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BRIDGING THE EMPATHY GAP: REPRESENTING NEUROLOGICAL DIFFERENCE IN CONTEMPORARY AUTISM NOVELS

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Dedicated to the loving memory of Gálik Julianna Katalin (1990-2013), and her RuneScape character, Tavarisu B, the best Dungeoneering partner one could ask for.

We shall respawn.

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and my first academic paper, respectively. They have given me confidence that I can express myself in clear academic English and make original points, worthy of other scholars' attention. But, in all earnestness, the whole faculty has contributed in less perceptible ways to my academic growth, and I am eternally thankful to have shared a building and an institute with them.

Mutual suffering strengthens friendship, and the camaraderie I have built up with my fellow students from the BA years onward was unlike anything I have experienced before. You were my first peer community I felt comfortable in since I got into the educational system at 3, and it shows. I remember the many, many hours exchanging notes, photocopies, borrowing library books, preparing for exams, complaining about assignments, worrying about grades, partying, sobering up, laughing, hosting smaller get-togethers and just enjoying the university students' life. I will not be able to name each and every one of you, but you all matter. Nonetheless, named thanks go to Rédl Zora, Zakar Szabina, Orodán Mihály, Suhajda Annamária, Szarvas Csilla, Frolyó Anett, Dávid Orsolya (for that special vote of confidence), Nagy-Czirok Orsolya, Gábriel Zsófia, Beján Gábor, Sallai Judit, Drávucz Orsolya, Kunyi Szuzanna, Czepó Zsuzsanna and I am sure there are many others with whom I have developed at least passing friendship over the years. I would like to especially thank Tábi Emőke for the many relaxing walks we shared in awkward silence, broken by occasional probing questions. A separate thank-you is in order for all the guys and gals who made it to the PhD program, who shared an office (plus griping over the many assignments and requirements) with me and with whom I have attended several conferences, so thank you, Farmasi Lilla, Ótott Márta, Kelemen Zsolt, Mócza Attila, Tóth Zsuzsanna, Kulcsár Zsófia, Bató Ágnes, Bálint Emma, Sütő Zsuzsa, Berze András, Misits Éva and Tóth Gabriella. I had a wonderful time, many, many happy memories and cups of tea with you. Never stop being awesome.

My research has been aided by several scholars and staff members at other universities, either with their instructions or by sharing their research and resources with me. Kelly Diamond, a librarian at West Virginia University has been a godsend, helping me to track down elusive papers the Hungarian libraries do not have access to due to a lack of proper funding. Without you, this wouldn't have been the same dissertation. Benczik Vera from ELTE was also kind enough to call my attention to a plethora of interesting papers published on autism in several journals — if you don't find them cited here, it's not your fault, and I enjoyed every one of them. Jeffrey L. Saver sent me his co-authored paper on the neurology of narrative, and deserves a 'thank you' for it. Nick Lord and Facundo Vega have also provided a way into access-restricted journals from the

other side of the globe, sometimes at inconvenient hours. For that, they have my gratitude.

This dissertation has been greatly enhanced by the *Weltanschauung* of SCT, and my six-week seminar leader, Michael Bérubé's ebullient, glowing enthusiasm and rapid-fire delivery of ideas, anecdotes and views on "Narrative, Intellectual Disability and the Boundaries of the Human." Our shared interest in Philip K. Dick and evolutionary psychology (a spirited critique on his part) were the reasons why I went to Ithaca in the first place. Thank you for supporting my research with your private consultations and personal quips, but also for introducing me to Jamie. He's a cool kid. Several rounds of thanks are due to my fellow SCTers, especially Thea Sircar, Sandra Danilovic, Leon Hilton, Lenora Hanson, Jess Wagoner, Connor Pitetti, Julia Cohen, Roy Scranton, Angie Bennett Segler, Johanna Heil and Hannah Gould for the company and the discussions after seminars at Chapterhouse and Collegetown Bagels.

I have to confess, this has been an eye-opening journey. Autism novels on the whole do not constitute a very large or very distinguished (sub)genre of writing, not when compared to, say, the postcolonial novel, the novel of manners, fantasy, science fiction or the greater category of illness narratives. But it is a significant one in the cultural psyche today, and it has become personally meaningful while I ventured deeper and deeper into other people's lives, lives that did not exist except on paper. Still, they did have models and variations in actual, flesh-and-blood people with flapping hands, flat voices, fluttering eyes that never quite met another gaze — thinking, feeling folks who don't fit into the neuromajority. Over the course of my research, I have visited the Autism Foundation in Budapest (Autizmus Alapítvány), and I have been allowed a glance into how professionals diagnose and interact with children and adults who need help or seek an understanding of their condition. I have studied the diagnostic procedure, the cognitive psychology and the methodology of autism research at Hungary's Bárczi Gusztáv Department of Remedial Education at Eötvös Loránt Univesity from the wonderful Stefanik Krisztina and Győri Miklós, people who led by example and helped me along on my travels into a discipline and a world even stranger than my own. I have gone through the diagnostic procedures myself, only to be rewarded with a diagnosis that did not surprise me. I have met, known, talked to, lived with and loved people whom I knew or suspected to be on the spectrum.

Tragically, the main inspiration and dedication for seeing this project through to completion has been the life and devastating death of my best friend and former sweetheart, Gálik Julianna Katalin. Two years ago, I participated in a wonderful, stimulating, magical summer school

at Cornell, the School of Criticism and Theory, under the inspiring, spirited guidance of Michael Bérubé, who led a seminar on narrative and intellectual disability. I have met many students and scholars there who are passionate about literature, human rights and deep conversations, making plenty of friends. A few days after I returned home, I was informed of her death over the phone. Although no official cause of death was established other than some vague cardiac arrhythmia, it was my suspicion that her undiagnosed, disabling condition contributed to the shock the enormous changes in her life caused, such as moving to a new home, leaving university, starting life on her own. Change, that great tragedy of a life that prefers sameness, must have been putting untold, inexpressible, destructive stress on her.

Since then, her ghost followed me everywhere, spurring me to speak clearly, to argue and to articulate the needs and desires of people who yearn to be understood and taken seriously even though they themselves can't always put feelings into words. This dissertation is nothing less than an exorcism and a gesture of resurrection, a small contribution to raising awareness about the vulnerability of autistic people to the social pressures they cannot and shouldn't have to bear, because they are unnecessary.

During my time as a graduate student, I have travelled far and wide in Europe for conferences and summer schools. I would like to thank Csönge Tamás for attending the European Narratology Network 4's conference in Ghent and the ISIS Rethinking Intermediality conference in Kolozsvár, Romania with me. I have welcomed the comments and suggestions coming from audience members at HAAS 9 in Eger, HUSSE 10 in Budapest, Brno's A Culture of Language Symposium, Porto's Ex Certa Scientia conference, BAS 2012 in Temesvár, Romania and several PhD conferences in Salzburg. I have been lucky to have attended Aarhus University's Intensive Program in Narratology in 2010, where I have learnt about New Media and New Narratives from Stefan Iversen, Jan Alber and Henrik Skov Nielsen as well as Maria Mäkelä, Jakob Lothe and Riccardo Fusaroli. The study groups of fellow IPINers were a treat, and the parties we threw were legendary, despite the constant rain. Thank you all!

My inspiration to study English were kindled by the empathetic teachers I had in elementary and high school, so I would like to express my gratitude to Verő Júlia, Csanádi Ágnes and particularly Galamb Zoltán for the friendship and instruction I got from you three. Without you, I would be nothing.

Sad as it is, this dissertation simply would not have been possible without the help of many

PERSONAL PREFACE: HOW I GOT HERE

"The core of all life is a limitless chest of tales."
– Tuomas Holopainen (Nightwish 2011), "Storytime"

To all who come to read this scholarly piece: welcome. This dissertation is in your hands. Here, sages reveal the sad injustices of the past and youth may savour the challenge and critique of the status quo. This dissertation is dedicated to the ideals, the dreams and the hard facts that have created the humanities… with the hope that it will be a source of joy and inspiration to all the world.

Based on my previous research, it was not at all obvious that I would come to write this work. During my undergraduate and MA years, I have been deeply engrossed in video game and theme park research, hence the opening paragraph's tribute to Disneyland. Why would a scholar of media studies choose something so profoundly different from mass entertainment media as the topic of autism and its manifestations in literature and literary theory?

Like many of my generation and the older Gen Xers, I have been introduced to autism via television and the movies: I have seen *Rain Man* (1988) around the turn of the millennium as a twelve-year-old, and I can't say I really enjoyed it. The characters were too weird. That would have been my only experience of labelled autism for years. Later on, around 2004, I had the strange luck that I came across a little blurple book with a mind-bogglingly long title. This was Mark Haddon's *The Curious Incident of the Dog in the Night-Time.* Fortunately, the language of the book was easy to follow, and by that time, I had gone through the five published Harry Potter books, so it did not pose much of a challenge. In spite of my lack of mathematical aptitude, I have identified with the book's protagonist, Christopher and his struggles to make sense of the chaotic world of adults, even though he was a little quirky. Okay, maybe very quirky. Anyways, there was something strangely charming in Christopher's straightforward way of speaking, his hyperlogical attitude to the world, his naivety that captivated me. I really liked the book and promptly forgot about it. Some years later I have read an article that discussed *The Curious Incident* and its relationship to 'Asperger's,' which sounded a lot like Crohn's disease at the time (my father's a gastroenterologist, so that was my reference point). But it piqued my curiosity, and I chewed through all the resources I could find on the Internet. I was fascinated by it, and eventually forgot

about the whole thing.

In March 2008, I was visiting friends in London. One day I wandered into a large used bookshop. Browsing the shelves, I quickly lost track of time, until I found myself picking up a book about a pianist, Jessica, who sees the world from a different angle, puzzled by the oddity of human relationships. All my previous reading about autism came to the surface at once and I knew I had to get this book. And once I read it, I could no longer forget about Asperger's and autism. The bullying depicted in the novel, then Jessica's disastrous marriage with Andrew, the haunting, poetic language of Morrall writing about music stayed with me. It was during that year that I met my future supervisors, Kérchy Anna and Cristian Réka in the classroom, where they taught children's literature and film theory, respectively. The seeds have been sown, although they would long remain dormant before they could germinate. I have been furiously researching computer games and ludology to write my BA Thesis. And then my MA Thesis.

While I was processing the material, I found a remarkable passage in Espen Aarseth's ground-breaking book, *Cybertext*, which described the "autistic detective agency" (1997, 115) of a certain text adventure game, and argued that social interactions in computer games resembled the way autistic individuals handle conversations and fixate on objects. This got me thinking. It also got me to re-read *The Curious Incident*. Indeed, I have found that Christopher tackles some of the problems he faces by pretending that he is in a computer game. This was my way in, but it would be long before I finalised my decision to write on fictional autism. The decision was reached in the aftermath of my MA Thesis defence, when the head of the defence committee, Barát Erzsébet grilled me on the aspects of gender representation in computer games with questions that caught me off guard (though in retrospect, they shouldn't have), followed by the question about how space is constructed in the medium. Missing the obvious point (i.e. space is not an inherent property of games, but a social construction, made by people for particular purposes), I realised that I have fallen victim to the sort of thinking promoted by the adventure games I was researching. I needed to work on people. Or, the next best thing, something social in literature. Then I put two and two together and came to the conclusion that the dissertation should be about autistic people and their social hardships. From these humble beginnings, the first germs of this dissertation was born. The rest, as they say, is history. The history of disability in psychology, literary criticism and theory, to be precise.

Before I begin introducing the reader to the main ideas and the structure of the dissertation,

I have a couple of remarks to make on the language I use to describe the kinds of minds I work with. Obviously, this being a dissertation on a particular kind of neurological difference, I have to use the word 'autism' and 'autistic' a lot. The language used to describe autists in psychology has always been linked to the word "disorder" (as in: autism spectrum disorder, or ASD), since that is what the Diagnostic and Statistical Manual of Mental Disorders (APA 2013) has termed all atypical configurations of the psyche that it seeks to treat or cure. No doubt, there are many instances where professional and medical attention ameliorates the life of the affected individuals and their community, and autism might be one good candidate for such a condition, but the idea that autism is primarily a *disorder* has been questioned by autism researchers and disability scholars.

Simon Baron-Cohen, in particular, advocates the use of the expression 'autism spectrum *condition*' or ASC instead, because it is less stigmatising, acknowledges both the deficits and assets of autists, and brings 'social condition' to one's mind as well. He argues that when we look at the neurological make-up of autistic individuals, there are few signs of dysfunction and a great deal of evidence for difference (Baron-Cohen et al. 2009). With this in mind, I will predominantly use ASC or 'the condition' or 'the spectrum' as synonyms for autism to avoid monotonous repetition. When referring to people, however, although I acknowledge their full personhood, I will primarily use 'autists' in contrast to, say, Elizabeth Moon's usage of 'autistics' or the term preferred by some autism advocates: 'people with autism' or 'autistic individuals,' because I find the people-first terms to be quite a mouthful in the first place, its constant use breaking the flow of academic prose, and the word 'autist' as people understand it refers solely to human beings with complex psyches and subjectivities, whose lives are altered by neurological difference.

Chapter 5 contains passages from "The Paradox of Reading Autistic Fiction" (Makai 2013a), which is an earlier, much-condensed version of my argument concerning empathy and autism fiction, explained more fully with the case study on *House Rules*. Chapter 5 is also host to a reworked version of "Autlook – methods for representing autism in contemporary Anglophone literature" (Makai 2012), which surveyed the psychological theories about mindreading and novel-reading with a less critical eye than what is present in this work. I have explored the effects and methods of speculative canon creation in "Autism's Loose Canon: Finding the Artist, Not The Autist" (Makai 2013b), from which I have adapted passages to give a better account of autistic writing in the dissertation's chapter on *The Curious Incident* and *House Rules*. Chapter 8 is an

extension of "'No One Who Minds Is Here': Redesigning the 'Social Norms of Cognition' for the Contemporary Autism Novel" (Makai 2013c), with a bigger scope and an added meditation on the ethics of neuroscience. Due to the vagaries of academic publishing, a distillation of my case studies, detailed in Chapters 8-10, "Autistic Consciousness Represented: Fictional Mental Functioning of a Different Kind" is yet to be published (Makai, forthcoming), as is a study on autistic autobiographies and Facilitated Communication, written in Hungarian "Ahány autista, annyi élet: Az autistalét tapasztalatai az önéletírásban és a regényekben" (Makai, forthcoming) parts of which have made it to Chapters 4 & 7. These articles were essential to refine my thinking on the subject and informed the whole of the writing process, the fruits of which I now present to the reader.

Now that you know my terminological preferences and my previous work on autism in literature, I wish you a pleasant and exciting time while reading this work. I have become wedded to its production, although I know that there are errors in whatever the human hand creates. I take responsibility for my errors, biases and lapses of judgement. For this reason, I am happy to hear any and all suggestions, comments and criticisms regarding the scope, methodology, validity, structure, the fine points and the language of the writing before you. There is no greater gift for a scholar than constructive criticism. Let the adventure begin!

CHAPTER 1

INTRODUCTION: LITERATURE, SCIENCE AND THE HUMANITIES MEET AUTISM

"Yes, I will be thy priest, and build a fane
In some untrodden region of my mind,
Where branchèd thoughts, new grown with pleasant pain,
Instead of pines shall murmur in the wind."
– John Keats, "Ode to Psyche"

The set of atypical, human neurodevelopmental trajectories known today as autism spectrum conditions (ASCs) have come to fascinate the whole world in the last twenty-odd years or so, largely thanks to the recognisability of the quirks, unique social hardships and uncanny abilities associated with young people on the spectrum. As medico-psychological understanding of autism grew, so did the number of people who were diagnosed with it. In our time, fiction featuring characters on the autistic spectrum have sprung up in as diverse media as computer games, comics, cinema, television and — dearest to departments of literature — books. For a condition that went under the radar until seventy years ago, ASCs are now enjoying widespread attention in the cultural and medical realm. US prevalence rates have reportedly risen from an estimated 1 in 88 to 1 in 68, about 1.5% in eight-year-old children (CDC 2014), while more conservative UK estimates report a levelling off of prevalence rates at 3.8 per 1000 boys and 0.8 per 1000 girls between 2004 and 2010 (Taylor et al 2013). As a result of the increase in the rates of diagnosis, there has been a growing need in the general public to acquaint themselves with the nature of neurological difference in their autistic peers, raising awareness about the neurotypical configuration of society. The host of popular representations featuring people on the spectrum speaks volumes about the force with which this condition has gripped the imagination of our era. Scientific works, such as Oliver Sacks' *An Anthropologist on Mars* (1995) and Simon Baron-Cohen's *Mindblindness* (1995) comment on autism with the reassuring tone of the expert, while autism autobiographies like Temple Grandin's *Emergence: Labelled Autistic* (1991 [1986]), Donna Williams' *Nobody Nowhere* (1999 [1992]), John Elder Robison's *Look Me In The Eye* (2012) or Dawn Prince-Hughes' *Songs of the Gorilla Nation* (2004) purport to give readers an inside-out view of what it means to live life as an autist. Films, including the iconic *Rain Man* (1988), and later works like *Mercury Rising* (1998), *Mozart and the Whale* (2005) or *Mary and Max* (2009) chronicle the ups and downs of the autistic experience, while novels and fictional

representations in other media infuse autism with mental richness – they immerse their readers in a sensory and cognitive world very different from the reader's ordinary point of view. Although autism is ostensibly a neurological condition that has been part of humankind throughout our long history, its recent prominence in popular media and literature requires reflecting upon the emergence of autism fiction as a newly-defined category of narrative. Ian Hacking, a philosopher of medicine and science contends that we have only just started learning to talk about autism, and stories are essential to create a new discourse, "a new language game, […] extending a way for very unusual people—namely, autistic ones—to be, to exist, to live" (2010a, 262-263), Therefore, investigating the representational schemata according to which fictional autists are portrayed becomes as much an ethical imperative as a detached, theoretical question. Such an approach focuses on the constitutive nature of (scientific *and* literary) language that defines what autistic people are capable of, where they need assistance and what can be done to empower them on their way toward a fulfilling life. In addition, analysing the novelistic discourse of 'autism fiction' through the twin lenses of narratology and disability studies has strong implications for new paradigms of the profession, namely cognitive literary studies.

Indeed, this dissertation intends to be a constructive corrective to the systematic bias in the early development of cognitive literary studies, which has built its foundations upon a number of premises surrounding the scientific construct called Theory of Mind (ToM), a postulated function of our psyche to treat other human beings and non-human animals as minded creatures with intentions, beliefs, desires, hopes, dreams and other psychological states that enrich and give meaning to our existence. The thought experiments that seek to validate the field frequently portray autism and other, hypothetical 'alien' intelligences as unable to understand the social dimensions of ordinary human life because they lack ToM, and thus they cannot create a coherent narrative of their lives. Routine references to either real-life autism or its fictional depictions strengthen the dividing line between a kind of mental life capable of embedding people in narrative and one that cannot produce these social narratives. To buttress their claims, cognitive literary critics import experimental data and theoretical speculations from the life sciences and psychology, and subsequently present cognitive disability as an enabling condition for their field. But if, as Lisa Zunshine writes in her preface to *Introduction to Cognitive Cultural Studies*, the goal of the project is "to understand the evolving relationship between two immensely complex, historically situated systems—the human mind and cultural artifacts, such as novels, poems, or paintings—and not to

merely use such artifacts to illustrate a particular scientific hypothesis about one particular feature of human cognition" (2010, 3), then it is inexcusable to ignore literary products that deal with cognitive and intellectual disabilities as anomalies. Rather, it would be beneficial to integrate these works of art into the fabric and purview of literary studies by meticulous analysis, rewriting the basic assumptions that undergird cognitive criticism today. Therefore I have endeavoured to investigate and critique its theoretical framework by focusing on disability studies and narratology as two fields which are in privileged positions to 'rehabilitate' cognitive literary criticism (with all the layers of meaning which the discourse of disability supplies). To do so, I incorporate autism fiction into its potential corpus, thereby redressing an exclusionary move. I contribute to the effort of reclaiming autism for cognitive criticism by producing fine-grained readings of four novels where autism plays an integral part of the story. Since *one* of the many signs that suggests an autism diagnosis is the lack of spontaneous pretend play and make-believe games in children, which later manifests in the avoidance of reading fiction, I investigate how autistic characters are depicted in relation to fictional narratives and the abilities that are deemed essential to the enjoyment in fiction: pretence, empathy and mind-reading. By attending to the intricacies of the narrative, I claim, it becomes obvious that the selected writers compose their novels so as to provide a counter-discourse to the model of autism that emphasises its deficits rather than its strengths. They conjure up a way of talking about the condition that acknowledges autistic people's struggles in life, but one that also values them as fully human beings, capable of empathy, understanding the narratives of their lives, and as citizens integrating into the social fabric, creating an alternative form of life, an "autistic sociality" (Ochs and Solomon 2010). This is achieved by a careful construction of narrative that highlights neurological difference but allows empathetic engagement with the autistic character through a number of storytelling devices, including the finely detailed depiction of the sensory world of autists, the perception of the character from the outside and the representation of mental functioning, an important source of fascination in this age of "neuronovels" (Roth 2009).

The literary merits of these works are also significant because the narrative design of the novels provides self-reflexive moments for readers, when they come face to face with the artificiality of the literary text. Moreover, autism fiction is a very effective tool for generating empathy for autists in neurotypical (non-autistic) readers through the strategic use of defamiliarisation and perspective-taking (Caracciolo, 2014), making them central to the

humanistic quest for acceptance and instituting changes in society to better accommodate autists. How this empathy is produced is the function of the literary text and its interaction with the communities of readers it addresses, which a psychologically-inflected narratology can easily handle. For this reason, I shall be assuming that the intended audience are neurotypicals, although there is a substantial community of autistic fiction readers who consume these novels with a knowing and critical eye. My thesis here is that autism fiction can thrive precisely because authors spend a great deal of time not on developing the plot of the novels, but on constructing the "structures of feeling" (Williams 1977) and the raw feels or *qualia* of ASCs in a novelistic discourse. I argue that the narrated percepts, thoughts and feelings of the protagonists articulate neurological difference to enhance our experience of stepping into someone else's shoes as we read the novels and empathise with the characters. I investigate the *granularity,* or the level of depth in descriptions, the role of metaphors and other poetic vehicles, the use of intensive focalisation and the stumbling blocks to storytelling in greater depth as ways of making cognitive difference legible and experienceable. Novels have unique capabilities as technologies to deliver virtual neurophenomenological experiences, effectively functioning as textual virtual reality helmets. When people read autism novels, they are being persuaded that what they read is a form of life that someone with autism can experience.

Still, due to our innate tendency to either standardise (*Vereinheitlichung*) or accentuate incoming patterns as we represent information (*Prägnanz-Tendenz*), we are unlikely to appreciate the smaller quirks in any *Gestalt.* While this was originally observed and studied in visual representations (Arnheim 1965), it is no less operational in more complex representations, such as those of literary characters with autism (not to mention the real-life discourses surrounding them). This warrants an adoption of an explicit ethical stance when dealing with cultural representation of disabled groups of people. Writers research their novels thoroughly when they decide to represent; they begin with looking at the complex behavioural profile of autists from a wide variety of publications, including clinical textbooks, works of popular science, autobiographies or autism blogs. After the research phase, writers inevitably select those characteristics which are somewhat different from typical people and then *accentuate* them to better grasp the readers' attention. Alternatively, they can opt to downplay some aspects of neurological difference, claiming that there are facets of autism which are *just like* the daily experiences neurotypical people have, humanising them through the standardisation principle. It is for this reason that the representational

strategies are on the forefront of ethical questions surrounding representations.

Autism novels are composed with plotlines that explicitly present ethical dilemmas: should we find a cure for autism? What are good reasons for being cured of the condition? Is the legal system capable of recognising neurological difference, and accommodate such people during legal procedures? How can these vulnerable people defend themselves from abuse? What societal styles of thinking produce said abusive behaviour, and what can be done to decrease these attacks? The dissertation will survey the stakes of strategies for representing autism by discussing the emplotment of the characters in the books, the rhetorics of scientific and literary depictions of neurological difference, and it will address other relevant aspects where appropriate.

There is a danger that one creates an essentialised picture of autism, and this ideal picture might become a standard against which all representations are measured, in a sense creating a 'fidelity criticism' of autism novels. In the normative mode, it can run the risk of becoming censorious, enforcing a canonical representation with little possibility left in artistic experimentation. Musing about the ethical necessity of writing accurately about disability narratives, Michael Bérubé contends that: "scholars in disability studies are right to point out that literary representations of people with disabilities often serve to mobilize pity or horror in a moral drama that has nothing to do with the actual experience of disability. A certain amount of literalism, even censorious literalism, seems to me acceptable in this regard" (Bérubé 2005, 570). He argues that disability studies "calls attention to the many figural uses of disability, but only to demonstrate that many of the narrative devices and rhetorical tropes we take for granted are grounded in the underrecognized and undertheorized facts of bodily difference" (loc. cit.), to which I would add cognitive and neurological difference for the sake of including autism.

The point is that well-written texts can aesthetically please readers (even by directing horror at culturally acceptable targets) and simultaneously perpetuate views of a condition that are harmful or demeaning to the group in question. This is not to say that ethically deplorable acts and vices are not to be represented, or for that matter, wrong and stereotypical depictions of autism automatically condemn a book as fanciful or false and strip it of its other aesthetic qualities. Nor does it mean to suggest that criticism of autism fiction should only proceed along the criteria of faithful to/deviant from the present picture of autism in medical and liberationist discourses, far from it. Throughout my dissertation, but especially in my analysis of *Speed of Dark*, whose ending was hotly debated among scholars of disability, I argue that although ethical considerations are

essential to the sensitive interpretation of autism novels, they are neither the only nor the most important criteria for judging the success or artistic merit of the novels in question.

In my understanding, critiquing representations of autism is one tool among many to reflect upon the various cultural and scientific influences that shape thinking about the condition and, consequently, affect the narrative design of the book. By way of a quick example, we now know without a doubt that autism is not caused by mercury (or more accurately, thiomersal) in vaccines the way Andrew Wakefield claimed it did. But when Jacob's mother, Emma Hunt, entertains the notion in *House Rules* that vaccinations might have played a part in producing his son's condition, I interpret this not as a pure-culture example of delusional thinking or that the writer did not do enough research. I recognise instead that it is motivated by developing Emma as a character, who becomes a 'supermom'-type heroine similar to the mothers in the autism memoir genre, and I would argue that Jodi Picoult thoughtfully builds up the image of an overprotective mother, whose drive for agency sometimes conflicts with that of her son. Seen this way, being ambivalent about environmental causes, even demonstrably fallacious ones, is partially a reaction to the mother-blaming etiologies of autism that were popular from the 1950s up until the 1980s in some segments of the psychological profession. It is also consistent with Emma's master narrative of motherly love triumphing over adversity, which, as Stuart Murray observes, was ubiquitous in the vaccines controversy: "all worries seemed to be extensions of ideas of love" (Murray 2008, 177). In actual fact, autism has never been contracted through vaccines, just as there is no epidemic of autism, nor do autists lack empathy, and all these truth claims can be established using principled reasoning with careful observations, but these facts play second fiddle to the telling of a good story in a novel.

This brings me to the question of a cross-domain interaction of different types of texts, namely literary works of art and scientific publications. I want to declare on the outset that every organised effort of humankind in the social sphere is mediated by human activities and understanding. Science is not outside the domain of the cultural, nor are scientists infallible observers, and the fruits of scientific research are results of interpretation. In this, scholars share their core goals across disciplines, seeking to understand some aspect of the world, including ourselves, by interpreting phenomena accessible to us. I shall be outlining the wider framework of the dissertation, the *biocultural* approach in the next chapter. As Lennard J. Davis and David B. Morris explain, it is an attempt to reconcile the differences between the humanities/social sciences and the natural sciences, healing the rift that tore the two apart during the science wars. Of their

programmatic dicta, three in particular should encapsulate what I find inalienable to the success of my project: "Selves today are embodied, biologized, shaped by medical knowledge. […] Patients and experimental subjects are part of the decision-making process. […] Biology, as a science, cannot exist outside culture; culture, as a practice, cannot exist outside biology" (Davis and Morris 2007, 418). Let me condense their statements to how I see them affecting my approach. Firstly, autism has been made visible by changes in the interrelationship between the human subject and modernity, part of which was the increased attention given to childhood development at the first third of the 20th century. This relationship between scientific knowledge and autistic subjecthood is ongoing, as the two remain inseparable discourses. Second, changes in the scientific view of autism were not only produced internally, within the research laboratories and on the writing desk, they have responded to external factors, too, including families, the changing technological and institutional environment of modernity, autism advocacy groups, popular fears and scares about nurture, genetics and environmental factors, as well as autism autobiographies and fiction. These *all* played a part in shaping the medical discourse of autism. Third, novelistic discourse and fictional representations of autism depend upon scientific knowledge, various genres of other kinds of writing and, often, direct or reported personal experience of people living with autism as well. Writers and researchers are human, subject to cognitive biases, make errors, present their arguments persuasively and remain fallible in ways that are reassuringly human; this process produces textual knowledge that can and must be subjected to critical analysis.

Nonetheless, for all its faults, science is not just a synchronic body of knowledge, deemed contingently true, but a methodology dedicated to improve upon the state of all human knowledge diachronically. It has devised its methods specifically to counter some well-known human biases in interpreting the experience of the senses and our innate structures of thinking, which are also shaped by our local histories and ideologies. Working scientists are not naive realists, they are trained to know the weaknesses of their methods and the limits of their interpretations. Reading an admittedly small selection of the deluge of articles produced within the medical, neurological and psychological sciences, my general impression is that people in the lab are painfully aware of what they do and do not know, and they fiercely debate one another's theories about, say, the etiology of autism, or the future prospects of people on the spectrum.

This does not invalidate the central insights of science and technology studies, that scientific knowledge is socially produced and professional paradigms constrain the type of

questions asked or the range of possible interpretations. But the standards of evidence and the techniques put in place to reduce individual folly should compel us to consider the results of scientific debates to be *the best among currently existing* interpretations of reality, as they are supported by evidence and fit best with the most robust theories of their time. We should always do so critically and provisionally, but we cannot treat scientific knowledge and methods with blanket refusal just because they are historically contingent or textually mediated in a cultural context. Science does not produce statements purely to dominate a discourse, as its success as a field of human endeavour depends upon providing reliable answers to human questions which a society judges worthy to investigate. For this, it needs to base its arguments in observable phenomena and come up with criteria for their interpretation, with an eye towards future predictions. When the evidence and reasoning align, we are talking about a good fit between linguistic statements and the observable, experienced world, which includes our psyche and society. Whenever science is capable of producing such propositional knowledge, we come closer to understanding our relationship to the social and natural world, and upon this knowledge, we can shape our habitat and habits in a way that we consider most fulfilling for the human race.

Fiction, too, plays a significant part in this, as it is a discourse fit for adventuring from the realm of the probable into the realm of the possible. It sparks the imagination of readers to be mindful of alternative interpretations and new ways of seeing the world. Literary science is all the more important in this scheme because it theorises and dissects the figments of the imagination based on what we know about the unique human faculty to produce personally and socially meaningful art. This interrelationship between the human/social sciences and the natural sciences has been called *consilience* by Edward O. Wilson (1999), who promotes the unity of knowledge across disciplines, departments and faculties. Its methodological implications will become clear in the next section. In it, I turn to Marcus Nordlund's attempt to create a meta-theory of consilient literary interpretation (2002), a new amalgam of fusing interdisciplinary views, but founded on the classic hermeneutical triangle of 'text,' 'reader' and 'world.' Nordlund's contribution to hermeneutics is a call to update our theories of reading, contexts and reality with new theoretical perspectives developed in psychology – for me, this includes research on empathy, literary appreciation, mental simulation, social intelligence and the mechanisms that make them possible.

Since each of my selected novels reflect upon our current cultural notions of autism, containing half-truths and stereotypes, in the interest of establishing what writers could possibly

have known about the condition, in Chapter 3, I present an abbreviated, critical intellectual history of psychological research and theories of autism. I follow the intellectual arc of research from Kanner and Asperger's original papers through the domination of psychogenic, family-centred explanations of the condition to the qualitative improvement in theories during the 1970s and '80s, which have shifted clinical attention to the genetic and neurological origins of autism. I outline the search for the elusive 'core deficit' that was purported to be the basis of observed autistic behaviour (the Triad of Impairments), which resulted in three competing psychological theories: the *weak central coherence* hypothesis (later renamed detail-oriented processing), the impairment of *executive functions* and the *theory of mind*-deficit hypothesis. I show that these accounts are occasionally conflicting, but tend to support one another in the work of leading researchers. The most powerful discursive act that affects the treatment of autists is the DSM, so I conclude with dissecting the evolution of clinical definitions in the psychiatric manual, including the last, fifth edition (APA 2013), summarising the changes and their effect on autistic identity.

Transitioning from the clinical to the social, I devote the next section of my dissertation to an extended analysis of psychiatric power in the current institutional matrix of autism. I position disability studies and cognitive (neuro)science as opposing discourses with different interests in describing autism. Based on Eva Vakitzri's archaeology and genealogy of ASCs (2010), I relate how scientific discourse about neural difference is related to the power/knowledge dyad, and how autistic subjectivity is constituted in response to the techniques of bio-power. I also introduce a promising alternative to clinical definitions, the *neurodiversity* movement, and assess their claims about equal capabilities. I single out 'functioning' as a concept with normative power and show its relationship to 'adaptive' behaviour. The disability studies lens compels me to incorporate the voices of autists themselves. Although I cannot do justice to the wealth and breadth of memoirs written by people on the spectrum, I do explore the genre of the autobiography, zeroing in on problems of authorship and editorial work, independence and support, as their contributions pave the way for the subsequent chapters that finally turn to the literary rather than the clinical.

I begin the section on literature with examining how the cognitive psychological concept called Theory of Mind is connected with autism and literary studies. ToM-related theories have captured the imagination of novelists, literary critics and disability studies scholars alike. The lack of ToM is frequently employed in contemporary literary works of art as the hallmark of the autist, which leads me to a survey of ToM's history as a travelling concept. I follow its journey from its

origins in the problem of other minds in philosophy through primate research, where the phrase itself was coined, to aesthetics, where Colin Radford first introduced the conundrum (1977) later described as 'the paradox of fiction.' Thence we move to evolutionary psychology in the work of Leda Tooby and John Cosmides (1992), whose discussion is relevant to how we view narrative as an adaptive function of the human mind and fiction as a technology for empathy. Their scholarship on ToM made the concept interesting for cognitive literary and cultural studies. The dissertation's attention to this voyage ends when postclassical narratology (defined as "extensions of the classical model that open the fairly focused and restricted realm of narratology to methodological, thematic and contextual influences from outside" (Alber and Fludernik 2010, 2)) begins to import concepts from real-mind discourses in the work of David Herman, Alan Palmer, Lisa Zunshine and Blakey Vermeule. In this section, I analyse how ToM has been used to validate the mind-oriented branches of postclassical narratology, and how their diverse schools have wrestled with strange and unreadable minds – in the case of autism fiction, the connection between the two fields illuminates the textual strategies for conveying neurological difference.

Having established the critical stakes of the ToM discourse in literary studies, I segue into the concept of "unreadable minds" in literature, and what that implies for the representation of autism through questioning H. Porter Abbott's reading (2008) of Melville's *Bartleby, the Scrivener* on theoretical grounds. Working with David Herman's definition of descriptive *granularity* and *backgrounded elements,* along with the general concepts of narrativity and tellability, I begin to build my analytical toolkit for the novels. I recognise autistic difference in the novels as a heightened sensory attention to patterns in the non-human elements of the diegetic environment and an atypical description of social cues (facial expressions, tone of voice, non-verbal gestures) by the autistic protagonist. These descriptive idiosyncrasies (which are the products of fictional mental difference) pave the way for the depiction of social biosemiotic ambiguity in interpreting neurotypical characters' behaviour from the autist's perspective, and when the narrative switches to NT characters, *vice versa*. Such a descriptive strategy, constantly underfeeding the reader with descriptive information, coalesces into higher-order atypicalities of fictional storytelling, leaving the reader a greater interpretative gap to bridge.

Working with the largest meta-concept of postclassical narratology, *narrativity* (how story-like the given text is; see glossary for definition) and its companion concept of *tellability* (defined as the social relevance, enjoyability and counterintuitive nature of the narrative to a particular

audience) enables me to argue that autism novels challenge NT notions of good storytelling strategies. The enumerative, list-based digressions and the heavy-handed expositional passages which focus on the protagonists' obsessive interests but appear irrelevant to NT readers are clear examples of such challenges to convention. As a contribution to the contextual branch of postclassical narratology, I adopt and redesign the concept of the *social norms of cognition* from Nicholas Dames' *The Physiology of the Novel* (2007), developed for Victorian novel criticism, to make it meaningful for discussing the power dynamics of autism fiction. This gives me some thematic cues (the shape and quality of attention, its duration, the speed of processing and patterns of musicality) to watch out for, which inform the autistic character's evaluation of their own abilities. Thus, I tether an intentionally anachronistic, resituated system of criteria for formal narratological analysis (namely, Victorian novel theory) to disability studies' critique of 'norms,' a homogenising social technology for the production of docile bodies. Norms of cognition define the socially sanctioned forms of perceiving and evaluating sensory and social information coming from one's environment, and the organism's subsequent reaction to it. When I analyse autism fiction with the social norms of cognition in mind, I look at narratological instances of atypical or non-narrative ('unnatural') segments of the literary text and I interpret their aesthetic properties in conjunction with the ethical representation of autistic cognition.

Finally I consider wider strategies of reading autism thematically. I select three scholars of autism in fiction, Ian Hacking, Stuart Murray and Ato Quayson to show the haphazard nature of what counts as literary autism and the relative merits of their taxonomic efforts to categorise autism fiction according to diverse criteria. These range from the merely enumerative without much explanation (Murray 2008), through the broadly thematic (Hacking 2010b) to structural/functional distinctions (Quayson 2007). Together, they represent a productive network in which autism fiction can be seen as a genre of its own, serving vastly different narratological purposes and addressing diverse 'current issues' related to autism in the public eye. This chapter demarcates my own corpus and serves to dissociate myself from certain kinds of thematic investigation.

After setting up the framework for analysing my corpus, I begin reading the selected works of literature with these foci in mind. I have chosen Mark Haddon's *The Curious Incident of the Dog in the Night-Time*, Elizabeth Moon's *Speed of Dark*, Claire Morrall's *The Language of Others* and Jodi Picoult's *House Rules* to compare and contrast neurotypical authors' approaches to the depiction of autistic mental functioning in a wide variety of contexts. First, in the context of age:

while autism was initially seen as a predominantly childhood condition, only *The Curious Incident*'s protagonist is an adolescent boy, Christopher, whereas *House Rules*' Jacob is eighteen and a young adult, *Speed of Dark*'s Lou and his colleagues are adults, and Jessica in *Language* is an aging, divorced mother. Second, in the context of gender: although gender relations will not be a focal element in this dissertation, I felt it important to include at least one story in which the main protagonist is an autistic woman to reflect the biased gender ratio of autism without silencing female protagonists' voice and roles, especially in light of the predominance of autistic women who published autobiographical works and the literary qualities of Morrall's haunting, honest prose. Thirdly, I have attempted to select works which situate autistic characters in different genres and plot structures: *The Curious Incident* is young adult (YA) fiction, an epistolary novel and a journey tale; *Speed* is a bioethical, near-future science fiction novel; *Language* is middlebrow literary fiction; and *House Rules* is a family-oriented legal thriller. These selections allow me to introduce people with different life stories at different stages of their lives, people who are capable of different degrees of self-reflection and share different problems in integrating into society. The corpus also presents opportunities to engage with several narratological constructs that are affected by the presence of autism in the stories.

In Haddon's *Curious Incident*, I investigate the interactions between narrativity and autism. I discuss the genre-shifting break in the emplotment of the protagonist, Christopher, the use of visual elements in storytelling, Christopher's composition of a metafictional book, the play with the hypotext of Sherlock Holmes stories and excursions from the main narrative to argue that autistic difference profoundly structures the form of the novel. It is a playful, self-reflexive artistic project which innovatively included intellectual disability in a postmodern YA book at the time of its publication. It presents Christopher as an (undiagnosed) person with Asperger's Syndrome, and AS is utilised throughout the book as a trait that generates *and resists* narrative. It foregrounds atypical sensory processing during Christopher's journey to London from Swindon, and the text fosters an interpretative practice in which readers try to filter out the narrative elements from a text which reflects Christopher's senses inundated by the overflow of information. These efforts, and the protagonist's fascination with computers, tie in with a contextual attention to anxieties surrounding the Information Age. I apply disability studies' interest in self-writing and autistic identity formation to Christopher's self-presentation. An additional point of interest is the question of authorship, as Christopher frequently tells the reader that his social skills teacher is helping him

write the book, making suggestions as to what would make good storytelling, and she adjusts the novel through an editing process that complicates the text. Here, I evoke the concept of the thoroughly debunked 'treatment' of some nonverbal autists, called 'facilitated communication' to produce an interpretative model for diegetic authorship in *The Curious Incident.* I suggest that Siobhan interferes with Christopher's narrative production by applying NT standards of coherence when editing the book, mitigating the effect of cognitive difference upon the final manuscript.

Proceeding to *Speed of Dark*, I delve deeper into the uses of descriptive granularity and the social norms of cognition to interpret Lou Arrendale's autism as it is expressed in his perception of the diegetic world. I am chiefly interested in how the author, Elizabeth Moon uses explicit references to *patterns as units of cognition*, whether in fencing moves or in the data Lou analyses or in the social patterns of information which he struggles to learn. I distinguish between two forms of 'realism,' the *normative realism* of neurotypical society, which imposes the social norms of cognition on the autistic subject, and the *perceptive realism* of autists. They use detail-oriented descriptions to create a finely-grained model of the world, which anchors their mind-body in a concrete reality, whereas social information is presented more gappily, with elisions and hermeneutic impasses when Lou does not have the right interpretative schemata to make sense of other people's actions and intentions. The two forms of realism clash when Lou is subjected to an experimental treatment that would cure his autism, and he goes on a quest to appropriate medical knowledge by learning brain science. He can spot manipulations of data and faulty explanation in the lead scientific investigator's briefing, calling on the help of their section leader to function as a whistle-blower against the upper management, who want to force the experimental treatment on their employees. The analysis takes into consideration the presentation of ToM-related scenes in the narrative, claiming that Lou exhibits a range of different abilities depending on the social situations he encounters, from a complete inability to interpret other characters to a competent, even acute reading of facial expressions and what they entail in mental-state terms. I also investigate how thought collectives, such as the fencing group Lou trains with, or Section A, Lou's workgroup operate and adapt to intergroup tension or changes in their self-understanding, which illustrate their shared, intermental functions. The chapter ends with a discussion of what an "alien phenomenology" (Bogost 2012) means for the autistic tendency not to prioritise social information and to engage with inanimate objects on equal terms.

The next novel, *The Language of Others* by Clare Morrall continues with similar themes.

Music is central to pianist Jessica Fontaine, who feels most at home when she is playing classical compositions and the least when she has to navigate the tumultuous sea of interpersonal affairs. It is perhaps due to her social naivety that she pairs up with Andrew, a flamboyant, volatile man who abuses her, turning their marriage into a nightmare. Still, Jessica gives birth to a child, Joel, who acquires eccentric habits early on, and does not fit in anywhere. The themes of heredity, the role of the family and the vulnerability of autistic children and adults are central preoccupations of the novel, which I interpret with Alan Palmer's contribution to character analysis (2004) in mind, who has used a broadly cognitive methodology to understand how attributions of mental illness turn into judgements and into narrative explanations of personality in novels that construe certain characters as 'mad' or 'crazy.' Because the diagnosis of autism only comes in late, almost at the end of the book, previously puzzling personality quirks and Jessica's quest for emotional space acquires a new meaning, asking her to rearrange the story of her life into one that includes neurological difference, refracted through her personal history of abuse and motherhood. This restructuring occurs in a socially distributed thought collective, the family, and investigating how such an interpretative community deals with the diagnosis of autism brings the workings of 'shared minds' to light that earlier narratologies would not even have categorised as proper thought.

