doors etc.” (9/5/66); “she [Maryla] . . . demonstrates unusual behaviour” (19/5/67); “formal testing proved impossible, owing to Marylla’s [sic] bizarre behaviour and inability to co-operate” (25/5/67); “all 3 children were hyperkinetic, impulsive and distractible. They rushed excitably about the room playing with toys only for short periods in a disorganised fashion, showing that quality of ‘driven’ over-activity characteristic of organic brain disease. All 3 appeared retarded clinically, especially Maryla. She also impressed as out of touch and somewhat bizarre in behaviour—she mouthed objects, ground her teeth constantly or emitted shrill shrieks. She is the most difficult to control, seems to have little sense of danger and has rushed out on the road in the path of oncoming traffic. She did some odd drawings and was left handed” (12/7/67). Commenting on Maryla’s attendance at the University kindergarten, Dr R wrote that “On the days that Maryla was there is [sic] was necessary to bring in an extra mother solely to look after her, as she could not conform in class at all. On the other hand she would suddenly turn round read the lettering on the waste paper bin, or give one such other surprises” (19/5/67).

At Stockton, the progress notes observe that Maryla “often pretends to talk to herself and plays with imaginary objects” (1976), is continually “obsessed with her bits and pieces” and exhibits “very bizarre and inappropriate behaviour” (1978; 1983). In 1994 it was noted that her “obsessive behaviour” was still “difficult to manage”. It was also noted in 1978 that Stephen had made “no progress in any areas of training. [His] obsessive behaviour, [and] main occupation [was] jumping over cracks in vinyl sheeting on the verandah, and doing jigsaw puzzles”.
What is most distinctive about these and other observations of my siblings’ behaviour and capabilities is their “objective” nature. Not objective in the sense of being untainted by subjective impressions and biases, but objective in the sense that they are devoid of any interaction or attempt at communication. In all the reports that I read there is never any indication that my siblings were played or engaged with. Never did the examiner seek to enter their world, play their games, or interpret their drawings and behaviour as something other than abnormal. Their actions in the world were considered strange, bizarre, and beyond the reach of meaningful interaction. My siblings were perceived to be lacking in intelligence, and unable to reason, communicate and relate to the world as anything other than abnormal, isolated and dysfunctional persons. The only course these professionals took with my siblings was to classify and categorise their observations within the known parameters of pathology and normality. Any anomalies, any obvious skills that did not fit with this general impression, were responded to with surprise, but were also drawn back into a general diagnosis of intellectual disability through the overall perception of them as inherently abnormal and dysfunctional beings. Forms of reasoning deficit promoted the presumption of asociality even when evidence to the contrary was there.

Problems with Intelligence Testing

Alfred F. Tredgold—a psychologist who specialised in mental deficiency and whose 1914 Textbook on Mental Deficiency (Subnormality) has been republished at least twelve times—criticised the practice of relying on intelligence tests as the sole diagnostic criteria of the deficiency. Tredgold’s main criticism was that “the intelligence quotient and social behaviour are not perfectly related” (Tredgold & Soddy 1963: 3), a criticism that is still recognised in contemporary research
into the relationship between IQ and social adaptation (Hodapp & Dykens 1994: 680). Although criticising the unreliability of the IQ, its non-transference across different tests and its inconsistency, Tredgold argued that a diagnosis of mental deficiency must be based on the joint criteria of educability, social competence and intelligence (Tredgold & Soddy 1963: 3-7).

Edgar A. Doll's assessment of social competence and adjustment was a response to just such criticisms. The Vineland Social Maturity Scale was developed by Doll in the 1940s as an additional and holistic method for diagnosing mental retardation. Drawing on developmental models of learning and maturation, Doll developed the Vineland Scale in order to "quantify the evaluation of social competence as a global aspect of individual maturation at successive age levels" (Doll 1976 [1948]: 272). For Doll, social maladjustment was inadequate, irrational, unrealistic, undesirable, unconventional and socially objectionable (Doll 1976 [1948]: 270). Through the observation and assessment of behaviour and social skills such as communication, daily living, independence, socialisation and locomotion the social adequacy or inadequacy of a person would be determined (Aiken 1996: 213-215; Doll 1976 [1948]).