The last book I intend to cover is Jodi Picoult's *House Rules*, a tale that takes autism to court. In it, Jacob Hunt, a young man diagnosed with autism and a passion for forensics gets involved in the death of her social skills tutor, Jess. Everyone suspects Jacob, because his atypical behaviour is interpreted as proof of guilt, and many of his actions seem to be incriminating him. Picoult's novel exposes that psychiatric power places autism in a medico-juridical discourse about accountability for one's actions, and she plays with the situations this juxtaposition creates. Meanwhile, Picoult's narrative design puts empathy, pretence, fiction and pro-social action on the centre stage, and presents an extended argument about the value of autism as different ability. Investigating how central pretence and the consumption of fiction is to the construction of Jacob as an autistic person, I discuss the narrative structure that creates mirrored events and even instances of genuine social mirroring to generate empathy between characters. I read Jacob's own crime scene enactments as both logic puzzles for her mother and as a method for Jacob to attain authorship in his personal narrative, acquiring confidence and a poietic relationship to his surroundings to prove the 'experts' wrong.

Through these and other reflections on make-believe and empathy, Jacob becomes a critical

reader of fiction and real life. He express his phenomenological point of view on life in metaphors, constructing new ways of talking about autists' lived experiences. I comment on the ubiquity of metaphoric expressions in autism, and I claim that the metaphors, which have a strong somatic feel to them, shape readers' perception of autism by making them enact little mental scenarios from the autistic perspective, generating low-level, visceral empathy. I also examine the rhetorical strategies for producing empathy in Suzanne Keen's threefold typology (2007) of how narrators elicit strategic empathy in the readers: bounded, ambassadorial and broadcast narrative empathy. Knowing that all of the authors I work with are neurotypicals, I create a fourth category, *advocative* strategic empathy for instances where the author does not belong to a particular group, but manages to generate fellow-feeling towards a marginalised group on the basis of her own insights into another aspect of the human condition. I distinguish between two forms of empathy, cognitive empathy and rule-following empathy, and I critically assess Jacob's opinion on empathy and his expressed views about responding socially to other people in distress. The middlebrow legal novel exploits readers' expectations of diegetic conflict based on differences in empathetic engagement, and Picoult puts a new spin on it by placing autism in the crossfire of many different interacting minds, who all have some personal interest in disciplining Jacob's expressions of personality to prove his innocence, adding to the courtroom drama. I view neuroconformism and Jacob's self-expression as a contest rooted in the social norms of cognition, and I claim that Jacob's narrative rewrites these norms from an AS perspective.

The authoritative tone of voice which narrates the little vignettes of real-life murder cases is revealed in the end to come from Jacob, who has gained narratorial powers when speaking about his preferred subjects, criminal justice and forensic science. I read the narrative breaks that appear regularly in the novel (similar to Christopher's digressions) as a form of "ontographical cataloging" (Bogost 2012, 41), which focuses on object-oriented relationships between entities fundamentally alien to one another. I reiterate that the autist is a person who implicitly espouses an object-oriented ontology. This allows a non-anthropocentric view of the world to develop, one where Jacob would feel at home. It is a sphere beyond narrative coherence, and the narrative strategies that enable such incoherence are also integral to a neurodiverse narrative to flourish.

In the final section, I summarise and synthesise the theoretical and literary critical insights gained from putting autism onto the map in the study of narrative and intellectual disability. I maintain that by taking autism into account, some of the shortcomings of cognitive literary theory,

namely the reliance on 'mindblindness' and ToM deficits as the enabling condition of the field have to be revised in a more inclusive framework. What is seen as a contradiction or a case of narrative irony ("showing sympathy for a client who is incapable of showing any himself", as Oliver puts it in *House Rules* (409)) is in fact the product of misreading able autistic responses to neurotypical situations and practices. Autism can be read through a postclassical narratological lens to contemplate the consequences of judging certain fictional minds to be 'unreadable.' By reinscribing autistic minds as readable *via* learning their idiolect, we are lead to a more empathetic, less disabling form of cognitive literary studies. With respect to the novels, I come to the conclusion that a narratological attention to the designs by which the authors convey the presence of the feeling autistic mind in contemporary literature gives scholars a fertile ground for testing assumptions about our empathetic responses to characters who belong to another neurotype, and thus could be essential for empirical inquiries into reader identification with characters.

CHAPTER 2

THE USE OF CONSILIENT LITERARY INTERPRETATION IN

MAKING SENSE OF THE AUTISM NOVEL

"Please don't make the mistake of thinking the arts and sciences are at odds with one another. That is a recent, stupid and damaging idea. You don't have to be unscientific to make beautiful art, to write beautiful things. If you need proof – Twain, Douglas Adams, Vonnegut, McEwan, Sagan and Shakespeare, Dickens for a start. You don't need to be superstitious to be a poet. You don't need to hate GM technology to care about the beauty of the planet. You don't have to claim a soul to promote compassion. Science is not a body of knowledge nor a belief system it's just a term which describes humankinds' incremental acquisition of understanding through observation. Science is awesome! The arts and sciences need to work together to improve how knowledge is communicated." – Tim Minchin, Speech at UWA

It would be difficult to imagine a literary critic who, first and foremost, is not interested in how texts interact with the human psyche, how those black marks on the page turn into uplifting vistas, heroic deeds, tragic misunderstandings, hair-raising horrors or heart-fluttering tales of romance. As a community, we are thrilled by texts which reward careful reading and open up a complex web of signification that reinforce or reshuffle our view of the world and the horizons of the possible. Conjuring counterintuitive meanings to being, the literary critic is forever committed to explicating the mechanisms by which poetry, novels, dramas and short works of fiction affect us, to point at the textual constructs that contribute to our sense of meaning in the work of art with the best tools available at the time. In the history of criticism, we have been continuously on the defence against forces which would see fiction solely in terms of frivolousness, its escapism or usefulness, or as propagating a fixed moral code. We have argued for the sheer joy of words, the emotions they inspire in us, the delightful uselessness of aesthetics as an irreducible birthright of our species, just as we have treasured fiction's ability to revise and transform humankind's notions of morality, which is nothing if not a supreme use of fiction.

In our own time, we have experienced a wealth of new forms of delivering fiction to our homes with the emergence of television, personal computers and entertainment consoles as well as the Internet. In scientific circles, after a long silence on consciousness, the cognitive revolution in psychology during the 1960s allowed experts to investigate the processes of signification in the brain (modelled on analogies with the computer). Procedures stemming from the cognitive revolution continue to reveal the structures which underlie our ways of sense-making with different

methods of 'expanding the mind,' and in subsequent decades, neuroimaging techniques such as CAT and PET scans, MEG and (f)MRI made a trip into the mind a reality. Scientists started asking questions about the origins of brains, how our neural organisations came to be, couched in the informed speculation of evolutionary theory. For a long time, the meaning of these advances seemed to be strictly disciplinary, with little to no implication for humanists, especially not to literary critics, who deal with social meaning on a phenomenological, aesthetic level. After all, who cares where the word "cat" is stored in the brain, so long as you can imagine a cat? And who is interested in how empathy arises as long as the critic can feel it? And yet, the hypotheses, the constructs and the results of research in cognitive neuroscience and evolutionary psychology have struck a chord with humanists who have grown tired with models of culture as a self-contained sphere, epitomised by the motto of 'omnis cultura ex cultura.'

The long and troubled relationship between the arts and sciences along the fault lines of the 'two cultures' model is not something I want to rehearse in great detail, as most of its actual history, including the Sokal hoax, the gender wars and other areas of confrontation are best left to individual studies. For the purposes of a general overview, it is enough to sketch its history in broad strokes. Following the publication of C. P. Snow's *The Two Cultures and the Scientific Revolution* (2012 [1959]), a lively debate in and outside of the humanities has sprung up about the relationship between the two spheres of inquiry. Within the humanities, older structuralist strategies were phased out with a renewed moral vigour in favour of social, liberationist theories of culture. Within the life sciences, new attempts were made to synthesise the large-scale behaviours of organisms from a systemic perspective, producing a descriptive, non-deterministic sociobiology of species in works such as Edward O. Wilson's *Sociobiology: The New Synthesis* (1975). It would not have been controversial, were it not for the fact that sociobiology extended the purview of its subject beyond non-human animals towards the human species. Positing a relatively stable human nature rooted in biology did not mesh well with social scientists, who saw sociobiology as a discipline which transgressed the is-ought divide with its descriptions and amorally justified a rigid, unyielding human nature.

By the 1990s, sociobiology has been vindicated in the life sciences, and its intellectual cousin, evolutionary psychology was created to deflect criticisms of perceived determinism and its pernicious social effects. The foundational volume of evolutionary psychology, Barkow, Cosmides and Tooby's *The Adapted Mind: Evolutionary Psychology and the Generation of*

Culture (1992) envisioned a conceptual integration of the humanities and the social sciences with the natural sciences in which findings from evolutionary biology and theories about the origins of the mind yielded insights into cognitive psychology, which would directly appeal to our conception of sociality and cultural change. They argued that the humanities are based on "the Standard Social Science Model" (Tooby and Cosmides 1992, 24-34), a model which jettisons a qualified, but essential human nature in favour of a purely cultural model of the development of the individual. In this model, a person sharpens their talents from a basic set of common capabilities, suggesting that the basics alone cannot explain the mental structure and behavioural repertoire of adult human beings. Therefore it is culture alone – the social realm as an autonomous, emergent system – that is the originator of the rapid intellectual development of human beings.

Instead of the SSSM, the authors advocate an Integrated Causal Model of human nature and culture that sees the mind as an evolved organism for processing information, which has specialised mechanisms for solving specific problems of adaptation, and these mechanisms are the elements upon which the richness of culture is built. These are then evaluated psychologically by the members of the group, so the produced cultural content spreads through adoption by other people. The diffusion of these social technologies in turn generates the culture and history of societies, which can be examined with various hybrid scientific methods (Tooby and Cosmides 1992, 19-136). This adaptationist view of culture, founded on the modularity of the mind enabled a burgeoning theorisation of the origins of aesthetics, based on the adaptive problem of habitat choice and environmental preference, and in the human sphere, of sexual selection (Orians and Heerwagen 1992, 555-580; Kaplan 1992, 581-600 and Dutton 2009).

Ever the synthesist, Edward O. Wilson wrote on the effort to bridge the gap between the two cultures and published his arguments in favour of an integrated domain of inquiry as *Consilience: The Unity of Knowledge* (1999). Its central tenet, that "while the social sciences are truly science, when pursued descriptively and analytically, social theory is not yet true theory" (205), or assertions like "even the greatest works of art might be understood fundamentally with knowledge of the biologically evolved epigenetic rules that guided them" (233) were bound to incite furore in practitioners of the social sciences and the humanities. The publication of Lisa Zunshine's *Why We Read Fiction* (2006), Dennis Dutton's *The Art Instinct* (2009), Jonathan Gottschall's *Literature, Science and a New Humanities* (2008) and Brian Boyd's *On the Origin of Stories* (2009), were among the most significant books penned by literary scholars and art

historians who took it upon themselves to start the work of consilient literary interpretation from cognitive scientific and evolutionary perspectives. After their publication, the profession retaliated against what they saw, at best, as an uninformed importing of natural scientific concepts into the study of literature or, at worst, a deliberately greedy, reductive attempt to colonise literary theory and to jettison the current scientific paradigm wholesale, without building on its hermeneutic foundations and the contextual approaches that scholars have developed since. These criticisms persisted even when the authors qualified and clarified their statements, exploring the logical premises behind the claim that evolutionary and developmental psychology, anthropology, behavioural ecology and other related fields supply important contextual information about the limits and possibilities of interpretation. One example of this controversy was the exchange in *Critical Inquiry* on the viability, desirability and scope of the evolutionary study of literature between Jonathan Kramnick, the most vocal critic of literary Darwinism (Kramnick 2011) and scholars of various persuasions who have been connected to the new, wider paradigm of cognitive and biological criticism (Bloom, Boyd, Carroll, Ryan, Starr, Vermeule 2012, with a reply from Kramnick 2012). Kramnick, himself no stranger to the study of interaction between science and literature, attacked evocritics on the grounds that they believed literature (fictional narrative) to be a direct adaptation of the human mind for some adaptive problem. He found that the readings which evocritics came up with were strongly thematic in persuasion and therefore negligent of the linguistic component of the literary work. He contends that without an explanation of their formal properties, what evocriticism can say about art and literature amounts to a trivial reformulation of common-sense thematic readings in quasi-scientific language (quasi-, since Kramnick does not sign on with the adaptationist programme, with frequent references to its most vehement opponents in evolutionary biology, Stephen J. Gould and Richard Lewontin, most notably Gould and Lewontin 1979). Finally, he warned critics that the paradigm which the evocritics pose is "not of a two-way exchange on points of shared interest. It is rather that the terms of art used in biology continue to hold further up the pyramid of explanation. The kind of claim you can make about natural selection puts limits on what you can say about psychology and what you can say about psychology limits what you can do with literature" (Kramnick 2012, 434). This is a model which Kramnick finds alarming and dismisses it as marginal in the domain of philosophy of science, which only attained public attention because it was couched in the language of popular science.

It is apparent that, for the opposing sides, the stakes are high: depending on where you

stand, it is 'either literary criticism with science or bust' vs. 'a properly reflective criticism appealing to aesthetic and contextual properties or a barbarous, reductionist account which leaves no room for interpretive complexity and the indigenous hermeneutic tradition.' In all of this, the role and nature of the science involved is what is pivotal, because the state of our knowledge in biology, psychology and the neurosciences are starting to deliver on their promises to provide insight into our human nature in all its complexity, implying that it is not a fixed, deterministic human nature. Rather, it is one in which genetic instructions are carried out in response to the organism's relationship to the environment –- our development in the family and other social institutions are paid their due respect. Suppleness and adaptability means being able to cooperate as much as to compete, and to form ever wider circles of group membership.

More moderate scholars from humanities who find value in evolutionary and cognitive theories (and I consider myself one of these) share some of the concerns of Kramnick and give us constructive criticism about where Gottschall or Boyd go wrong:

> The sceptical aloofness which Darwinian approaches to literature are often confronted with in their home discipline is mostly due to the (not entirely wrong) impression that those mimetistic approaches of "proving that the universals are actually present in literature" or "simplistically mapping" them onto literary texts do not really deal with literature but rather with the world behind it, and thus indeed miss the proper object of literary study. (Mellmann 2011, 305)

Nonetheless, she sees evolutionary theory as a useful heuristic in the paradigm of literary study, capable of answering well-formed questions about aspects of literature. As a corrective, she claims that we can construct (on analogy with the historical model reader) an anthropological model reader, an abstraction which would entail the sum of mental capabilities of the human mind to read and interpret literature as a starting point for empirically grounded speculation about a general readership's responses to a piece of fiction. It also enables us to see fiction as a kind of "dummy stimulus" on our evolved cognitive capacities, a mock-environment that would be appealing due to our innate, developmentally expressed and culturally shaped set of preferences (Mellmann 2011, 308). Building on Cosmides and Tooby's work, she argues that literary works of art give us so much readerly pleasure because "they provide occasions for an intrinsically rewarded organisation of our neurocognitive apparatus" (315). What is being formulated here is a view of fiction as virtual reality (Ryan 1997), of mimesis as make-believe (Walton 1990), concepts

which do not automatically presuppose an evolutionary pressure for the emergence of fiction, but which fit into the greater framework better once the evolutionary explanation is in place. In this view, fictional narrative utilises the neural circuitry of imaginative play and supplies new kinds of linguistic stimuli *via* the imagination to the brain, which merrily processes the dummy stimuli (for an extended discussion, see Chapter 5).

This model is of considerable importance for autism fiction, which situates hypothetical people within a fictional construct, as the text often refers to and reflects upon the use and consumption of fiction by neurotypicals and autists. Fictional autists, like their living counterparts, champion a view in which their condition is not a disability, just a different ability. Some go even further and hold the opinion that autism may even prove to be the next step in the evolution of humankind, and their atypical development is just nature doing its best to respond to alternative selectional pressures (see the more extended discussion on the claims of the neurodiversity movement in Chapter 4). This would suggest that we could be witnessing some fast-paced gene-culture co-evolution, and a sprinkling of autism could in fact be beneficial in modern circumstances. What is of primary interest here is that, whether right or wrong, evolution plays into the discussions of the meaning of autism in the diegetic worlds (insofar as a specific organisational model of the brain, or a family thereof can have an intrinsic evolutionary meaning), as do findings in cognitive science about the role of autists' consumption and production of fiction. These concerns are prominently featured in discussions about the importance of 'Theory of Mind' in art appreciation, about the nature of the imagination or the role of literature as a cognitive tool for understanding the self and others in an interrelated biosocial sphere.

But where does that leave the literary critic in terms of 'methodology'? Naturally, the default methodology literary studies have developed is a sort of secular, critical hermeneutics, a close reading of the text, interpreted with references to a larger context that influenced its production, impinging upon the reality the text provides a commentary of. Because this is a work dealing with the effects of representing autism, a biological, neurological condition embedded in a social context of disability, the effort itself has to be strongly interdisciplinary. Still, there are so many different ways of becoming interdisciplinary, the question often becomes: how to do interdisciplinarity right? Disability studies scholar Lennard J. Davis and medical humanist David B. Morris express a need for bridging the gap between the sciences and the humanities, declaring that "that culture and history must be rethought with an understanding of their inextricable, if

highly variable, relation to biology," suggesting that "the biological without the cultural, or the cultural without the biological, is doomed to be reductionist at best and inaccurate at worst" (2007, 411). It is inspiring to hear this sort of call for integration from disability studies, since debates about the biological configuration and cultural situatedness of mind-bodies are essential starting points for investigating the psychological effects of particular social arrangements about a devalued form of corporeal living. Davis and Morris' manifesto indicates that the justified interpretation of data is what connects all sciences, whether it is cognitive neuroscience or *Literaturwissenschaft*, the German term for literary studies that properly acknowledges it as a science. What they propose is a much deeper dialogue between wider disciplines, similar to the consilience model, which would earnestly discuss differences in interpretative strategies without excluding relevant data from other fields. They state that a biocultural approach

> suggests that the humanities may learn from other disciplines how to study significant textual features and affiliations accessible outside a narrow or exclusive focus on interpretation—features perhaps traceable through explorations in cognitive neuroscience such as fMRI brain imaging studies or through anthropological explorations in material culture and in social practice, which connect language and sign systems with what meaning (or meaning alone) cannot convey. (2007, 416)

Importing knowledge from faraway disciplines allows the interpreter to get around impasses in their own discipline, whose methodological affordances and constraints limit the kinds of knowledge that can be produced. In analysing autism fiction, for example, we cannot understand how the descriptions of autistic behaviour make sense or how they constitute a meaningful interaction with the environment if we stick to neurotypical standards of interpretation. For that, we need to apply ourselves to reconstructing the autistic mind as "unstrange" (to quote E. E. Cummings' poem, and Grinker 2007), which requires a whole host of findings from psychology, anthropology, ethology and background knowledge from biology and the neurosciences. We can no longer ignore advances in empirical research on reading, empathy and the enjoyment of fiction that has been conducted in psychology departments around the globe, but the question remains as to how these could be fruitfully brought to bear upon particular problems in literary criticism.

As Marcus Nordlund summarises Richard Levin's (1993) argument,

> current interdisciplinary literary theories tend to become self-validating. There are no negative tests; critics tend to choose theories on the basis of ideological preferences

rather than the criterion of truth; and there is a widespread assumption that theories can simply be transformed wilfully whenever they do not meet the requirements of the interpreter. (2002, 313)

He offers us a solution by appealing to the creation of a consilient metatheory of interpretation which should be the "best possible theory that complies with minimum requirements for internal coherence, intelligibility, and openness to rational examination" (316). This would entail an update to the theories about the elements that compose the traditional triangle of interpretation, the Reader, the Text and the World. Their triangular relationship requires us to develop a set of theories: to understand how the reader interprets, we need a theory of reading; to see how a text can refer to an outside world, we need a theory of context; and to clarify the correlations between individual percepts and events in the world, we need a theory of reality. Nordlund advocates that no matter which side of the triangle we are investigating we should always consider the other two.

I begin my analysis of autism fiction with a *theory of reality*. Nordlund gives a very simple definition of it: "the theory by which one understands the world in order to understand the text" (2002, 323). One of the things Nordlund takes as axiomatic is that readers bring almost all of their knowledge about the world to the interpretation of the text, and by default they read referentially unless the text cues them as otherwise (this is in line with Marie-Laure Ryan's "principle of minimal departure" (Ryan 1980) in narratology). As he rightly asserts:

> the theory of reality not only serves as a foil for the theory of context [...] but also has epistemological priority. In theory, it is possible to have an unexamined theory of reality without a theory of context—this would admittedly be something of a Kaspar Hauser theory of the world—but not vice versa. Put in terms of the triangular model, the reader must pass through his theory of reality in order to reach the theory of context. There can be no direct engagement with any historical or cultural context that is not mediated and informed by the reader's larger conception of the world. (324)

For us, it would mean the exploration of the clinical picture of autism with all of its nuances, into empirical studies beyond Simon Baron-Cohen and Uta Frith's work (the two scientists who are most often criticised when discussing the medicalising model of autism) in order to show the wealth of data and theories about autism. I shall be drawing attention to the changing clinical picture of the condition as testing and experiments have become more refined, more aware of their shortcomings and other interpretations of autistic behaviour and thinking.

Of particular interest here is Nordlund's off-hand quip that a theory of reality without a theory of context would be akin to a 'Kaspar Hauser theory of the world.' We now know that the historical person known as Kaspar Hauser was a fraud who exploited his culture's ideas about feral children, cruelty and the relationship between nurture and nature, but he has captured the imagination of his contemporaries, and thus transformed into a prototypical feral child in the cultural psyche. In our times, there have been speculations about the reasons why such people were expelled from society. One famous case was Victor, the Wild Boy of Aveyron, of whom autism researcher Lorna Wing writes: "there can be no doubt that Victor was autistic" (1997, 14); his lack of social skills, mutism and general inability to cope with a human environment must have played a part in the casting out of these people. This sort of reference in Nordlund's work just goes to show that the sort of naive realism ascribed to people with intellectual disabilities play a constitutive part in how we relate information to an interpretative problem. It also illustrates that the history of disability is interwoven with the history of ideas in surprising ways.

Having seen the importance of establishing a theory of reality, I continue by erecting the second pillar of a biocultural interpretation: a *theory of context*. I outline the social incentives that promoted the fascination with autism in popular culture and inspired literary writers to create works of art exploring the condition. I situate the appearance of autism fiction within a cultural matrix of popular debates about the values of expert knowledge, science and novel insights into processing data with computers. I argue that autism gained wider recognition following the inclusion of Asperger's Syndrome in the DSM and the ICD-10 under the label of autism, and the publication of popular science books by Oliver Sacks and Simon Baron-Cohen, as well as autism autobiographies by Daniel Tammet, Dawn Prince-Hughes, Donna Williams, Temple Grandin and others. In addition, new forms of communication with the advent of the Internet has allowed the mushrooming of autism communities and advocacy sites, while telecommunication and new media produce new anxieties about the nature of human sociality for cultural critics. The increasing visibility of autism in the public eye has been linked to fraudulent research on vaccines, which put the role of expert opinion into question for those taken in by arguments about the iatrogenic rise of autism. Research in the cognitive sciences have established several competing theories that purport to explain the unique developmental path autists take, and their characterisation has been critically dissected by scholars of disability, who argue that these descriptions (reproducing a deficit model) heighten the disability beyond its medical status as impairment.

Finally, the *theory of reading* I apply to the interpretation of autism fiction (and fiction in general) is one borne of studies of disability's interaction with neuroscience, the narrative production of autists, philosophical and cognitive research on mind-reading and mental simulation. As I shall demonstrate, the problem known in philosophy as 'the problem of other minds' has had a recent upsurge in interest due to autism entering public and scholarly consciousness. It is known as a condition in which people do not react conventionally to social situations and have no less difficulty in giving standard responses to tests which gauge one's ability to infer other people's state of mind. This has influenced theories of pretence and aesthetics in philosophy, which directly affect our conception of the nature and processing of fiction in all kinds of minds. I intend to survey a segment of the current literature on the paradox of fiction and understanding other minds to create a framework for a theory of reading which is influenced by its interaction with autism. I also incorporate a narratological perspective into my readings, which focuses on narrative as mental simulation and interprets literary characters as fictional minds, since such a view is integral to the narrative strategies that authors of autism fiction use to evoke aesthetic effects in the reader.

Therefore I employ a method of biocultural, consilient literary interpretative model, which cautiously combines the insights of an adaptationist, modular view of the mind with disability studies and narratology. I critically examine the effects of narrative strategies in science writing on autism research and the characterisation of actual autists (the theory of mind debate between some cognitive scientists and disability scholars) to sharpen our image of what discourses shape the representation of autism in fictional narratives. Then I attempt to close-read and interpret autism fiction with a focus on how the condition asks us to rethink narrativity, toward the presentation of fictional mental functioning. I also highlight autism novels' ethical stance on critiquing the social norms of cognition and the importance of empathetic responses to emotional plights experienced by AS and NT characters, which includes both the expressions of empathy and helping behaviour within the stories and the empathetic strategies by which the text elicits emotional response in Mellmann's anthropological model reader.

CHAPTER 3

AUTISM'S CAREER IN PSYCHOLOGY: LIGHTING CANDLES IN A DARK MAZE

"my mind is
a big hunk of irrevocable nothing which touch and taste and smell
and hearing and sight keep hitting and chipping with sharp fatal tools
in an agony of sensual chisels i perform squirms of chrome and execute strides of cobalt
nevertheless i
feel that i cleverly am being altered that i slightly am becoming
something a little different,in fact
myself
Hereupon helpless i utter lilac shrieks and scarlet bellowings."
         – E. E. Cummings, "my mind is" (1991)

In accordance with Nordlund's threefold model of biocultural interpretation, I begin by outlining a short history of research on autism. In this dissertation, I generally espouse a Popperian, critical rationalist attitude towards the accumulation of knowledge, but I find it necessary and rewarding to connect it to the social scientific, critical realist reflections provided by disability studies scholars, who have done much to reinterpret autists as fully human subjects. My effort to synthesise these two strands of knowledge is attempted in order to generate a holistic, generously human view of people on the spectrum. Throughout the dissertation, I treat autism as a reality, as variations of the ordinary human mind-body, an identifiable set of neurological differences which create a unique array of lived experiences. Some scholars have been arguing that the heterogeneity of the condition warrants a rethinking of the diagnosis, and perhaps requires splitting autism into a manifold of different conditions (Waterhouse 2013, Anderson and Cushing 2013). This radical move is in agreement with the pressure for more diagnostic specificity that characterises current psychological research, which informed the fifth edition of the DSM, but with diametrically different results (see below for extended discussion). Philosophical and historical approaches to the discursive construction of autism are helpful complements, which situates the condition in a sociocultural matrix, foregrounding the institutional and societal changes that afforded the isolation of autism as a 'unique' property of the human mind. For the purposes of the dissertation, I follow the analysed literary works of art in treating autism as a more-or-less unified entity, and I strive to incorporate evidence and thought that tries to account for the heterogeneity of autisms by calling for further subtyping, even at the cost of losing the term 'autism' itself.

Nonetheless, the word autism/autist is interesting enough on its own, alone, to start with. Deriving from the Greek word αὐτός, meaning *'self'* or *'same'*, autism has been coined by Paul Eugen Bleuler in 1910 to denote the withdrawal of schizophrenic patients from reality into a world of their own fantasies. From its association with psychopathy, it gained a secondary meaning in 1938, when Hans Asperger started referring to socially awkward children who expressed little empathy and preferred to play alone as exhibiting "autistic psychopathy" in a lecture, later followed by a paper in German (Asperger 1991 [1944]). In hindsight, it is somewhat ironic to see that schizophrenia and modern autism are understood to be polar opposites with considerable genetic overlap, as some of the same neural pathways are affected in the two, albeit in different directions (Crespi et al. 2009). Asperger described his form of autism on the basis of four 'thick' case studies in the anthropological sense, whose images coalesce into a "particularly interesting and highly recognisable type of child" (1991 [1944], 37). Contrasting them with the general population, and creating a sense of fascination that has shaped depictions of autism well into our age, he writes: "Human beings normally live in constant interaction with their environment, and react to it continually. However, 'autists' have severely disturbed and considerably limited interaction. The autist is *only himself* […] and is not an active member of a greater organism which he is influenced by and which he influences constantly" (38, my emphasis). Autistic aloneness, a marked lack of interest in the social is the condition's most salient and, from the normative perspective, its most tragic feature. The concept of the human being as a social animal (*ζῷον πολίτικον)* who plays their role in a greater organism and exhibits agency is so entrenched in our conception of personhood that Asperger's portrayal marks out the autist straddling the boundary between normal humanity and something profoundly Other, unintegrated into the social realm.

The four case studies of the Viennese paediatrician are notable for their enduring quality, the clinical picture remains valid and recognisably autistic even today. Fritz V., Harro L., Ernst K. and Hellmuth L. have exhibited significant disturbances of social contact and affective expression during their whole childhood, are disturbed by eye-contact, have a sing-song intonation pattern or deadpan delivery and other peculiar prosodic features, which sets them off from their peers. They do not seem to pay attention to their parents, ignoring human social stimuli whenever they can, and have few facial expressions of their own. In conversation, they do not answer questions, or when they do, they come up with answers irrelevant to the topic, then they suddenly answer some question with stunning insight (Asperger reports the children's questions about similarities

between objects, such as a fly and a butterfly, or glass and wood, and their ingenious ways of doing double-digit sums at a tender age). He describes their vocabulary as far exceeding those of their peers, and when they do speak, their speech is refined and adult-like. Their oddness is often enhanced by their propensity towards eating inedible objects (pica), precocious reading (hyperlexia). They are undisturbed by the goings-on in their environment and are scared by spontaneity, preferring to live by detailed daily and weekly schedules. They are reported to be clumsy and to have experienced hardships in motor learning (Asperger seems to single out handwriting as an iconic case, something that Joel in *The Language of Others* struggles with). Their behaviour is described as aristocratic and refined, and while they are often characterised as unruly or disobedient, sometimes malicious, at the same time they can be extremely rule-following if the instructions are phrased as if they were general commandments. In motion, they either tend to fidget, hop, rock, whirl and feel general bodily discomfort, but remain in motion even when sitting and absorbed in reading *or* they can sit stock still, with an odd posture and gait, if walking.

With regard to their learning, Asperger observes:

> normal children acquire the necessary social habits without being consciously aware of them, they learn instinctively. It is these instinctive relations that are disturbed in autistic children. To put it bluntly, *these individuals are intelligent automata*. Social adaptation has to proceed via the intellect. In fact, they have to learn everything via the intellect. (58, emphasis mine)

This comparison between autistic children and what we would now call robots or androids can be dehumanising, but it is also a very accurate way of describing autists' impaired imitational skills and their lack of motivation to spontaneously conform to social norms. It also sheds light on the essential perception of the alterity of autism that has profound implications for science fiction, hinting at the human roots of representing robots, androids and other rational aliens as creatures animated by pure intellect (in the American context, Asperger's people are often suggested to have a certain kinship with Mr. Spock and Data from *Star Trek*). Although they are invariably described as very bright, in the case studies they are said to perform atrociously in a school setting, because they are unwilling to work as part of the group and obey their teachers.

The tone of Asperger's clinical portraits foreshadows persistent patterns of psychological writing in which the otherness of autism becomes its most noteworthy feature, provoking a mixture of wonder and puzzlement, with some admiration for the unique talents of the children investigated

and an evoked pathos at the sight of the more unfortunate cases. The spectral nature of autism was already hinted at by Asperger, remarking that "[o]nce one has learnt to pay attention to the characteristic manifestations of autism, one realises that they are not at all rare in children, especially in their milder forms" (39). This observation is borne out today by the hypothesis of a Broader Autism Phenotype, which is characterised by some subclinical features of the condition surfacing in the families of individuals who are diagnosed with autism. Asperger is also commendable for openly tackling the question of autists' adaptation to their environment. Of the social value of the diagnosed, he asserts:

> In the vast majority of cases work performance can be excellent, and with this comes social integration. Able autistic individuals can rise to eminent positions and perform with such outstanding success that one may even conclude that only such people are capable of certain achievements. It is as if they had compensatory abilities to counter-balance their deficiencies. Their unswerving determination and penetrating intellectual powers, part of their spontaneous and original mental activity, their narrowness and singlemindedness, as manifested in their special interests, can be immensely valuable and can lead to outstanding achievements in their chosen areas. (88)

The idea of an able autistic individual (referring to the lack of comorbid intellectual disability in Asperger's terms) who has compensatory strategies to overcome their socio-cognitive difficulties and succeed in life is not only a brave assertion of ability in face of the reality of Nazi plans to exterminate the intellectually disabled. It is also a forward-thinking assessment of autists, and an ideal to which disability advocate groups, supporting families and autistic individuals aspire even today. These compensatory strategies are remarkable for their ingeniousness, while the accompanying psychological profile of determination and obsession is impressive by any means, and both will become significant when discussing some of the procedures which aid the protocols of contemporary diagnostics.

Published on the other side of the Atlantic in 1943, the same year Hans Asperger finished writing his thesis in Vienna, Leo Kanner's "Autistic Disturbances in Affective Contact" (1944) was the landmark English-language paper that put autism on the map for the psychological community. Nothing indicates the validity of the specific diagnosis more than the similarities reported between the two groups of children. These include the preference for loneliness and sameness, the repertoire of repetitive behaviours, the egocentricity and eccentricity of the children, their failure to spontaneously engage in social, imaginative play, impaired non-verbal

communication, capacity for memorising things and developing isolated sets of abilities in which they surpass their peers, or hypersensitivity to sensory stimuli (such as the taste or texture of food, noises, fascination with kaleidoscopic patterns, etc.). True to the more individual focus of professional psychological publications those days, the case studies presented in both papers have a distinctively narrative quality, and both describe only a handful of children, but in detail (Asperger discussed 4 boys, whereas Kanner wrote about 8 boys and 3 girls). Their tone bears a strong resemblance to the popular scientific writings of the late Oliver Sacks. Still, the low number of cases did not diminish Kanner's insight and further research has corroborated his diagnosis of an atypical developmental trajectory. Contrary to Ian Hacking's claim that "[m]ost of the behaviors described by Kanner seem not to exist any more" (Hacking 1999, 115), in fact, there is a great degree of overlap between the behaviour of WWII-era autists and their contemporary counterparts: aversion to touch, echolalic responses to questions, being absorbed by objects and oblivious to people, a lack of interest in communicating and the misuse or reversal of personal pronouns are all stable indicators of autism (for the complete list of all behavioural symptoms in Kanner's paper, see Blacher and Christensen 2011).

Nonetheless, there are a few differences between Asperger's paper and Kanner's. Kanner has been more synthetic in his approach, and he collected the similarities across the cases, constructing a clinical profile which would later form the basis of the DSM criteria for childhood autism. He begins by noting the "extreme autistic aloneness" (Kanner 1943, 242) of the children and their effort to shut out all social stimuli from the outside. Then he moves on to linguistic matters, such as their delay in the acquisition of speech (or their mutism), their excellent rote memory, delayed echolalia (storing, remembering and repeating the linguistic utterances of other people in situations where they don't appear relevant), the literalness of their thought and use of language (when present), the reversal of personal pronouns, using them in the manner in which the child first heard it. He also mentions autistic children's sensitivity to loud noises and fear of moving objects, their repetitive actions, stating that their behaviour "is governed by an anxiously obsessive desire for the maintenance of sameness" (245). Like Asperger, he notices the misdiagnosis of feeble-mindedness, asserting that they are "all unquestionably endowed with good cognitive potentialities," but in contrast to Asperger, who wrote about the caricature-like features of the children he worked with, Kanner writes: "They all have strikingly intelligent physiognomies. Their faces at the same time give the impression of serious-mindedness and, in the presence of

others, an anxious tenseness" (247). In his closing remarks, he mentions that despite the children's delayed development, the prognosis is good, many of the more worrying behaviours subside, language development catches up, and there is a definite amelioration of the childhood condition.

The other feature of Kanner's study that set the scene for later, psychogenic theories of autism is the Ukrainian-American's willingness to meticulously detail the family situation of the children he was investigating. The parents are reported to be middle-aged professionals, both mother and father are likely to have been university-educated, and the mothers are predominantly represented as unemotional and practical-minded. Kanner told the readers that several of the marriages were abysmal failures and the cold-heartedness of the parents could have contributed to the children's aloofness. He ends the paper by coming to the conclusion that the children were born with the "innate inability to form the usual, biologically provided affective contact with people, just as other children come into the world with innate physical or intellectual handcaps [sic!]" (250). Despite the speculation about the innateness of the condition, the attention paid to the family environment would prove damaging for the parents of similar children. As Hacking explains: "At that time the prevailing view, influenced by the (brief!) dominance of psychoanalysis in American psychiatry, was that the autistic child had a 'refrigerator mother,' one who could not express emotion to the child. This doctrine has by and large passed" (Hacking 1999, 114-115), he registers with relief, but let us not forget Kanner's central role in the development of this belief.

At the end of the 1940s, he delivered a paper at a conference, wherein he identified early infantile autism as related to childhood-onset schizophrenia in spite of autism appearing within the first two years of life, He expressed scepticism towards the necessity of ever separating autism from the rest of the schizophrenias, and once again turned to the well-educated parents of autistic children. Kanner observes that "[m]aternal lack of genuine warmth is often conspicuous in the first visit to the clinic. [… W]hen the mother is asked under some pretext to take the child on her lap, she usually does so in a dutiful, stilted manner, holding the child upright and using her arms solely for the mechanical purpose of maintaining him in his position" (1949, 422), but without considering that this could come from the child's natural aversion to touch rather than the lack of maternal instincts and warmth. Of the fathers, he writers that they are "bigamists" (422), for they are workaholics and wedded to their jobs. Both parents are cast as young professionals determined to succeed in the new, post-war consumer society, who do not take joy in their children.

Kanner unjustifiedly extrapolates from the parents' behaviour and conversation that:

Most of the patients were exposed from the beginning to parental coldness, obsessiveness, and a mechanical type of attention to material needs only. They were the objects of observation and experiment conducted with an eye on fractional performance rather than with genuine warmth and enjoyment. They were kept neatly in refrigerators which did not defrost. Their withdrawal seems to be an act of turning away from such a situation to seek comfort in solitude. (425)

So, in spite of Kanner's ingeniousness to recognise the commonalities in the behaviour of autistic children, at some time even positing their innateness, his speculations concerning the aetiology of the condition in later years can be described as *psychogenic*, meaning that the children's autism is psychologically generated due to the failure of developing a healthy mother-infant attachment. This may have just been cautious speculation, but later psychologists have latched onto this and espoused the psychogenic theory of autism (notably, Bruno Bettelheim). These experts have never considered that the children's innate behaviour might have 'educated' the parents to seek alternate forms of expressing their love and devotion to their children besides those conventionally recognised as motherly. Bettelheim's 1967 book, *The Empty Fortress: Infantile Autism and the Birth of the Self*, was a milestone in cementing the image of refrigerator parents in the cultural consciousness, who built on his credentials as a Viennese survivor of the Shoah and his PhD degree in philosophy to begin a fraudulent career in psychology, drawing explicit parallels between the upbringing and behaviour of autistic children and those people who have survived the trauma of the concentration camps. He argued that the inability to connect emotionally to one's mother and the subsequent feedback loop of inadequacy causes the condition:

Infantile autism […] stems from the original conviction that there is nothing at all one can do about a world that offers some satisfactions, though not those one desires, and only in frustrating ways. As more is expected of such a child, and as he tries to find some satisfactions on his own he meets even greater frustration: because he neither gains satisfaction nor can he do as his parents expect. So he withdraws to the autistic position. If this happens, the world which until then seemed only insensitive now appears utterly destructive, as it did from the start to the child who [fails to thrive in institutions]. (Bettelheim 1967, 46, cited in Finn 2013)

It should not be forgotten, though, that Bettelheim voiced these opinions in the profession when psychodynamic explanations of all psychopathologies were routinely accepted. Still, by the time Bettelheim published his book, Bernard Rimland had already refuted the refrigerator mother

theory in his *Infantile Autism: The Syndrome and Its Implications for a Neural Theory of Behavior* in 1964. However, psychodynamic explanations have found a better soil for flourishing in the public consciousness after World War II and the renewed fascination with psychoanalysis, so Rimland's arguments favouring a neurological cause were not widely adopted until later.

The lasting impact of the psychogenic theory on the mothers of autistic children was memorialised in a later documentary, *Refrigerator Mothers* (2003), which testifies to the emotional strength and steadfastness of women who withstood widespread professional blame for spoiling their children when, actually, they have not been responsible for the atypical development of their kids. In light of these developments, it is hard to say just how honest Kanner was when he said in 1969 at the meeting of the National Society for Autistic Children that

> I have been misquoted many times. From the very first publication until the last, I spoke of this condition in no uncertain terms as "innate." But because I described some of the characteristics of the parents as persons, I was misquoted often as having said that "it is all the parents' fault." Those of you parents who have come to see me with your children know that this isn't what I said. As a matter of fact, I have tried to relieve parental anxiety when they had been made anxious because of such speculation. (cited in Feinstein 2010, 34-35)

The best option I see is to acknowledge both the effect of his thoughts (as expressed in his 1944 and 1949 papers) and his later, revised account as instances of irresponsible conjecture that the explanandum warranted, but ones that got out of hand quickly. The psychogenic explanation was so engrained in the culture of parenting that Lorna Wing, the psychiatrist who later made Asperger's writings available for the English-speaking world wrote her *Autistic Children: A Guide for Parents and Professionals* (1972) specifically to dismantle the refrigerator parent theory.

The '70s also marked an overwhelming change of attitude towards autism in research. More and more studies have shifted their attention from emotional deficits to the cognitive difficulties of the diagnosed. This effectively constituted a cognitive turn in the developmental psychology of autism and indicated a sea change in theory and research practice. Rutter and Bartak's landmark paper in 1971 explicitly argued for a neurological cause of autism, and Kanner himself seemed to have accepted the differences between childhood schizophrenia and early infantile autism (1973). In this decade, Folstein and Rutter (1977) have conclusively proven that autism is inheritable, and thus has a strong genetic component. Folstein and Rutter's work also acknowledged the existence of a variety of subclinical autistic traits in the family of autists, which

paved the way for our view of the Broader Autism Phenotype, or BAP (Piven 2001) and speculated that people fall into a continuum of symptom severity, which foreshadowed Lorna Wing and Judith Gould's concept of the autistic spectrum, developed during their Camberwell study (1979).

Wing and Gould have devised a way to distinguish between subtypes of the condition, separating the 132 children under assessment into four groups: the aloof, the passive, the active but odd and the over-formal, stilted group, in order of their sociocommunicative abilities. Their paper was also instrumental in formalising the children's difficulties into three large groups, the so-called *Triad of Social Impairments*. The three axes tried to account for the wide variety of situations in which autistic children differed in their responses from typically developing peers: a) in their impairment in social interactions, b) communication, and c) in their flexible, imaginative functions. By 1980, the new edition of the Diagnostic and Statistic Manual of Mental Disorders, the DSM-III saw it fit to include 'infantile autism' as a separate diagnosis, setting it apart from schizophrenia. It indicated unresponsiveness to other people, gross deficits in language development, and bizarre responses to various aspects of the environment, such as obsessions, repetitive behaviours and a resistance to change as the defining hallmarks of autism.

During the 1980s, the most significant development has been the extension of the spectrum towards people who did not experience delay in their language acquisition and, unlike those with 'classic' autism, had intact intellectual abilities; i.e. the recognition of Asperger's Syndrome. The decade also saw a renewed effort to find empirically-grounded theories about the causes of neurological difference in autism. Thanks to the efforts of Uta Frith to translate Asperger's original paper (published Asperger 1991 [1944]), and of Lorna Wing to write up 34 cases she has worked with, Asperger's Syndrome was brought to the attention of clinicians, spreading the word of a new kind of autism joining the fold of sociocognitive disability. Wing also acknowledged the continuum of socially appropriate behaviours shading into AS, highlighting the differences between them, putting social reciprocity into the centre. The paper denied a common aetiology of the condition, but it offered the hope of finding some common core deficit, which would entail an easier solution for treating and preventing autism. Wing favoured an explanation where

> all the conditions in which the triad occurs have in common impairment of certain
> aspects of brain function that are presumably necessary for adequate social interaction,
> verbal and non-verbal communication and imaginative development. It is possible that
> these are all facets of one underlying in-built capacity - that is, the ability actively to
> seek out and make sense of experience. (Wing 1981, 124)

Thus began the search for the elusive core deficit of autism. The neurological side of the investigations was kick-started by the report of an autopsy of a drowned autistic male's brain, which indicated atypical developments of several brain regions (the amygdala, the hippocampus and the subiculum). The study concluded that the autistic brain was on an alternate path of growth and organisation from the earliest stages of development (Bauman and Kemper 1985).

Assessing several decades of evidence, we now know that the atypical development of the autistic mind starts from early infancy and affects autists throughout their whole lives, but the general tendency veers towards amelioration in most or all behavioural aspects of the condition during the course of one's life. Changes in the understanding of the condition also necessitated changes in diagnostic criteria. In the first two editions of the DSM, published in 1952 and 1968, respectively, the word 'autism' only appeared in connection with schizophrenia, and people exhibiting autistic withdrawnness were categorised as schizophrenic patients. It took diagnosticians until 1980 to follow the footsteps of Kanner and create a separate heading of "Infantile Autism" in the DSM-III, where the modern conception of autism finally started taking shape. The diagnostic criteria were rather thin, but at least focused on distinct characteristics that would be recognisably autistic even today. They specified the appearance of the condition in the first three years of life, emphasised social withdrawnness, linguistic peculiarities, included "bizarre responses" to elements of the environment and excluded schizophrenia in differential diagnosis (see Grinker 2007 for a more in-depth discussion of the DSM's evolution). A revised version of the manual was published in 1987 (referred to as DSM III-R), when the condition acquired the fateful name of "Autistic Disorder." It was the first DSM to take into consideration the Triad of Impairments and it introduced a 'checklist' approach to autism. In this scheme, distinctive features of autism were grouped according to the three categories (reciprocal social interaction, verbal and nonverbal communication and imaginative activities and finally, restricted activities and interests) and a successful diagnosis required eight from the sixteen features to be present across the triad. The menu-style scheme was continued by the fourth edition in 1994 and its revised version in 2000, but the criteria used for diagnosis became more objective and were shrunk to twelve sub-behaviours. Incorporating the idea of the autistic spectrum was an additional great step forward, which included other conditions among pervasive developmental disorders, such as Childhood Disintegrative Disorder (or Heller's Syndrome), Rett's Syndrome, Asperger's Syndrome and the

'joker' category of Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS), where some atypical and mild autists would fall.

In several respects, the newly revised DSM-V is the culmination of the view that autism is a continuum of atypical characteristics, but it might have also thrown the baby out with the bathwater when they scrapped a more fine-grained diagnostic scheme in favour of lumping the distinct conditions together. According to the new manual, ASDs are characterised by deficits along two axes instead of three:

- persistent deficits in social communication and social interaction across multiple contexts […], including deficits in social-emotional reciprocity […], deficits in nonverbal communicative behaviors used for social interaction […], deficits in developing, maintaining, and understanding relationships
- restricted, repetitive patterns of behavior, interests, or activities […], including stereotyped or repetitive motor movements, use of objects, or speech […], insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior […], highly restricted, fixated interests that are abnormal in intensity or focus […], hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment. (APA 2013, 50)

In the preface, the DSM-V team argued that the redefinition was beneficial, because these disorders fall on the same continuum, and the changes occurred "to improve the sensitivity and specificity of the criteria for the diagnosis of autism spectrum disorder and to identify more focused treatment targets for the specific impairments identified" (xiii). No matter how good-natured the intent of the revisers was, several studies have questioned the validity or the net effect of the changes in terms of specificity and efficacious treatment. Recognising the subtypes of autism is a major strength in the DSM IV(-R), heavily supported by hard scientific evidence and, as one author warns, "there is a real risk that eliminating the subtypes of PDDs and creating a single ASD will have an impact on services and may actually result in some patients being denied services" (Tsai and Ghaziuddin 2014, 327). Even during the drafting period, clinicians have expressed alarm at the significant change in who would be diagnosed with an ASC, especially about the disappearance of the Asperger's and PDD-NOS categories (Kite et al. 2013, McPartland et al. 2012).

In light of the changes, several advocacy and support groups have noted that Asperger's Syndrome has become a part of many autists' identity, who appropriated the label, and taking the name away now would constitute a break in their self-understanding (Giles 2014, Spillers et al. 2014). In a peculiar twist, the DSM-V was conceived to combat stigmatisation, while advocacy

groups, like the Asperger's Association of New England has voiced their opinion that such lumping would unduly homogenise a diverse group. This appeal has been heard in the clinical literature, who added that the changes would lead to label avoidance, since the diagnosis is anchored to the more severe end of the spectrum, 'classical' autism (Ben-Zeev et al. 2010). Nonetheless, these two prongs are behavioural criteria, used primarily for diagnostic purposes, and clinicians intend to provide a better subtyping of ASCs (Grzadzinski et al. 2013). A substantial segment of clinical research is dedicated to finding both the etiological causes of autism and the specific mechanisms that explain how the human mind is shaped by its atypical development.

The psychological theories formulated in the 1980s, inflected by neurological inquiries this time, were much more subtle than anything before them. To a varying degree, these explanations tend to overlap and contradict each other, but all of them offer more explanatory power than the psychogenic theories. Each has vied to be a contender for the supposed "core deficit" in autism, but investigations to date are yet to agree on whether there is one in the first place (Schreibman 2007, 109-131). They can be grouped into three distinct categories: neurological differences based on a) problems with executive functions, b) an account of weak central coherence in the cognitive domain and c) difficulties with attributing mental states (Theory of Mind). Each of the theories ascribe atypical functioning to some aspect of the mind, however, they all share the assumption that the mind is not merely a general purpose learning machine, but a sophisticated and integrated Swiss Army Knife of different modules, designed by evolution to solve specific adaptive problems.

To begin with, some researchers in the 80s and 90s argued that autists experience problems in their daily living skills because they are unable to plan and succeed in goal-driven actions due to their *impaired executive functions*. The term "executive function" denotes a complex set of cognitive abilities related to the planning and carrying out of tasks, evaluating the possible solutions to a given problem and modulating the behavioural response, which is hypothesised to be generated by the frontal lobe and the prefrontal cortex (PFC). At the beginning of the 1990s, Sally Ozonoff and her colleagues started testing higher-functioning autistic children on their executive functions, which mostly entail a willingness to adapt their behaviour to the tasks they have been given, their ability to self-monitor, think forward, be flexible or to inhibit obvious but wrong answers when attempting to solve a task. They came to the conclusion that HFA and Asperger's children do not perform up to par with their neurotypical peers, which might explain their preference for repetitive, stereotypical behaviours and their diminished capacity for future-

oriented thought (Ozonoff et al. 1991a, 1991b). Autistic individuals are more likely to persevere with the already tried and failed method of achieving a goal, or can experience a breakdown if a personally meaningful but otherwise insignificant detail is altered in any fashion. Even so, researchers note that despite the convincing case for executive dysfunctions, negative findings crop up every now and then, and continued effort is needed to further solidify or discard this as a theory for the working of the autistic mind (Hill 2004). At the time, it was believed that AS and HFA children could be separated by tasks measuring executive functions; since then, Ozonoff has expressed doubts about the necessity to distinguish between the social and cognitive disabilities of autists (Feinstein 2010, 217). The theory might still be useful to explain the islets of abilities autists tend to have, which demand strong, obsessional attention. One problem with this theory is that it is not exclusive to the condition, and can be found in other disorders, such as ADHD, OCD and, surprisingly enough, schizophrenia.

Related to task-relevant attention, researchers Uta Frith (1989), later in collaboration with Francesca Happé (Frith and Happé 1994; Happé and Frith 1996) have explored the neuropsychological background to autists' observed attention to detail and their relative inability to organise their perceptions into larger, coherent wholes. The theory born from this research, the *weak central coherence* theory posits that autistic children and adults process the perceptions of their surroundings in a remarkably different manner to ordinary people. They tend to overlook obvious contextual information in their daily lives to solve problems, they appear less able to integrate different levels of information into a coherent whole, but they can spot tiny changes in their environment, and are much better at seeing specific figures embedded in richly illustrated images where the NT brain would assemble the details into wholes. It is illustrated by such colourful skills in the autistic population as identifying vacuum cleaner models from the sound they make, or delivering pitch-perfect phonetic imitations of foreign language features barely perceptible to language learners (Happé and Frith 2006). These abilities are called splinter skills by popular science writers, whose writing elevates even lower-functioning autists into the wunderkind sphere. One notable case is Stephen Wiltshire, a young man blessed with an eidetic memory and a prodigious skill in draughtsmanship, whose portrait was drawn in loving but sensational detail by Oliver Sacks on the pages of *An Anthropologist on Mars* (1995, 179-232), a book also famous for introducing Temple Grandin to a wider audience.

Detail-oriented processing involves the atypical tendency of the mind to not organise

sensory data and cognitive information into wholes. Instead, it prefers to treat such stimuli in synecdochic chunks (with parts standing for the whole). The theory predicted that autistic people would process information with a local bias, and would experience difficulties with extracting linguistic information to contextualise their interpretations of the world. In a recent metaanalysis reviewing the evidence for and against the central coherence deficit account, Happé and Frith have found that AS/HFA people (in some cases, classic autists, too) were capable of extracting global information from sensory stimuli when the experiment called for it, albeit this problem-solving approach was not observed in spontaneous attempts to solve the experimental tasks (Happé and Frith 2006, 15). They note that the body of evidence for a detail-oriented bias is growing, but it appears to be a case of cognitive preference, rather than an autistic inability to process holistically.

This theory can help us understand such diverse traits in ASCs as an increased cocktail-party deafness, that is, a reduced ability in separating one's speech as 'figure' from the 'ground' of sensations, an extraordinary hyper- and hyposensitivity to sounds and smells or their joyfully embraced skill in solving visuospatial puzzles, such as assembling a large picture from small building blocks (Plaisted et al. 2003). This latter skill is represented in one of the symbols of the autism advocacy/awareness movement as a coloured jigsaw puzzle piece, or a multi-coloured assembly of several pieces, implying a need to acknowledge neurodiversity and drawing attention to the strengths of minds with a sharp eye for detail.

As investigations into visuospatial and auditory processing progressed, researchers have noted some difficulties with determining whether performance differences were caused by executive dysfunction or detail-oriented bias (Booth et al. 2003). Alternative accounts have been offered, including the "hierarchization deficit model" or "cortical underconnectivity theory" (Kumar 2013). At this stage, we still have no decisive evidence in favour of detail-focused processing as the ultimate core deficit, and researchers of autistic cognition are yet to agree upon a common model or theory for how this cognitive style manifests itself on the neural level. Even Happé and Frith (2006) argue that executive functioning and detail-oriented processing are not reducible to one another, and autistic social deficits are not wholly explainable by this theory.

For scholars dealing with autism in the humanities, especially those who follow the current issues in gender studies or literary theory, the most powerful(ly contested) evidence towards autistic cognitive difference comes from research done on the psychological construct known as *Theory of Mind* (or ToM), and its hypothetical module (postulated by Alan Leslie 1992; 2000), the

ToM-mechanism (or ToMM). Briefly stated, ToM denotes the human mind's ability to employ the intentional stance (Dennett 1989) towards other humans and living beings, treating them as having beliefs, desires, goals, agency and mental content. When the intentional stance is projected onto non-sentient objects, like dolls or props, we enter the realm of pretence, make-believe and ultimately, fiction. ToM is thought to harness several modular components of the brain, such as the Intentionality Detector, the Eye-direction Detector and the Shared Attention Mechanism (Baron-Cohen 1995) to facilitate understanding other minds in the real world. Inspired by Dennett (1978), Baron-Cohen and other researchers seek validation for this theory in the performance of people with autism on so-called *false belief tasks* (Baron-Cohen et al. 1985). The task in its classical form involves the experimenters playing a scenario out with dolls. In this scene, one of the dolls, Sally, is being deceived by another one, Anne: after playing, Sally puts a toy back in its place in a box and leaves the room, while her cheeky companion hides the toy in another box; when Sally comes back, the child is asked to name the place where Sally will go to look for the toy. Most neurotypical children by age 4-5 will invariably arrive at the correct solution of Sally looking inside the box where *she* put the toy, whereas most autists predominantly answer that she will look for the toy in the box where Anne hid it, unbeknownst to Sally. Psychologists argue that children who point at the actual location of the doll do not take into account the beliefs and thoughts other people have when interacting with the world at large. They connect emotional understanding in a real-world situation to autists' performance on false belief tasks, claiming that every form of mind-attribution depends upon similar judgements.

Although there can be no doubt that autists perform under the baseline of typical individuals in tests of ToM, it has to be mentioned that mind-reading ability varies greatly in typically developing children as well. Furthermore, investigators of individual differences find support for the related claims that linguistic ability is "causally related" to performances of false belief tasks and this performance, in turn, is causally related to the perception of the make-believe status of children's play and the preconditions necessary for entertaining make-believe activities, "joint plans and role assignment" (Astington 2003, 28). Observing typically developing children also problematises the connection between emotional understanding and FBTs. As Astington summarises, "studies showed that empathy, popularity, aggression, and frequency of pretend play were not related to false-belief understanding" (2003, 27). Tager-Flusberg has been prominent among researchers who sought to determine the correlation between ToM as measured in the lab

and the actual social impairments of autists. She, too, highlights linguistic ability as a predictor of social and communicative success, and she conducted research on several ToM-dependent tasks, including pretence, how people understand lies and jokes, intention-detection based on personality traits and other tests, as well as the discursive performances of autists in tests mimicking everyday social situations. With her colleagues, they were "able to demonstrate links between theory of mind and social and communicative impairments in autism that were independent of IQ or language level" (Tager-Flusberg 2003, 208). Such experiments are using more varied test batteries these days, only a segment of which are false belief tasks, since FBTs suffer from ceiling effects and cannot adequately measure ToM development in the later stages of childhood. Moreover, there is a segment of the autistic population which is able to 'pass' the test using compensatory, reality-based strategies, so FBTs do not necessarily measure potential ToM deficits well.

There is a growing need for more ingenious ways of measuring sociocognitive competence. Reading the mind in the eyes is one example, a test in which people have to correctly identify universal expressions of emotions from the photographed eyes of a person (Baron-Cohen 1997, 2001). Reading and interpreting strange stories is another, where the meaning of the protagonists' actions hinges on whether the person is talking literally or figuratively (Happé 1994). Studies have been conducted where subjects watched films with similar content, also used in the study of typical children (Devine and Hughes 2013), or identified whether a person has committed a social *faux pas* (Baron-Cohen et al. 1999). These tasks ingeniously test whether the social significance of particular actions are evaluated with the help of linguistic reasoning or utilising genuine social perspective-taking (Lind and Bowler 2009), a major improvement upon simpler FBTs.

One big problem that still has to be resolved is that the well-structured tasks in a controlled laboratory environment often feature stimuli that are more easily attended to by ASC people, with few distractions. Therefore task performance usually does not mimic performance in a more naturalistic setting, while collecting data in observational studies in an everyday setting is time- and labour-consuming, and it requires more investigators for intercoder reliability of observed behaviour (Drain and Engelhardt 2013, Pegoraro et al. 2014). At present, the observation of behaviour is essential to the diagnosis of autism, which shows the importance of individual assessment on one hand, and the need for more objective standards of diagnosis with more accurate knowledge about the nature and extent of ToM-related sociocognitive difficulties on the other.

AUTISM AS DISABILITY: CRITICAL STUDIES OF THE CONDITION

"rememberance might no patient mind unstrange
learn(nor could all earth's rotting scholars guess
that life shall not for living find the rule)"
    - E. E. Cummings, "conceive a man,should he have anything" (1991, 420)

As I discussed in earlier chapters of this work, scientific results, theories, hypotheses and constructs are always embedded in a social, historical and institutional context, which in our case is the latter two-thirds of the 20th century and the fifteen years of the new millennium. The affluence of the middle classes, the establishment and threats to the nuclear family, the changing psychological vogues or the increasing technicisation of life resulted in the appearance of particular conceptions of autism as Western nation states have attempted to shore up social institutions which were shaken up by the appearance of the diagnostic category of autism. The framework I have found the most efficient in uncovering the social matrix of autism is offered by a historicised, critical approach to psychiatric power. In this segment, I outline some of the cultural conditions that enable us to regard autism as a distinct psychological condition, with special attention paid to the interaction between subjectivity and literary modernism.

Sketching the effects of medical categorisation, I pursue a line of thought that flows from Georges Canguilhem through Foucault to Eva Vakirtzi, who has conducted a thorough genealogy and archaeology of the discursive practices that brought autism into being. I am interested in bringing this knowledge into play because autism research and advocacy movements often clash on the subject of what constitutes expert opinion, and since the role and power of experts are invoked in *Speed of Dark* and *House Rules* in juridico-medical contexts. As such, this section is also a part of my theory of context, which will tie into a later section about narratological investigations concerning 'unreadable minds' and the ethics of interpreting them. Furthermore, I tackle the vexed question of how life-writing interacts with autism fiction through the clinical response to Temple Grandin's first book and attributions of authorship to non-verbal autists based on spurious techniques of eliciting written material, called Facilitated Communication and the Rapid Prompting Method. Although discussing these 'therapeutic' modalities or autobiographies might appear out of place in a dissertation on what is, in effect, a thesis on published *literary* and therefore *fictional* works, I would assert that the two sister genres to autism fiction provide the

literary scholar with an important lesson about the authenticity of an autism-related literary text. It also gives us interdisciplinary mirrors in which we can reflect upon the collaborative nature of the produced text. This reflexivity is essential in making sense of *The Curious Incident*, as Siobhan, Christopher's special education teacher is instrumental in shaping the narrative into the book the reader is holding in their hands – Christopher frequently remarks that the manuscript has been changed due to Siobhan's suggestions, which makes the finished product more conformant to neurotypical standards of literary expression.

Majia Holmer Nadesan uses an overtly social constructionist approach that hews close to a biocultural understanding of autism in order to conceptualise the emergence of the diagnosis in the 1940s. She argues that the conditions of possibility for an autism diagnosis (and later, HFA or Asperger's) are more historical and cultural in nature than the internalist account of scientific histories of autism would have us believe. She claims that autism was "unthinkable" (Nadesan 2008, 84) in the nineteenth century, because psychiatry did not recognise children's psychosis as a meaningful category at the time, and 'developmental disorder' as a category was only devised in the new century, when child psychiatry was established. The same goes for the larger spectrum of autism conditions, which now includes individuals who would have only appeared a bit eccentric or odd to earlier eras and eyes. She collects a number of practices that worked together to invite the creation of the new label: "the invention of intensive mothering, the standardization of (narrowly delineated) benchmarks of developmental normality, and widespread pediatric surveillance of very young children" (Nadesan 2008, 84). She sees that the newfound fascination with autism correlates with the belief that Asperger's 'little professors' are skilled geeks and excel in programming computers, the iconic device that produced the new condition of knowledge we call late modernism or postmodernism (Lyotard 1984).

When she addresses to relationship between schizophrenia and the coinage of 'autism,' Nadesan notes that Bleuler and Freud's influence "engendered the assumption that autism was characterized by aloneness, solipsism, and a turning away from the social world, resulting in a failure to develop a 'normal' ego" (2008, 87). Of course, normality itself is a culturally shaped expression of disciplinary power to attain an idealised state of invoking no opprobrium. Normality had to be conceptualised in terms that allow the separation of those who need assistance by the state to function (and thereby incur extra costs on it) and those who are independent (Canguilhem 1991 [1978], Foucault 2006, 39-62 and 201-232). As Waltraud reminds us, this is especially true

of abnormal psychology, which deals with people who are judged to be atypical and may not have developed a 'normal ego' in the sense described by Nadesan: "The normal and normativity are therefore intrinsically linked in the sense that the concept of the 'normal' always implies a moral code that sets a normative standard; medical norms are both the result and the cause of social norms" (Waltraud 2006, 7). Nadesan also suggests that the prominence of HFA/AS people in our cultural representations resonate with our anxieties about technology and the crisis of masculinity, a topic picked up by Stuart Murray, too (Nadesan 2008, 88; Murray 2008, 139-167).

The problem of temporality, of why has autism been discovered at a particular historical moment drives the investigation of Patrick McDonagh as well. His starting point is the work of Uta Frith, who looked for autism in reports about natural fools, idiots and eccentrics and found historical cases of people who would be labelled autists today. Describing such excavations in the prehistory of mental health and applying the term 'autism' to these people to be a "conceptual anachronism" (McDonagh 2008, 100), he focuses instead on modernist art and modern subjectivity as intellectual stepping stones to the construction of the autistic self.

Methodically going through Asperger's and Kanner's papers, he remarks that the originality of expression, the innovative linguistic idiosyncrasies and the children's egocentricity were also held to be characteristics of modern subjectivity and literary experimentation. He observes that "the discontinuities of the modern world threaten [ontological] security, displacing it with a sense of existential anxiety, which is characterized in part by a sense of isolation from other people [… that] become[s] the norm" (McDonagh 2008, 108). Governmentality is not the only force that affects this newfound subjectivity in radically new, invasive, statistical and medical ways – he locates another force in the interests of modernist writers like Joyce, Pound or Eliot, who are experimenting with idiosyncratic language and automatic writing. He asserts that aesthetic modernism "created a new perceptual framework" (McDonagh 2008, 113) for an odd, alienated subjectivity to emerge, which needs its own rituals to organise its rhythm of life, expressed in a language shunning the shared pragmatic means and forms, and this figure of modern life proved conducive to the scientific recognition of autism. Kristina Chew adds that when she analyses autistic poetry, the poetic tools of metaphor and metonymy provide a way to appreciate the differences between two forms of cognition:

This intrinsic functioning of metaphors in both our linguistic and general understanding further attests to how an autistic person's experience of language and of

the world of senses and stimuli as a whole is fundamentally different from that of neurotypicals because theirs is a metonymic rather than a metaphorical cosmos. (Chew 2008, 140)

In her view, the associative style in autistic poetry is a product of a metonymic vocabulary that is far more arbitrary (in the Saussurean sense), a private language where signifiers are attached to signified concepts that are often markedly different from their conventional meanings, based on the contingencies observed by each person on the spectrum. Although this "fractioned idiom" (Chew 2008, 142) is there in their everyday language use, autobiographical poetry has been the most prominent method to prove that autistic subjectivity has profound depths (but *caveat lector:* some of the artists whose utterances she analyses (Tito Mukhopadhyay and Larry Bissonnette) were likely produced by facilitated communication, thus their authorship is questionable).

Eva Vakirtzi's PhD dissertation has been irreplaceable to me in understanding the power relations that constitute autistic subjectivity in the disciplinary edifice of modern governments. The institutions she scrutinises are numerous and varied, from paediatrics, child psychology and psychiatry, through the APA and its magisterial tome, the DSM to schools offering remedial education and beyond, to a wider societal governmentality which embeds atypical children in an apparatus that ill serves their needs. She identifies the medicalising model as a homogenising discourse that erases individual differences in order to see autistic children as a separate kind. She contrasts this attitude with a heterogeneous view of poststructuralist thought (Vakirtzi 2010, 13-15) that would do more than just pay lip service to the oft-repeated phrase, attributed to Stephen M. Shore: "If you meet one person with autism, you've met *one* person with autism" (n. d., n. p.).

Ian Hacking is a philosopher of science who investigates kind-making as a human activity. In the construction of new classes of objects and subject positions, he distinguished between *indifferent kinds*, those sets whose elements have the same properties regardless of their categorical status, and *interactive kinds*, classifications that affect how its objects behave in the world (Hacking 1999, 104-109). He brings autism up as an example of an interactive kind, since children who are diagnosed as autists are treated differently then, say, if they were seen as merely eccentric or feeble-minded, and the classification of autism has important consequences for the family, because they might understand previously puzzling behaviour in a new light, while the children themselves can begin to understand the chaotic, disciplinary order of the NT world they live in. But Hacking also argues, along with a growing number of clinicians (Waterhouse 2013), that

autism need not be one single genetic or neuropsychological entity, and there could be a plurality of interactions among different subsystems of the human mind that express themselves in the behavioural symptoms of what we call autism today. He suggests that the underlying "*pathology P,*" if ever found, would be an indifferent kind, while the autistic adults and children who would be classified with the up-to-date version of autism would still belong in an interactive kind. Vakirtzi, in proper Foucauldian fashion, reminds us that interactive kinds are formed discursively, and autism is established in the discursive act of the DSM with the intent of normalising the subjects who exhibit behaviour associated with the still hazily defined *pathology P* (and P_1, P_2, …). In her view, the disciplinary power of the medico-juridical discourse of a diagnosis seeks to strip people with autism of their condition by subjecting the newly rendered patient to a regime of interventions designed to educate them into normalcy. This is also beneficial in the eyes of the government, the economy and the family unit; writing about the era when psychiatric power took hold of its first child patients, she observes: "We understand from the articles of the period, that the assistance offered to the idiot and retarded children through 'education', had as its major aim to releas[e] parents from taking care of their children so as to put them on the labour market; [t]he creation of the asylum had the same concern" (Vakirtzi 2010, 54). In a society which puts a premium on economically appearing productivity as the ultimate prosocial action, people who do not conform to the ideal of the efficient, affluent, consuming worker due to their unique cognitive range of abilities and difficulties can expect to be stigmatised and disciplined through educational and psychiatric power in order to approximate said ideal to the best of their abilities.

Vakirtzi's archaeological investigation of the DSM as a discursive event is focused on psychiatry's claim to legitimacy as a proper science, which can identify indifferent, natural kinds in humans, an ongoing project that originated in the 19th century. She argues that the theoretical rigour of the discipline was rooted in the creation of nosology, more and more sophisticated classificatory systems in which the symptoms of the patients were grouped into disease entities, hopefully with a single determining cause. In Vakirtzi's assessment, the "main achievement" of Kraepelin's pioneering work in nosology was "the domination of a somatic-biological perspective and the marginalization of any biographical, psychological and socio-cultural perspectives" (2010, 60). In other words, the new system situates mental illness within a body without a subject, who is classified not due to the improvement of the quality of care they receive, but due to societal and governmental needs to efficiently manage populations.

Mayes and Horwitz, however, note that when the first two editions of the DSM were published, the manual was written in a psychodynamic (which is to say, psychoanalytical) view of mental health, and therefore "[t]he DSM-I and DSM-II made little effort to provide elaborate classification schemes, because overt symptoms did not reveal disease entities but disguised underlying conflicts that could not be expressed directly" (Mayes and Horowitz 2005, 250). Concurring with Wilson (1993), they recognise the DSM-III as a paradigm shift in the practice of psychiatry from a porous boundary between the normal and the abnormal to a stricter scheme of medical, research-based diagnosis, which was hailed as a victory for science against the authority of their former colleagues, based on facts instead of theories. The shift to the empirical, objective mode also entailed the objectification of the diagnosed patient, where taking people's anamnesis is only necessary to establish their place in the diagnostic scheme, erasing the individual's history that shaped them into the person they are at the moment they enter the clinician's door.

Vakirtzi stops at DSM-IV-TR, as the DSM-5 will not be published for another three years. She assesses the revised edition as a "conservative" attempt to "preserv[e] the status quo of empirical research," consolidating the major changes brought by the DSM-III (Vakirtzi 2010, 62). One important point she could not have anticipated was the act of *fiat* by which autisms were lumped together as ASDs in the new DSM-5, simultaneously with the inclusion of self-defined 'identity' and identity narratives as valid aids to clinical description is personality disorders (but not in neurodevelopmental disorders: Schmeck et al. 2013). So, at the same time identity and self-perception becomes a defining factor in clinical descriptions, people who were diagnosed with any of the subtypes of autism (e.g. Asperger's, PDD-NOS) might lose less stigmatising scientific labels for their identity in a discursive act that prioritises medical specificity over sensitivity, which could result in a loss of services for individuals labelled autistic under DSM-IV but not under DSM-5 (Lai et al. 2013). On one level, more precise specificity can be understood as a form of covert cost-cutting, since the DSM has always played a part in governing social policy, while on another level, a decreased sensitivity also means that people who are subclinically autistic (as of DSM-5) are no longer subject to psychiatric power and deemed 'normal' from the juridico-medical perspective, at the cost of being denied services which they might potentially need for ideal development.

Vakirtzi's genealogical lens extends to a construction of normalcy that is embedded in the productive ethos of a neoliberal society. Using Marie Crowe's constructionist analysis of normalcy (Crowe 2000), she identifies autistic symptoms as impairing the skills "essential for an

economically productive person; thus they can constitute a disorder" (Vakirtzi 2010, 70). Productivity, unitariness of the self, moderation and rationality are all seen as hallmarks of a healthy person in society (Crowe 2000), and the impairments that define autism currently add up to "a significant failure of the individual to comply with social and cultural disciplinary modes" (Vakirtzi 2010, 71). Normalisation is thus the goal of clinical observation and treatment, a medical surveillance technique that is used to coercive ends as it excludes the individual from the state of normalcy. It pathologises them as unreasonable, then it homogenises the stigmatised group to erode personal histories and perspectives on their relationship to power so that they can ensure their corporeal and mental docility. In this reading, the abnormality of autism is located in the individual's genes or brain as a result of a biological fault or a lack of moral/personal responsibility (either the individual's or their parents') in order to sustain the corrective apparatus of governmentality as a legitimate exercise of power. Environmental or societal causes, which are harder to remedy and may clash with institutional or economic interests, are downplayed. To take an example that shall resonate with our later investigation of cognitive criticism's claims, *one* dominant view of the deficits of autistic cognition is the ToM-deficit explanation. And yet, if we interpret ToM as an ability that is innate, but one that develops in every child in a broader psychosocial context of infant and childhood attachment that primes the mind for intersubjectivity, and is therefore improvable as a social practice of mind (Gallagher 2001), then this subjectivity can be nourished without the disciplinary truth statements that define autistic difference as lack, which hinders the performance of those labelled 'mindblind' as a result.

Mindblindness, however, is a powerful metaphor, one that has implications beyond scientific conceptions of neurological impairment. It links cognitive disability with a perceptual one, weaving autists twice into the fabric of disability, conjuring up a striking image of helpless people who have lost one of their senses. It further suggests that autists are somehow devoid of or deficient in empathy, a concept that has been scrutinised by rhetoricians (Jurecic 2006) and scholars in the medical humanities (Dinishak and Akhtar 2013), only to find it severely wanting. The most withering critique came from disability studies. John Duffy and Rebecca Horner summarise their review of scientific ToM narratives by saying: "while ToM literature purports to explain autism, it ultimately attenuates the humanity of autistic people by representing autistics as evolutionary deviant, hypothetical beings, and, ultimately, as tragic figures. The result is a novelistic, poetically intensified account of sadness — we call this a rhetoric of scientific sadness

— in which autistic people are mourned even as they are apparently explained" (Duffy and Horner 2011, 202). One needs to take this with a pinch of salt, but every scholar working with autism has to note the high stakes involved in the characterisation of the autistic mind as 'blind' in some sense.

Take the image of mindblindness seriously, and you end up seeing an entire population unable to navigate the social world, completely at the mercy of cunning fellows who take advantage of the powerless wherever they see them, and more caring people, who can exercise benevolent agency and defend them by speaking/caring for others who cannot or will not do it for themselves. Conversely, should we refuse to acknowledge the profound difficulties the majority of autists have in managing social information, and opt for a utopian reconceptualisation of the condition instead, we run the risk of establishing an idealised 'autism' as an aesthetic category that can be speculatively applied to works which are not the products of either diagnosed ASC artists or NT artists explicitly dealing with autism.

The standard clinical account of autism, as outlined in the previous section, has undergone substantial development from its association with schizophrenia to its 'full bloom' of a spectrum of different diagnoses, a high-profile neurological condition that resonates well with the emerging cultural ethos of information technology, new forms of virtual sociality and the neuroscientific turn. The clinical picture, although fairly nuanced, is heavily invested in the pathologisation and treatment of autism, sometimes with little regard to the lived experiences of those affected, or to the consequences of curing away a 'form of life,' the autistic life. Seeing autism not just as a disorder but as a disability within a cultural context is essential to make sense of the rich internal life that has been reported in autobiographies. The establishment of disability studies was a watershed moment in conceptualising a whole host of issues previously analysed under the aegis of histories of science and medicine, medical humanities, academic feminism and gender studies, or critical psychological and anti-psychiatric writings. Today, the large body of papers given, the wealth of books and articles published on the subject are a clear sign that disabilities have inspired academia to muster a spirited defence of the disabled ways of life and cultural artefacts.

One of the foundational differentiations that made disability a legitimate subject of inquiry is the distinction between *impairments*, the congenital, developmental or acquired biological changes within a human being that compromise some adaptive function of the mind-body and *disabilities*, the institutional, sociocultural environment that stigmatises and hinders the agency of the disabled. Presumably, focusing on the cultural environment allows critical theorists to target

specific social practices which can be reformed to better serve the flourishing of the disabled and create new socio-political opportunities for them. Another important gesture is the separation of the two models of thinking about disability: the medicalising and the social model of disability. The social model "defines disability as a social creation—a relationship between people with impairment and a disabling society—the [medicalising model] defines disability in terms of individual deficit," and it is said to "reduce the complex problems of disabled people to issues of medical prevention, cure or rehabilitation. Social model thinking mandates barrier removal, anti-discrimination legislation, independent living and other responses to social oppression" (Shakespeare 2006, 198-199). Sharon Snyder and David Mitchell recognise that "the limitations of a medical model that early disability studies references may itself have little relation to actual practitioners of medicine. Instead, concepts of a 'medical model' refer to the social premise, frequently held outside of medicine, that disability requires referral to the purview of medical practitioners" (in Turner and Stagg 2006, 182). This is also the reason why I keep referring to the 'reactionary' model with the '-ising' extension. Simon Baron-Cohen, clearly a representative of the medical establishment, has been the one to advocate changing the name of ASDs to ASCs, conditions rather than disorders, in the hope of raising awareness about the different abilities of autists. Medical practitioners working with autists are careful to maintain a respectful, humanistic tone in their writings and speech when addressing neurological diversity and their own work.

Traditionally, disability studies have been preoccupied with physical disabilities, which might owe something to the underrepresentation of cognitive disability in academic circles and the anxieties about speaking in the name of someone else (Bérubé 2010). In recent years, however, the field has shifted gears and is now much more eager to acknowledge the plight of intellectually disabled people (as well as the intriguing theoretical complications that arise from the more inclusive focus). A conceptual division similar to the medical and the social model occurred within disability scholarship on autism. Contesting the clinical description, in which autism is defined as a set of deficits *vis-à-vis* an agreed-upon norm, academics in psychology and the humanities have proposed an alternative model that emphasises the cognitive strengths of autists (Greenspan and Wieder 1999, Stevenson and Gernsbach 2013, Baron-Cohen 2004, Sarrett 2012, Broderick 2011). The strengths-based model is seen as a rehumanisation of autists, all the more necessary because the main discourse in which they are embedded is the 'lack of theory of mind' discourse that, at its extremes, strips them of their humanity (Haldane and Crawford 2010, Yergeau 2013).

Although the strengths-based model is intended as a positive, life-affirmative counterdiscourse to the deficit model, for many a parent, the change in the discourse is fraught with danger because the medical and state professionals who are tasked with deciding whether to aid their family because of their autism make decisions which boil down to judgements of ability and the need for supported living. One mother and autism blogger writes that adopting the strengths-based model as the dominant discourse a.) is risky because it celebrates only those who live life on the higher-functioning end of the spectrum, excluding those for whom autism is a day-to-day struggle even before society labels them, and b.) can occlude the need for assistance and medical treatments, which incur a substantial cost on the families, and c.) may also cause problems in the development of life skills. She notes that by using such positive terminology

> we would seem to be reinforcing the all-too-common view that it's just a condition in the minds of un-accepting and attention-demanding parents, and of money-hungry psychiatrists who like inventing conditions so they and 'Big Pharma' can get their pay check for helping children who have nothing particularly 'wrong' with them. ("Pitfalls of a Strengths-Based…", n.p.)

Naturally, seeing a person as just a bundle of deficits is a crude reduction of humanity into a handful of symptoms, producing a damaging discourse, but the social conversation on autism needs to be framed in terms which best serve the flourishing of autists. This will likely be a way of talking which focuses on areas of potential development without denying the hardships experienced by autistic people, a view which acknowledges the social stigmas and the humiliating institutional practices but also recognises the biological and behavioural expressions of neurological difference, as well as the heterogeneity of the autistic human condition.

One candidate for capturing this amalgamated, biocultural perspective on autism is the discourse of *neurodiversity*. Coined in an analogy to the concept of biodiversity, neurodiversity first emerged in discussions of autism and was later extended to other psychological conditions, such as ADHD, Tourette's, bipolar disorder, epilepsy, etc. It seeks the acceptance of cognitive difference by pointing out that there is great natural variation in the neurological constitution of human minds and, consequently, that autism spectrum and other conditions are in fact not pathological or disabling, but *just* variations which enrich humankind with original insights (Sinclair 2012 [1993], Singer 1999). Moreover, neurodiversity activists see this as a question of human rights, as a struggle for political representation and visibility in a larger culture that

oppresses neurominorities and renders them faulty subjects, in need of correction or cure (Fenton and Krahn 2007). Neurodiversity scholarship's main goal is to reconceptualise the basic category of 'functionality,' used in psychology to determine the level and type of life competences needed to survive in the social and institutional environment of modern society. As Fenton and Krahn observe, the current definitions of functionality are based on an evolutionary conception of adaptation, in a very normative notion of what fitness for life is. They propose that, instead of independent living, we should adopt a sense of 'functionality' as a means of human flourishing, rooted in personal perceptions of being a capable agent, of being recognised as a valuable member of society. The parallel of neuro- and biodiversity surfaces in their description:

> [flourishing is to be understood] in the loosely biological sense of an animal faring well (broadly construed to include an animal's psychological state over time). This nicely connects flourishing with biological (qua psychological) functionality, though in a way that does not require fitness conferring capacities. This is an important feature of such a sense of functionality as it allows many of us currently described as normal to qualify as functional even though we posses traits that are not strictly-speaking fitness conferring (e.g., poor eyesight[, etc.]). (Fenton and Krahn 2007, 2-3)

Letting go of fitness-conferring capacities is necessary because that sense of functionality hierarchises people according to their daily living skills. It excludes 'low-functioning' autists from full access to the fruits of civilised life, since the present state of society is "not conducive to the full expression of capacities possessed by those described as neurologically impaired" (2), so it is unfair to test people according to that set of criteria about what counts as dysfunctional behaviours. The authors argue that, instead of recognising our interdependence on one another, our societies codify independence as *the* essential, ideal state of existence. That normative act relies on our (perhaps too narrow) notions of adaptive and maladaptive behaviours and 'fitness' as a source of human flourishing (which evokes the terminology of evolutionary biology).

Jaarsma and Welin (2012) have separated two aspects of the neurodiversity claim: 1.) that autism (or HFA) is not a disability but a naturally-occurring variation of the human mind and 2.) that the condition is not just natural, but valuable, and autistic people should be granted their proper rights. From the second aspect, it follows 3.) that their culture should be acknowledged by the neuromajority. That would also mean emphasising independent living and agency instead of support, which could be perceived as humiliating. The authors have also distinguished between 'broad' and 'narrow' versions of neurodiversity, where the broad definition extends to the whole

of the spectrum, while the narrow conception of neurodiversity would only claim independent culture without care for high-functioning individuals. As they write, a paradox arises when the social efficacy of the claim to neurodiversity is examined in the context of the full spectrum:

> If neurodiversity is accepted by society as a special culture, the autists that need care may face a hard time getting it, because their state of being will be regarded as just a natural variation. The high-functioning autists that do not need care live happily in the knowledge that they are freed from the burden of having a deficit and may have a better life with non-interference. But it may not be so good for low-functioning autists or even high-functioning autists that *do* need care. Acceptance does not 'cure' difficulties with social relationships, social communication, rigidity and sensory issues. On the other hand if neurodiversity is not accepted by society as a separate culture, high-functioning autists will still suffer the stigma of having a deficit, even if some of them do not need special care and support. (Jaarsma and Welin 2012, 27, emphasis in original)

They propose that using *vulnerability* as a unifying, egalitarian condition of humankind leads to a discourse characterised less by pity and more by communal responsibilities to care for one another. They regard differences in vulnerability as an opportunity to support the narrow conception of neurodiversity, but remark that LFA "may rightly be viewed as a disability" (28). Because able autists can lead independent lives, they see that the disability factor in autism "is always, at least partially, socially constructed disability" (28). To my mind, only accepting the narrow neurodiversity claim is risky but useful. Risky because the spectral nature of the condition generates many threshold cases, where the diagnostician's judgement has an even greater consequence for services provided to autistic individuals, but useful for the development of a culture of able autists, who become advocates for the societal acceptance of the whole spectrum. The neurodiversity movement has started the struggle to show that neurological difference can be embedded in a social environment which actively "foster[s] equality without sameness" (Bumiller 2008), and their writings have contributed to a better understanding of the lives of autists.

In its most radical form, Simon Cushing tells us that we keep using that word, 'autism' as a collective term, but he does not think it means we think it does. For him, 'autism' is a problematic paradigm, forging the condition into a uniform whole that is deceiving. In his reading of the scientific literature, research proves that there is no one thing that could be labelled autism, and the concept is used not so much for acquiring new knowledge about the condition, but to help secure research grants and set up (potentially false) expectations about people known as autists

today (see Anderson and Cushing 2013, 17-46). Despite some valid philosophical scepticism, Ian Hacking's view about the correlation of autism diagnoses and an underlying neurobiological profile feels immediately more useful in the project of recognising neurodiversity. He writes: "We need not argue that nearly all children diagnosed with autism today have exactly one and the same biological disorder. We need only hold possible that there are a few (possibly just one) basic fundamental biological disorders that produce the symptoms currently classified as autistic" (1999, 116). Since I will be working with fictional autistic characters, written by NT writers rather than real people, I acknowledge the difficulties contemporary nominalists see in defining autism. Still, I shall pragmatically keep using the term that conjures up the fascination which inspired writers to create memorable characters like Lou Arrendale or Jessica Fontaine, whose atypical perceptions of the storyworld are the main draw of autism novels.

In the next section, I will pay closer attention to a topic that approaches the boundaries of the literary: the problem of autistic authorship. Because novels like *The Curious Incident* and *House Rules* feature autistic characters who are also active creatively (both Christopher and Jacob are writing, and Jessica plays the piano), and because the public profile of the condition was raised by life-writers on the spectrum, autistic authorship has been on the forefront in questions about the internal life, the psychic richness of people who live with autism. Especially in the case of the early autobiographies, the authorship of several books have been questioned, and some disabling tactics have been utilised to invalidate all coherent self-narratives produced by autistic people because of their ToM impairment. In the vast majority of people who type independently, such scepticism about their observations and lived experiences has been allayed by critical qualitative research and a better understanding of the condition — few people today would question the authorship of independent typists on the autistic spectrum. And there are people like Tito Mukhopadhyay, whose creative work was elicited by rapid prompting (a method based on Facilitated Communication), who have been objected to scrutiny by the sceptical movement and disability scholars alike. Who is responsible for the utterances attributed to the non-verbal autist through FC? The result of rigorous inquiry into the method indicated that the authorship properly belonged to the facilitator rather than the autistic individual. I will be arguing that something similar occurs in NT writers penning novels, pretending to portray autistic people from the inside. However, unlike FC, fiction writers clearly present themselves as the authors of their own work, while facilitators ascribe the author function to the non-communicative person, purportedly

demonstrating that the person communicates with others, often at a level of linguistic ability incongruous with the severity of their condition. Fiction can empower autists by representing them as competent people without the farcical projection of said competence on non-verbal individuals, who would be best served by a therapeutic programme better suited to their needs.

Writing Autistic Lives: The Personal, the Fraudulent and the Fictional

Motto: "Having a self is not the exclusive privilege of those who write autobiographies."
– Marie-Laure Ryan (2010)

The issue of authorship is never straightforward when NT and ASC people are working together to shape the way we talk about autism. When Margaret M. Scariano's editorship of Temple Grandin's first book was credited on the front cover, it was an honest acknowledgement of a genuine achievement in need of restructuring to conform to publishing standards (Grandin and Scariano 1986). However, the complex pathways of translation between Higashida Naoki, his mother (who helped him articulate the book), the rough translator Yoshida Keiko and her husband, David Mitchell in the production of the English publication of *The Reason I Jump* (2013) raises concerns about the many degrees of separation that could alter or falsify the author's intent (if there was a genuine intent to begin with). In the case of Higashida's book, we know that the original text was elicited by his mother using a Japanese alphabet grid (Fein and Kamio 2014). The method by which the writing was produced is suspiciously similar to the thoroughly discredited method of 'communication,' the so-called 'facilitated communication' technique.