Therefore, it is not that intelligence tests were considered wholly invalid, but that they were not singularly appropriate tools for diagnosis. Mental deficiency was not just a deficiency in intelligence; it was combined with a deficiency in social skills, independent functioning, and personal and social responsibility (Aiken 1996: 213; Hodapp & Dykens 1994: 678; Luckey 1967: 172-173). The contemporary definition of intellectual disability is based on a combination of intelligence and adaptive behaviour and both are used in assessments of an individual's level of disability (Jenkinson 1996: 97). The psychological tests that my sister performed in 1986 as part of her assessment for potential community residential placement included the Vineland Adaptive Behaviour Scale (1984) to measure her social competency, as well as the Stanford-Binet Form L-M in
combination with the Peabody Picture Vocabulary Test to assess her intellectual capacity. An overall picture of Maryla's suitability for community placement was drawn from the results of these tests, and included an earlier and much cited medical diagnosis of "Recessive Metabolic Disorder of unknown aetiology" (28/7/86). In combination with medical assessments, such tests have been regularly used since 1965 to determine the social and cognitive capabilities of all of my intellectually disabled siblings.

During the 1970s, the practice of psychometrics, of intelligence testing, came under increasing attack from many quarters, especially with regards to potential discrimination on the basis of race, class and gender (Bijou 1992: 311-312; Hanson 1993: 259-268; Judge 1987: 35-37; Persell 1981; Ryan 1973; Wortis 1978). In his book, *The Mismeasure of Man*, Stephen Jay Gould argues against biologically determined theories that use a single quantifiable measure of intelligence and then reify and rank these results on a linear scale (Gould 1996: 20-56). Such data, Gould asserts, are subject to cultural constraints and tend to yield unintentionally biased results (Gould 1996: 59). As he writes of his book:

*The Mismeasure of Man* is not fundamentally about the general moral turpitude of fallacious biological arguments in social settings . . . It is not even about the full range of phoney arguments for the genetic basis of human inequalities. *The Mismeasure of Man* treats one particular form of quantified claim about the ranking of human groups: the argument that intelligence can be meaningfully abstracted as a single number capable of ranking all people on a linear scale of intrinsic and unalterable mental worth. Unfortunately . . . this limited subject embodies the deepest (and most common) philosophical error, with the most fundamental and far-ranging social impact, for the entire troubling subject of nature and nurture,
or the genetic contribution to human social organisation (Gould 1996: 20; author's emphasis).

Gould's account of the problematic and politically dangerous nature of intelligence testing is, as always, vivid and lucid. However, it is not just race, class and gender that is being categorised. Intellectually disabled people are undoubtedly the most affected of all people by these tests, and it is important to remember that the tests were specifically designed to separate them from the "normal" school population.

To define mental retardation according to cut off levels in IQ and mental age has always been a controversial practice despite its widespread use. These controversies have extended into debates over the definition of intellectual disability, of the relative worth of basing assessments and definitions of intellectual disability on IQ scores, whether assessments and definitions of intellectual disability should refer to intelligence at all, and, if not, what the criteria for defining mental retardation should rely upon. Sidney Bijou has criticised purely cognitive and intellectual functioning theories of mental retardation for their reliance on intelligence tests (Bijou 1992: 310-315). His main objection is that the test "attributes the immediate cause of retardation to a non observable, hypothetical variable which is called 'inefficient cognitive functioning', a variable derived by giving an individual's level of performance on an intelligence test a second name, that is, inefficient cognitive functioning" (Bijou 1992: 314). F. Allan Hanson (1993: 249) is even more explicit in his criticisms, arguing that the concept of intelligence is itself entirely a product of intelligence tests.