FC is a method that has been built on the commendable ideal of acknowledging interdependence in disability instead of forced independence, but with disastrous results. In this method, a facilitator 'supports' the hand of a person on the spectrum and 'helps' typing by supposedly picking up on the bodily cues of the their client so that they can decide which letter they 'intend' to write. Initially developed in Australia by Rosemary Crossley during the 1970s, it has been picked up by professor Douglas Biklen of Syracuse University. After a flurry of promising studies by its proponents in which facilitators were apparently successful in unleashing hidden communication potential in otherwise non-verbal autists, none of the earlier success was recaptured in carefully controlled tests at other research institutions (Jacobson et al 1995). Despite claims of independent communication, the facilitator establishes and remains in full bodily contact with the 'supported' person during the typing process.

The problem of authorship and independence has always been a vexed question in this method: just who is communicating, when sometimes the autistic person does not even look at the keyboard while typing? Proponents acknowledge that there is some prompting from the facilitator, but they start by assuming that autistic people possess unexpected literacy skills, and they steadfastly maintain that the people they work with eventually progress to independent typing (Biklen and Cardinal 1997). By contrast, the overwhelming majority of evidence in controlled experiments has come down to show no empirical support that the person with autism is the author of the utterances (Mostert 2001, 2010). The facilitator has been proven to initiate the typing behaviour by subconsciously influencing when their autistic client responds by pressing the letter on a keyboard or a printed letter board (Burgess et al 1998). For some disability scholars, the way the question of authorship is treated in the FC literature is less about the efficacy of the method than about what kind of an author is sought after, and what ideals of agency the two parties espouse.

Nirmala Erevelles, for example, believes the discourse of FC proponents and detractors bespeaks of the crisis of the liberal humanist subject who is rational, autonomous and able to speak coherently. She suggests that critics of FC deny authorship to nonverbal autists, who are repositioned as co-authors with their facilitators, and instead of defending against criticism based on evidence, she would encourage Biklen and others to "expose the humanist construction of subjectivity as a fiction" (Erevelles 2005, 56), as if this were conclusively shown to be true. Her argument that FC users are only silenced because their voices are "resistant" to a certain construction of able-bodiedness (Erevelles 2005, 61) rather than because facilitators use their autistic clients as ventriloquists use their dummies is disingenuous. Although I am sympathetic to the promotion of interdependent lifestyles, Erevelles' arguments are unconvincing since she does not consider the scientific evidence as anything other than a contest of Foucauldian truth-as-power. She uncritically accepts FC proponents' claims to the communicative competence of nonverbal autists, and portrays advocates of FC as fighting a monolithic establishment that excludes nonverbal people.

In clinical psychology, the authorship of autistic autobiographies proved to be contentious as well. An early example, "The Autobiographical Writings of Three Asperger Syndrome Adults: Problems of Interpretation and Implications for Theory" (Happé 1991) reads like a research paper in the humanities, and its title would not sound out of place in a journal of literary criticism. It deals with Grandin's autobiographical essay and her first book, co-written with Margaret Scariano,

the letters of Barry, an American man with a penchant for correspondence and the autobiographical writings of a British man, David. Writing in the early 1990s, when autistic life-writing came as something of a shock to the reading public and still had novelty value, it is no surprise that Happé frames her text in the narrative of solving a puzzle: how come that a group of people thought so unreflexive before can express themselves articulately, in extended, more or less coherent stories? "What can we point to in their writings that deserves the label 'autistic'? And what is it about even the most able patients that leads us to say autism is a handicap that one does not grow out of?" (207). She finds answers to their unique form of writing in relevance theory (Sperber and Wilson 1995 [1986]), a theory of communication that emphasises the importance of metarepresentations for successful social intercourse. The clinician discusses matters of style, composition, figurative language use and other qualities of linguistic expression that is of interest to literary studies.

Reassuringly, Happé notes that "the first impression of Temple's book […] is one of great normality" (208). Soon enough, though, that great normality is qualified by Happé's comment that what is left unsaid implies that this is no ordinary biography: she misses reminiscences about friends, family and would like to see more of Temple's reflections about her own behaviour, which are omitted from the account. This observation and interpretative stance is understandable from the psychologist's perspective, who looks for the juicy material of social interaction in the life-writing of an able autistic individual. However, that almost deconstructionist curiosity about the absences in Temple's text fades immediately as Happé dons her philologist hat and voices her concerns about the authenticity of the text:

> it was edited by Margaret Scariano, a children's writer, who rewrote sections of the book, gave it its flashback format and generally structured it to make it easier to read. This obviously presents us with problems, casting doubt on exactly those passages [about make-believe games and pranks] which are most interesting and challenging to our ideas about autism. […] but they are, sadly, undermined by the presence of a second, non-autistic author. (208)

This sceptical attitude to authorship becomes one of Happé's preoccupations, opting to discard the book as less authentic than Grandin's unedited essay about her childhood: "It is a great shame that we cannot be sure of the authenticity of these accounts or of the degree of rewriting by the co-author. [… O]nly the work of the autistic writer alone can give us a reliable insight into autism," she remarks (208). Happé approaches the unedited letters and autobiographical pieces with a naive realistic conception of life-writing, as if they were unmediated windows upon the

soul. There is also a palpable hesitation on her part to recalibrate received notions of autism in the face of evidence from personal narratives. It is illuminating to read her cautious statements about David's work in this regard: "it is perhaps surprising that on reading the autobiography the most striking impression is of a man who is a little simple, but more importantly, is simply lonely, bored and depressed. Of course some social gaucheness shows through which in part accounts for his loneliness, but he shows a degree of social understanding not seen even in Temple's edited work" (217). This comment serves as a bulwark against the wholesale acceptance of new evidence for social adaptability on the higher end of the spectrum. To her credit, Happé reads the autie-biographies as achievements and speaks with admiration about the writers, but one can detect a hint of incredulity in this admiration.

Her strategy for mitigating autistic creativity, self-reflexivity and the author function is to bring delayed echolalia, or 'parroting' in as an element that explains the more sophisticated passages in the autobiographies. And so, a great game of suspicious second-guessing begins.

> There is always the possibility that with autistic children and adults, who often seem to have such excellent rote memory for overheard material, some expression they use which may seem to show startling social skill is simply an echoed phrase remembered from a previous and similar context. In David's work, and in all the writings considered here, it must be borne in mind that some instances of social insight may simply be copied or taught expressions. […] The possibility of parroting must, therefore, cause doubt on the significance of apparently insightful remarks such as "I read somewhere that certain tablets can destroy brain cells . . . Mind you, you can't believe everything you read in the papers." (219)

The effect of Happé's cautiousness is disabling. In an exact reverse of the case of Facilitated Communication, where eloquent speech, way beyond their years and mental capabilities is attributed to non-verbal autists, here we have a clinician who is unwilling to give able autistic people their own voices, because these utterances are judged to be too normal, too contrary to the prevailing psychological wisdom of the time. So Happé can never be sure that what she reads is a genuine remark of the writer, and she can negate this self-reflexive voice when it does not conform to her notion of essential social naivety in autism.

Still, the sceptical attitude towards the content of the autobiographies has the desirable side-effect of Happé shifting to the analysis of form, making use of relevance theory to provide new analytical foci. In addition to 'parroting,' a biased selection of the subject matter and the elision of

less memorable aspects of one's life (what would simply be called the expression of personality in neurotypical autobiographies), Happé further identifies other hallmarks of 'genuine' autistic writing, such as exposition on a favourite topic, fragmented, incoherent vignettes of the writers' lives and frequent digressions that seem to serve no function. She comments on the fits and starts of the life narratives she read, and the abrupt transitions as a function of the writers' impaired empathetic and metacognitive abilities: "it is as if she fails to appreciate that her reader does not share the important background information that she possesses" (210), she writes of Grandin's essay. The metonymic logic, hard to follow for the reader, is brought into play in conjunction with Barry's letters, too: "The lack of awareness of what is private, as opposed to general, knowledge may also account for the apparently random flitting from subject to subject" (215).

Happé explains these peculiar features as a result of a primary ToM deficit, manifested in intact language but diminished communicational skills. Their weak central coherence drives autistic attention to features of the world that appear irrelevant to their NT audience. Because of the potential difference in their memory structures, the minds of autists are likely to weigh information stored in their rote memory to be more important than the actual knowledge-frame of the present social exchange, which changes from conversation to conversation. Together, according to Happé, these characteristics constitute an essence of autistic self-expression, whose authenticity was in no small part the product of the strategies Happé used to defamiliarise autistic writing in an effort to aid diagnosis — after all, she is a clinician, and focusing on specific elements of communicative competence was a significant contribution to diagnostics.

What distinguished this analysis from others was its methodological innovation: bringing in the tool-kit of literary analysis to develop a profile for the autism effect in the written output of people on the spectrum. "To do this," Happé states, "I have applied the most stringent analysis – judging these writers by normal rather than handicapped standards. As can be seen, they come off very well, but I would suggest that what flaws their writings do show are significant" (239). I largely concur with her assessment, and I see the emancipating effort in the serious tone and the high standards Happé brought to these writings. Nonetheless, I cannot fail to see the problems with the caution Happé's guesses of 'parroting,' her references to authenticity and editing causes. Like a suspicious critic, she takes nothing at face value, and often errs on the side of professional conservativism when she meets anomalous instances of autistic ability. In hindsight, the continued erosions of the power of autistic expressions appear quaint after a number of autobiographies were

published following the success of Grandin's writings and her popularisation by Oliver Sacks. In the end, the editing process did not alter the reading public's perception of Grandin's able autism and her next book, *Thinking in Pictures* (1995) no longer needed a co-author to authenticate her experiences. Happé's anxieties were unfounded, as the autobiographies have revealed an internal life that was previously unthinkable, and science shifted accordingly, thanks to her willingness to judge autistic writing candidly, both by its faults and its merits.

For the study of autism fiction by neurotypical writers, the stories of Facilitated Communication and the clinical investigation of autobiographies supply different morals concerning authorship. The shared desire of the NT community to understand neurological difference created a climate where 'inside' stories of autism were lapped up to give the supporting families (and incidentally, the fledgling autistic community) hope and inspiration in a world that stigmatises autistic difference. But while FC effectively made facilitators unwitting ghost writers of non-verbal autists, overselling their abilities, able autistic autobiographies were initially scrutinised to tame the personal narratives that have challenged the accepted psychological picture.

It is my suggestion that the dynamics of authorship in FC and in NT-authored novels of autism fiction share some similarities that are worth exploring. For a start, both discourses intend to give an accurate picture of atypical mental functioning. They acknowledge the difficulties autists have with conforming to neurotypical standards of expression. Authors step into the broken communicative chain as mediators translating between conversational partners. Both discourses rely on the strong interpretative capabilities of NT authors, speaking for the autistic subject and both produce an illusory effect of an autistic person narrating what goes on in their minds.

But there are crucial differences about the ethics of these representations. For one, novels like *Speed of Dark* carry the name of the author on their front cover, and they are unambiguously labelled as fiction, books for entertainment, where writers are free to take some creative liberties with reality to narrate an exciting story. Practitioners of FC have no such excuses: they delegate the author function to the person whose hand or spelling implement they hold, they have the responsibility to represent the voices of actual individuals who might have entirely different thoughts and experiences than those communicated via facilitation. Readers bring a different horizon of expectations to a novel, where one can play fast and loose with reality without direct harm, than to a facilitator's work, whose elicited responses give hope to families unwilling to accept the unique joys and challenges posed by educating an autistic child. In short, the politics of

representation demand different levels of accuracy in order to be counted as 'authentic,' and justifiably offer a far greater degree of imaginative latitude to writers. When Siobhan edits Christopher's story in *The Curious Incident*, it is overtly stated so, with characteristic self-reflexivity on the part of the writer, Mark Haddon, that facilitators seldom express (an exception is Boynton 2012's *mea culpa* after her well-meaning complicity in a false accusation of sexual abuse made through FC). Despite the significant differences, the parallels of illusory authorship are important pieces in assessing the effect of autism fiction because neurotypical and autistic readers have been exposed to the scandal of FC in real life as well as stereotypical depictions of ASCs in fiction. They bring their knowledge about what modes and strategies of narration constitute the boundaries of ethically acceptable representations to their reading experience.

We are on much firmer ground when talking about autistic autobiographies. Naturally, one requirement is that autobiographical narratives should issue only from the hand and mind of the autistic individual, where communicative intent and content is directly attributable to the author. Editing is a part and parcel of the publishing industry, but it should not involve the inclusion of additional material, as Happé worried about Grandin's first book. It is necessary to resurrect Erevelles' 'humanist construction of subjectivity' as a yardstick for authorship in the contested terrain of autism autobiographies, since all parties involved have a stake in representing autistic identity differently. We ought to prioritise evidence-based treatments and testimonies about the nature and extent of autistic ability, with the express hope that intervention tailored to the actual person would develop the full range of activity the individual is capable of, but without false expectations of mental age-discrepant abilities. Works like Grandin's (1986, 1995), Stephen Shore's (2003), John Elder Robison's (2007) or Tim Page's (2009) books have a strong authorial voice that challenged our knowledge of autism by honestly talking about the difficulties and the pleasures of autism and its membership by birthright in the grand community of humankind.

Autistic autobiographies inform fiction writers and scholars of literature of the qualitative, embodied domain of autistic life, as accurate to the psyche as the media of the written word and the publishing industry allows. They speak of possible variants of the autistic experience and let neurotypical people walk a mile in the shoes of a neurominority. They practically provide building blocks for fictional characters in narratives of neuroatypicality, and when writers gather inspiration from these works, they know that they only represent a small subsection of possibilities. Moon and Picoult mention their correspondence with autistic individuals in the forewords to their novels

(Moon 2003, i, Picoult 2010, viii), while Morrall and Haddon have stated in interviews or other writings that their personal experiences with autistic individuals, as well as their literary antecedents have shaped how they wrote about the condition (Haddon 2009, Kean 2008). It might also be true that, as Haddon writes, "imagination trumps research" (Haddon 2009), a sour pill for disability scholars to swallow, but the enduring popularity of autism fiction suggests that autobiographies have shaped the reading public's imagination – writers evoke popular tropes so that they can capture the *Zeitgeist* that elevated autism to international consciousness.

These memoirs and recollections are part of a growing tradition that seeks new ways of talking about autism, outside the confines of the dour, deficit-oriented clinical discourse that stigmatises selves who do not conform to the normative ideals of mental functioning. The dynamics of authorship differ in autism fiction and autobiographies precisely because the NT authors have to exert themselves in thinking in a neurocosmopolitan fashion about ASC adults and adolescents, and their goal is to expand the empathetic boundaries across neurotypes. Autobiographies do remain our most immediate resources to date, but fiction should not be discredited, because these works offer the polyphonic chorus of neurotypical and autistic voices, dedicated to the dramatic juxtaposition of differences in a way few autobiographies do. The shifts in focalisation forcefully create an empathetic effect, capable of conquering our emotional bias towards our own kind (Harrison 2011) without sacrificing what makes literary characters endearing to us: their roundedness and vulnerability, their all-too-human imperfection.

Autobiographies have to remain true to the lived experiences of the individual, selecting the more salient and illustrative memories that have shaped the person to the day of the writing. Literary works of art co-opt and/or simulate this representational strategy, endowing fictional people with a genuine personality for the illusion of personhood, but its authors are liberated from the confines of first-hand experience. With this freedom, they can thematise problems, clashes, and conflicts that allow readers a multifocal perspective on the dilemmas presented, whether it is a parable about the neuropolitics of employment (Moon), gender roles and agency (Morrall), the struggle for authorship itself (Haddon) or the legal recognition of neurological difference (Picoult) in a focused way that the autobiographies eschew. To put it more emphatically: autobiographies are more coherently focalised, exercise stricter mimetic controls and their structure remains more author-centred, while fictional takes on autism are thematically focalised, the mimetic barrier can be lifted to a greater degree and the narrative design is more audience-centred as it addresses the

wider, symbolic, societal anxieties about autism that the autobiographies seldom comment upon.

This comparison is not meant to denigrate autobiographies: they are carefully articulated, rhetorically organised works, fascinating and valuable on their own. Yet, narratives possess certain alternative powers: one is the immediacy of the experiencing self that the temporal distance of memory in autobiographies tends to undercut. Even in the case of Jessica, the wisest and oldest of the protagonists, chapters from Jessica's childhood are narrated without the older, narrating I's authoritative voice; those sections are still focalised from her perspective, but in the third-person, omniscient mode, whereas her university and adult years are seen from the 'inside' of the authenticating 'I.' Another *forte* of fiction is its perspective-shifting potential. Only Christopher's narrative is written entirely from his point of view, the other novels present the autistic figure from the outside, too – Jodi Picoult uses this polyphonic compositional style to the greatest effect. One could also include the interpersonal intensities of the dialogues that subtly affect the perception of character, or the strategic tangling of temporal realities that would not sit well with an autobiography which has a timeline set by the regular course of human life.

In conclusion, the praxis of writing that developed in autism fiction is shaped by its sister discourses, the pseudo-autobiographies and poetry of facilitated individuals, which convey the worries and wishes of adults whose lives were transformed by autism, and the real, sometimes fancifully edited, but autonomously authored autobiographies, which remain among our most reliable sources for the phenomenological variety of lived autism (short of being born as one). They have both steered autism fiction's growth in alternative directions, distancing themselves from their relatives. And although autism fiction can never be 'authentic' in the sense self-penned autobiographies are, they are written with the reading public in mind, expanding their empathetic circle in a way that pushes their conception of autistic ability to new limits. It is with this sense of represented achievement that writers contribute to the ongoing dialogue of what it means to be autistic, and how literature can provide bridges across neurotypes.

CHAPTER 5

THE TRAVELLING CONCEPT OF 'THEORY OF MIND' IN PHILOSOPHY, PSYCHOLOGY, LITERARY STUDIES AND ITS RELATION TO AUTISM

"Paper is dead without words
Ink idle without a poem
All the world dead without stories
Without love and disarming beauty

Careless realism costs souls"

– Tuomas Holopainen (Nightwish 2015), "Song of Myself"

When you begin to read works on emotions and fiction these days, you immediately begin to notice a strange pattern. It usually doesn't take a few pages for the expression "Theory of Mind" to crop up, defined more or less as our ability to attribute emotions, thoughts and feelings to other, sufficiently human-like agents in everyday social situations. Soon afterwards, you are asked to perform a thought experiment: imagine a kind of life in which humans are bereft of their ability to gauge the inner lives of others, producing a world where people appear to act irrationally and in a rather confusing manner, as if you were airlifted onto a faraway island or another planet. You are then informed that this thought experiment, in fact, naturally occurs, as there is a group of people whose ability to attribute thoughts and feelings to humanoid creatures is severely impaired, unlike typically developing people, who can instinctively project emotions into others and know that people move about in the world with a purpose. These unfortunates are called autists, and you are told that their impaired ToM sets them apart as tragic figures who cannot connect with the rest of humanity socially and emotionally. At this point, the writer directs your attention towards autists' lack of interest in pretend play and make-believe, which the scholar portrays as the direct forebear to more mature forms of pretence, such as fiction. The argument goes something like this: we enjoy fiction because it gives us virtual human minds to empathise with and/or to track their emotional life, but we could not realise what an achievement our mind-reading was until we saw what set autists apart from other cognitive disabilities: their impairment of social cognition.

This modern origin tale of literary aesthetics is re-enacted time and again in philosophy, neuroscience, cognitive and evolutionary psychology, and so-called 'evocriticism,' literary theory's strongly contested attempt to understand the development of fiction in human culture as

a product of rising to the challenges of coordinating our lives in the phylogenetic past. Cognitive terms clarify and redefine concepts found in reader-response criticism, provide working models of reception aesthetics and contribute to the on-going reformation within the field of postclassical narratology. In the eyes of cognitive literary scholars, ToM is cast in the role of the lynchpin connecting empathy, solidarity and cooperation to the enjoyment of fiction. This chapter explores the relationship between ToM and fiction in this interdisciplinary mangle, which smooths out the creases in the fabric of ToM and the contradictions between the different uses to which this concept is put in their respective disciplinary practices. In providing this ambitious survey, I seek to roughly define a rugged area where talking about ToM makes sense in literary theory and analysis, demonstrating that it can be salvaged for critical readings of autism fiction, the 'anomaly' of the current paradigm of cognitive literary studies in the Kuhnian sense.

After a substantial period of cultural consensus, the joy of fiction became an explanandum again for critics at the turn of the millennium because of a conflux of external and internal factors which re-evaluated the status of written narrative and its analysis. Some internal urges came from the socially oriented turn in literary and cultural criticism and a turning away from structuralist, textualist strategies of reading, as well as the skirmishes of the science wars. Other, external challenges to the self-evident nature and value of literary fiction have been issued by a.) the ubiquity and wide-scale commercialisation of new media for storytelling (cinema, television, comics, video games, etc.) which have contested the primacy of literature, b.) the availability of new imaging technologies that allowed a more sophisticated neuroscience to rise in the last few decades and c.) the continuing secularisation of society and the popularisation of evolutionary theory in response to the emergence of contemporary creationism.

The growth of knowledge in the neurosciences has given us answers to many puzzling conditions of the mind, but autism is not yet among the phenomena which are fully explained or described by cognitive science. Still, the prolonged fascination with the behavioural repertoire of responses in autism and the no less intriguing paradox of feeling emotions for fictional characters converge at 'Theory of Mind,' a busy intersection in the traffic of scientific ideas. My aim in this section shall be to present a short intellectual history behind the idea of ToM, how it has been utilised in the discourse of aesthetics. After this, I outline some of the problems with current accounts of the relationship between autism and the joy of texts. Finally, I develop a framework that addresses the misrepresentation of autism in scientific discourse, one which contributes to

cognitive narratology by investigating the strategies authors use to convey neurological difference.

Our ability to build communities and our skill in understanding other human beings depends upon our complex cognitive capabilities that govern our sociality. They provide us with behavioural templates and give us predictions of what other people think or feel based upon the signs other conscious agents produce, such as language, facial expressions, posture, tone of voice and nonverbal gestures. This is the fabled Theory of Mind, a module that is posited as our primary cognitive tool for judging the actions of others in terms of intentional states – it is our compass in predicting how other people would feel or act in a given situation. It is a mechanism also used in our manipulation of the social world; you simply cannot get what you want without knowing how you can get others to cooperate. ToM is based on the ability of the human mind to produce and hold metarepresentations, or in other words, thoughts about thoughts, specifically the thoughts, beliefs and disposition of others. Evolutionary psychologists Leda Cosmides and John Tooby reiterate the hypothesis that "mind-reading was the adaptive problem that drove the emergence of the distinctively human form of intelligence" (2000, 77), that is to say, social skills. The ability to represent the thoughts of others is an evolutionary adaptation that conferred a benefit to communities and the individuals who live in them by enabling them to hold information only as contingently true. Delimiting the scope of information and source-tagging it to individual minds as the containers of that information does not merely enable us to predict their behaviour, it also grants us enriched networks of interpersonal relationships and complex societies.

Remarkably, humans were not the first to be investigated for the existence of ToM; as is quite common in studies in the evolution of cognition, it all started with chimps. In 1978, David Premack and Guy Woodruff asked the question whether the chimpanzee has a theory of mind. Their paper describes how play-acting humans bumbled through simple tasks in front of chimpanzees, who were allowed to 'help' them by choosing among photographs, some of which showed objects that would enable the actor to complete the tasks. In the authors' definition,

> [a]n individual has a theory of mind if he imputes mental states to himself and others. A system of inferences of this kind is properly viewed as a theory because such states are not directly observable, and the system can be used to make predictions about the behavior of others. As to the mental states the chimpanzee may infer, consider those inferred by our own species, for example, purpose or intention, as well as knowledge, belief, thinking, doubt, guessing, pretending, liking, and so forth. (Premack and

Woodruff 1978, 515)

Their research indicated that chimpanzees do indeed have some notion of what the goals of the actors were in these small scenes, and the animals aided the actors through the choice of correct tools for the job at hand. This is the skill which has gradually altered in human phylogeny to become the source of modern consciousness.

In another crucial development of the human mind, we became able to handle information as only contingently or situationally true. The spontaneous appearance of pretend play or make-believe in typically developing children at the age of about 18 months was what originally prompted Alan Leslie to posit a representational system that is capable of "decoupling" information from what our mind considers true according to its cognitive architecture (Leslie 1987). This enables our mental structure to contemplate hypothetical and counterfactual scenarios. Metarepresentations and the mental act of decoupling opens up a whole new dimension of action — an increased ability to improvise. Human beings have been able to outpace biological evolution and kick-start cultural evolution precisely "because individuals are no longer limited by the flow of actual experience, which is slow and erratic in comparison with the rapid rate of vicarious, contrived, or imagined experience. So, vicarious experience, communicated from others, should be aesthetically rewarding" (Tooby and Cosmides 2000, 74). Pretend play in children is also a foundation of theatre, and fiction's powers are based on this ability to decouple and metarepresent.

A few years after Premack and Woodruff's article appeared, Baron-Cohen, Leslie and Frith asked a similar question in the title of their paper (Baron-Cohen et al, 1985), substituting chimpanzees for autistic children: do they have ToM? Investigators of autistic children noticed that human intentions are often hard to calculate for their subjects, since they are second-order representations (Ona believes that Atiti will give her a birthday gift; Atiti hopes that Ona will be pleased with the new computer she intends to give her). Crucially, they are beliefs that compel people to put themselves into the shoes of another human being. Social cognition implies partial knowledge and evanescent perceptions of other people in a mutable web of relations. I may mistakenly think that magicians actually make coins disappear, whereas in actual fact, they are hidden in the palm of their hands during a sleight-of-hand performance. In this paradigm, hypothetical autists, upon having the situation described to them, including the nature of the deception, would be very likely to claim that the audience knows full well how the coin is within

the fold of the index and the ring finger, contrary to conventional wisdom, which would tell us that, for the captivated audience, the coin is as good as vanished.

Baron-Cohen and his colleagues argued that autists do not make recourse to ToM-related heuristics when making guesses about the mental content of others or fail to correctly estimate said mental content in a consistent manner if they do develop some notion of what makes other people tick. They have termed this condition "mindblindness" (Baron-Cohen 1995), an ethically problematic term for its conflation of intellectual and physical disability that presents both communities in a more negative light for that association. After Baron-Cohen's early work, a small cottage industry of pretence and ToM-related research has sprung up in developmental psychology (for an early overview, see Sterelny 1990 and further references below for examples).

In all of this discussion, even in the context of typical development, authors regularly cite autism as an example of an anomaly, which is marked by the absence or diminished willingness to engage in pretend play. Cognitive and developmental psychologists attribute this impairment, which leads to difficulties in social integration with their neurotypical peers, as specifically stemming from an inability to decouple (Leslie 1987). Although young autists are eventually able to perform pretend play in an experimental setting, the lack of self-initiated, social make-believe suggests that the aesthetic/cognitive rewards which fuel typically developing children's joyful play are not present in autism. As Kasari and her colleagues state: "if pretending requires play to be fun, creative, and spontaneous, children with autism are not truly playing with pretense," and they report that "children with autism performed the 'mechanics' of play (they could show the play act) [in the experimental setting] similar to other children at the same language age but that they were less invested in 'playful pretense'" (Kasari et al 2013). When left to their own devices, this impairment leaves autists less able to rise to the behavioural and emotional challenges of functioning in a rapidly changing social environment, hampering their own desire to be accepted by neurotypicals and integrated into a more neurodiverse society.

Based on such research, Tooby and Cosmides claim that "[it] is not clear whether there are neuropsychological deficits that selectively knock out a person's ability to understand fiction without simultaneously knocking out other imaginative activities. But autism does seem to be an example of a developmental disorder that selectively impairs the imagination" (2000, 93). Even though imagining fictional worlds depends upon our mechanisms dedicated to decoupling, it is a fundamentally *social* imagination that fictional characters demand, and we are able to understand

most literary works of art because we apply our perspective-taking and metarepresentational strategies to make sense of the world depicted in a drama or a novel. Autistic people seem to have fewer issues with interpreting real-world narratives, it is only fiction that poses great problems. Realist and modernist fiction, with its focus on the interiors of the characters, challenges their mind-reading skills, whereas more fanciful writings, which deviate from the real world, ask them to suspend their disbelief about the existence of the fictional world, especially when they require belief in things like fairies and ghosts, or other non-existent phenomena.

The theoretical questions that deal with humankind's way of understanding our conspecifics, known in the philosophical tradition as 'the problem of other minds,' has a long history, which I will not attempt to review here in its entirety due to the vastness of the topic (see Hyslop 2014 for a useful survey). But one subset of the larger debate in the philosophy of mind has addressed the problem with extensive research on folk psychology. This line of inquiry saw an increasing integration with experimental evidence from psychology and the neurosciences, as they both seek to explain how we develop an intersubjective perspective. It is within this discussion that the term 'Theory of Mind' first popped up in the humanities.

There are two rival formulations of how we come to know mental states, and how we mind others: the somewhat awkwardly named theory-theory (TT) and its younger counterpart, simulation theory (ST). TT is the account with more pedigree and a longer history in the psychological and philosophical literature (Greenwood 1991; Gopnik and Meltzoff 1997). For our purposes, we can treat theory-theory as a model of learning which suggests that the human mind conceptualises other minds according to a 'folk psychology,' a set of unwritten rules which we acquire from childhood onwards, very much like a scientist would, by testing very basic theories (if-then logical constructs) of how people act and what internal states would bring about which outcomes. Theoretically, these rules could be wielded equally well by any other sentient species who can process propositional knowledge. Initially, TT offered much to psychologists studying social cognition, not only because it mirrored the working methods of practising scientists, but it was the most parsimonious explanation of the available evidence at the time. Although this way of envisaging social cognition processes as discrete principles was very promising, since it offered the prospect of empirical (dis)confirmation, theory-theory has run into severe problems due to its theories of social learning and because of evidence coming from several interlocking strands of experimental science (Stueber 2006, Bishop and Downes 2002). One defect in TT approaches to

mentalisation is that they are unable to incorporate the embodied, phenomenological aspect of social cognition, including the reason for the existence and function of mirror neurons, as well as neuroscientific evidence for our use of empathy in our everyday epistemology (Rizzolatti and Craighero 2005). A glaring failure of TT, especially relevant to our discussion here, is its inability to plausibly explain one of the core deficits of autism, namely autists' impairment in predicting neurotypical behaviour and navigating the social world.

On the other hand, experimental evidence for the existence of involuntary motor mimicry and the mirror neuron system lends considerable credence to an alternative view of mentalisation, simulation theory. The detection of the mirror neuron system (MNS) has provided a huge boost for research on mind-reading and what happens when it goes wrong, including the sociocognitive disabilities within autism. Mirror neurons are the neurons that fire within the brain when animals either move parts of their bodies or when they see other animals perform movements (Gallese et al. 1996; Rizzolatti and Craighero 2004). By unconsciously imitating our fellow humans, we get a head start on figuring out what they might do next. Imitation is not restricted to mapping the actual action in our minds, we can also make largely accurate guesses about the emotions involved, effectively empathising with others on the neural level (Rizzolatti and Craighero 2005, Ferrari and Gallese 2007, Sinigaglia and Rizzolatti 2011).

TT appears the weakest when it tries to come up with an answer as to why autists perform remarkably worse on ToM tasks than neurotypicals or people with other developmental disorders. Simulation theory is much more successful in integrating neuroscientific and experimental findings (Goldman 2006, Gordon 1995). ST claims that we do not come to know how other people are likely to act or feel because we evaluate the external conditions and come up with a reasoning based on theoretical calculations; we feel what others feel because when we mentalise, we effectively create neurologically similar states of mind via the MNS. By running the MNS off-line (i.e. without having an actual pain response when we see others hurt themselves), we get a fairly accurate picture of how others would feel or act because we share their neurological make-up, but we are sheltered from being impelled to act upon that mental state. This is not to say that genuine empathy and action cannot arise from simulation. On the contrary, to this date, ST is the most coherent psychological framework for explaining how empathy arises from embodied cognition processes. However, TT and ST do not operate exclusively, in an either/or fashion; researchers consider both methods available for social cognition for specific purposes and the two can work

in tandem, and as such, a hybrid ST-TT approach is advocated (Apperly 2011).

The MNS has been linked with autism by a number or cognitive scientists, but the hypothesis found its most forceful expression in Iacoboni and Dapretto's paper (2006), where they state that data reviewed in the article "strongly support the proposal that mirror neuron dysfunction is a *core deficit* in autism" (emphasis added). Inquiries along the same lines have cast doubts upon the search for core deficits (Schreibman 2007, 109-131) and a recent review article on the connection between mirror neurons and autism has questioned the existence of any global dysfunction in the MNS of autists (Hamilton 2013). Besides the obvious underdetermination of evidence in this particular theory of autistic cognition, there is also the question of how the investigated subjects are characterised. From a critical perspective, Anne Corwin sums up the state of scientific discourse on mirror neurons up to 2007 in the following words that is worth keeping in mind for the research protocols portrayed in *Speed of Dark*:

> All things considered, many of the mirror neuron studies (along with other autism studies) all seem to suffer from the same fundamental flaw: that of presuming the autistic brain to be a "broken" version of a typical brain, as opposed to an entity unto itself. There is nothing ethically wrong with researching autism or researching autistic brains (so long as the research itself is conducted ethically, with full acknowledgement of the personhood of all involved), but it is of great concern that so few studies are being conducted from the standpoint of trying to figure out how autistic brains actually work—as opposed to how they supposedly don't work, or how they represent deviations from some imagined ideal. (Corwin 2007)

Additionally, experiments conducted on the assumption that mirror neurons are engaged in action understanding are not on as solid a footing as some of its proponents advertise (an especially detailed critique of the hypotheses for the functionality of the MNS is found in Hickok 2009). The MNS' role in social cognition is still debated among cognitive neuroscientists. As is readily apparent from the ambiguity in how to interpret observed differences in mirror neuron activity, I would not claim that mirror neuron dysfunction is the final word on the subject of what gives autism its defining characteristics. But the question of whether bottom-up or top-down control of perception plays a greater part in autistic cognition *does not invalidate* either a.) autists' problems in processing emotions that they themselves or others experience, nor b.) their difficulty in expressing empathy. As indicated above, these are crucial skills for the understanding and appreciation of the human elements of fiction, and this section explores the relevant research on

ToM and its mechanisms with the explicit purpose of evaluating its findings as a part in a literary theoretical framework for interpreting fiction.

We are on much firmer ground when investigating mental simulation in typically developing children and adults, and how they relate to the aesthetic effect of reading. When we read novels not for the joy of poetic language, but as a story of human beings, it does not matter that the people in question are reality-challenged. Contemporary scholars of aesthetics have been especially curious about this fact: how is it that we respond emotionally to words on the printed page as if it were constitutive of a person, replete with cunning, suffering, desire, aspirations and the like? The paradox of fiction, as formulated by Colin Radford (1977), consists of three related claims. First, we have a strange ability to "have an emotional reaction to the fate of Anna Karenina, the plight of Madame Bovary or the death of Mercutio. Yet we do. We weep, we pity Anna Karenina, we blink hard when Mercutio is dying and absurdly wish that he had not been so impetuous" (69). Secondly, our emotions are prompted by a reality condition of sorts. Radford states that "I can only be moved by someone's plight if I believe that something terrible has happened to him. If I do not believe that he has not and is not suffering or what-ever, I cannot grieve or be moved to tears" (68). Still, readers know that fictional characters do not exist: "What is worrying is that we are moved by the death of Mercutio and we weep while knowing that no one has really died, that no young man has been cut off in the flower of his youth" (71). This arrangement of the paradox, and whether it constitutes a paradox at all, has been the subject of much speculation within aesthetics, and in doing so, it has invigorated cognitive literary criticism, too (for an even-handed survey, see Hjort and Laver 1997, 37-94). For our present purposes, it is enough to account for homologies in our processing of the fictional and the real world, which would let us economically preserve one model for our affective response.

There is little doubt that mentally healthy human beings, including children at a relatively early age (Sharon and Woolley 2004), are able to distinguish between representational worlds and real life, so we can exclude any model which would explain our responses as a fault in our perception of reality (but note young children's occasional blurring of the two, as reported in Bourchier and Davis 2002). Language is capable of substituting natural stimuli to generate cognitive processes, including social cognition and empathy, so we needn't fear that we mistake fact for fiction, if it is properly source-tagged and paratextually framed. Even so, much of the same

neural circuitry is used to imagine virtual experiences and to perceive reality (in the folk psychological sense), which does not mean that we confuse the two, only that we experience it on similar terms within those paratextual frames. Recent advances in the understanding of emotional responses to fiction prompted Alvin Goldman to claim that mental simulation works through eliciting responses of enactive imagination, which underpins social cognition in the real world, but it can be evoked through sufficiently salient visual and verbal cues as well. In his words:

> According to the E-imagination hypothesis, affective responses to fiction occur because fiction serves as a series of textual or theatrical props that fuel a viewer's or reader's E-imagination into producing all sorts of surrogate states. The states are surrogates of believing, seeing, desiring, and so forth, and many bear a close resemblance to their natural, nonsurrogate counterparts. Thus, just as the natural counterparts are apt to generate certain emotions, the surrogates are apt to generate roughly similar emotions. (Goldman 2006, 284)

This suggests that fictional works are the communal, cultured versions of what occurs in each of us throughout our lives, as artistic works exploit our neurological disposition towards mentalising to explain others' behaviour. In close relation to the predictive power of the MNS, a growing body of research is unearthing how the brain uses sensorimotor integration of corporeal action to create thought/language and *vice versa* (Barsalou 2009, Gallese 2008, Grafton 2009, Zwaan and Pecher 2012). When we read or hear sentences, we simulate what happens and what properties the objects have, replaying the movements and sensations in our heads, activating some of the same pathways we would use if they were present. But we test reality and then run these processes 'off-line,' so we can inhibit the immediate action-generating potential of emotions and safely experience the thrill of vicarious love, fear, despair or excitement which the characters undergo. This, however, does not mean that the emotions experienced are not real emotions, nor that reading literature in the right circumstances cannot generate fellow-feeling that spurs readers onto prosocial action. In fact, I find simulation theory to be of invaluable help in forming a coherent theory of the emotional powers of fiction that are awakened within us, which originate in our neurological processes designed by evolution to strengthen social bonds (Hesslow 2012, although some reservations are expressed in surveys of ST and mindreading such as Michlmayer 2002, and Goldman's version of simulation is critiqued by Carruthers 2009).

According to narratologist David Herman, one of the prime ingredients of stories is the

element of "what it is like," the experiential component of cause-and-effect relationships as they unfold in a storyworld inhabited by characters (Herman 2009, 21). In this respect, the greatest value of stories is that they can convey to us how (other) people would feel in particular situations as they undergo events that are worth telling for some reason. This is, granted, a rather mundane expression of complex reasons for writing and appreciating fiction, but perhaps a more ethical take would be enlightening. Insofar as novelists can convincingly present believable fictional mental functioning, their novels will be more likely to garner empathetic investment on the part of the reader for the purposes of some dramatic function. Again, the entire project of modern, critical literary theory is an argument that engagement with the aesthetic experience is strongly affected by the social circumstances of the writer and the reader (class, gender, race, sexuality, age, etc.) but when the connection is made, despite these differences, fiction humanises characters, showing their standpoint to the reader, establishing some common ground which is rooted in our strong capacity for empathy. This ethicognitive view of literature demonstrates why some fiction is more effective and memorable than other pieces, it shows how it can move people emotionally and to social action as well. The motor and higher-level mental simulation that occurs during reading texts are of profound importance to understand literature as an aesthetic effect. If our emotional responses to fiction sound paradoxical, it is only because we are taught to categorise the real and the fictional as separate entities, and we perceive them to be much further apart than they really are to our psyche. We do not really believe that characters in novels exist for real, but we can still simulate the emotional rollercoaster of a romance or the thrilling game of master spies outwitting evildoers in mystery novels since we understand them to be fictional minds.

While there have been a few sober and passionate critiques of an empathetic emotional response to fiction (see Keen 2007, 145–168), the enactive imagination still remains our primary method of experiencing fiction, even though this method of engagement might prove to be self-deceiving in some cases. In light of evidence from neuroscience and experimental psychology, there is more truth in the phrase 'I feel for you' than we would think or dare acknowledge. Part of what makes fiction gripping to consume and produce is that we become, for however short a time and in however imperfect a fashion, another person. What happens to the characters, in some important sense, happens to us. In the case of fiction, this amounts to us instinctively feeling as one with other, only quasi-existing beings. At present, this ability is attributed to our ToM, but the way ToM has been used as a travelling concept in literary studies is worth further inquiry.

Theory of Mind began its rise to fame in *bona fide* literary criticism in the pioneering work of Lisa Zunshine, notably in her book-length study *Why We Read Fiction: Theory of Mind and the Novel* (2006), in which she began to survey the importance of our mentalising abilities for understanding literature. She produced creative interpretations as to how intricately mind-reading infuses and colours our enjoyment of particular fictional genres. In her treatment of ToM, Zunshine cites Baron-Cohen's *Mindblindness: An Essay on Autism and Theory of Mind* (1995) as a starting point of her investigation and faithfully reports the accepted clinical picture that autism is characterised by "a reduced interest in fiction and storytelling" (8). She offers a possible explanation: "[p]erhaps fiction presents a challenge to people with autism because in many ways it calls for the same kind of mind-reading […] that is necessary in regular human communication" (9). Recognising the sliding scale of the severity of autism, she observes that an impaired mind-reading ability "varies across the whole spectrum of autism cases. [… I]f we include within that spectrum people with Asperger syndrome [sic], […] we can say that a 'dash of autism' does not necessarily preclude people from enjoying fictional narratives" (12). Following changes in the new DSM-5, the APA no longer recognises the individual diagnosis of Asperger's Syndrome, subsuming all cases under the wider umbrella term of '*autistic spectrum disorders*,' but the ICD-10 still does, so today Zunshine can safely have her cake and eat it, too.

Following the recital of the clinical picture, she brings up Christopher Boone from *The Curious Incident* as a fictional example of somebody with Asperger's who is a partially successful mind-reader in her view, stating that the book "is a much-needed reminder about the complexity of the issues involved in the relationship between autism and storytelling" (12). By her own admission, Zunshine uses autism "mainly to provide a vivid hypothetical example of what it means not to be able to attribute minds" and says that "the bulk of my argument [about the ordinary use of ToM in understanding fiction] does not rely on it" (11). To demonstrate just that, and in response to criticism by disability studies scholars, in the Kindle edition of *Why We Read Fiction* she cut out the "Theory of Mind, Autism, and Fiction: Four Caveats" section of her book, and drastically reduced the number of references to autism on the whole (a follow-up piece, co-authored with Ralph James Savarese has recently been published, serving as Zunshine's *mea culpa* and a call to interdisciplinary work (Savarese and Zunshine 2014)).

Critiquing the accuracy of Zunshine's portrayal of the autistic mind is secondary to this

more telling excision, an elision of the integral part autism played, for good or ill, in the burgeoning of academic interest in social cognition and literary scholars' willingness to import theoretical concepts from cognitive psychology. Simply put, thoughts about autism, whether right or wrong, are formative in the history of cognitive literary studies, yet not enough attention has been paid to the relationship between autism and storytelling, or how the paradigm case has been used to validate the direction literary theory took when it adopted ToM as a subject of analysis.

One of the purposes of this section is to develop a constructive criticism of how the ToM idea was appropriated for literary purposes and to rearrange the pieces as necessary in order to take a second look at the complexity of issues that Zunshine hinted at. This shall be accomplished by merging the perspective and sensitivity of disability studies with arguments from cognitive literary theory, which irons out some of the inconsistencies (and sometimes outright errors) in portraying autism in scholarly writings. I then to turn towards a narratological investigation of autism novels, where discourses of empathy, disability and neuropolitics supply important counternarratives to the more damaging representations of the condition in fiction and science.