Jane Mercer (1975) has been more specific in her critique of the use of IQ scores and intelligence tests within the educational system. Mercer argued that such tests discriminate against the lower classes and non-Anglo ethnic groups,
and mark some children from these backgrounds as mentally retarded for the purposes of educational practices (Mercer 1975: 141). She claims that such assessments violate the rights of children, especially “their right to be evaluated within a culturally appropriate normative framework, their right to be assessed as a multi-dimensional human being, their right to be fully educated, their right to be free of stigmatizing labels, and their right to ethnic identity and respect” (Mercer 1975: 141). Chris Borthwick (1996) has taken this criticism even further, by arguing that the environmental biases that affect IQ scores for people from different cultural backgrounds also need to be considered with respect to people with Down’s syndrome. Borthwick claims that:

> If one asks why the relationship between IQ testing and people with Down’s syndrome have [sic] not been analysed in the same terms as the relationship between IQ testing and blacks, the basic answer is that people with Down’s syndrome are universally regarded as being essentially, rather than accidentally, different from the ruling culture. Liberals, conservatives, socialists and racists alike ‘know’ that people with Down’s syndrome are intrinsically deficient (Borthwick 1996: 404).

While not wishing to enter the nature-nurture debate around which Borthwick’s argument revolves—nor pursuing the claim that, aside from the normal prejudices, physical and perceptual impairments have also operated as the source of unhidden and unacknowledged biases in IQ assessments of Down’s syndrome people (Borthwick 1996: 407-408)—I do wish to take up Borthwick’s observation concerning the assumption of an absolute difference between the minds of intellectually disabled people and others.

Borthwick claims that the assumption of low intelligence as a "global characterisation" of mentally retarded people builds upon the racial analogy
instigated by John Langdon Down whereby "evolution, civilisation and intelligence were all equivalent to adulthood" (Borthwick 1996: 406). Despite the fallaciousness of such an equation, Borthwick argues, it underlies contemporary perceptions and interpretations of intellectual disability and such people's capacity for learning and language (Borthwick 1996: 408-409). However, the association of language and intelligence with adulthood, civilisation and evolution has far wider ramifications for intellectually disabled people than Borthwick attests. Because of the implicit association between the rational and abstract cognitive abilities that IQ scores are seen to represent and a capacity for communication and meaningful social interaction, intellectually disabled people have been positioned as being outside the social domain. Yet a capacity for mutual sociality relies on far more than just these limited mental operations. It relies on the capacity to create, engage in, and negotiate symbolic practices. If our sociality is fundamentally embedded in mutuality, then our capacity to interact is necessarily bound up in our ability to produce, mediate, negotiate, utilise and share symbolic systems of meaning. Strangely, this is not an issue that anthropologists have taken up with regards to criticisms of intelligence testing.

Focusing their discussions on child development, anthropological psychologists such as Sara Harkness and Charles Super have argued that interpretations of intelligence must be contextualised. They claim that "psychologists have sought to uncover the underlying rules of behaviour by experimentally detaching it from its usual context [while] anthropologists have sought explanations for human behaviour in its varying contexts" (Harkness & Super 1980: 2-3). Decontextualisation, they argue, ultimately affects the interpretation of behaviour and intelligence as behaviour is removed from its socially meaningful and structural site (Harkness & Super 1980: 5-8). While Harkness and Super interpret child behaviour as a cultural and social
phenomenon, they also tend towards interpreting those "other cultures" as somehow internally uniform and relative to one another.

Robert LeVine takes up the issue of intelligence in his essay on "Child Development and Anthropology", arguing that there is a continuity between cultural values, ideologies and beliefs, and the research paradigms that encompass studies of child development. LeVine claims that:

The psychological preoccupation with intellectual development and the relative neglect of social and affective development reflect the values Westerners place on the higher cognitive functions and on competitive achievement in that area, as well as the connections our institutions make between IQ tests, educational selection, and economic distribution . . . In other cultures, different individual characteristics will be seen as variable, problematic, and worthy of study. Thus the concern of psychologists with child behaviour variables most frequently reflects the concern of the culture in which their social perceptions are embedded (LeVine 1980: 77).