Whether or not a mind is deemed unreadable, whether or not a person is considered a closed book, whether we choose to respect unreadability or work hard at bridging hermeneutical impasses are decisions which are definitely shaped by the science of interpersonal relationships and its biocultural constraints and affordances. Zunshine is correct in saying that "cognitive evolutionary psychology does offer us a principally new way of approaching fictional narratives, [seeing them] as endlessly *experimenting* with rather than *automatically executing* given psychological tendencies" (155, emphases in original). It is for reason that I see the analysis of autism fiction best served by a biocultural approach. Nonetheless, while Zunshine dedicated a whole chapter to the significance of (and a genre-defining concern with) mind-reading in detective novels, she didn't extend her interpretations to Haddon's *The Curious Incident*, which is notable for Christopher's intense preoccupation with crime fiction, and which begins as a mystery of who killed the family dog, Wellington. I intend to revisit Haddon's novel in greater detail in a separate chapter to rectify such an omission and to take a second look at Christopher's narrative, exploring his worship of Sherlock Holmes, and how mind-reading and autism are implicated in the tale.

That being said, what Zunshine states is just as important as what she omits. In her lucid and refreshing account of detective fiction, she claims that because murder always warrants an explanation, it it not merely a whodunit but a whydunit mystery as well. Killers will deny their

heinous acts in speech and behaviour, and everyone might have a potential interest in misrepresenting what they know or have done, thereby putting our metarepresentational skills to the test. She thus reinterprets the whole detective genre, stating that it might be seen "as a chronicle of the writers' experimentation with the question of whose minds the readers should be allowed to read and when they should be able to read them" (138). Both the perpetrator's, the suspects' and the detective's mind can be strategically concealed to heighten narrative tension and sustain readerly attention. After noticing that the history of the detective genre is replete with private eyes who are lonely figures and seldom engage in long-term relationships, so the romantic side plot of a crime novel is usually undercut by an ascetic singleness, she distinguishes between two different kinds of mind-reading, which I term 'suspicious' and 'harmonic' mind-reading to hypothesise that "the kind of mind-reading expected from the reader of the detective novel is indeed not particularly compatible with the kind of mind-reading expected from the reader of the story focusing on a romantic relationship" (143), because it requires a different set of interferences.

The suspicious mind-reader seeks to uncover a hidden plot of concealed motives without the need to become affectively involved in the fate of the people concerned (impartiality, after all, is a prized asset in detectives). The harmonic mind-readers seek to attune themselves to their prospective partners to "figure out how the person that you have a crush on feels about you and what you should do based on your far-from-perfect understanding of his/her state of mind" (145), caring for and affecting the other person's feelings. Zunshine adds that detective stories in recent years have tried to mix the romantic plots and the investigation with varying degrees of success, but the added elements are always subplots, featured in the story "without making it compete with the *main* type of mind-reading expected from its readers (148, emphasis in original) so that readers will never be overwhelmed by two different kinds of mind-reading and can immerse themselves in the exercise of only one. These thoughts on concealing the mind of characters and the different motivations behind suspicious and harmonic mind-reading will appear as themes that make novels like *The Curious Incident* and *House Rules* challenging texts for the literary critic to analyse.

In more recent times, Jennifer Barnes has studied autism' relationship to literary expression and storytelling, conducting a sociological experiment with undergraduate students and people living with autism. This research has been critical of the established paradigm that the avoidance of fiction depends upon ToM difficulties. Summarising her results, she states that while autists did not avoid them as such,

they showed no preference for social stories, but demonstrated a significant preference for nonfiction over fiction. From the perspective of autism research [...] the fact that individuals with ASC preferred true texts [...] suggests that theories of fiction that focus solely on theory of mind and the social content of stories may be incomplete. Our ability to suspend reality and enter into imaginary or pretend worlds may also play a key role in the appeal of fictional stories [...], allowing fiction and nonfiction to battle it out based on content on relatively even grounds. (Barnes 2012: 312)

The picture emerging from studies that connect fiction and autism is noteworthy because they shed light on what makes counterfactual narratives of nonexistent people so intriguing for humankind. Regrettably, they echo a long-prevailing sentiment in research that autism can be envisioned as a portent or omen for neurotypical people, showing them what life would be like without an intact theory of mind or skills of pretence. The ensuing discourse all too often veers into discussing what autists lack that NTs have, rather than how the differences between the two populations can be bridged (Haldane and Crawford 2010).

The approach that best describes the scope and methodology of this dissertation is postclassical narratology. Defined against poststructural narrative theory and as a continuation of the classical method of narrative analysis, postclassical narratology's intention is to aid literary interpretation by expanding its horizons and clarifying its contexts in an interdisciplinary setting, "open[ing] the fairly focused and restricted realm of narratology to methodological, thematic and contextual influences from the outside" (Alber and Fludernik 2010, 2). These goals range from fine-tuning concepts of classical narratology with targeted criticism through an interest in the impact of sociological identities on narratives all the way to examining transmedia storytelling. Autism fiction is a subgenre of illness and disability narratives that invites knowledge synthesis across disability studies, psychology, literary theory and narratology to understand the web of signification invoked by the presence of autism in the story. This section focuses on the study of narrative as it appears in the writing of narratologists, offering good mid-level strategies for reading autism fiction, based on criticisms of mimetic models of mindreading.

One dominant paradigm is that of Monika Fludernik's "'natural' narratology" (1996), a theory of narrative grounded in prototypical cases of oral storytelling, jokes, anecdotes and other short personal narratives. They are investigated using a hybrid method of sociolinguistic, discourse analytical and classical narratological concepts to argue that people use an everyday, mimetic

model of communication as a foundation to interpret instances of storytelling. She uses the term *narrativisation* for this hermeneutic attitude, describing the

> attempt [of readers] to re-cognize what they find in the text in terms of the natural telling or experiencing or viewing parameters, or they try to recuperate the inconsistencies in terms of actions and   event structures at the most minimal level. This process of narrativization, of making something a narrative by the sheer act of imposing narrativity on it, needs to be located in the dynamic reading process where such interpretative recuperations hold sway. (Fludernik 1996, 25)

Fludernik contends that this holds even in experimental fiction, non-realist prose, postmodern fabulation and other cases of reduced narrativity in aesthetic texts. She examines narrative prose to identify the mental functions which are activated in the reader's consciousness during the consumption of the text. Commenting on the role of experientiality and the human mind in her model of reading, she acknowledges that "consciousness plays a crucial role. It both mediates narrativity and constitutes one of its signifiers" (279), an intersubjective translation of experience. Categorically stating that "all narrative in my definition of the term fundamentally represents *another's consciousness*" (279, emphasis in original) reinforces the sense of empathetic communication between conscious agents, as in genres of oral storytelling, since it resembles the sharing of personal experiences and evokes sympathy for the fictional subjects of the story.

> Narration involves the conscious re-cognization of one's experience […]. In natural narrative's dynamics of evaluation versus the reliving of personal experience […], the factor of memory and of imaginative projection is very strong, and it mediates what was experienced in body and mind and transfers it to the here and now of narrative […] transmission. Literary narrative extends this […] by allowing a more sophisticated and also more variegated reshaping and projection of narrative experience. By placing natural schemata and natural parameters at the foundation of its theoretical architecture, Natural Narratology centrally incorporates consciousness as the basic factor of human cognition, emotion and experience. (Fludernik 1996, 279-280)

In hindsight, scholars of narratology can see the results of an early syncing of their field with the sciences of the mind. Narrative is being reconstituted in Fludernik's work as a form of fictional mental functioning, which simulates phenomenological stimuli of embodied experience for its aesthetic effects. She defines reading as an active, empathetic reconstruction and reinterpretation of the narrator's and the characters' life-world. This is as mimetic a conception of narrative as one can possibly get, not too far from Kendall Walton's idea of mimesis as make-

believe (Walton 1990) or Marie-Laure Ryan's interpretation of narrative as virtual reality (Ryan 1997). One major gain of literary theory from 'natural' narratology was the renewed vigour with which narratologists started anew at assessing the affective aspects of text-reader interactions, mostly mind-attribution to fictional entities. This was palpable in the work of David Herman (2003, 163-192), Alan Palmer (2004) and others, who rely on the Theory of Mind paradigm of folk psychology to explain the activities of interpreting character and narration.

Palmer's *Fictional Minds* (2004), albeit a precursor to Zunshine, is a more thorough attempt to read literary action as the product of thinking, interactive minds, which inspire the analytical purview of my work. He writes: "narrative fiction is, in essence, the presentation of fictional mental functioning. [... T]he study of the novel is the study of fictional mental functioning and [...] the task of theorists is to make explicit the various means by which this phenomenon is studied and analyzed" (5). His book is one long argument against the critical tradition after modernism, which sees the novel as the terrain of private thought, an inner life impenetrable by the characters of the storyworld to which readers only gain access thanks to the writer's efforts.

His emphasis on "the social nature of thought" (11) builds on Uri Margolin's contention that we should consider fictional characters as "non-actual individuals" (Margolin 1989), favouring our natural inclination to treat fictional characters as endowed with personhood. In his view, understanding any person in a novel requires interpreting fictional people's experiences in concert with their character, that is to say, their habits, beliefs and customs: "It is through the central linking concept of *dispositions* that characterization and thought presentation can be seen as different aspects of the same phenomenon. However, within narrative theory, dispositions belong to the subject area of characterization, and mental events belong to the subject area of thought presentation" (Palmer 2004, 43, emphasis mine). *Disposition* is a rather useful concept for autism, bringing to light the less deterministic and more humane vision of the autist's preferences and idiosyncrasies, in other words, the defining behavioural repertoire and psychological profile that makes autism so recognisable and yet so individual. Without being hyperbolic, living the life of an autist is all about accommodating a strongly circumscribed disposition to the ill-fitting sociocultural environment one inhabits. Taking a whole-mind approach to understand the autist's character, then, invites the scholar to identify how this internal disposition is expressed in mental events and social relationships on the narratological level.

One of Palmer's contributions to the revision of classical narratology is to take up arms

against narratologists' previous privileging of free indirect discourse as the most artful way of presenting the mental life of characters because it makes narration ethically more transparent:

> A free indirect perception reading takes responsibility for subjectivity away from the narrator, where it initially appears to be, and gives it to a character. Internal focalization readings can naturalize as a character's perception a good deal of discourse that appears at first sight to be pure narratorial description. By this means, the whole consciousnesses of characters can be expanded to include descriptions of aspects of the storyworld that are seen from their perceptual, cognitive, and evaluative point of view. This interface between characters and their storyworld is a highly informative way to link the internal consciousnesses of characters to their external social and physical context. (Palmer 2004, 49)

He urges us to re-evaluate thought report as more than a clumsy way of telling what characters feel, to read the descriptions of rooms and situations as inextricable from the focaliser's mental disposition. Due to their acute sensitivity to stimuli, their pattern-seeking and unique sense-making strategies, an autistic focaliser can show how the text conveys neurological difference.

Palmer asserts that we do an injustice to the richness of our mental lives if we continue to believe that every mental movement takes the form of inner speech, since it also harbours the "danger that the observation of literary conventions can easily harden into convictions about how the mind actually works" (74). He argues that the value of cognitive science here is to show that the linguistic stratum of consciousness is a thin layer atop a much thicker region of non-verbal consciousness. Because some autists are completely non-verbal, while others experience difficulties with linguistic expression, the very same thinking that attributes consciousness only to verbal performance is apprehensible in literary analysis and the understanding of autism. The 'fictional minds' approach, then, is a natural ally to autism novels, for both can foreground previously neglected ways of thinking, and they enter into debates about the nature of sociality and mental functioning with newfound vigour, albeit in different domains.

Even so, Palmer is not free from utilising disabling language and uncritically adopting the mindblindness paradigm. Discussing our experience of others as continuously minded beings despite the fact that we don't follow people's lives 24/7, he writes: "Our real-world cognitive frame enables us to construct a continuing consciousness for the absent person unless we suffer from an abnormal condition such as autism that causes 'mindblindness'" (199). Here and elsewhere, references to autism are tactically used in cognitive narratology as a scholarly version of step two in the *narrative prosthesis* thesis: "a narrative [in this case, of the normate mind-reading of fictional

minds] consolidates the need for its own existence by calling for an explanation of the deviation's origins and formative consequences" (Mitchell and Snyder 2000, 53). Cognitive literary studies that seek to explain why we care about literary characters have, time and again, resorted to ToM-based arguments about our faculty for appreciating literature without the sensitivity to the problems with the rhetoric of mindblindness and its privileging of normate mind-reading.

When narratology emphasises the transparency of literary mind-reading, most scholars in the field remind readers that the seemingly immediate access to the character's thoughts are strategically occluded when plot or characterisation demands. Ellen Spolsky writes that both tragic and comic effects can be produced by inaccurate mind-reading:

> Our greatest literary texts explore just these failures of inference and of mind-reading […]. They display mis-attribution of intentionality, failures to recognize the emotional entailments of actions, and the gaps between received communal norms and the values of an individual hero or heroine, often defined precisely by their standing outside the community. The *virtual certainty* of some failure of mind-reading or inference is not, then, a mark of the human (the human track record being weighted towards success rather than failure), but of the literary—that is, the tellable. (Spolsky 2010, 48, emphasis added)

Even though Spolsky's comments on inferential accuracy in the real world is there to explain typically developing people's successes, her thoughts also support a reading of how autism becomes tellable. If we take Spolsky's lead, we begin to see that the condition is narratively productive due to the ample potential for mind-misreading, which is just as virtually certain in autism as it is in fiction. This aspect will be salient when I discuss the tragicomic effects of the courtroom drama in Picoult's *House Rules*.

Beyond ordinary failures of mind-reading, H. Porter Abbott further identifies totally "unreadable minds," blank ciphers whose existence already implies a "conundrum," "arousing narrative desire" (Abbott 2008, 448). His readings of 20th c. literature which feature strategically occluded minds supply a handful of narrative uses to which these 'unreadable' minds are put, with one nineteenth century exception. Abbott's treatment of the unreadability of the fictional mind shares some resemblance with Ato Quayson's notion of disability serving as a hermeneutical impasse (see Chapter 7). While it is just one representational method for Quayson, this unreadability serves as the fundamental basis of interpretation for Abbott, who strongly advocates against readings which naturalise the inescapable otherness of the unreadable mind.

There are three interpretative moves that frame such unreadable characters, he claims. First, when we exercise our capability to think typologically, we essentialise and *stereotype* a fictional person based on the character's predictable behaviour. Or one can see them "as a function in the characterization of another" (451), which is to say, seeing them in the supportive role where the focus is on another, major character. Finally, "shifting the mode of reading from determining who [the character] *is* or how he *functions* to determining what he *stands for*[, so t]he unreadable character is read neither as a character nor a function, but as an idea" (452, emphasis in original), in other words, a *symbolic* reading. These strategies are eerily similar to the standard interpretative heuristic outlined in Mitchell and Snyder's narrative prosthesis thesis. On the surface, it appears as if two different strands of narrative investigation, disability studies and cognitive narratology have stumbled upon the same techniques of narrative display for problematic characters, with otherwise little connection between disability narratives and stories of the unreadable mind.

But, oh, when we actually look at his nineteenth century example, we find that Abbott bases his ideas about the unreadable fictional mind on a work of no less significance for disability studies than Melville's "Bartleby, the Scrivener," followed later by a discussion of Coetzee's *Life and Times of Michael K*, a text discussed as an example of intellection disability in Quayson (2007, 147-173). In fact, Stuart Murray's impeccably argued reading of Bartleby as autistic is the most convincing archaeological 'finding' of autism in a canonised literary piece prior to the construction of the autistic kind in psychiatric discourse (Murray 2008, 50-60).

It turns out that we cannot separate the contemporary fascination with autism and the new narratological trends that bring mind-reading to the foreground, after all. Not that Abbott does not try; he begins his argument about unreadability by acknowledging that the inability to mind-read can be a result of "pathology" (2008, 48). He brings together autism (he even mentions *The Curious Incident* by name) and psychopathy as two examples of a pathological unreading of the mind in realist fiction (what a company for autists to be in!), but he excludes these instances and takes "the mind that defies all efforts to read it" (449) as his proper subject. Are there any fictional minds like that? If the character is given enough textual space to excite the interpretative mind of a reader, aren't they given an opportunity to be understood? If the readers think that reading characters as people is an interesting interpretative exercise, won't their minds become more readable? Bartleby's signature phrase, 'I prefer not to' is read by Abbott as a

motif of such transcendent *bizzarerie* that it seems to come from outer space. Its combination of quaint diction, subjunctive formality, affectless politeness, together with the granitic resolve of its speaker's attendant behavior, takes Bartleby one step too far from any kind of plausible integration of character – an implausibility that only grows with its insistent repetition. (452)

Although he refuses to acknowledge it as an identifiable (and very human) character, the descriptive richness with which Abbott infuses these four short words of Bartleby is at once the antithesis of an unreadable character and a perfect description of how a 19th century author would have seen high-functioning autism. Abbott well-meaningly advises students of 'unreadable' minds that the ethical approach would be to read them "in a full acceptance of their insistent unreadability" (463), by which he implies that any attempt at explaining their actions or understanding their mindset would be an act of naturalisation. It also means that assessing these characters as unreadable minds "preclude empathy […] for empathy necessarily involves the presumption of a readable mind" (463). Contrast this with Stuart Murray's comment on a new Marxist reading of Bartleby, where he says that understanding the protagonist "as having a neurobehavioural condition stresses his humanity […]. It is all too easy to see Bartleby as a figure 'who scarcely qualifies as a human being' […]. What such a criticism ignores, because it is blind to the nature of its presence, is that a disabled difference might be a different kind of humanity" (58). I see that Abbott does not deny Bartleby's humanity, but he becomes the victim of his own mindblindness when he does not scrutinise the narrator's view of Bartleby and understands the odd scrivener as an unreadable character while he had the necessary information from reading Zunshine's account of autism to suspect that Bartleby might be disabled.

What then, are we to make of these Other minds in literature? Is the acceptance of difference as unreadability ethically sufficient from the narratological perspective? Answering the latter question first, I would prefer not to accept any strategy whose end product is a sophisticated articulation of 'we cannot possibly know one another, I respect your difference, but see it as unbridgeable otherness.' Autism fiction presents a subtler picture of mutual difficulties in connecting neurotypes. That is a picture of communicability, and an interpretative gap that points towards the possibility of empathy.

Which is not to say that textual representations of autism are 1:1 accurate scientific models of autistic cognition. Far from it. As Ellen Spolsky says, "[t]heories of mind, then, and the cognitive theories of wired-in connectivity between people on which they are based, are

particularly interesting in the study of narrative interactions, not because they promise a reality-based way of understanding characters or narrative that we didn't already have, but because they are situated on the border of the cultural and the personal" (Spolsky 2010, 48). Writers who infuse neurologically different characters with a life story similarly create a space for the personal and the cultural to meet at. But once we recognise that difference, we can proceed further, driven by our representation-hungry minds to make sense of others, and we seek out imaginative explanations for the behaviour of the Other, which fosters understanding and mutually intelligible interaction. One of the things that I aim to prove in this work is that this is a huge part of what autism novels do: making autism a readable and reading condition for both parties involved.

If we accept that our intersubjective lives are dependent on the neurobiological processing of biosemiotic signals that hint at the internal dispositions of other subjects (and the evidence from psychology indicates this to be the case (Decety and Ickes 2009)), we can argue that such interpretative exercise is woven into the social fabric of all societies and all social encounters. These encounters make people read the other person's body as a site of social meaning. They evoke intentions and emotions in both subjects, and there will be inevitable responses generated in both readers of the social body. It might be for this very reason that Norman Holland responded to Herbert Simon's foundational essay "Literary Criticism: A Cognitive Approach" (Simon 1994) on the pages of the *Stanford Humanities Review* by stating: "reader-response already is cognitive criticism" (Holland 1994). The 1994 Summer issue, featuring Simon's writing, Holland's reply and another thirty-two responses of acceptance and critique was the first time the academic literary establishment had engaged in earnest with cognitive science's promises for literary theory, as well as the risks of reductionism and the charge of obviousness.

Holland pointed out that Simon's cognitive view is reader-centred, giving 'sovereignty' to the reader (Nell 1988, 39-45) to interpret the text and bring one's personality to the fore when reading for pleasure. He wrote: "I wish my colleagues in criticism and theory would accept Herbert Simon's offer of cognitive science. […] American reader-response critics will find his ideas completely congenial" (Holland 1994). Holland's recent work, *Literature and the Brain* (2009) integrates the findings of neuroscience and psychoanalysis in a synthesis that is accessible and insightful. It gives further support to reader-response criticism's claim that interpretation is a creative act, similar to writing because "a literary text contains intersubjectively verifiable

instructions for meaning-production, but the meaning produced may then lead to a whole variety of different experiences and hence subjective judgments" (Iser 1978, 25). Holland clarifies the nature of this interpretative activity: he sees it as an act of creative simulation that arouses strong emotional responses because we are not compelled to act upon them (2009, 68-71). We attribute psychological meaning to the characters in a fictional work by bringing our own interpretative strategies to the work, derived from our psychological histories (126-272). To Holland's mind, this combination of inactivity and simulation is the most important neurological reason why we cease reality-testing, investing belief in the fictional world, akin to Coleridge's 'poetic faith.'

Holland's reader-response criticism also borrows the rhetorical, prosthetic role of autism to discuss the pleasure of creating and consuming literature. For all his diligence to work through the implications of neuropsychology's progressive research programme, Holland still talks about how "*victims* of autism" (emphasis mine) are subjected to neuroscientific inquiry, since they are a kind of "specialized population," distinct from ordinary people (but hopefully, no more so than left-handed people, the other group specified by Holland 2009, 14). In the section on unbalanced brains (284-286), he warns the reader about the constraints imposed upon the brain by the developmental processes of the human body and claims that extraordinary creativity in one domain usually comes with trade-offs in other domains.

The examples illustrating this statement range from autistic people and savants to gifted children, art students and even elderly patients with dementia. But it is used to a curious rhetorical effect: while he portrays people who experience dementia as gaining some creative skill: "sometimes, as ordinary mental abilities deteriorate, new talents emerge, say, for painting" (285), high-functioning autists are stripped of their creativity in this discourse, despite their prodigious talents. Holland notes that HFAs "can often execute astonishing feats of arithmetic or musical composition or visual art. […] Typically, autistics' brains have sacrificed emotional intelligence for some other kind. As a result, most neuroscientists agree that autistics, for all their talent, are not creative as we usually use the word" (Holland 2009, 285). This damaging representation is not supported by any references or citations, so we have to take Holland's word for it — never a good sign in a book that is otherwise so generous with citing scientific papers. For Holland, creative individuals "do not simply have a talent. They have an individual style […] linked to their core identity, itself embodied in corticolimbic pathways in the brain" (287), and in his logic, this excludes autistic people, as if they did not have a core identity or a functioning psyche.

What do we make of this, especially since Holland also quotes Colin Martindale's summary that the mental processes characteristic of creativity, *primary-process cognition* is "autistic, free-associative, analogical, and characterized by concrete images as opposed to abstract thought" (Martindale 1986, 456 in Holland 2009, 286)? Are autistic people merely talented, or are they the prime example of artistic, creative thinking? There is evidence that autistic children spontaneously produce narratives with a personal style expressing their situated perspective (Stirling and Barrington 2007, 133-172). Further evidence supports the claim that despite their eidetic memory or other extraordinary skills, autistic artists filter their perceptions to enhance those aspects of the artwork's subject that are most salient for them (Koo 2008), so the exclusionary move by Holland is not warranted by the available research. Still, positing creativity as paradigmatically 'autistic' misses the point that literary texts depend upon the frequent use of structuring metaphors, abstract thinking and the representation of intersubjective thought processes, which pose a challenge to the majority of autistic individuals. This example shows that even though cognitive approaches to literature supply literary theory with illuminating arguments and new knowledge, the new version of reader-response criticism is not free from using autism as a crutch to support their arguments. Holland contrasts domains of 'normal' life and abilities like creativity with the raw 'talent' of a Stephen Wiltshire, who paints elaborate cityscapes from memory. Martindale's strategy (also endorsed by Holland), on the other hand, is to romanticise said talent as the epitome of creativity, presenting autism as a pre-logical, unself-conscious, one might say primal or naive form of perception. In both cases, the experts deny the conscious artistic agency of the able autistic person in order to preserve the autonomy of normate creativity.

How should we evaluate these interactions between literary theory and autism, what are their merits and drawbacks? The approach grounds the persuasive power of literary texts in the imagination, the cognitive processes that facilitate meaning-making. That is why Holland calls it a "reader-active" model of interpretation, as the similarities between interpretations depend upon shared cognitive schemata, common assumptions that guide our language use. The differences that emerge are attributable to readers' personal histories, their associations with certain phrases or social situations that construe, reinforce or violate those schemata that have developed prior to the act of reading (Holland 2009, 171-210). If theory of mind is a central allure of literature, the approach gives a compelling explanation for the non-academic consumption of narrative fiction. Furthermore, it gives literary scholars a new terminology for interpretation. It imports

psychological concepts to reveal the functions of literary phenomena that were previously underdetermined by theory, such as the attribution of personhood to literary characters, the reason for emotional responses to fiction, the simulation of story-worlds, the skills and faculties of the readers that directly impinge upon the aesthetics of reception, and so on.

Regarding autism, cognitive approaches highlight the importance of social phenomena like empathy, mind-reading, pretence or metaphoric language use for their literary effect we create *via* reading a novel. This also underlines the difficulty autistic people experience when they have to navigate the fictional and the real world, which are guided by neurotypical assumptions. These can impede the integration of neurominorities by the presuppositions that different neurotypes bring to the table about the purpose of social exchange (even when represented in a novel) or the values of reading certain kinds of books (fiction vs. non-fiction, say, or genre fiction vs. the realist literary novel). Such assumptions in current cognitive theory about the value of certain forms of literature operate by methodically excluding autistic presence, or holding it up as an extreme, which theorists contrast with normate expressions of the literary.

When literary autism is present in a cognitive work, such as "Bartleby" or *The Curious Incident*, they are shown to be extremes, the constitutive outside of regular literary works of art, perhaps experimental, but definitely anomalies. Literary theorists, though well-read in some areas of the cognitive sciences, still neglect a more thorough investigation of ASCs and novels about the condition in order to state their case more powerfully, which has the deplorable effect of misrepresenting autism in scholarship. If we take the observations of disability studies into account, it confers a plethora of advantages on the cognitive critics that they would rather ignore. The richness and heterogeneity of personalities that autistic people bring to the table of literary criticism is best understood by complementing the interpretative foci of cognitive criticism with the sensitivity to the theoret(h)ical attention given to autism in disability studies. Their arguments about how to cooperate across neurotypes also raise the awareness of critics to the problems with the strict typological thinking of much cognitive criticism, which originates from an experimental psychology that aims to reconstruct the precise functioning of the brain based on the differences between clinical and non-clinical populations. The ethically responsible view on the functions of representing disabled difference enables critics of autism fiction to meaningfully discuss the artistic, rhetorical and compositional choices involved in featuring characters on the autistic spectrum that pure-bred cognitive commentators are yet to address in their work. This dissertation,

then, weaves together these different approaches to continue the work that Lisa Zunshine and Ralph James Savarese have started when they saw that cognitive literary criticism and disability studies have a lot to talk about (Zunshine and Savarese 2014).

Making the Autistic Story Tellable

There is an unspoken agreement between reader, writer and publisher, maybe the only thing they unanimously agree upon, about autism fiction: that autistic lives are worth telling. It might be a curious consensus, given that autism has been treated for so long as a disorder with no interiority, a reduced state of awareness and diminished consciousness. The experiential quality that infuses lives with meaning was missing; there was nothing the readers could sink their mind-reading teeth into. Rocking back and forth doth not a good narrative make.

As Thomas Couser has noted, parent memoirs of autism have sprung up in the 1960s and 70s, which could deliver the emotional ride, the ups and downs of struggling with autistic children, paving the way for later "autie-biographies" (Couser 2009, 5). Non-fiction writing was essential in developing the narrative patterns that generated an autistic interiority, among them the plot of 'overcoming difficulties' (often presented from within the able autistic subject) and the 'refraction of differences' story (contrasting an autist with a neurotypical counterpart). Indeed, the successful narrative embedding of autism inspired Stuart Murray to observe: "The 'overcoming' narrative is so dominant in the representation of disability that it almost seems that there is no alternative. If those with disabilities *don't* struggle against the limitations their conditions impose and make us all the richer for it, then what exactly *is* the story?" (Murray 2008, xvi). When written discourse enabled new ways of talking about the condition, autism became *tellable* as a lived experience, albeit in pre-conceived narrative structures, such as the overcoming narrative or the American conversion narrative (Fisher 2008, 51-64).

In discourse analysis and narrative theory, tellability denotes the attention-worthiness and personal motivation for telling a story. It began its life in the sociolinguistic analyses of William Labov's work (1972), but it was soon picked up by narrative psychologists and narratologists as well, and it contributed to the theory of 'natural' narratology. "The function of the story is to find an intentional state that mitigates or at least makes comprehensible a deviation from a canonical cultural pattern," writes Jerome Bruner (1990, 49-50). A story reflects upon the obstacles of one's

life, dilemmas of how to explain and evaluate turns of events that are meaningful to the people in the narrative situation. As such, the overcoming narrative might not just be prototypical of illness and disability narratives, but narratives in general: it is emotionally fulfilling to see our troubles resolved and then share them. This finds its echoes in the evolutionary argument that narrative is an adaptation for problem-solving, which aids cooperation by extending the empathetic circle of its receivers (Boyd 2009, 188-208). In this case, autism fiction becomes tellable because it is non-canonical or atypical, and the mutual mind-occlusion across neurotypes requires vicariously experienceable tales to construct schemata of "autistic sociality" (Ochs and Solomon 2010).

Tellability is a scalar concept; a person can evaluate events in their life as it relates to their well-being, desires and goals, some being life-changing, others mind-numbingly mundane. This evaluation is followed by another judgement: is it worth sharing with other people? Would it delight them; would they learn from it? How relevant is it to the community created by the speech act? These questions are automatically and instinctively decided in natural conversations because we are gregarious, social animals, and potential Gricean breaches are soon smoothed over by reparative talk. Tellability "can be concentrated in a single, precisely identifiable feature — the point of the text, such as the punch line or the piece of information wanted by the hearer — or it can be the effect of properties that operate throughout the narrative, structuring interest in the story as a sequence of peaks and valleys" (Ryan 2005, 590).

Such narrative performance in autism is impaired – most autists are not predisposed to personal yarns about their experiences if they can help it. And when they do, the stories carry peculiarly autistic features. Their tellability and relevance are not clearly articulated, the speakers omit necessary knowledge their partners do not share and seldom reflect upon the speakers' own perspective (Capps et al. 1998, Loveland and Tunali 1991, Tager-Flusberg 1995). Despite their aversions and troubles of putting their experiences in narrative form, they still soldier on. These children use personal narratives as technologies of the self, with which they can negotiate their (disabled) identities and avoid distressing events, manage the rewards they get or express their own opinion. "For children diagnosed with autism, such narrative interactions may take on special resonance regarding the ways in which they interface, display, and rework everyday understandings of typicality, disability, and difference in tandem with social and moral meanings and implications of such" (Sirota 2010). If autistic children find something worth telling, it is usually within the realm of their deep-seated interests or their capabilities, which are scripted

through family conversations as the central narrative themes of their lives. The inflexibility in the narrative scripts autistic children use and their relative inability to gauge an event's tellability can lead to social isolation and bullying (Dean et al. 2013; Carter 2009). This demonstrates both the community-building power of good judgements of relevance and tellability on the one hand, and autistic people's struggles to authenticate their experiences in social situations where neurotypical participants (the children's 'peers') refuse to be generous conversational partners on the other.

That gesture of social exclusion and the quest for identity is one of the conflicts that make autism tellable, and as a result, metafictional, too, since autism novels are fundamentally about the problems of telling one's story, offering an insight into the narrative condition of humanity. As Michael Bérubé's remarks, "[m]indedness is so obviously a necessary condition for self-representation and narration that it should be no surprise to find various depictions of damaged mindedness serving […] as meditations on the possibility of narrative representation" (Bérubé 2005, 572). Himself no stranger to, but largely sceptical of the cognitive paradigm, Bérubé finds narrative self-awareness to be an overarching theme and an important stake in the representation of (intellectual) disability, producing a valuable aesthetic effect. Deeming stories of cognitive disability tellable "enables a potential democratization of narrative representation, just as the expansion of autobiography to persons not ordinarily considered entitled to it represents a democratization of that genre" (Bérubé 2005, 575) – a worthy goal if there ever was one.

Are Autism Novels Unnatural Narratives?

Although a major movement within the field, not everyone is on board with the 'natural' or mimetic paradigm of narrative. Unnatural narratologists, for example, position themselves against this model of the narrative situation. Jan Alber and his colleagues have been collaborating on the interpretation of texts, passages, poetical vehicles and narrative designs that do not easily yield themselves to the mimetic standards of analysis developed by Fludernik. Their theoretical stance, first articulated in Alber et al. (2010) and crystallised later in *A Poetics of Unnatural Narrative* (2013), is to warn their fellow narratologists that

> [m]any narratives defy, flaunt, mock, play, and experiment with […] core assumptions about narrative. More specifically, they may radically deconstruct the anthropomorphic narrator, the traditional human character, and the minds associated

with them, or they may move beyond real-world notions of time and space, thus taking us to the most remote territories of conceptual possibilities. (Alber et al. 2010, 114)

This analytical stance makes intuitive sense in the case of fantastic and experimental, postmodernist fiction, but less so for realistic fiction that deals with autism. In an SF/F novel, magic, computer simulations or the supernatural elements of the story can rearrange the spatiotemporal organisation of the storyworld, and the ontological hierarchies of representation can be gleefully questioned, as written narrative is not bound by the laws of physics, only the limits of the human imagination. Yet, they would be jarring distractions in an autism novel, which locates its characters in a specific sociohistorical place in the actual world.

For my corpus of autism fiction, the stories are firmly set within our world, portrayed in the mimetic mode. Time, too, proceeds in an orderly fashion, albeit filtered by narrative conventions and the attention of the person experiencing its passage. I am happy to report that my narrators, despite their stigmatised identity, are well within the boundaries of humanity. Still, the discriminatory diegetic discourses which disable their fictional lives question their relationship to the 'traditional human character, and the minds associated with them' because of their atypical mental functioning. It creates a defamiliarising effect due to the underlying differences of the represented autistic mind. Insofar as unnatural narratology's programme studies "(1) the ways in which strange and innovative narratives challenge mimetic understandings of narrative and (2) the consequences that the existence of such narratives may have for the general conception of what a narrative is and what it can do" (Alber et al. 2010, 115), my dissertation investigates whether (1) the autistic mind can be considered 'unnatural' in this narratological sense but it does not reflect upon (2), for my conclusions will be inherently conservative about narrative identification and empathy, both being established functions of narrative.

The authors are admirably clear in defining what they mean by unnatural minds:

Unnatural minds appear in many different narratives. The reader is typically cued to evoke a mind, but this process is obstructed, disfigured or in other ways challenged by identifiable and describable features of the narrative. […]. The differences between the rather diverse forms of unnatural minds may be sketched out as a continuum ranging from well-known and thus conventionalized cases of unnatural minds to the most bizarre and opaque cases found in experimental fiction. In between these extremes, we find a wide range of narratives that clearly facilitates the reader's inference of a mind while at the same time either imbuing this mind with abilities that transgress those of human minds or *deconstructing one or more of the key elements of a working human*

mind. (Alber et al. 2010, emphasis added)

Even if the authors speak of omniscient narration and impossibly omniscient 'limited' focalisers (e.g. first-person narrators) as prominent examples of an unnatural mind at work, the last clause captures the facet which enables me to treat the autistic mind as a threshold case for unnatural fictional minds. An autistic mind is indisputably a working human mind, but its principles of understanding the world does deconstruct the assumptions supplied by our theory of mind, which governs the perceptions of social norms in the neurotypical community. As long as the character's perceptions of the represented world, their inferences drawn from that context, their emotional response or their physical actions substantially differ from how an anthropological model reader would react to that situation, we are witnessing an unnatural mind at work in the text.

Further support for the inclusion of the autistic mind within the scope of the unnatural comes from Stefan Iversen; he identifies "certain types of subversive, arresting, strange, and odd minds that one encounters in narratives" as the proper domain of narratological inquiry about unnatural minds (Iversen 2013, 94). It would be an understatement to say that oddness is the main draw of the represented autistic mind for neurotypical readers. Contrasting unnatural narratology with the advances of cognitive approaches to literature, Iversen shows that Alber's work continues the cognitive programme by facilitating the interpretation of strange minds, which Iversen calls a "renaturalizing" strategy (95), whereas he puts Abbott's work as exemplifying the "nonnaturalizing" (96) tendency, a respectful approach that does not erase the basic unreadability of unnatural minds. He creates a rough-and-ready threefold typology of unnatural minds based on what kind of reading they invite: 1.) a mind that becomes *naturalised* is explained diegetically to be the way it is by the narrative devices of the story; 2.) a mind that remains impossible is non-mimetic but *conventionalised* by the genre in which it appears (such as tales of human-beast transformations in comic books) and there are instances 3.) in which neither of the two options above prove to be a successful strategy to integrate the aberrant mind into the story, thus it becomes an *unnatural mind proper*, described as "a presented consciousness that in its functions or realizations *violates* the rules governing the possible world it is part of in a way that resists naturalization or conventionalization" (97, emphasis added).

The question returns, with some urgency: Does the autistic mind fit into this latter category? To a degree, both of the evasive strategies are used in middlebrow fiction to enable the

empathetic reception of the autistic mind. Like Ato Quayson's ideal category of "disability as normality" (2007, 52), autism novels explain disability as neurological difference, a naturalising strategy that anchors said difference in the mind. But the actions the autistic protagonists face cannot be explained "with the aid of text-external cues such as knowledge of how actual minds *typically* work" (Iversen 2013, 97, emphasis added). Neither can autistic minds be interpreted as artefacts of genre conventions, like science-fiction robots' positronic brains, and thus be allegorised. However, autism fiction gives "text-internal clues" (97) that seek to enlighten NT readers about autists' behaviour, often in a bluntly didactic sense, at the very least making their minds readable, and possibly 'natural'. Even so, Iversen uses clear and precise language to address narrative relativism as the benchmark of unnaturalness: "the unnatural is unnatural compared with the naturalness set forth by the specific narrative, not compared with some sort of global naturalness, whatever that might be" (98). Autism fiction plays with the boundaries of normality, and even when its aesthetic effects serve to humanise (or naturalise?) the autist, the effect itself depends upon the neurological differences outlined by the narrative. Iversen's survey of psychology and narratology might help us decide if we're on the right track.

To state the case for the place of unnatural narratology against mainstream cognitive literary studies, Iversen launches into a stimulating review of the dominant mind-reading paradigm. He builds his account on criticism coming from the interactionist school of folk psychology, notably Shaun Gallagher and Daniel D. Hutto's work. He recites the standard account of cognitive criticism, citing evidence for mindblindness in autism and he reproduces the theory-theory vs. simulation theory debate's claims without mentioning that hybrid approaches exist. Ultimately, he identifies the assumption of similarity from self to other and from actual to fictional minds as the lynchpin of the simulationist claim. Rallied under the banner of being *Against Theory of Mind* (Leudar and Costall 2009), the philosophers and psychologists whom Iversen cites argue that the dominant paradigm is a "closet Cartesianism" (Sharrock 2009, 191-208). They insist that modularist claims are underdetermined by the current scientific evidence and the hegemonic rule of ToM is a result of the control that can be exercised in the experimental setting or its adaptability to different groups rather than its validity (Hutto 2009, 241-238).

The alternative they offer is the "Narrative Practice Hypothesis" (Hutto 2007, 2008), which posits that instead of theoretical hypothesis testing or innate simulation, children simply learn to understand their fellow human beings as social agents by participating in interactions with their

caregivers, using language to refine their mental-emotional vocabulary and expectations about internal states. They present the premise that other minds are occluded and unknowable as a false claim, because people's embodied behaviour and social engagements with others offer enough insight into the workings of other minds (Gallagher 2008). Based on these assertions, it logically follows for Iversen that we do not apply the same practice to real and fictional minds: "in real life we rarely read minds, whereas in fiction we have no choice but to do so," thereby rejecting the ToM as a universal heuristic for intersubjectivity in real life. He calls upon folk-psychological motivations for behaviour in the consumption of fiction since these attributions "normally happen effortlessly; but narratives that stray from or disrupt or subvert the norms or rules of our folk psychological competences pose an interesting methodological challenge" (Iversen 2013, 103).

That they do, and autism is not ruled out by this definition, for it is one case where the protagonist goes against the grain of typical readers' native psychological competences. Especially not when we consider the autobiographical writings of HFA individuals, whose lived experiences, as another contributor to (Leudar and Costall 2009) observes, closely mimic the standard ToM narrative of interpersonal epistemology. Autistic people's social condition and their algorithmic understanding of everyday situations suggest that, at least,

> they do resort to an intellectual theory-driven approach in their efforts to make some sense of what are to them confusing and unpredictable social encounters. […] In the absence of sustained experience of mutual empathic engagement with other people, and their difficulty in reading social and affective signals, these individuals find themselves in a position where they have to intellectualize social interactions. (Williams 2009, 165)

Whether simulation theory would offer a suitable alternative for typically developing individuals is not discussed by Williams, but her chapter on autism rejects the Theory-Theory approach for NTs and it helps the scholar to make sense of Iversen's critique of the cognitive paradigm, as well as the unnaturalists' claim for the inadequacy of ToM discourse. What Iversen does not address is whether the ToM approach might be useful for *other populations.*

I would contend that despite the present lack of consensus about the mental mechanisms for social epistemology, the people who are certainly amenable to ToM-based readings are precisely the autistic characters. Iversen cites Abbott's paper on "Bartleby, the Scrivener" (Abbott 2008) as the *par excellence* unreadable, and therefore, unnatural mind. He takes the scholar's

assessment of Bartleby's bizarrerie at face value, without applying his knowledge of the autism spectrum to the character, an omission that is repeated with Williams' chapter in criticising the ToM approach. The systematic inability to connect the dots between neurologically different characters and the awareness of autism as a foil for effortless mentalising that haunts the whole cognitive enterprise is reproduced in full by the unnaturalist school here.

An autistic mind is not an "impossible mind" in the sense Iversen uses for his analysis of a transformation narrative (2013, 104-109), yet it also cannot be fully naturalised in autism fiction. Nor can it be conventionalised as a staple of a genre. Its invisibility for the study of unnatural minds should be attributed to its borderline status: not quite insane or mad, not quite occluded but far from transparent, defying the natural interpretative strategies for social exchange, yet real and mimetic. Like Abbott, the unnaturalist school would prefer to not read autism into Bartleby – doing so would count as a naturalising strategy. But the anomalous status of neurological difference could work as a land bridge between the unreadable and the unnatural, the anti-mimetic and the disabled. Just like the human-animal transformation narrative, the autism novel "dislocates the distinction between the mind as an intramental phenomenon and the mind as a social phenomenon in an instructive way, especially with regard to the distinction between internal and external minds" (109), and the examination of limit cases must inevitably reposition cognitive literary studies within a more inclusive framework.

"We are here to care for the garden
The wonder of birth
Of every form most beautiful"
– Tuomas Holopainen (Nightwish 2015), "The Greatest Show on Earth"

Choosing the Right Novels

If we see autism as a 'disease *du jour*,' a mirror of an electronic decade or two, it no doubt explains the surge of interest in popular fiction devoted to the condition, but seeing it *only* as the disease of the day risks underinterpreting its success. Autism in literature might not sound like a vast, inexhaustible topic, but this very popular interest assured that writers rose to the hermeneutic *and* empathic challenge of presenting a convincing version of the autistic mind for a neurotypical readership. Hence the rise of the middlebrow autism novel, which is targeted at female readers and the supporting family of autists, especially mothers and spouses, and gives them an opportunity to step into the shoes of their autistic loved ones.

The new genre is an easy treat for disability scholars, too, who tend to interpret disability narratives on the basis of an ethical commitment to equality in representation, hunting for inaccuracies, decrying stereotypes and championing difference. Still, as Irene Rose eloquently put it in connection with *The Curious Incident*'s success:

> I suggest that it is time that a thorough exposition of the novel and its contemporary climate be undertaken to explore how the novel managed to be so effective in responding to its cultural moment that it was subsequently enabled to cross over from fictional to ethnographic status. Furthermore, I suggest that this requires a move far beyond the notion of reductive representation or stereotyping and the theoretical foreclosure such a position engenders. (Rose 2008, 56)

This dissertation has already responded to Rose's challenge, and I intend to explore some of the typologies and foreclosures the attitude of literary disability scholars have attempted to institute.