The tests of intelligence that are used to measure internal cultural variation do so on the basis of norms and standards that incorporate predetermined interpretations of what intelligence is in the first place. In this way, argues Robert LeVine (1980: 79), "folk beliefs acquired from one's culture incline one to identify the known range of variation at home with the limits of the normal and the natural for the human species". LeVine quotes studies that have specifically focused on cultural aspects of cognition. These suggest that cognition is directed towards different goals and uses different strategies within different social and cultural settings (LeVine 1980: 82). In this way, intelligence as an absolute and definable category and entity becomes highly problematic. It must therefore be seen as a social and cultural entity that has specific
meaning within the historical, economic and ideological constraints of particular cultures. By inference, intellectual disability must also be interpreted in this light. Within Western cultures intellectual disability has been interpreted according to the symbolic scheme of reason and normality. Consequently, intellectually disabled people have been perceived and treated as abnormal beings who are lacking in reason and intelligence and who therefore exist outside the parameters of meaningful sociality. In order to move beyond such assessments, the intelligence and meaning of intellectually disabled people's actions and interactions must be interpreted within their own socially meaningful contexts.

Intelligence is now acknowledged as an amorphous, complex and multifaceted concept, something that is difficult to define let alone measure and test (Hanson 1993: 249-283; cf. Humphrey 1992; Damasio 1994; Gould 1996; Wortis 1978). Within psychology itself there has been serious criticism and debate over the concept and definition of intelligence, especially with regards to whether it is innate and unchanging, and whether the IQ score is an adequate measure of intelligence (Bijou 1992: 310-313; Barnett 1986; Benson et al. 1993; Detterman 1987; Hanson 1993; Hodapp & Dykens 1994; Hodapp & Zigler 1986; Ryan 1973; Wortis 1978; Yirmiya et al. 1996). There has also been increasing doubt cast on the hereditary nature of intelligence, as Cliff Judge (1987: 36) outlined in his account of the controversy surrounding Cyril Burt’s research into intelligence. Despite these criticisms, research on the genetic nature of intelligence still continues (V. Anderson 1974; Dykens 1995; Heaton-Ward 1978; Judge 1987; Kaplan 1972; Zigler, Balla & Hodapp 1984). The
publication of Herrnstein and Murray's *The Bell Curve: Intelligence and class structure in American life* in 1994 brought the supposed relationship between race, intelligence testing and IQ to the forefront of heated debates once again. Despite these ongoing controversies there has been a return to utilising methods such as the intelligence test and IQ scores for grading and the placement of children in both "normal" and special schools since the mid-1990s (Carman-Brown & Fox 1996: 233).\(^\text{20}\)

By 1986, the official term used to refer to intellectual disability in Australia had changed to developmental disability (Judge 1987: 34; Kearney 1996: 19-27)—or "DDs" as the staff at the group homes where I worked called the consumers. Developmental disability does not equate as closely with intellectual disability as mental retardation, mental deficiency and idiocy have done. It is a broad generic term that is based on common needs for service provision rather than a specific diagnosis. Developmental disability is defined as a severe or chronic disability associated with intellectual and/or physical impairment that is manifest in the developmental stage (ie. before 18 years of age). This impairment results in functional limitations in three or more areas of adaptive behaviour, including self care, learning, language, mobility, self-direction, independent living, and economic self-sufficiency (Accardo & Whitman 1996: 87; Kearney 1996: 19-21).

This recent change in terminology was a response to some of the criticisms levelled at the concept of innate intelligence embedded within intelligence testing and IQ scores, a concept which condemned children and adults diagnosed with low intelligence to a passive acceptance of their condition.