Since my dissertation examines autistic mental functioning on the textual level, this leads me to analyse novels which feature at least one *point of view* character on the spectrum. From this

still admittedly large pool, I have striven to select those which have already generated some critical response in literary disability studies in order to engage in dialogue with current scholarship. The final objects of my study, Mark Haddon's *The Curious Incident of the Dog in the Night-Time* (a young adult book), Elizabeth Moon's *Speed of Dark* (a science fiction novel), Claire Morrall's *The Language of Others (*a British novel of manners hewing closest to highbrow literature) and Jodi Picoult's *House Rules* (a multiperspectival legal drama) are high-profile works. I have chosen them to showcase how different novels articulate their thematic and compositional position on autism despite a shared Anglo-American cultural discourse.

These four case studies branch out to different aspects of autistic lives, and I use them to develop separate theoretical problems for cognitive literary studies. Haddon's *Curious Incident* is curious because it is the most self-reflexive and experimental novel, demonstrating a certain disability of the narrative itself, which explores the fringes of storytelling when it is filtered through Christopher Boone's Asperger's Syndrome. Compared to *Incident*, Moon's *Speed of Dark* is a more straightforward narrative that thematises neuroethics in a near-future setting, whose autistic protagonist, Lou Arrendale has unique perceptual abilities and social difficulties which foreground the 'social norms of cognition,' a concept I employ to accommodate a critical ethicognitive reading of the autistic mind at work, both figuratively and literally. The most mature protagonist we meet is Jessica Fontaine in Morrall's *The Language of Others*, who has to mitigate the damage inflicted upon her during a disastrous, abusive marriage, in which her autism plays a significant role. Central to my interests here is the depiction of interpretative ambiguity in social understanding, the consumption of fiction, as well as questions of vulnerability and violence. Finally, Picoult's *House Rules* is an excellent case study for the strategic use of frequent POV shifts in a bulky novel written from the perspective of five different characters, which prominently features representations of deep intermental thinking and the social mind in action in the service of empathic engagement.

Reading Strategies for Interpreting Autism Novels:
The Literal, Figurative and Suspicious Mode

The pioneering work of Ian Hacking has been a springboard for most culturalist accounts of how autism was construed as an entity, and his thoughts are a wonderful starting point to produce a theory of context. As a historian of science researching ways of 'making people up,'

Hacking has been studying modern autism as a kind-making exercise in carving human nature at its psychological joints. For him, this includes every sort of writing dedicated to autism beyond the scientific, including autobiographies and fiction. Reviewing his essays on literary works about autism yields several conclusions that will affect my own analysis of narrating the condition. His paper "Autism Fiction: A Mirror of an Internet Decade?" (2010b) comes with a cautious question mark attached to the title, but it is shed when Hacking begins writing in earnest. Painting with broad brush-strokes, he surveys thirteen novels to evaluate and categorise them thematically according to how they treat autism. After setting up categories for solid journeyman writing, exploitation fantasy, and young adult science fiction with an autistic twist, he singles out Mark Haddon's *Curious Incident* as a trend-setter book, which fits into no specific box. Then he moves on to so-called 'retroactive fiction,' which actually turns out to be a set of retroactive *readings* of older fictional pieces – a method about which I have my reservations.

Crucially for my own corpus, he creates the largest category in his taxonomy for the "autistic computer geek" or "techs are autistic" theme (Hacking 2010, 648), where two of my selected novels fall, Moon's *Speed of Dark* and Morrall's *The Language of Others.* Although he admits that this category is the only one to directly address the Internet decade, he nevertheless attempts to connect all the novels included in his survey. His conclusion is a strongly limited reading in my view: although the "connection between autism and the Internet is connected in only a loose way with banal chat about techs having autistic traits, [even in the silly novels] there is the recognition [that] new ways to communicate [change the life of the autistic hero, a recognition] of a communicative life other than the ancient neurotypical one" (653-4). This is a reading that *erases* how autism contributes to the discussion of the relationship between social interactions and their corporeal and technological mediation.

Further proof for this tendency is supplied by Hacking in the final paragraph: "Now read the entire genre […] as about creatures who can become fulfilled only by [the Internet]. Thus the attraction for the subsidiary theme, of the nerd as autist and the autist as nerd. [… T]he role of this trope […] is not to tell the truth about autism. It is to reflect an aspect of our times that we are only beginning to think about" (654). This is a highly suspicious reading, one that grafts autism onto these fictional works to direct attention away from the sensory world and the mental processes of autistic individuals to other concerns. Favouring such a contemplation of the (im)possibilities of communication instead of an empathetic attention to personality replays the logic of autistic

cognition and structuralist narratology, where people and characters are viewed as functions in a greater structure, even if the two strategies of reading are not related *per se*.

The phenomenon of autism has become an omen, a warning sign that something in our culture has gone awry, and this shift in society contributed a great deal to the prominence of the condition. But Hacking tries too hard to historicise autism and therefore produces an allegorical reading. Other scholars have attempted this route, with similar success. Kirby writes that today's society is a "digimodernist" one, in which a "universal autism" produces "a social system identical with (pseudo)autistic traits [whose] individuals [are] assimilable to autists" (2009, 229). Surprisingly, he also embraces the converse of the argument, that autism is also a "ready-made antithesis of the peculiarities of today's world" (231). He attributes this to other demands: the demand to be hypersocial and urban spurns the solitude and silence of the autistic person; digital capitalism – with its flexible multitasking and precarious workplaces – goes against the autistic person's need for constancy, ritualistic sameness; the drive to become popular and to express one's self in the present with no regard to deep learning or a knowledge of the past clash with the monomaniac, in-depth, nerdy awkwardness of autism, and many other cultural symptoms are marshalled in to argue that contemporary social life excludes autistic subjectivity (231-233).

Personally, I find the argument that autism fiction is more enlightening when read metaphorically (to express general anxieties about communication in an Internet era) to be a misleading interpretation, as it explains little about the aesthetic function of the condition. It is also a rehashing of Mitchell and Snyder's wider thesis about disability's role in narratives, which suggests that "[disability's] function in literary discourse is primarily twofold: [it] pervades literary narrative, first, as a stock feature of characterisation and, second, as an opportunistic metaphorical device […] Disability lends a distinctive idiosyncrasy to any character that differentiates the character from the anonymous background of the 'norm'" (2000, 47). Even if Hacking suggests that it is the authors who use autists as 'opportunistic metaphorical devices,' I would contend that it is rather the analytical lens used here that distorts its object of study.

Hacking's metaphorical and suspicious interpretation instructs us to consider one, presumably counterintuitive kind of reading, one of reflection upon neurotypical self and society, that closes down other interpretative routes (like disability as an embodied, enminded experience) which produce empathetic readings of the protagonists. Even in his earlier work on autistic biographies, Hacking maintained that "that the autobiographies do not so much describe the mental

life of their autistic authors, as constitute it by choosing words from ordinary language to be applied in connection with their behaviour" (2009, 1472). This is an insight I find merit in, since prior to the publication of these autobiographies, autists were perceived as the exact opposites of speaking subjects, who could not authoritatively talk about their lives, so these lived experiences are constituted linguistically on the pages of these autobiographies. I still fear that Hacking's conception of life-writing also implies that there is nothing to be described prior to the act of writing, only behaviour, as if there were no referents (experiences) to the words.

In fact, as virtual autobiographical snippets, autism novels with internally focalised narrators often make references to earlier episodes from their mental lives that had puzzled the protagonists until they learnt the problem-solving shorthands to interpret neurotypical behaviour (this will be most palpable in Morrall's *Language*). These areas of experience also include – despite all notions of a discursive, performative *ex nihilo* creation of culture – an embodied, non-linguistic layer of mental life that is prior to its verbalisation. Obviously, no analysis of novels can *prove* that people on the spectrum have a qualitative understanding of their experiences, but this way, Hacking subscribes to a notion of logocentric consciousness that only exists insofar as it is expressed in words. This is epitomised in his subchapter heading called "texts not people" (2009, 1468). This is where we most differ as, following Alan Palmer, I shall approach characters in the novels I am about to explore as virtual people, or, more precisely, fictional mind(-bodie)s in action.

One of the benefits of the cognitive narratological approach is that we begin to notice a deficit in literary studies. Scholars have a tendency to glean consciousness from speech, usually textual speech, without evidence from other disciplines which observe and interpret non-linguistic human behaviour. This is why I feel the need to anchor a critical discourse on the aesthetics of autism novels in results obtained from cognitive psychology and the neurosciences, two fields which investigate the qualitative dimension of human life, even in its neural correlates, and give us explanations that move beyond hermeneutic interpretations.

My goal in amalgamating empirical observations with interpretative claims is not to subjugate literary analysis to one particular conception of a very plastic human nature. Instead, I hope to bring two valuable, but divergent strains of thought into conversation with one another. One is literary scholarship and its traditional ethical concerns with power and our sensitivity towards the relationship between thought and language, our emphasis on individuality and group solidarity. The other is cognitive psychologists' and neuroscientists' exacting, methodologically

rigorous, empirically supported and often hotly debated research about the functioning of the human mind, which eliminates more implausible theories to zone in on a probabilistically true account of how our mind-body affects our experiences. As William E. Connolly aptly observes, our conceptions of scientific truth influence our vision of what to expect of other people, and ongoing debates about what is a normal and/or acceptable range of (neuro)diversity have a significant effect on how groups of people interpret one another. Connolly developed the twin concepts of the *body/brain/culture network* and *multidimensional diversity*, to name a tangled web of corporeal interactions that shape our lives, and a desirable way of relating to different segments of the population, respectively (Connolly 2002, 1-22) to which scientific understanding massively contributes. The authors of the autism novels I investigate also recognise that the discourse of autism is symbiotically intertwined with its scientific image. There can be no talk of autism without some recourse to scientific knowledge, may it be a rebuttal, a critical reassessment or an illustrative validation of its findings. As a literary scholar, I participate in Hacking's thought experiment to see what comes of analysing the "form of words that represents how the autist felt, or seems to remember feeling" (2009, 1473), but I cannot ignore scientific truth claims about living, diagnosed people, about human empathy and emotional responses to other people, whether real or fictional.

Hacking builds up a strong theoretical edifice to interpret autism in his book called *The Social Construction of What?* (Hacking 1999). It revolves around the idea that kind-making can be a one-way street, when a new category does not change the object of observation (for example, discovering quarks and dolomite). These are *non-interactive (or indifferent) kinds*, like most of the natural scientific concepts. There are others instances, where concepts forged in the research process have a tangible effect on the object of study (such as abused children or autists); they are *interactive kinds*, which usually populate the books and papers of the human and social sciences. He locates autism as a borderline case for this classification, since the psychological literature suggests that the condition is rooted in our brains and biology, while autists are human beings who respond to the way their environment treats them. He writes: "Here we want to say both that childhood autism is […] a certain biological pathology P, and so is a 'natural' kind or an indifferent kind. At the same time, we want to say that childhood autism is an interactive kind, interacting with autistic children, evolving and changing as the children change" (Hacking 1999, 119). This double nature of autism – both as an ingrained set of behaviours and as the changing experiences of autists – will constitute a curious dynamic in how characters understand the effect of autism on

their lives. The culture created by the difference of autists and their thought styles, to appropriate Ludwik Fleck's term (1979), can teach us to defamiliarise our own and to appreciate their original contributions to our repertoire of human behaviour.

Just as literary critics can learn a thing or two from neuroscientists about culture, so can literary scholars reveal that the neurological research of cognitive functions "show us how the inwardisation of culture, replete with resistances and ambivalences, is installed at several levels of being, with each level both interacting with the others and marked by different speeds, capacities, and degrees of linguistic sophistication" (Connolly 2002, 6). Both thinkers' insistence on the importance of interaction, internality and the attention to verbal expression links Hacking and Connolly as useful theorists for interpreting autism novels. The supervenient and interactive structure of genetics and their environment, evolved psychology, cultural ideologies, individual behavioural strategies and personal history come together to imbue flesh-and-blood autistic people with unique and collective identities. These have to be recreated in fictional form for novels about autism to appear plausibly authentic and psychologically compelling for the reader.

In analysing novels, literary critics should incorporate the findings of the extensive scientific literature on autism, for two reasons. Minimally, so as not to mischaracterise the current literature as excessively derogatory of autistic abilities and as emphasising deficits over strengths. And more optimally, to judge the history of science in the making with a more constructive eye towards the standards of evidence required by the experimental procedures. Indeed, autism's main feature is this inwardisation of personality, and the ambivalent nature of autists has certainly helped to generate an enduring fascination with the condition. A fascination that is begat by the need to scientifically explain the condition through the ethnographical description of autists and by writing the imaginative, emic accounts neurotypical writers produce for consumption. I investigate how the mutual dependence of scientific and literary discourses shape our tradition of images of autism. In doing so, I also heed the call of Hacking to arrive at an interpretative framework about specific forms of kind-making, which in this study will be the proximate causes of the emergence of autism fiction: "We need a detailed example to get some sense of how, in ordinary life, we select and organise new kinds. We need an example of evolving tradition, not evolution over a thousand years, but evolution over a few decades" (Hacking 1999, 130). In my opinion, the representational methods of the novels are an instructive case study for the evolving tradition of autism fiction that elicit readerly empathy while creating a more neurocosmopolitan community.

Writing about J. M. Coetzee's *Life and Times of Michael K.* (2007 [1983]) and reading the protagonist's silence as a sign of autism, Quayson asserts that "the project of identifying autism in writing that does not explicitly set out to present itself as dealing with that condition is an elusive and fraught process" (2007, 152). He cautiously maps out the territory of autism and yet, once he begins to enumerate works suspected to feature autistic characters, and the need to add to the list takes over, caution is thrown to the wind: "once we begin to think of such *silent* characters as illustrating aspects of the autistic spectrum, we begin to see how widespread autism features in literary writing" (2007, 153, emphasis mine). The problem is that Michael K. would probably not be diagnosed as autistic, given that a) nonverbality is not, in and of itself, a sufficient condition for diagnosis and b) a great deal of the autistic characters are far from mute: they can experience the world narratively (evidenced by internally focalised discourse) and they can converse with other characters. Quayson problematically equates an almost mutistic silence with autism: "in the case of the representation of the autistic spectrum, the point of interest is not so much that the thoughts of the autist are dialogized [...], but that this orientation is performed *against* the autist's desire for absolute social silence and separation from social intercourse" (154). Alas, this characterisation can only account for one group of autists, the 'aloof' group, who do indeed shy away from extended social intercourse, whereas people with autism who fall into the 'active, but odd' or the 'overly formal' group are happy to socially engage others.

To my mind, Michael K.'s autism is not at all proven or consistently argued for by Quayson. When he suggests that "[t]he main difference between an autist and another character that chooses to cultivate their solitude-in-silence is that the autist *elects* silence as a way of completely disavowing or at the very least sharply attenuating social interaction" (155, my emphasis), it implies a false sense of deliberateness, a choice, as if autists used their silence to achieve a purpose, and their silence becomes a symbol in this kind of reading. This is certainly not the case with a varied group of people, who might or might not experience a delay in language acquisition, might or might not develop echolalia as an intermediate stage of communication and might or might not improve verbal skills in the course of their lives. Michael K. certainly does not live up to the classical nonverbal autist's image. He might be a man of few words, but he does use sociopragmatically appropriate, neurotypical language to achieve particular social goals. While he is characterised in the book as intellectually disabled, that disability is unlikely to be autism.

Quayson downplays the alternative interpretations which would anchor his occasional silence in his broken family and institutional upbringing, writing that "[e]ven though […] it would seem that silence was imposed upon him as a parental and educational injunction to good behavior, it is also *evident* that the injunction to silence is further assimilated to his *own desire* to avoid social interaction of all sorts" (164-165, my emphasis). And yet, precious little evidence is given that he desires to avoid all social interactions *versus* his desire to escape oppressive and inhuman interactions with people, more or less the only kind he experiences throughout to novel.

Despite Quayson's interpretative weakness in reading a particular postcolonial novel as a case for autism, *Aesthetic Nervousness* does give scholars an important taxonomy of functions disability can serve in novels. His provisional typology of disability representations (36-53) is more useful in making nuanced distinctions between the functions of disability in literary texts than Mitchell and Snyder's thesis. I shall only be discussing those categories which pertain to the four novels I am interpreting. The most straightforward cases Quayson starts out with are the works "in which [disability] acts as some form of ethical background to the actions of other characters, or as a means of testing or enhancing their moral standing" (36), partially overlapping with Stuart Murray's 'narrative refraction.' In this topos, the neuroatypical character is meaningful only in terms of what "other characters learn from their proximity to the condition. All the films [Murray analyses] use the refraction narrative of paired impaired/non-impaired characters not only to explore ideas of difference, but also to illuminate for majority audiences questions of individual responsibility, behaviour and knowledge" (Murray 2008, 123). Quayson calls this set of representations *disability as null set and/or moral test*.

The second set of depictions of autism are closely linked to the first, but they emerge in response to the colonial vision in the nineteenth century where "disability representations [are] used to raise a different set of problems, sometimes going well beyond concerns with social hierarchies and relationships to embrace the confluence of imperialism and the production of various Others" (37), including race, gender, sexuality, and social identity as a function of moral choices, but the moral test is balanced out with the presentation of alterity. Quayson names this strategy *disability as the interface with otherness (race, class, sexuality, and social identity)*. This is complemented by the second meaning of Murray's narrative refraction. Acknowledging his debt to the narrative prosthesis, Murray fine-tunes the earlier concept by highlighting that "the representations [refraction narratives] contain are characterized by *a focus on ontological and*

'human' difference that frequently depicts an individual with autism in relation to an individual with ostensibly typical (non-impaired) behaviour and *mediates an idea of the human* by a refractive comparison of the two" (Murray 2008, 13, emphases added).

Quayson creates a group for stories where disability signifies a transgression from the realm of the profane to the realm of the sacred, defining a temporally-ordered pattern, a "shift from innocence to ritual transgression and contagion on to sacredness," "marking [the disabled characters] with ritual danger, so that they have to be driven out to avoid the total destruction of the rest of the community," "while […] the wider society [desires] to acquire or at least gain access to a boon that these disabled characters possess and which is seen as critical for the well-being of the society (46). This aspect of *disability as signifier of ritual insight* will appear in a more modern, technicised format in several of the autism novels under analysis. The tech-savvy autistic nerds often possess highly developed coding and pattern-recognition skills that NTs see as almost supernatural. Some of them will want to exploit autistic skills for industrial purposes while neutralising the more challenging facets of neurological difference that renders autists disruptive of the standards of normal society.

Varying degrees of verbality in autism and a general difficulty of mutual intelligibility also predestines autists for their disability to appear *as inarticulable and enigmatic tragic insight.* Quayson notes that "the recognition of the tragic ethos by the disabled female character coincides precisely with their inability to speak of the terrible tragic knowledge to which they bear witness. All that is left is a series of fragmented enactments of the self, posing an enigma for the characters […], the reader and spectator" (48-49). A variation of this topos will be apprehended in Morrall's *The Language of Others*, albeit with a twist: Jessica Fontaine's emotional expressions and attempts at communication are channelled into music from an early age, and it is only later on that she realises that her own inability to connect to other people is rooted in her Asperger's, which she passed on to Joel and could not articulate *to herself* until the end of the book.

Still, the two most useful categories among Quayson's nine are the ones that drive readers' needs for more empathetic, interpretative engagement and capture the autism spectrum at its most diverse. He names disability as a site of a *major hermeneutical impasse* in some cases, "a manic urge to interpret, provoked by the disability, which nevertheless does not lead to any enlightenment" (49), with the disabled characters being a "mocking enigma" (50). Finally, there are an increasing number of works in which "the disabled characters are completely normalized

and exist within the full range of human emotions, contradictions, hopes, fears, and vague ideas, just like any other character" (51), that is, which treat *disability as normality*, and it is "used as a pointed critique of social hyprocrisy and indeed of social institutions in general" (52).

I would argue that all the four books in my corpus belong to this trope, since their protagonists are fully developed characters and we gain a great deal of insight into their inner workings. Their actions and thoughts are critical of their social environment that stigmatises autism, but that does not mean the rest of the categories are of no use to us whatsoever. Actually, most of the tropes and functions of disability listed by Quayson appear in my corpus in one fashion or another, mostly expressed through the neurotypical characters who interpret the autistic hero(ine)s along the lines of earlier stereotypes. Even so, the authors shape their story to make significant thematic points unrelated to disability which nonetheless gain their meaning from their interaction with it in ways which Quayson has observed.

CHAPTER 7

THE CURIOUS EMERGENCE OF THE NEUROLOGICAL OTHER AT THE TURN OF THE MILLENNIUM: MARK HADDON'S REPRESENTATION OF THE AUTISTIC MIND

"I want to travel where life travels, following its permanent lead
Where the air tastes like snow music
Where grass smells like fresh-born Eden
I would pass no man, no stranger, no tragedy or rapture
I would bathe in a world of sensation"
– Tuomas Holopainen (Nightwish 2011), "Song of Myself"

No-one was really prepared for the popularity of *The Curious Incident of the Dog in the Night-time* (2002). It was a brave decision for Mark Haddon, an acclaimed author of children's literature, to write a book for adult readers from the perspective of a cognitively disabled teenager. Published at the height of the MMR vaccine scare, it broke new ground, as few novels have sought to portray autists before, let alone featured a protagonist on the spectrum. But following the Decade of the Brain between 1990 and 2000, the changes of the DSM (IV in 1994), as well as the passing of the Individual with Disabilities Education Act in the US in 1990 and the enactment of the Special Education Needs and Disability Act in the UK in 2001, both countries were aware of the rise of disabled people participating in the public realm.

Upon publication, reviews were glowing. It was hailed in *The Guardian* as "a funny book, as well as a sad one [that] demonstrates the rich idiosyncrasies of the autistic brain" and "brilliant" (Moore 2003) – on the pages of *The Telegraph*, Christopher was introduced as "a wonderful fictional creation; a believable, oddly lovable character and a moving education in difference" by later poet laureate Carol Ann Duffy (Duffy 2003). No doubt, its success owed much to being written at the right time and the right place, but reviewers agreed upon the freshness and originality of the conceit. In their minds, the book represented autistic consciousness from the inside to comment upon the state of society and sociality on the new millennium.

The novel itself does not use the words 'autism' or 'Asperger's Syndrome' anywhere within the body of the text. Its protagonist, 15-year-(and-3-month-and-2-day)-old Christopher was never labelled disabled by the author. In a recent interview, celebrating the Olivier Award-winning stage adaptation of the novel, Haddon continued to express his view, calling it "'my dogged position[,] that it's a novel about difference', not about disability, adding that he thinks 'the

disability, if you want to call it that, is not something that an individual possesses, but is a quality of the relationships between people'" (Rustin 2013). His view resonates nicely with the social model of disability, reproducing its main argument in a concise phrase. As for Christopher, he considers himself to have "Behavioural Problems" (Haddon 2003, 59), a wider and less stigmatising term, and the capitalisation implies that even this expression was probably borrowed from a professional or a parent. Yet, his problems place him on the spectrum, and the paratextual discourse of the book — including the blurbs and the reviews, the interviews and the praise — never fails to designate the main hero as a young man with Asperger's. In fact, despite Haddon's protestations (he is often invited to talk about autism, on which he is not an expert), it would be unwise to de-emphasise Christopher's impairments. His troubles with sensory and social adjustments to the world do replay the grand themes of autistic difference. Seeing his own brain and self as a machine, Christopher is a creature of extremely circumscribed habits and passions, he is emotionally detached, honest to a fault with no regard to other people's feelings and oversensitive to sounds and smells. He dreams of a world with no social relationships in his spare time, when he is not researching chaos theory or preparing for his A-level Maths exam.

Christopher lives in Swindon with his widowed father, Ed, as her mother has died of heart failure. Christopher attends a school for children with special needs (whom he merely deems "stupid" (56), unlike himself), where they learn life skills such as "*Reading* and *Tests* and *Social Skills* and *Looking after Animals* and *What We Did at the Weekend* and *Writing* and *Maths* and *Stranger Danger* and *Money* and *Personal Hygiene*" (192). His life of routine, set in stone by his desire for security and predictability, is shattered when he finds out that the neighbour's dog, Wellington was stabbed to death by a garden fork. His great, empathetic love of animals prompts him to investigate this gruesome murder, imitating his fictional role model, Sherlock Holmes. The impromptu investigator immensely enjoys his newfound task, in which he can explore a world within the well-defined boundaries of a social script, that of detective fiction, much to the chagrin of his father. The young detective records his reasoning and evidence in a book he writes for their class, encouraged by Siobhan, one of the tutors at her school. The investigation is often hindered by his interfering father, who is greatly upset and wishes his son "to stop this ridiculous bloody detective game" (72). As Christopher begins to uncover the mystery, he finds out that his mother had been conducting a petty love affair with Mr. Shears prior to her death, leading to the deterioration of the Boones' and the Shears' marriage.

One day he carelessly misplaces the diary, only to be found by Ed, who reads it and realises that his son has knowledge of the affair, a revelation that leads to an altercation between the two, forever souring Christopher's filial relationship. Ed throws the book out into the rubbish, but when Christopher cannot find the notebook in the bin, he searches his father's room. He eventually finds his notebook, and as a bonus, several of her mother's letters, written well past the point of her supposed demise. In them, she confesses that they did not get on well with the boy's father, and they fought a lot over Christopher. She wrote that she felt lonely, which brought Mr. Shears and Christopher's mother together, and the two moved to London. The discovery of his father's duplicity sends Christopher into an autistic meltdown. When Ed finds his son, he attempts to set things right by confessing everything, not even omitting that he was the one who stabbed Wellington in anger. The shocking disclosure alarms Christopher, who decides that his father had become a *de facto* murderer, and he would rather escape from home and live with his intemperate mother than his otherwise placid father.

Having solved the mystery, the second half of the book chronicles Christopher's harrowing journey from Swindon to London, a trip he is quite ill-equipped to handle. He has to navigate the unknown streets of Swindon, dodge the police his father sent after him, board public transportation on his own and find his way to her mother's address, the only truly ascertainable fact about her. Following the great, but troubled reunion, Ed appears on the doorstep of the London home, pleading for forgiveness. Christopher is more concerned with his A-level Maths exam coming up. Although her mother cancels the exam, he can, in the end, sit for the test, and in spite of his jangled state of mind, he is informed after a couple of days that he passed the test. The book concludes with Ed giving a golden retriever puppy to Christopher as a token of his good intentions, while his son feels elated for finishing his book and he speculates about his future career as a scientist.

Like most middlebrow literary novels following the nascent tradition of this tale, the story ends reassuringly well – Christopher is confident about his achievements, affirming the ability of high-functioning autists to handle themselves in real life, but on their own terms. Surveying the academic reception and the critics' opinion of the novel, Irene Rose contends that

> while Haddon's characterisation makes use of the cultural resonances of Asperger's syndrome, it does not reduce his protagonist merely to the pathologisation of this diagnostic criterion. Indeed the complexity of the novel's structure enables the reader to become enamoured of Christopher and his personality quirks while at the same time not presenting his impairment as inconsequential. (Rose 2008, 51)

The author treats its protagonist as a true literary hero, overcoming adversity and foiling people's plans to contain him; Christopher becomes an autotelic individual and a spokesman for the values he lives by, giving insight into the workings of the autistic mind. The tale would be half as gripping, though, if it were narrated by a typically developing teenager. As Stefan Freißmann comments on Christopher's limited capacity for grasping narrative events: "the discrepancy between the narrator's report and the reader's inferences based on this report is one of the driving forces of the plot and the source of suspense" (Freißmann 2008, 414).

Christopher's naivety and his difficulties with developing flexible scripts for adaptive behaviour puts him as years younger than most of his peers when it comes to socialising. His disability also manifests itself in the language he uses — *The Curious Incident* is a considerably simpler text than a regular novel. Elena Semino has explained this in corpus-linguistic terms: in the domain of everyday life, Christopher exhibits underlexicalisation, a reduced vocabulary, whereas he shows signs of overlexicalisation within the scientific sphere, a very detailed, fine-grained vocabulary. She supports these observations by showing that the novel has a much smaller type-token ratio (the complexity of vocabulary used) than most regular novels (Semino 2014, 284).

The young protagonist's narrative style is pared down to its essential features, a bare-bones storytelling reflective of his ineptness at producing narrative (after all, this is the first time he takes a stab at writing an extended tale): "Then I detected in the utility room. Then I detected in the dining room. Then I detected in the living room, where I found the missing wheel from my Airfix Messerschmitt Bf 109 G-6 model under the sofa" (Haddon 2003, 115). Almost every plot-advancing sentence begins with the unanalytical 'and' or 'then' conjunction, and in some inspired cases, 'and then', recalling E. M. Forster's old observation, hardened into a narratological commonplace: "'The king died and then the queen died' is a story. 'The king died, and then the queen died of grief' is a plot" (Forster 1985 [1927], 86). Christopher's storytelling often hovers on the border between "proto-narrative" (Freißmann 2008, 408) and a fleshed-out plot. The relentlessness of underinterpreted life as 'one damned thing after another' pervades Christopher's chronicle of events, which reveals the inadequacy of an annalistic account.

As Hayden White noted, today's reader of mediaeval annals is put off by "the annalist's apparent failure to see that historical events dispose themselves to the percipient eye as 'stories' *waiting to be told*, waiting to be narrated" (1987, 10, emphasis in original) – he could have easily

said the same about this autistic narrator. Commenting upon the use of the word 'and,' White writes: "this small narrative element, this '*narreme,*' floats easily on the sea of dates which figures *succession* itself as a principle of cosmic organization" (18, emphases in original), an unyielding, monotonous march of unplotted events, carrying the seed of narrativity within them, but not actualised. Semino cites Leech and Short (2007, 162-167) on the frequent use of 'and,' who observe that "very unusual mind styles" can be created in prose with the limited narration of the kind seen in *The Curious Incident*. They illustrate this with Benjy Compson, a cognitively disabled person's narration as an example, demonstrating the strong link that connects mental impairment with the production of a disabled narrative (Bérubé 2005, 575).

Christopher's narration is a lot more eventful than the annalistic style would suggest, because he does have recourse to some narrative scripts and schemata. It could be argued that it is a chronicle, rather than an annalistic telling. Like the chronicle writer, Christopher "seems to wish to tell a story, aspires to narrativity, but typically fails to achieve it. […] It starts out to tell a story but breaks off *in medias res*, in the chronicler's own present; it leaves things unresolved or, rather, leaves them unresolved in a storylike way. [… T]he chronicle represents [historical reality] as if real events appeared to human consciousness in the form of unfinished stories" (White 1987, 9). Indeed, Christopher's story at 15 has barely started, and although he 'finds out' who killed Wellington, it was not due to his own detective skills, making it one of the many unsatisfactory resolutions. There are telling opportunities in Christopher's narration that would offer the possibility of narrativising, say, his parents' relationship, but that story never really concerns Christopher enough to weave it into his tale as anything other than background noise.

One conspicuous example comes during the episode when Ed cathartically realises that he has made a fatal mistake by trying to shield Christopher from the fallout of his failed marriage:

> "I was going to show [the letters] to you when you were older."
> Then he was silent again.
> Then he said, "It was an accident."
> Then he was silent again. (143)

The paucity of social information that Christopher manages to convey in his story bespeaks his undeveloped ability to attribute mental states to other people, including his most immediate family. We get virtually nothing, not even a wild guess as to what went on in Ed's mind, only his silence, which also foregrounds Christopher's silence on socially relevant information, something

his mind automatically filters out. As a fictional autist, Christopher practices what Bertil Romberg has called a "behaviourist" narrative strategy (Romberg 1962, cited by Genette 1983, 219), presenting the action as objectively as he can, because he is afraid of telling 'lies.' This category, however, extends far beyond the intentional communication of falsehood in his eyes to include counterfactual thinking, metaphors and even speculation about other people's minds. By way of an example, he reports the following conversation: "Mr. Jeavons said that I liked maths because it was safe. […] And what he meant was that maths wasn't like life because in life there are no straightforward answers at the end. I know he meant this because this is what he said" (78). Christopher ascertains the speaker's intentions in the bluntest fashion, and he prefers not to interpret others whenever he can help it. Instead, he takes people's views for granted and lives with the consequences for as long as he can. He writes his book accordingly.

This behaviourist strategy is usually described as an externally focalised, objective mode of narration, "presenting only overt, surface behaviors of the characters and omitting narratorial commentary on more or less fugitive internal states (dispositions, thoughts, attitudes, memories, etc.), as the characters' conversation unfolds in the story [and] a rich context of felt experience emerges" (Herman 2009, 147). The narrator who engages in behaviourist telling does not have access to the characters' minds or chooses not to analyse the actions of the characters in mental state terms. In fact, we can read such a narrator as if they did not exercise and/or did not have an intact Theory of Mind. But unlike the canonical case of Hemingway, this effect is 'hardwired' into the limited narration of Christopher. In light of this, I thoroughly agree with Frießmann above that the aesthetic effect of *The Curious Incident* depends upon the discrepancy between what Christopher perceives (the 'thin' description of neurotypical culture) and what the readers conclude (reconstructing the 'thick' description of the scene, well beyond Christopher's grasp). This is a function of how readers interpret novels, as Alan Palmer recognises: "the behavior of the characters only makes sense when it is read as the manifestation of an underlying mental reality. Furthermore, the reader uses a variety of information about a character from which to infer the underlying mental reality that over the course of the novel becomes that character's embedded narrative" (Palmer 2004, 140). But we also have to realise that *The Curious Incident* is a rare example of an *internally focalised* behaviourist narrative.

To be precise, the narrator is not completely behaviourist about his own internal states of mind, since he sparingly uses the few mental state terms he understands, eg. " 'happy,' like when

I'm reading about the Apollo space missions, or when I am still awake at 3 a.m. or 4 a.m. in the morning and I can walk up and down the street and pretend that I am the only person in the whole world" (2). Even in his own case, he often appears unable to express his mind in conventional language that describes his emotions; when contemplating his future life as an astronaut, he describes the physical pain he felt when he injured himself on the playground, then adds "But this hurt was inside my head" (164). It is also surprising that Christopher seldom uses emotional expressions on their own — they are nearly always followed by an anecdote, an embedded narrative that conceptualises the raw feel of the event. He cannot take these emotions as self-evident, because he is unaware that their meanings are accessible to the community of English speakers. This goes to show that in spite of his inability to use common mental state terms, he nonetheless illustrates them with (rather precise) snippets of autobiographical memory to construct himself as an embodied and enworlded narrator.

The moment we go beyond Christopher's mind and into the social world, though, the behaviourism becomes painfully evident. When he encounters a police officer, he describes his action mid-conversation like this: "The policeman closed his mouth and breathed out loudly through his nose" (23) rather than using the common phrase 'sighing,' which does not appear in the book. After the fight with his father, Christopher blacks out, and when he regains consciousness, he describes Ed in the following manner: "And Father was standing on the carpet a meter in front of me looking down at me and he was still holding my book in his right hand, but it was bent in half and all the corners were messed up, and there was a scratch on his neck and a big rip in the sleeve of his green and blue check shirt and he was breathing really deeply" (104). He spends little time discussing his father's state of mind, but his position a metre away matters, and so is his gaze, as does his outward appearance that might give a clue as to what had happened. But Christopher prefers not to dwell on any actual physical injury the two might have caused to each other besides some bruise on the neck. The only things really 'hurt' are the notebook and the check shirt. Christopher does not evaluate what happened in the intervening scene of domestic violence or how it affected the two of them; he accepts these as natural facts and continues to follow the fate of his notebook, which will promptly land in the rubbish bin, or so Christopher surmises. Likewise, when Christopher recounts Ed's pack of lies to her mother in London, the narration continues: "And then Mother said, 'Oh my God.' And then she didn't say anything for a long while. And then she made a loud wailing noise like an animal on a nature program on

television" (236). As usual, Christopher's way of understanding people is through comparisons with non-human animals, who, by Christopher's admission, are easier to understand because they have fewer mental states. But the comparison is striking because it comes at an emotional high-point in the novel, when the adults experience almost traumatic emotions, changing the way they understand others and how they behave.

Having access only to the outward actions of other characters, Christopher's narration is not only behaviouristic, it is disabled in the Bérubéian sense: "some of the ordinary functions of narrative are here inoperative" (Bérubé 2011, 470). In this case, it is the function of the narrator to provide insight into the fictional mental functioning of characters to explain their motivations, and consequently, the power of the narrative to provide an organic cause-and-effect structure to felt experience. That the anthropological model reader, who is familiar with the conventions of ordinary narrative, can still make sense of the story, interpret the reactions of the characters and empathise with them in a disabled narrative is no mean feat. This is partially attributable to the vastness of social scripts and schemata the typically developing reader acquires and has access to during the reading process (Stockwell 2002, 75-89; Stockwell 2009, passim). Story and character disposition can be gleamed from severely underreported and misreported instances of narration thanks to the adaptability of social scripts from one context to another, a fluidity which is aided by the human mind's capacity for cognitive blending (Fauconnier and Turner 2002, Mithen 1996).

When there are no easy ways of linking distinct events or passages of text together into a coherent narrative, readers still interpret the snippets by assembling some larger macrostructure of the story, as J. Yellowlees Douglas showed in an extremely gappy form of literature, the hypertext:

> First, they read through the individual fragments and attempted to articulate from them a global view of what the narrative might look like as a whole. Next, they attempted to find causal connections between actions or events from among the fragments to establish sequences or chronologies for what had happened. Finally, they *tested* these between themselves according to either their own life experience or their knowledge of other narratives. (Douglas 1992, emphasis in original)

In other words, readers of the gappy hypertextual stories performed very much the same mental exercises as the autistic children who do pass the Strange Stories test or other ToM-related test batteries which examine reading comprehension and tacit social knowledge. Christopher is fascinated by computer games, as we shall see later, which have emerged from the ergodic

narratives of hypertext. Textual (and later, graphical) adventure games feature narratives that are halted by puzzles, but if the interactor comprehends that the narrative moves forwards when a puzzle is solved, it invites a problem-solving attitude. Readers, sometimes effortlessly, sometime laboriously make connections between the two sides of the gap because they know that reading is a puzzle, and they have to supply their own narrative scripts and schemata to the examination with the textual evidence. The autism novel presents the autistic character as a puzzle to be figured out, showing a mind-style qualitatively different from the neurotypical conventions. But the format of the detective story and other genre conventions help Christopher and the reader to construct a coherent story despite the many gaps in their perception of Christopher's social world.

While it is true that *The Curious Incident* is celebrated for its efforts to articulate the autistic experience, the reasons for functioning differently are never given in the storytelling sections of the book. They are confined to separate expository chapters, during which nothing happens. Disabled difference halts the narrative, showing that autism is not simply a cognitive disability, but it specifically has a "narrative impairment" component (Belmonte 2008, 168-171). In more precise terms, it is the production of coherent and relevant storytelling structure that is impaired (which might be fictional and factual) on the performance side, while on the competence side, fiction's social aspects and its status as make-believe cause difficulties in the comprehension of the text and in the willing suspension of disbelief. Thus, the unique mind of Christopher creates opportunities for Haddon to dwell on the different functions of narrative and socialisation. In some instances, he directly enters into a dialogue with the cognitive sciences.

One such arena is the computer metaphor of the human mind's operations (although Christopher would call it a simile instead of a metaphor). Take the young detective's comment on the verbal behaviour of a police officer as an example: "He was asking too many questions and he was asking them too quickly. They were stacking up in my head like loaves in the factory where Uncle Terry works. […] I sometimes think of my mind as a machine, but not always as a bread-slicing machine. It makes it easier to explain to other people what is going on inside it" (8). Here, old-fashioned cognitive scientists and Christopher are entirely of one mind. One popular and widespread shorthand for understanding how the mind works is to treat it as a computer, or more precisely, a Turing machine, "a complex, multipurpose machine that processes information quickly and accurately [according to a set of specified rules]. [… B]oth computers and humans can compare symbols and can make choices according to the results of the comparison.

Furthermore, computers have a processing mechanism with a limited capacity," like humans do (Matlin 2009). Christopher talks about how the flurry of questions come towards him linearly, as if on the conveyor belt of a machine – he processes the questions in a rigid sequence, and must understand one to go to the next. He cannot seem to activate different mechanisms to answer questions fluidly, perhaps in an alternative order that might be more convenient for him.

Christopher's account is reminiscent of the now outdated view that the mind employs serial processing to make sense of the world around it. In contrast, newer approaches view the typically developing mind as a system capable of "parallel distributed processing," with different modules active at the same time (McLelland and Rumelhart 1986). Christopher reflects on this when he talks about how he can't understand jokes and doesn't like most of the jokes he can understand. The pun "His face was drawn, but the curtains were real" requires the activation of three different meanings of the word 'drawn,' as Christopher conscientiously explains, and "If I try to say the joke to myself, making the word mean the three different things at the same time, it is like hearing three different pieces of music at the same time, which is uncomfortable and confusing and not nice like white noise" (9). Christopher's hyper-arousal, his impairment in selecting relevant information and his discomfort with the cognitive demands of polysemy are consistent with findings about irregular neural connectivity in certain modules in autism and the resulting inability to coordinate these faculties (Belmonte and Yurgelun-Todd 2003). Christopher is fond of the computer simile because his disability makes him more conscious of the mental efforts everyday life requires. A mechanistic view of the mind strips it of its more foreboding emotional and cognitive content, so he focuses his attention on the processes rather than its contents.

Christopher uses other similes for expressing his felt experience of mental life:

> My memory is like a film. That is why I am really good at remembering things, like the conversations I have written down in this book, and what people were wearing, and what they smelled like, because my memory has a smelltrack which is like a soundtrack. And when people ask me to remember something I can simply press **Rewind** and **Fast Forward** and **Pause** like on a video recorder, but more like a DVD player because I don't have to Rewind through everything in between to get to a memory of something a long time ago. And there are no buttons, either, because it is happening in my head. (96)

Christopher's honesty, combined with his nearly eidetic memory positions him as an ideal narrator who faithfully records the events that had come to pass, and it establishes his authenticity

as a storyteller. He can record the stimuli of his entire sensorium, including the olfactory experiences, which anchors him in his narration. In his neologistic coinage, the 'smelltrack' of his memories functions as a focal point. I would call such sensory focalisation 'naricularisation,' to build on the names of focalising strategies for the other senses in film theory, ocularisation and auricularisation (Schlickers 2009), a concept that will be deployed in the analysis of *Speed of Dark*, too. Christopher discusses such memory retrieval in mechanistic terms, as operations happening to discrete data, unchanged by the act of recall.

Haddon probably relied on Temple Grandin's autobiography *Thinking in Pictures* to imagine this feature of Christopher's mind, because this is essentially how she conceptualises her cognitive faculties: "Words are like a second language to me. I translate both spoken and written words into full-color movies, complete with sound, *which run like a VCR tape in my head*. When somebody speaks to me, his words are instantly translated into pictures" (Grandin 1995, 3, emphasis added). Christopher uses the repertoire of recordings to more than just remembering – it becomes a coping mechanism: "this is also how I know how to act in difficult situations when I don't know what to do" (97). The result, however, must be necessarily inflexible, because the re-enacted scripts are executed with perfect accuracy and are never tailored to the situation at hand. Nonetheless, he recognises that other people have mental landscapes, and he compares himself to his grandmother, who is suffering from dementia:

> And Grandmother has pictures in her head, too, but her pictures are all confused, like someone has muddled the film up and she can't tell what happened in what order, so she thinks that dead people are still alive and she doesn't know whether something happened in real life or whether it happened on television. (99)

Christopher positions himself as the opposite of her grandmother, because he can distinguish between reality and its representations, he has a strict sense of linearity in narrative sequencing and he regularly updates the information he has on others. Thus, he becomes a more able narrator by using another disabled figure as a source of narrative prosthesis.

On the other hand, his near-eidetic memory of factual events comes at a cost: Christopher experiences significant distress when he deals with the uncertain array of future events and the territory of the counterfactual. He feels lost in time without his self-devised schedule, which plans his day down to the minute scale, and yet Christopher still calls it an "approximation" (192), as he would prefer an even more exact mapping of time, similar to his spatial maps. Throughout the

book, readers are treated with fairly detailed floor plans and maps of the Swindon street where they live, Twycross Zoo, Swindon train station, England, and the Willesden area in London. One peculiarity of the maps that Christopher draws is that they are never oriented towards North, with some rotated 90° to the left and some upside down, both to conserve space on the page, but also to emphasise Christopher's unique view of the world (and maybe his facility with mental rotations). Julie Brown, who wrote about the writing process of his students with Asperger's notes that the disjointed, collage-like editing style of writers on the spectrum owe much to the difference between the visuo-spatial cognitive style of autistic authors and the abstract, linear *Denkstil* that is required to write conventional novels (Brown 2009, 14-17). That would explain not just the abundance of illustrations, but the documentary, ultra-realistic descriptions as well.

Unlike space, time feels less mappable to this teenage Holmes:

> when you put something down somewhere […], you can have a map in your head to tell you where you have left it, but even if you don't have a map it will still be there because a map is a *representation* of things that actually exist so you can find [it] again. And a timetable is a map of time, except that if you don't have a timetable time is not there like the landing and the garden and the route to school. Because time is only the relationship between the way different things change […]. And it isn't a fixed relationship like the relationship between our house and Mrs. Shears' house […]. (193)

Christopher feels that mimetic representations with real referents provide him with a grip on the daunting task of modelling reality in three dimensions. The fluidity of living in time teaches him that he cannot expect a full, 1:1 mapping of narrative's spatiotemporal landscapes. Although he has a hard time accepting it, he knows that he has to make choices in what he represents (hence the constant anti-mimetic, almost Brechtian or Magrittean references to the self-conscious fictionality of representations that Christopher shares with the reader). He muses that temporality constrains the amount of knowledge we can attain about the future, and shares a diagram with the reader about the unknowability of times to come. He considers time to be a mystery that no-one has figured out yet (195), but he still feels that the unpredictable future can be conquered with timetables and other life-ordering practices. He is viscerally aware that "[t]he task of a mind is to produce future, as the poet Paul Valéry once put it. A mind is fundamentally an anticipator, an expectation generator. It mines the present for clues, which it refines with the help of the materials it has saved from the past, turning them into anticipations of the future. And then it acts, rationally, on the basis of those hard-won anticipations" (Dennett 1996, 56-57). I am sure the presentation of

the mind as the quintessential detective of the future would intuitively appeal to Christopher.

Christopher experiences uncertainty about the future and its unexpected actualisations with a characteristic nausea. When he arrives at Paddington Station and gets off the train, the new surroundings overwhelm him. Entirely unlike the small city of Swindon (Pop. 157.000 in 2001), the bustling metropolis of London is teeming with people and posters, advertisements and amenities, a torrent of textual and social information that taxes Christopher's mind. Just like the abrupt shift in genre from a (failed) detective story to a picaresque adventure, breaks in the canonical course of events end in mental breakdowns. Oftentimes, the eventfulness of narrative is just too much for Christopher, as when he boards the London Underground:

> And then I couldn't see the walls anymore and the back of someone's jacket touched my knee and I felt sick and I started groaning really loudly and the lady on the bench stood up and no one else sat down. […] And then more people came into the little station and it became fuller and then the roaring began again and I closed my eyes and I sweated and felt sick and I felt the feeling like a balloon inside my chest and it was so big I found it hard to breathe. (216-217)

It's as if Christopher experienced not "illness as narrative" (Jurecic 2012) but 'narrative as illness.' He is constitutionally warding the narrativity of new situations off by anti-narrative techniques such as keeping set timetables and demarcating a world of the familiar which he dares not breach unless absolutely necessary. New sensations become events as the effects of sensory overload turn into narrative overload. The need to process so much information has a physical effect upon him: it makes him groan, thereby filtering out the 'noises' of the environment in the wake of a panic attack, which he narrates in great corporeal detail.

Notice that he never uses any expression that might be construed as a mental state term, rooting his sensations in the body rather than its higher-order representation, the mind. During this scene, Christopher's mind-body becomes a source of resistance, a bulwark against the unpredictability of the big city. From a theoretical perspective that meshes well with Daniel Punday's corporeal narratology, which is built on the foundation that "the ability to narrate will depend on the ability to imagine a body that resists narrative closure. In other words, before we can have stories that move through a narrative trajectory within some overarching pattern, we must be able to think about bodies in a way that allows them to resist that pattern" (Punday 2003, 94). Never mind narrative closure, Christopher even resists a free-form narrative opening, vastly

preferring the rigid (albeit very entertaining) structure of a detective novel. His own adventures into the frightening world outside also oppose narrative closure and ordering — at the end of the book, Christopher reports a tomato alarm going off, a tree being hit by lightning, and getting an A on his A-level Maths exam as narratively equivalent (in fact, he dedicates much more space to narrate the removal of the lightning-struck tree than to his happiness over his success).

The possibility of being moved, both spatially and emotionally, upsets Christopher's way of life and generates narrative friction. Having to constantly update his game plan (an executive function) tires him a great deal, so he does simple non-narrative tasks, such as doubling 2s (i.e. calculating 2 to the nth power) to reduce the arousal caused by narrative events. This happens, for example, when he finds out that her mother is alive: "I doubled 2's in my head because it made me feel calmer. I got to 33554432, which is 2^{25}, which was not very much because I've got to 2^{43} before, but my brain wasn't working very well" (149). Even this performance diminishes when he is told that Ed killed poor Wellington: "I tried doubling 2's again, but I couldn't get past 2^{15}, which was 32768. So I groaned to make the time pass quicker and not think" (153).

A more elaborate example comes from the part where Christopher intends to board the train to London, but is unable to cope with the sensory complexities of the Swindon train station. Formulating a new plan, he clears his mind by describing the mathematical problem known as Conway's Soldiers and explains its solution — over no less than two and a half pages, complete with illustrative figures and procedures that lead up to the explanation that one cannot reach further than the fourth row (on a finite board, that is; for reaching the fifth row on an infinite board, see Tatham and Taylor n.d.; Taylor 2010, both publications directly inspired by Haddon's novel). The upshot of this is that he is so engaged with the mathematical puzzle that he no longer worries about changes in his environment. However, before reaching row four, he is disturbed by a policeman. As he reports: "The lady at the café says you've been here for 2½ hours, and when she tried talking to you, you were in a complete trance" (185). Haddon's wit lies in showing that diegetic time passed while reading the expository passage, at roughly a page per hour. Pages describing Conway's peg army, which were thought to be non-narrative and outside the diegetic realm of the events, is in fact embedded within the storyworld, unlike most expository passages in the book. The solution to the mathematical problem is a device to stave off narrativity by a game of much simpler rules and a different kind of complexity than human interactions. If one discrepancy was between the objective and the social knowledge that Christopher (fails to) represent, and the

discrepancy between what he perceives and what readers infer from that is the other, the third tension is definitely between narrative and non-narrative ways of thinking.

Nowhere is the drive to halt the narrative more palpable than in the numerous lists and digressions that Christopher throws at the reader, expressing his own associative mind's preoccupation with ordering the world in a more comprehensible way. When he is arrested by the police officer and driven to the station, Christopher peers out of the police car, up at the Milky Way, and immediately leaves narrating his curious predicament in favour of talking about the Milky Way, the solar system and a dispassionate contemplation of humanity's extinction for several pages (11-13). Or, upon hearing that his mother has died of an unexpected heart attack, Christopher is only concerned about knowing what *kind* of a heart attack it was, an embolism or an aneurysm, giving a short lecture on the physiological differences between the two (36-37). At various points of the novel, Christopher gives impromptu lectures on constellations (156-157), describes a tourism ad at length for no discernible reason (218-220), and informs the reader about the chaotic mathematics of animal populations (125-128).

He is clearly aware that most of these excursions into the territory of the irrelevant constitute hindrances to his narrative. When he reports that one of his schoolmates' brother got a tattoo, he remarks: "this is what is called a digression, and now I am going to go back to the fact that it was a Good Day" (33). But that never stops him from expounding on his favourite topics, confounding the readers' expectations. One purpose these digressions serve is the implicit criticism of neurotypical standards of coherence in the production of narrative. As Chambers notes in his analysis of *Tristram Shandy*: "Any digression enacts […] a criticism, because, once one has digressed, the position from which one departed becomes available to a more dispassionate or ironic analysis: it must have been in some sense inadequate or one would not have moved away from it" (Chambers 1999, 15). In Christopher's tale, the second look is more dispassionate than ironic: The Milky Way digression rewards him with the vision of the Earth devoid of human life, and thus, troubling sociality.

The thoroughly dispassionate view of life Christopher espouses is opposed to the anthropocentrism that governs much of contemporary humanist appraisals of the mid- and long-term future for our species. It's as if Christopher adopted a posthuman worldview, an object-oriented ontology (OOO), such as the one developed by Ian Bogost. As the theorist describes his speculative realist project: "OOO puts things at the center of being. We humans are elements, but

not the sole elements, of philosophical interest. OOO contends that nothing has special status, but that everything exists equally […]. OOO [draws] attention to things at all scales (from atoms to alpacas, bits to blinis) and pondering their nature and relations with one another as much with ourselves" (Bogost 2012, 6). This decentring of the human being, he suggests, is apprehensible in the work of several contemporary artists and artworks, among them Stephen Shore, who took colour pictures of objects, presenting their brute materiality as a mysterious interobjectivity without their immediate usefulness to human beings. "Just as eating only oysters becomes gastronomically monotonous, so talking only about human behavior becomes intellectually monotonous. […] Like Bartleby, we can simply declare, 'I would prefer not to'" (132-133), writes Bogost. This mention of Bartleby should give us pause, since he is read by Stuart Murray as an autistic character. The philosopher appears to equate object-orientedness with Bartleby's resistance to the narrative conventions that propel his movement, as his interests lie elsewhere, outside of humanity's hustle and bustle of intentions. If we accept this, the focus on objects that describes the usual autistic predilection then becomes a natural ally to the object-oriented alien phenomenology Bogost advocates.

One technique with which he illustrates the unique state of object relations is ontography,

a general inscriptive strategy, one that uncovers the repleteness of units and their interobjectivity. [… It] involves the revelation of object relationships without necessarily offering clarification or description of any kind. […] The simplest approach to such recording is the *list*, a group of items loosely joined not by logic or power or use but by the gentle knot of the comma. Ontography is an aesthetic set theory, in which a particular configuration is celebrated merely on the basis of its existence. (Bogost 2012, 38)

This form of ontography is tailor-made for the autistic perception of objects in their full vibrancy. The objectivity of Christopher's narration is foregrounded not just by the mimetic fever of maps, but by the persistent compulsion to capture the multiplicity of the world in lists. He faithfully records such mundane details as what he had in his pockets at the police station:

1. A Swiss Army knife with 15 attachments including a wire stripper and a saw and a toothpick and tweezers
2. A piece of string
3. A piece of a wooden puzzle which looked like this [image omitted in dissertation]
4. 3 pellets of rat food for Toby, my rat

5. £1.47 (this was made up of a £1 coin, a 20p coin, two l0p coins, a 5p coin and a 2p coin)
6. A red paper clip
7. A key for the front door (Haddon 2003, 16)

Haddon is experimenting here with the relevance of quotidian doodads to the telling of the narrative and the personality of the teller. No explanation is given as to why these objects are important, and the list doesn't move the plot forward — it does the exact opposite. The narration stutters due to the intensive desire to write the world without leaving anything out, if possible. The most overpowering example of Christopher's inability or unwillingness to separate the world into relevant and irrelevant comes during his stint as a 'proper' detective, examining his father's room for the notebook of his investigation:

> I started by looking under the bed. There were 7 shoes and a comb with lots of hair in it and a piece of copper pipe and a chocolate biscuit and a porn magazine called *Fiesta* and a dead bee and a Homer Simpson pattern tie and a wooden spoon, but not my book. Then I looked in the drawers on either side of the dressing table, but these only contained aspirin and nail clippers and batteries and dental floss and a tampon and tissues and a spare false tooth in case Father lost the false tooth he had to fill the gap where he knocked a tooth out when he fell off the ladder putting a bird box up in the garden, but my book wasn't in there either. (116-117)

This massive, monotonous enumeration describes random knick-knacks that might be related to one another, but we will never really know how. What matters is their existence and their alienness, their non-identity with the notebook and other narrative efforts of sense-making. Bogost calls these ensemble pieces "Latour litanies," "litanies of surprisingly contrasted curiosities" (Bogost 2011, 38), which epitomise the goal of object-oriented ontology, "incompatibility," as these lists "remind us that no matter how fluidly a system may operate, its members nevertheless remain utterly isolated, mutual aliens" (40). This basic quality of relationships mirrors the autistic experience of otherness and isolation, the experience of people who sometimes think of themselves as machines.

Christopher is an ardent fan of science fiction, the *de facto* genre of alterity and alienness, the genre where the boundaries of humanity are explored in depth (Roberts 2006, 17), as it becomes apparent in his many references to SF novels and films, like Frank Herbert's *Dune* (1965), *Close Encounters of the Third Kind* (1977), the *Star Trek* series, or *Blade Runner* (1982). Ridley Scott's

Blade Runner is particularly interesting, since it thematises empathy as an essential prerequisite of humanity, a topic dear to the heart of SF author Philip K. Dick, whose 1968 novel *Do Androids Dream of Electric Sheep?* was the basis of Scott's film.

The tech-noir movie is set in future Los Angeles. Human-like androids were built and shipped to the stars to colonise space, but some of the more advanced models have gone rogue, and it is the job of Rick Deckard to find these androids and kill them. He is aided in his job by sophisticated technological equipment for an empathy-detecting procedure, the Voigt-Kampff test, which supposedly distinguishes between humans who can feel empathy, and androids who can only mimic the outward expression of empathy without undergoing the emotion. The empathy test and the ostensible emotional detachment was similar enough in autism and the world of fiction that one psychologist working with autists wrote: "the science fiction author anticipated present techniques in psychometrics. Certainly, a practicing psychologist will experience a *déjà vu* in the testing scenes in the novel, and in their presentation in the film" (Lauffer 2004). It is easy to see why Christopher might be drawn to fiction that complicates the binary definitions of human and non-human. Whereas *Blade Runner* might be an example of a film where the line is blurred, he criticises some fictional works that imagine alien beings as humanoid:

> aliens, if they exist, would probably be very different from us. They might look like big slugs, or be flat like reflections. Or they might be bigger than planets. Or they might not have bodies at all. They might just be information, like in a computer. And their spaceships might look like clouds, or be made up of unconnected objects like dust or leaves. (87)

Aside from the plethora of references to other SF works, like Edwin Abbott's *Flatland* (1884) or Arthur C. Clarke's *Rendezvous with Rama* (1973), in this passage Christopher argues for radical conceptions of alterity that incorporate different subjectivities and objectivities, vesting assemblages of natural or abstract objects, such as data, with the possibility of an alien phenomenology very much like the one Bogost tries to envision.

One interesting off-shoot of Christopher's appreciation of science fiction that goes against the received wisdom about autism is that it *is* an appreciation of a genre of *fiction*. It just happens to be a kind of popular fiction that is deemed to be less prestigious by the art-culture complex. Furthermore, Christopher actually wants to write a novel, not just any book. Of his reading habits, he confesses that "[m]ostly I read books about science and maths. I do not like proper novels" (5).

He even quotes from a 'proper novel,' a heavily metaphorical passage from Virginia Woolf's *The Waves* (1931), and claims that he does not know how to interpret the poetic language therein. He is not alone. Haddon has confessed that Woolf is one of his favourite writers, but she "sometimes got a little too carried away" (Haddon 2003) when it came to the possibilities of linguistic expression. It is very likely that Christopher would have appreciated 'proper' novels with less focus on the interiority of the characters, perhaps the behaviourist novels of Hemingway.

Christopher's fiction-writing aspirations are especially notable because a number of writers have suggested, with varying degrees of success, that the Anglophone literary tradition was particularly conducive to a kind of Aspergic writing.[1] An instructive case for this kind of argument is Phyllis Bottomer's *So Odd a Mixture* (2007), which hopes to prove that Jane Austen's *Pride and Prejudice* was a hotbed for literary autism. This would be a notable reinterpretation of the literary canon, since autistic difference is a relatively underresearched area in nineteenth and early twentieth century fiction. However, the case for *Pride and Prejudice*'s autistic characters is less than satisfactory. Bottomer often resorts to the tactic of offering two different explanations for the characters' behaviour, one mundane and common-sense, the other more oblique but plausible, and then she routinely dismisses the conventional answer in favour of the one more ominously suggestive of autism. Take Mr. Collins' reading habits as an example: instead of choosing the fashionable but reviled genre of novel, he opts for reading a book of sermons. Bottomer is quick to point out that his lack of novel reading might merely be in line with "the opinions of his period and his profession" (40-41), not to mention his gender, but she eschews this interpretation in favour of claiming that he doesn't read novels because he is an autist and therefore has a strong preference for non-fiction. While this might be *prima facie* a conceivable argument, Bottomer continues by remarking that "Amusingly, Mr Collins would have been particularly bewildered by the novel in which he himself appears!" (41), which holds water, but demonstrates how Bottomer misses a rather obvious point: Austen deliberately uses her character to comment upon the social standing of the novel in her day and age, an obvious metafictional dig at Georgian literary sensibilities. Christopher's narrative is an honest, self-reflexive work that acknowledges the constructedness of

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[1] Phyllis Ferguson Bottomer's *So Odd a Mixture: Along the Autistic Spectrum in* 'Pride and Prejudice' (2007), Michael Fitzgerald's *The Genesis of Artistic Creativity: Asperger's Syndrome and the Arts* (2005) and Julie Brown's *Writers on the Spectrum* (2009) do not constitute an exhaustive list, but they are a fair sample of how second-rate scholarship has tried to enlist neurological difference in its own skirmishes in the culture wars.

the text and his unease with fiction. Taking a make-believe approach similar to Bottomer, I am sure Christopher would be appalled if he found out that someone else was writing a fictionalised account of his experiences. Like the characters of *Pride and Prejudice*, Christopher is never explicitly described as having an autism diagnosis. That doesn't mean, though, that we can approach a work written before the 'discovery' of autism with the same interpretative inclusiveness as with those that were written well after the prominence of Asperger's syndrome. I suspect that Haddon has deliberately written Christopher to be a 'highly recognisable type of child', to use Asperger's words again, and he could not expect readers to ignore autism as an interpretative frame. In my view, Bottomer's parabolic efforts to read Austen's text as an autism novel are not sufficiently scholarly, but she wrote with a very different audience in mind.

Nonetheless, in her otherwise thorough and illustrative vignettes of the social awkwardness and oddities of the Bennetts, Mr. Darcy, and Fitzwilliam/DeBourghs, Bottomer makes a conceptual mistake. No matter how painstakingly she integrates every quirk of character to argue that these belong to people the autistic spectrum, she ignores another source of Austen's poignant wit: *Pride and Prejudice*, after all, is *a novel of manners*. It is a genre of writing that was borne on the wings of the increased social mobility of Georgian England, when whole classes of people were thrown into an uneasy flux, resulting in social awkwardness on a much grander level due to the mixing of the aristocracy and the rising bourgeoisie. In a genre that thrives on misunderstanding, obliviousness to social customs and breaches of etiquette, it makes little sense to explain the *faux pas* of the characters as due to neurological difference, when it can be much more parsimoniously argued that they arise from societal and genre conventions. Christopher's story lies on the border between young adult fiction, detective fiction and the venerable old genre of the novel of manners, and for this reason, we need to be very careful in categorising it as only a piece of autism fiction. Genre conventions can lead the writer to exaggerate certain traits for comic or tragic effect, and the underlying humour and dramatic irony of much Christopher's written output can easily give the impression that Haddon sought to create a caricature of high-functioning autism in order to see how it works in a modern novel of manners. This would also explain why readers with Asperger's tend to complain about the unrealistic depiction of autism.

Christopher himself asserts that *The Curious Incident* "is a murder mystery novel. Siobhan said that I should write something I would want to read myself. […] In a murder mystery novel someone has to work out who the murderer is and then catch them. It is a puzzle. If it is a good

puzzle you can sometimes work out the answer before the end of the book" (5). For someone who regularly experiences other people's minds as inaccessible, working out the intentions behind the actions of various characters in the novel might be a worthwhile and enjoyable exercise. Analysing detective fiction as a genre devoted to mind-reading, Lisa Zunshine remarks: "The entire history of the detective genre thus can be viewed as a chronicle of the writers' experimentation with the question of whose minds the readers should be allowed to read and when they should be able to read them" (Zunshine 2006, 138). Although she does not scrutinise *The Curious Incident* as a detective novel that problematises mind-reading, Haddon extends the mind-concealing paradigm to its logical conclusion – Christopher is explicit about his own mental functioning but utterly inept at reading other people as perceptively as his hero, Sherlock Holmes.

Still, his mind-reading difficulties do enable a detective novel to form on the pages of the book. As Zunshine claims, "[i]t turns out that it does not really matter whose minds we are reading as long as there are some strategically concealed minds to read and as long as the topic of such a reading is highly focused" (2006, 141). Here, the protagonist-narrator's intellectual disability presents as many 'strategically' occluded minds as Christopher can meet: unless he specifically asks for what they meant, neurotypical people's motives and intentions are a closed book to him. That is why he is drawn to classic detective fiction, which depends on a final *éclarissement,* the Big Reveal at the end of the story for its foremost artistic effect, the 'aha!' moment. Christopher is also keen to distil the genre-constitutive narrative devices that writers employ, such as the detective *"Trying a Different Tack"* (49) or finding a *"Red Herring"* (40), and he tries to identify them with great enthusiasm. He learns about the strategic occlusion of minds from detective fiction, and uses that knowledge to get closer to the full understanding of his situation when he is 'interrogating' Mrs. Alexander:

> So I asked her the same question again, because in a murder mystery novel when someone doesn't want to answer a question it is because they are trying to keep a secret or trying to stop someone from getting into trouble, which means that the answers to those questions are the most important answers of all, and that is why the detective has to put that person under pressure. (74)

His correct assumption and the application of principles derived from fiction reward him with a crucial bit of information: that his father had been "doing sex" with Mrs. Shears (76) prior to her mother's 'death.' The way Christopher learns to appreciate and use the tropes of detective

fiction teaches him a lot about people and their minds, gaining practical knowledge in an area that is impaired due to his undisclosed ASC, and he direly needs this knowledge to fulfil his goals. Haddon portrays Christopher as an avid reader of Sherlock Holmes stories, presenting a counter-discourse to clinical accounts of autism, which often describe the lack of fondness for fiction as an indicator (and a direct result) of impaired ToM ability.

For Christopher, these tales are enabling narratives, crystallising stereotypical instances of mind-reading, letting him peek into the thought processes of others and allowing him to do well in the social situations he finds himself in. He hails Sherlock as his role model, and "if I were a proper detective he is the kind of detective I would be. He is very intelligent and he solves the mystery and he says: 'The world is full of obvious things which nobody by any chance ever observes.' But he notices them, like I do" (92). In the same passage, Christopher refers to Holmes' ability to detach his mind at will and his puzzle-solving, pattern-seeking skills as inspiring qualities in Doyle's character. These skills inspired one literary scholar, Lisa Sanders to survey the Holmes stories and argue that the protagonist's depiction is consistent with living on the spectrum. Features that make him a candidate for literary autism include: his straightforward and blunt communicative style; his repetitive, restricted and stereotypical interests; an isolated social life; and the lack of literary knowledge, except for a profound interest in sensational literature, the pop culture of its period (Sanders 2009). Such speculation, the new reimaginations of the famous detective on TV and the current high profile of autism have led the National Autistic Society in Britain to acknowledge and promote Holmes' able autistic identity (Dixon 2013).

These new interpretations of Sherlock do not mean that he was intentionally portrayed as disabled, but it does speak to a certain affinity between contemporary views of neurological difference and the figure of the quirky detective, whose lack of social graces and powers of observation are united in a character which criticises the deceptions and double-dealing that decency has inscribed into the heart of society. 'Everybody lies,' says the tagline of *House MD.*, a show featuring another modern Holmes, which Christopher can easily agree with. This suspicion towards normal sociality is often coupled with the vulnerability of the autistic or physically disabled male in contemporary popular culture as an alternative to the hegemonic masculinity that defines normality, and as Kérchy Anna suggests: "the allure of these characters stem from the fact that they appear corporeally inaccessible, inseducible, reluctant [to engage in romance] and they are socially independent" (Kérchy 2013, my translation). House and Christopher both continue the

Sherlockian tradition of disabled brilliance and social (corporeal or mental) inaccessibility, whose suspicious reading of the world conform to the requirements of the male detective in crime fiction, but their vulnerability makes them more endearing for today's readers and viewers.

The appreciation of fiction is not the only domain in which Christopher defies the diagnostic definitions of autism. Pretence and make-believe have long been understood as areas of impairment, and Christopher expresses a degree of discomfort with counterfactual thinking: "there is only ever one thing which happened at a particular time and a particular place. And there are an infinite number of things which didn't […]. And if I think about something which didn't happen I start thinking about all the other things which didn't happen" (24), which makes his head hurt. Unable to select relevant scenarios for thought experiments which would offer him strategic footholds in life, this imaginative difficulty also bleeds into narratives that invite simulated perspective-taking: "I find it hard to imagine things which did not happen to me" (5). This does not mean, however, that Christopher is bereft of imagined scenes that would delight him or offer psychological coping strategies in times of crisis. Although he would never admit it, when he is locked in a police cell, his mind wanders to the scary territory of the non-actual: "I wondered how I would escape if I was in a story" (17), a mental act that not only requires planning future actions, but also to pretend that the actual laws of the real world do not hold, and Christopher can imagine himself as a hero of a story who is resourceful and outwits authority figures. In spite of his vehement denial that the "pictures in [his] head" (98) are only of actual events, he does day-dream on more than one occasion, and his fantasies are notable for their content. For example, he imagines his future life as an astronaut, something he knows is very unlikely to happen given his proclivity for insubordination:

> I would be able to look out of a little window in the spacecraft and know that there was no one else near me for thousands and thousands of miles, which is what I sometimes pretend at night in the summer when I go and lie on the lawn and look up at the sky and I put my hands round the sides of my face so that I can't see the fence and the chimney and the washing line and I can pretend I'm in space. (65-66)

Christopher admits that he uses pretend play to envision himself in a world better suited to his interests and needs. He dreams about being in environments that minimise social contact with other human beings, such as astronaut life: "I would have to talk to other people from Mission Control, but we would do that through a radio linkup and a TV monitor, so they wouldn't be like

real people who are strangers, but it would be like playing a computer game" (65). He also dreams about being a Nemo-style submarine captain, imagining "that I am the only person inside it […] and I can control the motors and move anywhere I want to […] and I can never be found" (100-101). The common themes in these pretend scenarios is the reduction of social information and the emphasis on the agency gained by machines, drawing from fictional forms and new media to present a world more suited to autistic sociality. These themes will resurface in the chapter on *Speed of Dark*, whose protagonist eventually goes into space.

Christopher also uses make-believe to reduce anxiety, controlling the world by narrowing it into one of its representations, so that he can use a problem-solving mindset honed in fictional settings: "I was scared again, so I tried to pretend I was playing a game on my computer and it was called **Train to London** and it was like **Myst** or **The 11th Hour**, and you had to solve lots of different problems to get to the next level, and I could turn it off at any time" (189, emphasis in original). The two games Christopher mentions are adventure games, non-violent games that focus on puzzle-solving, using objects in the protagonists' inventory to combine them with elements of the game world. Myst might be appealing to Christopher because it is a game with a scheme of social interaction close to his heart. As one of the designers, Robyn Miller explains it:

> Any characters you meet, they communicate to you and you don't get to communicate to them. […] At any point in time when this person is talking to you, you can just walk away. […] In terms of a one-way communication with whatever characters you come across—them speaking in this monologue style—we tried to feature it as much as possible with a one-way device of some sort. (Morganti 2013)

These adventure games are very object-oriented — progress through the game depends on using objects on other objects or people (although from the perspective of the player, the two might be seen as identical classes), and the player succeeds if she thinks mechanically. A prominent ludologist commenting upon textual adventure games has suggested that these games project a kind of "autistic detective agency," something Christopher intuitively grasps and enjoys (Aarseth 1997, 115). Such acts of pretence contradict mainstream, normative views of autism, and Haddon gives Christopher a tool for survival that revises the clinical picture.

Christopher's eagle eye for perceiving his surroundings in a much higher definition than regular minds is a product of his detail-oriented cognitive style. Such a fine-grained view of the world compels writers to alter regular narrative strategies and paint the world with more accurate

brushstrokes. During his reassuring spell as a criminal, the young detective is content to describe his cell in arresting detail: "It was nice in the police cell. It was almost a perfect cube, 2 meters long by 2 meters wide by 2 meters high. It contained approximately 8 cubic meters of air" (17). Describing the dimensions of the cell, immediately perceivable to claustrophiliac Christopher, is far from conventional in most novels, and Haddon portrays him as a person confident in a space that would feel cramped, overpowering and profoundly disturbing to most people.

The degree of detail supplied by Christopher is a violation of pragmatic principles, because the "granular partitions" (Bittner and Smith 2003) that neurotypical conversation mandates are inaccessible or hopelessly vague for the fictional autistic mind. Christopher answers that he is 15 years, 3 months and 2 days old (7), because he does not find stating the years as a sufficient answer. He prefers to observe the Maxim of Quality under any circumstances instead of operating under the principle of cooperation, devoting a greater effort to say only as much as necessary (Maxim of Quantity) and as closely related to the conversation as possible (Maxim of Relevance), according to Elena Semino's analysis (Semino 2014). This obsession over detail extends to social scripts that are common knowledge to most readers. Here's how Christopher tells the story of buying a ticket:

> And I watched 47 people do this and I memorized what to do. Then I imagined a red line on the floor and I walked over to the wall where there was a poster which was a list of places to go and it was alphabetical and I saw **Willesden Green** and it said **£2:20** and then I went to one of the machines and there was a little screen which said **PRESS TICKET TYPE** and I pressed the button that most people had pressed, which was **ADULT SINGLE** and **£2:20,** and the screen said **INSERT £2:20** and I put three £1 coins into the slot and there was a clinking noise and the screen said **TAKE TICKET AND CHANGE** and there was a ticket in a little hole at the bottom of the machine and a 50p coin and a 20p coin and a l0p coin and I put the coins in my pocket and I went up to one of the grey gates and I put my ticket into the slot and it sucked it in and it came out on the other side of the gate. (212-213)

There is literally nothing in his report that 'I bought a ticket to Willesden Green from the machine and entered the Underground' would not cover sufficiently for the reader to imagine the actions involved. Whereas his ToM-impairment leaves Christopher silent about a great deal of socially relevant information, when it is coupled with his problems in planning and love of detail, it generates loquacious passages that contribute nothing to the reader's mental picture of the events. Except for one thing: that buying a ticket is new and challenging, because it involves social scripts Christopher is unfamiliar with, so he has to narrate the obvious in punishing detail.

One of the vehicles by which Haddon curtails some of the narrative's idiosyncrasies that come with disabled storytelling is the introduction of Siobhan as an editor of Christopher's text. She is the special education teacher who encourages the young detective to start writing, thereby shaping Christopher's text, to create the book in the format the reader receives. This layered textuality gives Haddon the option to feature the manuscript of the investigation as a diegetic object that Ed Boone can read, threatening to destroy the narrative edifice that Ed created in order to shield Christopher from the vagaries of relationships. Although Siobhan initially offers to "help with the spelling and the grammar and the footnotes" (34), this is underplaying the effect she has on the presentation of the material.

As an editor, the device places the onus of responsibility on her to reorganise Christopher's narrative, translating between the expectations of the neurotypical audience of the book and its autistic author's preferences. Since she constantly supplies Christopher with insights into how other people would approach the book, her role is normative, foregrounding unspoken assumptions about what constitutes a good narrative, what makes events tellable. Christopher comments upon this configuration with inimitable bluntness: "Siobhan said that the book should begin with something to grab people's attention. That is why I started with the dog. I also started with the dog because it happened to me and I find it hard to imagine things which did not happen to me" (5). Defamiliarising the storytelling situation, Christopher is unwilling to rely on literary conventions, for he does not have an access to the tacit framing of fiction that neurotypical readers already take for granted. He highlights personal experience as a qualitative element of a good story, evincing a degree of compliance with the social norms of narration.

Soon, however, significant differences surface in AS and NT judgements of what could grab people's attention. After describing how he found Wellington, Christopher shows the story to his teacher: "Siobhan read the first page and said that it was different. […] She said that it was usually people who were killed in murder mystery novels. […] She said that this was because readers cared more about people than dogs, so if a person was killed in a book, readers would want to carry on reading" (5-6). The earnest editor is careful to not disparage the writer's efforts while she observes the necessity of sustaining human interest by appealing to the emotions of the reader. Though the motivation of the killer is still there for the reader to think about, human death is just a better motivator of attention, and our evolutionary inclinations to follow the fate of our conspecifics is so deeply ingrained that it even affects our feelings about what is worthy of fictional

attention (Boyd 2009, 44-45 and 178-179).

Haddon's inclusion of this difference can probably be accounted for by remembering the connection between autistic and animal subjects. Siobhan gently tries to normalise Christopher's narrative, but she allows it to proceed because his interest in animals can be harnessed to educate Christopher about becoming a more autonomous human subject. Inspired by Temple Grandin's work, animal studies scholar Cary Wolfe asks: "instead of seeing the non-human animal as merely a prop […] for allowing the disabled to be mainstreamed into liberal society" — like Christopher does when he becomes a narrating subject by expressing empathy toward a dead dog and his adoration for his pet rat, Toby — can't we see the commingling of disabled people living with animals "as an irreducibly different and unique form of subjectivity […], neither 'disabled' nor 'normal', but […] a shared trans-species being-in-the-world"? (Wolfe 2008, 122). This is the difference that eludes Siobhan, who instead reminds Christopher of other, more successful strategies of arousing attention in his readership.

Siobhan enthusiastically educates Ed's son about other norms of literary expression, such as descriptions. The alternative approaches to composition are also apprehensible here:

> Siobhan said that when you are writing a book you have to include some descriptions of things. I said that I could take photographs and put them in the book. But she said the idea of a book was to describe things using words so that people could read them and make a picture in their own head. […] She also said that I should describe people in the story by mentioning one or two details about them so that people could make a picture of them in their head. (85)

Siobhan well-meaningly attempts to sway Christopher towards a kind of narrative more in line with the established conventions of fiction, appealing to the audience's ability to envision the setting and scenes where the action takes place as a big draw for consuming novels. This dispute reiterates the mental simulation arguments concerning the enactive imagination of the reader (Goldman 2006; Caracciolo 2011) and complements it by the discussion of what the words 'interesting' and 'different' mean for Siobhan and Christopher – it is 'different' to write about a dog's murder, but not the preferable kind of 'different,' like the non-canonical knowledge of objects and places that would fill a narrative world with life.

Evidently, writing obvious routines of ordinary human life that readers can infer from their knowledge of folk psychology and social customs aren't worthy of fictionalisation: "So I started

walking, but Siobhan said I didn't have to describe everything that happens, I just have to describe the things that were interesting" (232). Siobhan's effect on the content of the narrative is substantial, advising Christopher to include material he might not otherwise see as important and omit some that Christopher would not think of leaving out. The only reason this sort of editorial meddling does not turn into the kind of ventriloquistic 'facilitated communication' is because of the recurring metafictional intrusion of the editor: neither Christopher nor Siobhan wants to erase the presence of the guiding hand, and this honesty authenticates the autistic voice that does not elide the collaborative nature of the finished product.

As to Christopher's idea of including pictures in the novel, the two seem to have reached a compromise. There are well over fifty illustrations within the novel, including maps, drawings, patterns, diagrams and emoticons that give the readers insight into just exactly what Christopher meant or saw (after all, what is the use of a book without pictures… or conversations?). But this dogged mimeticism is tempered by Siobhan's relieving editorial moves that ease the burden of reading Christopher's tale, who will not filter target stimuli from his mind, who cannot figure out what *needs* to be told and what can be omitted without the fear of ambiguity.

This ongoing tension between the model reader and the diegetic author about what is tellable informs the very end of the book, too. Mindful of wider society's aversion to seeing pages of formulae in print, Siobhan advises Christopher not to include his answer to the A-level maths question in the body of the text: "[S]he said I could put the answer in an *Appendix,* which is an extra chapter at the end of a book which people can read if they want to. And that is what I have done" (260). What Siobhan instinctively knows is that a maths proof is, above-all, non-narrative – it neither moves the plot forward, nor does it relate to Christopher's experiences. Her respect and Christopher's insistence both shape the structure of the book, reaching another compromise: the proof does end up in the appendix, and gives Christopher the last word, "QED" (272), proving that he can adapt to society and that he is right.

Another proof of sorts comes from the other ending of the novel, which is the existence of the book itself. Here's how Christopher expresses his confidence in himself: "And then I will get a First Class Honours degree and I will become a scientist. And I know I can do this because I went to London on my own, and because I solved the mystery of **Who Killed Wellington?** and I found my mother and I was brave and I wrote a book and that means I can do anything" (268). Christopher cherishes his adventures (in hindsight) and triumphantly asserts his agency in a social

environment that would never presume so much competence from a disabled teenage boy, who cannot lead a life of his own, according to the logic of disability. He has proven them wrong, and his determination speaks volumes about the need to rethink the abilities of autists. The very volume he has produced flies in the face of the accepted image of autists avoiding imagined narratives. Haddon's book, despite its evocation of savant tropes and stereotypical instances of autistic behaviour, does actually subvert many of the stereotypes that it features, and he uses them to emphasise that ASCs can be a source of different ability, not just disability.

In this chapter, I have tried to do justice to the many themes that are explored in *The Curious Incident of the Dog in the Night-time.* I have argued that the unique mind of Christopher as a focalising character affects the narrative strategies of the story to a remarkable degree. Haddon uses autistic narration to comment upon the problems of narrativity, alternative conceptions of socialisation and alterity itself. I began with noting that neurological difference conditions the responses of the reader, who is more familiar with the social customs than the book's inept writer, and therefore would surmise more from the gappy narration that omits crucial information which would help Christopher understand the minds of the characters. As an extended meditation on tellability and narrativity, *The Curious Incident* often veers into the territory of the annalistic and chronicle-like histories that Hayden White identified as proto-narratives, reflective of Christopher's hardships in constructing a well-made story. One feature that eludes Christopher is other people's expressions, which he cannot seem to interpret or even see as data to interpret in most cases. I have suggested that Haddon's book is a rare case of an internally focalised behaviourist narrative, insofar as Christopher often makes recourse to corporeal similes to express mental state concepts, and he doesn't seem to have direct access to his own emotions or other characters' feelings, so they are judged solely by their outward appearances. Discussing this narrative impairment and the preference for object-based interactions has led me to analyse Christopher's similes of the mind and computers as examples of a direct engagement with cognitive science, pointing out the inadequacy of the old model of the mind as a general-purpose computer that processes information sequentially.

This brought me to contemplate the medial metaphors for cognition that Christopher uses besides the computer, identifying the 'smelltrack' of his memories as another focalising strategy, naricularisation. Christopher's mimetic memories crowd out the flexible problem-solving skills that are necessary for a more relevant response to distress, and the ability to think in

counterfactuals. One section of the chapter was therefore devoted to Christopher's anxieties about representing spatiotemporal relationships, in which I contended that the novel is the story of how he comes to terms with the inadequacies of representations, something that Haddon depicts in a playful, self-reflexive style. Following this, I have argued that Christopher reacts to narrative events (the ones which shatter Christopher's cosy world of routine) in a way that is debilitating, so I have inverted Ann Jurecic's expression to claim that he experiences 'narrative as illness.' I have introduced Daniel Punday's idea of a body that resists narrative to show that Christopher actively tries to resist such events by autistic meltdowns. It is also useful to factor this resistant mind-body into the interpretation of the expository sections of the book, which help Christopher counter the confusing tide of plot.

The non-narrative lists and digressions chop Christopher's narrative up into discrete, more manageable blocks, and it enables him to speak his mind about topics that are dear to him, offering a Shandean, digressive critique of the neurotypical desire for coherence as an artificial imposition. This is also a critique of the social mind, and Christopher's perceptions of reality are conducive to an 'object-oriented ontology' that Ian Bogost has developed to understand the interobjectivity of material phenomena. The list of objects that recur as a focal point in Christopher's narration bear more than a passing resemblance to Bogost's 'Latour litanies,' which juxtapose objects without positing any specific relationship between them, to highlight their alterity.

The alien phenomenology naturally leads to Christopher's fascination with science fiction, the popular genre that devotes more fictional space (pun intended) to the exploration of other kinds of thinking and being than the anthropocentric one. I bring Christopher's familiarity with staples of SF fiction such as *Blade Runner* to argue that a) empathy towards otherness and the boundaries of humanity are core topics of the genre, providing the viewers and readers with literally alien configurations, and b) that his appreciation of detective and science fiction *qua* fiction is a subversion of the accepted clinical picture of fiction-avoiding autists. Furthermore, he adopts the tropes and devices of detective fiction to respond more adaptively to his narrative situation, which turns them into socially enabling narratives. Contrary to his own conception of being literal and reality-minded, this slow adaptation to counterfactual thinking is also palpable in his vivid use of pretence to imagine social niches that would be more suited to his preferences. Pretence sometimes takes the form of a mediating representational model that strips Christopher's reality of its more bewildering features, like when he imagines the journey to London as a computer game that

favours his strong suit, abstract problem-solving. The journey narrative is notable for painstakingly detailing the familiar social scripts which present challenges for the autistic protagonist, who cannot tolerate vagueness and strives for perfect mimeticism. The excesses of description are somewhat toned down by the editorial agency of Siobhan, who attempts to reconcile Christopher's narrative style with the neurotypical norms dictating the storytelling conventions of most books. The textuality of the book is altered as a result, which comes to represent a compromise position with the assertion of disabled difference. It is the metafictional visibility of the editorial hand that saves the young detective's manuscript from becoming a product of 'facilitated' writing, which would supplant the autistic perspective with other, non-disabled agendas.

The next chapter continues with an analysis of Elizabeth Moon's *Speed of Dark* that builds on a number of themes that I have begun to articulate: the importance of alterity in science fiction, the experimental focalising techniques of the author to present autistic thinking or the cognitive scientific view of the mind, whose meaning is contested by the characters. The reading will focus less on narrativity, and will pay more attention to the ethical stakes of how society deals with disabled difference. I shall take concepts and interpretative strategies from Nicholas Dames' *The Physiology of the Novel* (2007), to make the case for a neuropolitical reading of attention and descriptive granularity, the pleasures of music and temporality as they relate to the social norms of cognition.

CHAPTER 8

THINKING AT THE *SPEED OF DARK*:

ELIZABETH MOON'S LESSONS IN BIOETHICS AND NORMATIVITY

"We must avoid intellectual stagnation, which retards the progress of medical knowledge, but we must be moral. Biotechnology can be used for noble, frivolous, or evil purposes. Decisions on the ethical use of this powerful new knowledge should not be made by extremists or people purely motivated by profit. There are no simple answers to ethical questions." – Temple Grandin (1995, 236)

In my reading of *The Curious Incident of the Dog in the Night-time*, I have sought to identify the critical consequences of writing a novel that participates in current discourses of disability and the sciences of the mind. I have looked at how narrative is structured, how it halts and digresses when the autistic teller becomes conscious of his novice skills as a story-teller, and how that awareness plays into postmodern notions of self-reflexive textuality, narrativity and tellability. I have explored the influence an autistic character's scientific knowledge has on his worldview and his self-image through his use of similes, which are marked by their peculiar originality in autism. I have analysed the technological metaphors of brain function that the novel brought on board to explain Christopher's cognition, elucidating some of the social nuances that Christopher fails to pick up on. I have established the relevance of the alien, object-oriented phenomenology that places objects and people on the same ontological level to the autism novel and Christopher's thinking in particular.

This chapter continues on this track. The mediatised metaphors of cognition are a central concern of Elizabeth Moon's *Speed of Dark*, and I will argue that our understanding of the brain is crucial to properly evaluate the novel, especially its controversial ending that cures the protagonist. The role of the adaptationist, modular view of the mind is essential in the debates about why Moon made her protagonist, Lou take an experimental neurological treatment to normalise his autistic brain. This adds a strong ethical component to several literary scholars' criticism of the novel, who argue that such an ending is unsatisfactory, since it does not question the neurological *status quo* and does not integrate people with atypical brain development as full members into society. Thus, my reading will be more oriented towards ethics than my treatment of *The Curious Incident*, with the intent to write an ethically inflected cognitive analysis of the novel that interprets Lou's final decision from a perspective that integrates insights from

neuroethics and disability studies.