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\(^{20}\) The NSW Department of Education stipulates that students requiring special education services "must have a full-scale IQ score of approximately two standard deviations or more below the mean on an approved individual test of intelligence". This IQ score is used in conjunction with an assessment of adaptive skills and school performance (NSW Department of Education 2000: 2).
Developmental models of intellectual disability, on the other hand, arose out of "a cataloguing of capabilities of retarded people" between the turn of the century and the late 1940s (Detterman 1987: 2). In North America, a focus on child development, and in particular the acquisition of language, was also being experimentally and quantitatively assessed from the early twentieth century (Luckey 1967: 171). And, in the 1950s, specific research by A. D. B. Clarke into the capacity for learning and development of intellectually disabled children ultimately influenced the psychological assessment and interpretation of intellectual disability (Bullock & Trombley 1999: 520). Reminiscent of Séguin's assertion over 100 years earlier, Clarke claimed that intellectually disabled people could learn complex skills and task analysis, but that their capacity to do so was subject to the effectiveness of training schedules (Bullock & Trombley 1999: 520).

The developmental model of intellectual disability—which was adopted by the highly influential International League of Societies for the Mentally Handicapped in 1971 and used for the purposes of appropriate programming—stated that "retarded children and adults are . . . capable of growth, learning, and development" (cited in Scheerenberger 1986: 65). It continues: "Each individual has potential for some progress, no matter how severely impaired he might be. The basic goal of programming for retarded individuals consists of maximizing their human qualities" (cited in Scheerenberger 1986: 65). The studies by Clarke and others had concluded that retarded people can change and learn, and that their retardation is in fact exactly what the term refers to, a retarded development; one that exists along a singular continuum with all other people but at a lower level. Having accepted this interpretation, the emphasis turned to the provision of appropriate services and methods to assist intellectually people to learn and develop. This is the principle that informs contemporary institutional practices and which I
observed at Xanadu and the group homes. It is the basic component of individual service plans and, in fact, is stipulated as a requirement of all services for intellectually disabled people.

Despite this shift in emphasis to learning and development, intelligence and reason are still crucial and central issues in the research on, and perception of, intellectual disability. Intellectual disability is still an intellectual disability. It is still a problem of the brain. Despite his support for the developmental model of intelligence, Douglas Detterman argues that "any theory of mental retardation must also be a general theory of intellectual functioning" (Detterman 1987: 11). As he argues: "Standardized measures of human intelligence as they currently exist in the form of intelligence tests are really global measures of system functioning; they were designed to be that" (Detterman 1987: 5). However, and this is the important point, intellectually disabled people's development is always one of innate "inefficient cognitive functioning" (Hodapp & Zigler 1986: 117; cf. Barnett 1986; Detterman 1987: 4).

Such clinical interpretations of intellectual disability are firmly embedded within the symbolic scheme of reason and normality that has shaped Western culture and consciousness. As a consequence of associating normal humanness with a particular interpretation of reason as intelligence, the practical, utilitarian, abstract, linguistic, logical and cognitive functions of the mind have been privileged as the necessary criteria for human sociality. Psychological assessments perpetuate this association by prioritising such intellectual capabilities. Medical interpretations perpetuate it through diagnoses that are mainly a search for genetic variation understood as an explanation for intellectual deficit and abnormality. The recommendation for dealing with such deficits and abnormalities has ultimately depended upon some form of institutionalisation. Historically, this included incarceration in mental asylums as much as it now embodies contemporary institutional practices of treatment.
and training. At no time did medical or psychological clinicians propose that observations of my siblings' sociality was necessary, or that there was anything problematic in reading presumed social capacity from intellectual testing. Instead, my siblings were considered incapable of creating and engaging in socially meaningful actions and interactions. It was assumed that training, treatment and management were the only possible steps towards alleviating their presumed asociality. Such institutionalised practices were the general response to a diagnosis dominated by an unexamined association of reason, itself equated with levels of intelligence, with the capacity for human social being.