I introduce Nicholas Dames' term 'the social norms of cognition' (SNC) and reconfigure it to show that Lou's mental functioning is derived from the normative discourse of psychiatry that Eva Vakirtzi has exposed in her genealogy of discursive power in the classification, treatment and research of autism. The appropriate level of attention, its temporal duration and the details observed by the attentive mind were of prime interest to Victorian neurologists as well as Moon, who presents a critique of normative standards of cognition (neurohegemony) but also a criticism of a too facile refusal of enhancing the mind technologically. The ethical background to this investigation is Catherine Malabou's *What Should We Do with Our Brain?* (2008), a book-length essay that critically evaluates neuroplasticity in its many forms, and the possibilities inherent in the changing brain. Although this reading will be more contextual than the previous, I take the narratological idea of 'granularity' and develop it further to encompass the aesthetic effect of a granularity mismatch in the descriptions focalised from the perspective of neurotypical characters and Lou. I also carry on with cognitive narratology's interest in mind-reading, drawing upon Blakey Vermeule's notion of "situational mindblindness" (2010), Alan Palmer's focus on the social mind in action and Lisa Zunshine's attention to the benefits of storing storied information 'under advisement,' metarepresentationally in order to get at the core of the novel: Lou's desire to re-appropriate his mind, a battleground between the neurodiversity movement and the normative, reconstructive neurosurgery of the medical establishment.

To begin with, let's have a look at one of the guiding principles in my reading of *Speed of Dark*, the cognitive norms that demarcate a territory of cognitive cultural hegemony. In his 2007 survey of the history of Victorian reading practices and physiological novel theory, a forerunner of cognitive literary theory, Nicholas Dames devised the concept of the 'social norms of cognition' to investigate the novel's opposing roles in Victorian and contemporary discourse. In the former, it is pictured as a force shattering the attention and cognitive alertness of the reader, whereas in the latter, it is perceived as a tool fostering empathy and civic virtue in an age of electronic media antithetical to prolonged attention. Dames' concept contextualises the cognitive features of the novel, like the readers' attention or its duration, highlighting the historical shifts of their social values (19-20). Dames dedicates separate chapters to a.) the theme of *attention* in the period's fiction, b.) the *temporal* experience of *duration*, specifically music's relationship to the novel, c.) *'units of consciousness'* as theorised by nineteenth century psychophysics and connected to the

themes of organic wholes and finally, d.) to the accelerated comprehension of texts with the method of *speed-reading* and eye-tracking studies of reading. These topics might seem disparate at first and devoid of ethico-political concerns about novel reading, but Dames cogently argues that Victorian attitudes towards fiction stem from the theorists' appropriation of physiological research to draw conclusions about the novel's effect on the consciousness of the reader.

Although Dames sought to write a prehistory of novel theory, I believe his analytical foci are probing enough to apply it to the autism novel. Besides the obvious centenary leap, I find our era's anxieties about information technology, our ethical dilemmas in dealing with neurological difference and the rise of cognitive neuroscience to be a fruitful matrix in which Dames' research could be revamped to generate an *ethicognitive* literary reading of *Speed of Dark*. I coin this term to suggest a way of adjusting cognitive literary criticism to pay more attention to ethics when we investigate the portrayal of atypical minds.

Moon's thematic handling of autism reprises physiological novel theory's interest in attention, units of consciousness and the speed of comprehension as she presents Lou Arrendale's attention to patterns and his keen senses. These traits are melded into a master figure of characterisation which foregrounds Dames' social norms of cognition. I have altered his definition of the expression to suit my ends: in my use, it describes not the shared historical assumptions about the values of novel-reading, but a set of cultural standards about what is appropriate to perceive and communicate in a given society — a kind of cognitive manners. Inspired by Bruce McConachie, I call this neuronormativity a form of "cognitive cultural hegemony" (McConachie 2010), a dominant model of how to conduct social affairs in an unevenly distributed web of sociopragmatic and embodied knowledge. Because the condition is a spectrum that organises the perceptions of its subjects, one could posit that the irreducible heterogeneity of autism produces different social schemata from those of the dominant culture.

Building on the pioneering work of Raymond Williams, McConachie reminds us "that a dominant culture reproduces itself, in part, by analogically transferring concepts and schemas to a network of practices" (2010, 145). The philosophical idea that the mind is read (like a book) because it can see other minds (Metacognition as Vision, to use the capitalising style favoured by conceptual metaphor theory) produces ways of thinking that derive from (near-)universal, species-dependent experiences of sight as a source of information about the world. These experiences congeal into an understanding that those who do not interpret their social and material

life-worlds according to the cognitive norm are blind in some real but metaphorical sense. Another essential metaphor explored in the book is old-school cognitive psychology's metaphor of the mind as a computer. As a biotechnological data analyst working with computers, Lou is directly immersed in algorithmic pattern-seeking as a form of life at work and in his hobbies. My intention here is to assess how these hegemonic norms of cognition define the autistic character's fictional life, and how the mutual misperception, indeed, miscognition of NTs and autists contribute to two of the central themes of the novel: cognition as pattern recognition in data and a shared but bridgeable mindblindness towards the other neurotype.

To better evaluate how the SNC operate at heart of the novel, a little summary is in order. *Speed of Dark* is set in the near future, somewhere in the United States. Crucially, what makes this book science fiction is the biomedical *novum* that researchers have found a cure for autism, a method of treating potentially autistic foeti *in utero* and thus eliminating autistic infants. The story follows the life of Lou Arrendale, a high-functioning autist born before the cure who is able to lead a productive life as a disabled person, thanks to effective early intervention therapies, which taught him daily living skills and enough pragmatic language use to work in the data analysis department of a pharmaceutical company.

His department, 'Section A,' is notable for exclusively employing autists, trained in pattern recognition necessary for the creation of new, complex biochemical formulae that will be used in medicine. 'Section A' was set up for two reasons: they perform substantially better than neurotypical employees, plus the company gets a tax break for employing them. On the downside, they can only operate under working conditions which upper management considers to be severe fiscal burdens. Lou and his colleagues work in an environment that soothes their senses and provides the right sort of distractions to help them focus: classical music plays in the background, a private gym is set up for them so they can ease the stress of 'passing' at the workplace and the fatigue brought on by hard cognitive labour (see Goffman 1963; for the application of stigmatised identity in autism, see Gray 1993, Durig 1996, 123-150). It is the contention of Gene Crenshaw, an executive in the company, that these are superfluous costs, and by "cutting the fat, getting back to the lean, tough, productive machine" (Moon 18) they can improve the bottom line, so 'Section A' has to be scrapped. He funnels the autistic employees into a new, experimental treatment programme that would cure them and thus eliminate their need for disability perks.

Lou also practices fencing as a hobby, a sport he admires because of its civilised conflict,

and he does excel in it, thanks to his eye for patterns. The various thrusts, parries, feints and legwork crystallise into a unique kinetic fingerprint of his partners in Lou's mind, and he enjoys reading these fingerprints immensely. In his words: "What I like is learning patterns and then remaking them so that I am in the pattern, too" (34), implying that fencing is an interpretative sport. Lou fast becomes a formidable opponent, winning the admiration of Tom, the leader of the fencing group and Marjory, another regular, who is also a researcher of developmental disabilities at the local university. She is one of the more vocal allies of Lou, someone who treats him with sympathy. This rubs another fencer the wrong way, the volatile Don, who rapidly grows jealous of Lou for spending a disproportionate amount of time with Marjory. Not content to let it slide, Don takes action so that he can win Marjory's heart and remove Lou from the picture. He vandalises Lou's car on several occasions, at one point even placing an IED inside, which could have exploded in Lou's face. As a final solution, he assaults him physically, carrying a lethal weapon. Lou is shocked that Don, someone whom he considered to be his friend, could do such a thing. We are informed that Don will most likely be convicted and a "programmable personality determinant," or PPD chip (284) will be inserted in his brain to erase his violent temper.

Lou also participates in life at 'the Center,' a local support institution to people with various disabilities, both physical and intellectual. They provide legal counsel, scientific information, daytime activities and classes as well as other practical forms of assistance. It's a place where Section A meets up every once in a while, but Lou notices that in recent months, his activities and social sphere has changed so much that "very little in the Center now interests me" (158). Lou does not attend most events, until the promise of the new treatment begins to circulate among the autistic community. In response, the Center organises meetings to help the community make sense of what the scientific papers and procedures mean, albeit not without ulterior motives. Lou explains that the counsellors "always encourage us to do everything to become more normal. I think they will say we should want this treatment even if they think it is too dangerous to try while it is still experimental" (157). Lou finds that the lecture given to Section A by the lead investigator, Dr. Ransome, was not sufficient, and decides to get himself up to speed by reading up on what would happen to him, literally taking a crash course in brain surgery (or functional neuroanatomy).

The legal drama comes to its apex when Pete Aldrin, the NT leader of Section A confronts Gene Crenshaw over the company's pressure to transform its autistic employees into neurotypicals. Section A themselves cannot make up their minds about the treatment: some, like

Linda, are very firm about embracing their autistic identity and argue the treatment would change their personalities, turning them into someone different. Others, like Cameron, are more willing to participate in the experiment, hoping to become more charming conversational partners. Aldrin creates a scandal about pushing human subjects into Stage I clinical trials of the neurosurgical procedure. The net result is that members of Section A are free to choose their destinies. Linda and Chuy (also members of the workgroup) are reluctant, while other friends of Lou, like Dale and Bailey would never agree to the treatment out of a desire to conform. In the end, Eric, Dale, Bailey and Lou decide to participate in the programme, with varying results: Lou's treatment is successful, as is Eric's and Dale's. Bailey, on the other hand, "made a juicy tidbit for the media. I didn't know how badly it went for him until I saw the news archives; they never let us see him" (423), as Lou admits. Linda also concludes that it is worth participating in the trials after meeting her old friends. Chuy accepts himself as he is and sees no benefit to the treatment, so he chooses to resist the procedure and remains his old self. Lou eventually uses his new in-between identity to go into space and work as an astronaut, but misses the old spark that connected her with Marjory.

The ending is an ideal point to start discussing the effect of the novel. Lou's decision to let go of his autistic identity has been the focus of many critics of the book, and not without reason. Simply put, in our own world, where autism is understood to be a lifelong condition with no option to 'cure' it, autism advocates assert that living on the spectrum is a valuable form of life, and attempts at curing people is tantamount to stripping them of their integral selves. This position is taken by Lou when he meets one of the former autists, Joe Lee, who was given gene therapy: "If you give a deaf child hearing, he is no longer one of the deaf […]. If you do it early enough, he never was. It's all pretending otherwise" (14). Lou is acutely aware of the result of separating the disability from the person — it is a negation of their identity.

One thing to note here is that while Lou is personally addressing Joe Lee, narratologically speaking, we can interpret it as more than his personal opinion. Alan Palmer views such statements as the one quoted above to be a result of shared minds working together: "there is a certain sort of double-voiced discourse that may look like an expression of opinion by an intrusive narrator but that on closer inspection turns out to be the expression of a consensus, a shared view within a particular social group" (Palmer 2004, 84). Further support for this interpretation comes on the next page of the novel: "Joe Lee should know better [than to claim that he is autistic]; we've told him again and again" (15). Lou is channelling the opinion of the whole of Section A, the rest of

the autistic workgroup, who might be the last of their kind. They know full well that the cure erodes their community and personality. And yet Moon, the parent of a young man with autism, chose to include the miraculous cure within her tale.

On the clichés of disability in fantastic fiction, Jane Stemp comments that

> [m]any other world fantasies hold out the image of magical cure for wounds and disabilities; many science fiction titles present the cures not as magical but as 'miracles' of science. […] Partly the habit must be due to tradition: […] science fiction writers, however willing to cast a satirical eye on earlier notions of 'progress,' seem reluctant to abandon the hope that a perfected medical system will yet cure all the ills of the world. (Stemp 2004)

These words, written a little while after *Speed of Dark* was published, offers some insight into why Lou's story is so replete with the 'chance to choose' theme. It is a compelling frame to place autistic characters in, whose lives are marked by their alternative cognitive strategies for interpreting the world. Taking the treatment or staying autistic is an ethical dilemma that can be explored across different characters so that the final choice of Lou will be more palatable for the normate reader — it feels less determined by its ableist thrust.

Some literary scholars compare the novel to C. S. Friedman's *This Alien Shore* (1998), examining "whether or not these two works of speculative science fiction, with the possibility of conceptualizing new worlds, extend the borders of community" (Arndt and van Beuren 2013, 90), in other words, whether the transformative imagination of the writers contribute to a more neurocosmopolitan society. They come to the conclusion that by taking the cure, Lou conforms to an ableist view of humanity, something detrimental to the idea of a neurodiverse community: "Moon reinscribes a conceptualization of disability as deficit that we must challenge in representations of disability in science fiction" (Arndt and van Beuren 2013, 103). While I do not dispute this interpretation of the novel, it feels woefully inadequate to judge a work exclusively on the basis of how much it promotes a certain vision of society, no matter how preferred. The ethical arc and dilemmas presented in *Speed of Dark* are more deeply penetrating about neuroethics to be forever committed to the pile of failed representations of autism. This is the sort of criticism which has inspired Michael Bérubé to state that

> *The Speed of Dark* explicitly opens and closes with the question of who knows what about whom, and who is thereby authorized to ask questions and validate answers. […]

Whether or not one is happy with Lou's decision – and some readers have objected to it – the point remains that the novel opens with a Lou who does not understand the larger narrative structuring his life, and ends with a Lou who does. (Bérubé 2011, 471-472)

If we accept the premise that narrative consciousness and self-fulfilment are the basic driving forces of the novel, then the book might be rehabilitated (in the legal sense of the word). It is not only about understanding the stakes of the narrative, but about neurocosmopolitanism, described as "the feeling of being at home with all manner of neurologies", a "neuro-mobility and mixing" which implies that "[b]oth autism and neurotypicality must cease to be strictly themselves in the participatory presence of the other; the anthropologist on Mars must become, at least in part, a Martian" (Savarese 2013a, 191-205). Although Savarese obviously imagines neurocosmopolitanism in a society where autism is not cured, for Lou, the treatment does function as a ticket to a neurocosmopolitan space. He does not lose his "Lou-before" self entirely after the treatment: "I am Lou enough. Lou-before and Lou-now, Lou-before lending me all his years of experience, experience he could not always understand, and Lou-now assessing, interpreting, reassessing. I have both — *am* both" (416). This new being, "the unknown" (416) is a neurocosmopolitan subject, whose two identities intertwine.

This connects back to the framing device of questions the novel opens with. In a fit of dire ignorance, Lou is inundated with questions at the psychiatrist's office about his personal life, his hobbies and sex life. Lou alludes to these questions with the metaphor of darkness and light. Darkness is a knowledge that reinforces the status quo, "[s]omething more tactile and muscley than just lack of knowledge. A sort of will to ignorance" (107), as Tom interprets it. In this schema, light is a transformative, critical form of questioning received knowledge. The questions Lou poses and his reinterpretation of old metaphors invite the readers to re-evaluate this earlier meaning: "It bothered Lou-before that the speed of dark was greater than the speed of light. Now I am glad of it, because it means I will never come to the end, chasing the light. Now I get to ask the questions" (426), he concludes, acknowledging that this darkness is also a precondition of new knowledge and that it will never entirely go away. Regrettably, the plot suggests that Lou's brain functions have to be normalised before he can fulfil his goals, a move that will surely not score extra points with Arndt and van Beuren and their fellow scholars. Why not learn more about the agenda behind the neuroscientific research instead, or its relationship to space exploration? There is a lot of

speculation going on in Section A before the treatment but it is never explored in greater depth.

Still, Lou is written to be motivated by his experiences and aspirations for a life less limited by the social norms of cognition. Seen from an anti-rehabilitationist angle, it is a lamentable choice, one that does not transform society's attitudes towards neurominorities. His eventual choice to undergo neuromedical therapy after all workplace pressures have been relieved implies that he can play the system to his own ends: by evading pressure, battling the company he works for and re-appropriating his brain to work in space, he proves to be adept in manipulating the social institutions that have disabled him.

Whether this ending, which emphasises self-fulfilment in a society that has already 'cured' autism is in agreement or conflict with the ideals of collective liberty or a transhuman future is a contentious issue, and *Speed of Dark* presents both sides of the argument. In our own world, the International Genetically Engineered Machine, a synthetic biology competition that involves university under- and postgraduates is reflective of a certain culture of thinking about neuroethics. One spokesman for the group at UCL, which discussed medical neurogenetic engineering and its relationship to various neurodevelopmental pathologies, writes that in their circles, "viewing humans as immutable biological entities is not particularly helpful," and "seeing GE as morally acceptable depends upon not seeing nature as a model to which we must conform" (Bates 2013, 5). Although it dubiously describes ASCs as "illnesses" as a result of "faulty genetic information," the paper suggests, more empathetically, that

> in the case of adult with milder ASDs, the sudden ability to "correct" neuronal function in their brain and remove even some autistic symptoms could have a fairly drastic change to their personality, something they may be very unwilling to undergo, which is why such GE interventions, if developed, should perhaps not be advertised as a "cure." (7)

The author(s) note that "[t]he ability to see the world differently as a result of a mild pathology can be useful" (Bates 2013, 7), which is a view increasingly voiced in the scientific community that now speaks about the boons of high-functioning autism with a certain pride. The group also discusses the promising impact of NGE on society: "The basic idea of selfhood and the fear of change is not just constrained to the individual level. If the use of NGE […] were to become widely used in the future, we may find ourselves increasingly confronted with *the question of what we consider neurotypical* and how far should an individual be from its guide posts to warrant

medical NGE treatment" (Bates 2013, 17, emphasis mine). A positive reading of this document implies that the horizons of neurotypicality and atypicality might gradually change. Within this lies the potential for a more inclusive society as the social norms of cognition are transformed by the era of synthetic plasticity. As the young neuroethicists warn their colleagues, "the level of mastery sophisticated NGE represents may leave inadequate cultural space of alternative ways to live human life in society. [… W]e should not be so keen to embark upon the ethic of the sportsman, that of control, perfection, competition and dominancy" (Bates 2013, 19). An even more straightforward position is held by Simon Baron-Cohen, who in no uncertain terms declares that just "because someone is neurologically different, this does not mean they need a treatment or a cure. They may need support […], but their difference includes their excellent attention to detail […] and treating them for their autism might risk them losing such superior skills" (Baron-Cohen 2015, 1762). As is evident from the standpoint of biology and developmental psychology, having a humane eye towards the ethical challenges that curing autism embodies is a necessity. The complexities of our human concepts of 'natural' and 'artificial,' fallacious appeals to 'the natural,' our intuitive notions of personhood and a justified anxiety about tinkering with our brain are just some of the factors that makes exploring this topic in a novel so intriguing, and renders Moon's resolution so controversial in autism advocacy groups.

The novel's initial rationale for curing Section A, however, is hardly fit to bear the weight of the book's central narrative tension. It is suggested that the private gym, the music players, the room decorations and the separate offices are heavily taxing the company's resources. But it is so wildly implausible that these 'perks' of Section A could constitute anything more than a negligible financial burden on the firm, that it stretches credibility in my view. Nonetheless, the novel adeptly demonstrates the conflict between a profit-oriented company and its disabled employees. It also suggests a tension between government regulation and private industry's willingness to maximise utility. Incentivising companies to employ neurominorities so they can extract better data for scientific research, the government uses the enlightened template of 'affirmative action' to harness the abilities of the autistic mind. The pressure to conform to basic standards of functioning provides the narrative with the 'thrust' that jostles the current, progressive employment *status quo*. In the words of Crenshaw: "Things cannot go on like this, Lou. Change happens" (Moon 27). Even in its very narrative configuration, *Speed of Dark* activates the same antagonism I have observed in my previous analysis, the clash between an autistic preference for sameness and the narrative situation,

which depends upon changes and conflicts to generate a tellable story.

As the novel unfolds, Lou becomes more and more aware of the shenanigans involved in maintaining the neurological standard of normate cognition. The NT technocrats of the novel, like Crenshaw and Dr. Ransome are fine examples of *situational mindblindness*, which denotes "a trope of dehumanization, albeit a very complex one: the point of it is to deny other people the perspective of rational agency by turning them into animals, machines, or anything without a mind" (Vermeule 2010, 195). This notion further underscores Duffy and Dorner's observation about the rhetoric of scientific sadness – the autistic characters are all too aware of the dehumanising nature of the experiment the company tries to coerce them into. They also see the benefits of the enabling work environment that upper management deems to be costly and ineffective, epitomised by Crenshaw, who cannot fathom why people like Lou would not want to become normal. Crenshaw mindblinds himself to Section A, a conscious strategy that makes his employees little more than expensive machines, a source of additional costs that could be remedied with neurological repair. Here, the novel resonates with Melville's "Bartleby, the Scrivener," the short story which has already been discussed as a narrative of a neuroatypical mind entering the fictional fencing *piste* and fighting for recognition even though the narrator is unable to mind-read him (Murray 2008, Pinchevski 2011, Savarese 2013b).

Resistance to neuroconformism leads to a genuine dialogue between NT and ASC characters. Section A discusses the risks of the treatment with the management, and Lou calls out the medical researchers on their underhanded tactics to get the autistic subjects' compliance. Cognitive narratology's interest in minds deftly handles *Speed of Dark* by curating the novel as a literary drama of mindreading that keeps dilemmas about cognitive difference and neuroethics in its purview. Dames' social norms of cognition will enable us to see the double standards which affect the descriptions of Lou's surroundings, his bodily sensorium and his understanding of the social world that he shapes and is shaped by.

Speed of Dark wears its interest badge in asymmetrical mind-reading proudly on its chest. The readers get their first glimpse of Lou in the psychiatrist's office, where he is assessed to see that he is fit for work. Setting the scene up as a clash between normate scientific knowledge and autistic cognition, Lou states: "I have read the book, so I know what it is I do not understand. What I haven't figured out yet is the range of things *they* don't understand. The normals. The reals" (2, emphasis in original). Here in the office, Lou's abilities are largely framed by the deficit model of

autism, one that describes him in terms of what he cannot do or know. Even so, the deficit model grants Lou some awareness of what is expected of him and how he can cope with those norms.

Lou gets a hermeneutic handhold on normate cognition, but he is interested in turning the tables on neurotypicals, to describe their cognition as a lack, too, which would balance the power asymmetry of mind-reading that favours normate culture. In Lou's words: "If normal people really can do all the things that are claimed for them, it would be helpful to have that ability… but I am not sure they do. They do not always understand why other people act as they do. […] *I have been oblivious like that, so I recognize it in others*" (315, emphasis added). It is worth stressing that Lou's awareness of his ToM deficit becomes a source of identification with NTs – he calls attention to neurotypical obliviousness or mindblindness, removing it as an exclusively autistic trait and simultaneously showing that he is capable of empathetically shifting perspective. When Dr. Fornum advises Lou about social customs, it is Lou's autism that allows him to see through the illusionary norms that few people actually follow perfectly: "She has told me that Everyone knows this, and Everyone does that, but I am *not blind, just autistic*, and I know that they know and do different things" (4, emphasis added). Mindblindness is strongly implicated in this, since Lou refuses the labels of both visual and cognitive blindness towards other people.

He produces a counterdiscourse in which NT people become blind by ignoring individuality in favour of applying normate assumptions to heterogeneous groups of people. In fact, autism becomes a strength not just due to Lou's superior pattern recognition skills, but because he can see through the commonsense notions of what the SNC would dictate, recognising contradictory evidence when he encounters it. As a quick way to prove how foundational these societal norms are, the words "appropriate" and "inappropriate" crop up 20 times in the book, "polite" and "impolite" appear 21 times and "should" a whopping 163 times!

Even so, Lou has severe difficulties with interpreting beliefs and behaviour. The text is littered with honest expressions of incomprehension when he faces various social situations. For example, when Lou is fishing for social information from Marjory about how the fencing group feels towards Don, he reports: " 'Tom and Lucia both sounded angry with Don,' I say. She gives me a quick sideways glance. I am supposed to understand it, but I don't know what it means" (37). After Don wrecks Lou's car, Miss Kimberly, the neighbour thinks she will have to move; the reader picks up on the idea that she feels unsafe when crimes are happening in the neighbourhood. In contrast, Lou asks to himself: "why does she have to move because my tires were slashed? No

one could slash her tires, because she has no tires. She does not have a car." (151), missing the wider social context and Miss Kimberly's state of mind.

Narration in the few sections that feature an NT point-of-view character shows more complex cognitive processes, and it betrays fewer signs of uncertainty. In the short interlude between two Lou-focalised sections, Tom observes how the fencing group manages the built-up tension in the wake of Don's outbursts: Marjory "sounded prissy, which meant she was more than just annoyed […]. Tom could tell Marjory wanted to yell at Don. […] Tom listened without joining in. *He knew the signs*: any moment now Lucia would tackle Marjory about her feelings for Lou and for Don, and he wanted to be far away when that happened" (63-64, emphasis added). These passages show the readers that mind-reading confidence can go up radically in a text where neurotypical assumptions about cognition are easily available as an interpretative framework.

The author is adept at demonstrating that the difference in mind-reading abilities is never an all-or-nothing affair. When Don is revealed to be the person behind an attempt on Lou's life, the whole fencing group is appalled by the turn of events. Lucia in particular is in a state of shock, and upon expressing her vengeful sentiments, Lou is taken aback by Lucia's flare-up. He gives voice to his consternation: "Should I have known about her, the way she thinks she should have known about Don? If normal people expect to know all about one another, all the hidden things, how can they stand it? Doesn't it make them dizzy? 'You can't read minds, Lucia,' Marjory says. 'I know that.'" Lucia replies (292). This textual moment is important for two reasons. First, because it acknowledges what all critics of mindblindness agree on, namely that despite autists' marked impairment, the NT population can just as easily fall wide of the mark every now and then when it comes to empathic accuracy. Second, because Lou also feels that the social norms of cognition are confusing – they suggest that people will be accurate mind-readers most of the time, so they can expect adequate performance by default, but mountebanks like Don can conceal their minds with hostile intent. Lou is caught in the double bind of aspiring to rise to the level of NTs while knowing full well that it can never protect him from such villains. Tom's mind-reading shows another one of its handy functions: it enables people to gauge whether social interactions are going well to evade unpleasant arguments, where expectations to manage "group intermental thinking" (Palmer 2004, 218-239) would require more cognitive effort than the individual is willing to handle. In this instance, it would take Tom too much effort to understand everyone's feelings and thoughts on the conflict between Don and Lou and to make the right decision that

would dissolve tension among the fencers.

Tom can use his mind-reading skills to identify a minor squabble between two members of the club and ignore it by metarepresentationally storing everyone's opinions "under advisement" (Zunshine 2006, 132). Lou has a harder time protecting himself from the maelstrom of confusing NT behaviour, and he cannot suspect that Don's actions are questionable even within NT social norms. 'Knowing the signs' means a world of difference between directing the course of social interactions and being caught up in them, powerless. This is why Lou is proud when he can exercise his improving sociocognitive skills in the midst of her row with Emmy, a fellow autist: "[Emmy's] voice is hostile. I can tell she thinks this is what I think and that she thinks I am wrong, that Marjory is not in love with me. I am […] happy that I can understand all that in what she says and how she says it. Years ago I would not have understood" (88). Lou is constantly getting better at assessing social situations, whereas other characters' failures bring the point home that "*even when [cognitive adaptations] function properly*, at no point do they guarantee a smooth sailing through concrete complicated situations" (Zunshine 60, emphasis in original).

Minding others is so essential in *Speed of Dark* that Lou revels in the moments when he can break free from illegible minds. After choosing the treatment, he takes one final walk around Harper Falls, a natural preserve. In relief, he comments: "I can feel myself relaxing. Trees do not care if I am normal or not. Rocks and moss do not care. […] I do not have to think about myself at all. […] No one who minds is here" (397-398). Lonely self-communion and a desire for a mind-less world propel Lou towards his goal of working in outer space, but employment on a space station is based on a requirement of neurotypicality, so paradoxically, Lou is cured of autism to do the kind of work that would suit him the most. This ironic twist showcases the disabling legal background which enforces the social norms of cognition and invites neurominorities to assimilate. In the scene, Lou directs the reader's gaze towards NTs' default tendency of attributing mindedness even to inanimate phenomena: "Water has no mind, water cannot think, but people – normal people – do write about raging rivers and angry floodwaters as if they did not believe in that inability" (399). Literal-minded Lou hits the nail right on its head; while autists are seen as mindblind, NT people can be just as fallible and become victims of their own inclination towards minding others when they attribute intentionality and a psyche to things that are not sentient.

It would not be entirely out of place to call neurotypicals mind-hallucinators, using the language of abnormal psychology to emphasise the labelling function mindblindness serves in

disqualifying autistic cognition. This mind-hallucination is called "hyperactive agent-detection device" in the cognitive sciences (Barrett 2000, 31-32), which would explain the pantheon of personified metaphors and supernatural agents that the human mind has conjured up to see the world as a product of humanoid action and intent. This might also be the reason behind Christopher's blunt atheism and his demystified view of the world, but not Lou's conformist Christianity. After the cure becomes a concern for Lou, readers learn that he goes to church, as much for the ordered ritual as for spiritual guidance.

In one scene, John 9 is read to the congregation, the Biblical story about the blind man waiting by the Pool of Siloam. The healing story fills Lou with doubt. On one hand, he feels strongly that "I do not think I need to be healed, not of autism. Other people want me to be healed, not me myself" (341). He muses that some people who wait by the healing pool might do so because their friends and family might see them as burdens. This does not concern him. On the other hand, including the ultimate unreadable mind in the equation, Lou asks: "Maybe God thinks I would be better if I weren't autistic. […] What if God wants me to be something other than I am?" (343). Here he attempts the impossible, to understand the mind of Yahweh, whose mind is by definition occluded to mortal human beings, if He exists at all. The ethical conundrum stumps the parish priest as much as Lou, but the pastor replies, after some contemplation: "whether God wants us to pursue every hint of a cure of conditions we have or acquire… I don't know that. Only if it doesn't interfere with who we are as God's children, I suppose" (347).

Now, the author's politics and her choice to place Lou in a congregation to convince him to take the cure might be debated, but for the literary scholar, the more interesting question is: how does a genuinely unreadable mind warp the fabric of the plot? It appears that for Moon (and therefore, Lou), the uncertainty of an unreadable mind alters one's sense of personhood, and the hypothetical intentionalism that comes with a person trying to enter the mind of a god could inspire someone like Lou to enhance his mind-reading abilities, even if he did not express a specific hope for reading a divine mind. Moon's presentation is more problematic because, given our knowledge that people with more difficulties in mentalising are less likely to believe in a personal god (Norenzayan et al. 2012), how plausible is it that Lou would be an active member of a church? Isn't he rather acting as an author stand-in who muses about her religious stance on the need to cure disability and takes the easy way out by accepting that it is the will of a deity, to whom all human beings have the same mind-blind relationship?

This is not easy to resolve, as it would require an ethical background in philosophy and theology I do not claim to have, but it is sufficient to note that Lou first entertains the desirability of a cure by appealing to a supernatural agent he cannot ever hope to understand. Such an empathetic gambit depends upon skills neither he nor even the head of the congregation possesses. In attending church and contemplating the mind of the Christian God, Lou experiences a basic, dogmatically defined mind-blindness that pushes him to understand human minds more, wanting to know what their intentions are and what it's like to be them.

Neurological difference in Moon's text does not limit itself to the representation of mind-reading. Autists are characteristically sensitive to certain stimuli, and Moon represents this in the narrative text so that readers will have a better feel for the lived experiences of an autistic body and consciousness. As David Herman points out, from a cognitive-discursive standpoint:

> narrative affords a discourse environment optimally suited for the world-picturing process, since that environment shares crucial elements of structure with raw feels. Hence stories point beyond […] the impossibility of inspecting the very mechanisms by which inspection […] is made possible. Enacting and not just representing ways of experiencing […], stories capture and sustain our interest because of how their structure maps on to the mind's own engagement with the world. (Herman 2009, 157)

The autism novel as a subgenre of middlebrow literature makes for a particularly engaging reading because of the promise that readers will be granted an 'inside-out' view of autism; readers report a heightened narrative empathy towards people on the spectrum after reading autism novels (Caracciolo, 2014), and focalisation is a storytelling technique designed to create just that effect (Bal 2004, Bálint 2012, Kuiken and Miall 2001).

One instructive technique which brings autism to life is the focalised description of Lou's surroundings. Cognitive narratology can capture some of the attention to detail involved in this process by investigating the *degree of granularity,* in other words, the level of detail within descriptions, and what elements of the storyworld are backgrounded and foregrounded (Herman 2009b). Coincidentally, research conducted on atypical cognitive granularity implies that due to the relatively smaller size of microcolumns and larger brain volume in autists, their detail-oriented processing style creates a granularity mismatch between the ASC and NT communities. Individuals with ASC "have difficulty and inefficiency in learning and using the language of the standard granularity. This would also be applicable to virtually all artifacts, such as architecture and social conventions. [… B]ecause of the granularity mismatch they fail to connect their

motivation with what they microscopically perceive from the surroundings" (Kozima 2013). I propose that we are seeing the tacit cognitive hegemony of neurotypical readers challenged when we observe this granularity mismatch. Autism novels function as defamiliarising narratives about how the norms of cognition become barriers to the neurocosmopolitanism Savarese sets as the means of integrating neurominorities (Savarese and Zunshine 2014).

In *Speed of Dark*, Moon's attempts to depict a finer-grained sense of perception are manifested by the painstakingly precise detailing of the diegetic world. In an instructive example at the beginning of the novel, sitting in the psychologist's office, Lou vividly conjures up the olfactory atmosphere of the room in a rare example of concentrated *naricularisation* (cf. Christopher's "smelltrack" of events in the previous chapter): "Her office has a strange blend of smells, not just the paper and ink and book smell, and the carpet glue and the plastic smell of the chair frames, but something else that I keep thinking must be chocolate" (3). Later on, when he returns to work and someone calls for an order of pizza, another array of sensations is triggered: "I can suddenly smell everything in the office: the paper, the workstation, the carpet, the metal/plastic/dust/cleaning solution… myself" (8). Descriptions like these do not exactly facilitate a sensory immersion of the reader into the story-world, their function is to represent how someone with a keen sense of smell can register minute olfactory traces.

The onslaught of detail in everything from smells to sounds or images in *Speed of Dark* is a testament to the perceptual refinement enabled by a higher cortical density. Just read this description, which evokes the narrative strategies of *nouveau roman* writing:

> The floor in the hall is tile, each tile streaked with two shades of green on beige. The tiles are twelve-inch squares; the hall is five squares wide and forty-five and a half squares long. The person who laid the tiles laid them so that the streaks are crosswise to each other—each tile is laid so that the streaks are facing ninety degrees to the tile next to it. Most of the tiles are laid in one of two ways, but eight of them are laid upside down to the other tiles in the same orientation. (154)

These boring and skippable descriptions also contribute to the heightened awareness of Lou's material surroundings and his all-encompassing interest in patterns, which reinforce the "cognitive estrangement" that Darko Suvin regards as the hallmark of science fiction (Suvin 1979, 4). By ratcheting the degree of granularity up in Lou's descriptions way further than NT readers are used to, Moon convinces the audience that it is no wonder that autists try to find ways of

negotiating the mental burden that comes with so many details vying for attention.

Granularity mismatch is also a viable explanation for another feature of Lou's thinking: his impaired ability to read emotions from other people's faces. When looking at someone's eye, the amount of detail Lou encounters is just infinitely richer than the neurotypical categories distinguished by law. As he puts it: "When I first went to get my state ID card, the form asked for eye color. I tried to write in all the colors in my own eyes, but the blank space wasn't big enough. They told me to put 'brown.' I put 'brown,' but that is not the only color in my eyes. It is just the color that people see because they do not really look at other people's eyes" (86). Typically, this can become an obstacle to socialisation when people judge others' emotional states based on their facial expressions, including that tell-tale region, the eye. Indeed, the "Reading the Mind in the Eyes Test" is a method for gauging a specific form of social intelligence, which is used in experiments to provide insights into one's emotion-reading skills (Baron-Cohen et al. 1997, 2001). In the novel, facial expressions are a focal point, intended to showcase Lou's perceptions:

> Her face is shiny. That used to bother me, when people were very happy and their faces got shiny, because angry people also get shiny faces and I could not be sure which it was. My parents tried to show me the difference, with the position of eyebrows and so on, but I finally figured out that the best way to tell was the outside corners of the eyes. (30)

Owing to the author's intentionally restricted vocabulary when putting this into Lou's mouth, readers can notice that Lou picks a minor detail to differentiate between the two basic emotions, which are easily separated by NTs because of their biosemiotic context. Lou has to compensate for the lack of an immediately apparent higher *Gestalt*. In spite of a compensatory strategy that works for one particular problem, Lou is prone to stumble at ambiguity in other circumstances: "The man behind her has an odd expression on his face; I can't tell if he agrees with her or not" (90). This does not mean that he cannot recognise any emotions – rather, it suggests that it is an achievement for him to piece together all the little bits to form a coherent whole: "I look at [Emmy's] face, with the physical signs of anger all over it—the flushed skin, the bright eyes between tense lids, the square-shaped mouth, the teeth almost together" (158).

But even Lou has his particular strengths in face-based emotion recognition. His social history allows him to recognise some quite complex emotional states, for example the doctor's disingenuous expression when he prepares Lou for the upcoming surgery: "His face crinkles into

an expression that is supposed to convince me he believes it, but false sincerity is an expression I know from childhood. Every therapist, every teacher, every counselor has had that expression in their repertoire, the worried/caring look" (334). Lou's ideological situatedness in the institutional framework of disability informs his particular strengths. Narrated in this way, his recognition of the worried/caring look is perhaps the softest form of indictment against the care workers who support people with autism, but it is an indictment nonetheless. It also shows that Lou can identify a facial expression related to the concealing of minds, false sincerity, meaning that he is far from gullible or naive. But then why does he not perceive Don as a troublemaker? A likely explanation is that he is more able to generalise his suspicions toward people in an unequal power relationship with him (Gene Crenshaw, the scientists involved in his neurotherapy) than toward those whom he identifies as 'friends' based on shared interests, like Don. For Lou, 'friends' is a discrete category with little granularity, whose boundaries cannot change unless proven violently otherwise, such as when Don assaults Lou and plants the explosive device in his car.

I have already suggested that it is not enough to see this granularity mismatch as a simple difference, since it is inextricably tied up with the social norms of cognition when those with ASCs are taken to be intellectual disabled. During a conversation with Tom, Lou muses about the differences in the perception of autists and NTs. Tom "is easy in his body [...] he sees and hears and tastes and smells and feels what others do, so his reality matches theirs" (380) and if there is one thing Lou disprefers, it is asymmetry. His final decision to undergo neurological treatment can be chalked up to how the social norms of cognition percolate down to Lou's self-worth.

As the events unfold, he realises that his brain can be a source of his social adjustment, and he wants to unleash this potential within him — another risk to take, surely, but definitely not a risk that Lou takes just to conform to neurotypical standards. He understands that his brain is changing already, although slowly, and he wants to think both faster and further, as light travels into the darkness at the speed of, well, light. In her long, meditative essay about neuroethics, philosopher Catherine Malabou distinguishes between three different forms of neuroplasticity (developmental, modulational and reparative), which together constitute the promising potentialities of the brain to change. *Developmental plasticity* is the neuronal genesis, as the brain forms itself in the first fifteen years of life, which she calls a "restrained or 'closed' signification" of plasticity, "the sculpting of a determinate form" (Malabou 2008, 19), after which the trajectory of the brain becomes less determinate. The second field of action, *modulational plasticity* occurs

as the brain rewires itself to modulate synaptic efficiency, either to strengthen or 'forget' connections, which is necessary for adaptation, learning and memory. As Malabou calls it, this is the "history" of the brain, which remains malleable, always capable of "changing difference" (24). Finally, *reparative plasticity* is the capacity of the brain to heal itself after neuronal damage, the ability "to build natural prostheses" (27; the disability metaphor is poignant in this context).

The question she derives from these three fields of action is highly relevant to the ethical conundrums that *Speed of Dark* presents to the reader: "Are We Free to Be High Performing?" (29). The three types of plasticity intimate a vision of a brain that is actively restructuring itself, adapting to the challenges that individuals face in their lifetimes. The developmental constraints which steer NT people to a more social existence and ASC people to more systematised ways of knowing, the learning processes that guarantee new strategies of interpretation and the reparative function that heals the brain are already there to help Lou make better sense of the world as time goes on. He also feels this in his heart: "I am changing already. A few months ago, I did not know that I loved Marjory. I did not know I could fence in a tournament with strangers. I did not know I could learn biology and chemistry the way I have been. I did not know I could change this much" (Moon 2002, 219). Many of the experiences recounted in the book have taught him much about socialisation as he acquired new skills and had to face new forms of struggle.

Even so, he is not 'free' to be high performing, he is fast-tracked onto a form of performance that is still unknown to him and the scientists who administer the treatment. His freedom to re-form himself comes from his self-taught knowledge of neuroscience. This does not obviate his sense that his brain functions create obstacles to his flourishing: "I am sideways to the world, feeling happy when other people think I should feel devastated. My brain is trying to grow toward the light, but it can't straighten back up when its pot is tipped" (277). Lou wants to experience what neurotypicals do, to become the neurocosmopolitan person I have alluded to at the beginning of this analysis. "Creating resistance to neuronal ideology is what our brain wants, and what we want for it," as Malabou says (2008, 77), and this drives Lou to learn everything about what is happening to his brain before he goes under the knife. In his case, resistance is not refusal, but the re-appropriation of his brain's plasticity.

His yearning to join the rest of the world is more than a case of eliminating a granularity mismatch. It is Lou joining a shared sensory and social experience of humankind — an understandable desire, even if disability scholars who are suspicious about rehabilitation would

see this treatment as a technology that enforces compulsory able(-bodied)ness (McRuer 2006 301-308). This view generates an "image of the disabled as beings to be rehabilitated [versus assisted]," which "signifies that society sees itself as a single order to be maintained; it sees itself as having the duty, the mission, the task of voiding disparities into its norm" (Stiker 1999, 121). Lou's ultimate decision stems not from neuroconformism, but from an act of agency (granted, in an individualist framework) to wrestle a bit of neuropower from those who wield it: "They do not want us stupid and helpless. They do not want to destroy our minds; they want to use them. I do not want to be used. I want to use my own mind, myself, for what I want to do" (2002, 378).

The novel does not really show us the struggles involved in Lou's fight to get into space, or any of the prejudices that post-treatment individuals face, and this omission ought to be criticised, since it implies that once you become part of the neuromajority, every privilege comes to you automatically (autism aside, how many among the currently 7 billion people on Earth would be able to withstand the gruelling training to become an astronaut?). What we do see is a Lou trying to wrestle the power invested in the neurosciences from those who wield it against them, a struggle to understand the stakes and effects of the experimental procedure.

When the research team first gives the lecture to the interested parties in Section A, the protocol is presented hastily, buried under a mound of information and condescension.

> That's just some background […]. It's probably too much for you, but you'll have to excuse my enthusiasm. There's a simplified version in your folders, including diagrams. Essentially what we're going to do is normalize the autistic brain, and then train it in an enhanced and faster version of infant sensory integration, so the new architecture works properly. (205)

Or so the lead scientist claims, and leaves at once, without answering any questions Section A might have. The dismissive attitude towards the autistic subjects betray some unease on the part of the team about the possible mishaps during surgery and the following procedure, otherwise they would have explained everything in a manner that would be easily grasped by Section A. Afterwards, Lou is subjected to a battery of tests. The way they treat him at the clinic is another fine example of medical power at work: "The needle to draw blood doesn't really hurt, but I do not understand what my blood and urine have to do with how my brain functions. *No one even tries* to explain" (262, emphasis mine). Note that the procedures as described here violate many of the standard procedures required for the patient to give their informed consent, so it is very likely

that Moon is exaggerating for effect. It is hard not to resent this impersonal attitude that positions autists as compliant subjects, who are being treated like lab rats.

Discussing the treatment, Lucia asks him something that could be the pivotal question of the entire book: "Lou, it's your mind. Do you think you understand it?" (209). Lou is unsure, but he knows the explanations have to come from his own research, because the scientists are not interested in enlightening their test subjects. He starts with downloading basic textbooks to learn the technical terms and to familiarise himself with brain regions. Fortunately, many of his fencing partners are also employees at the university. Lucia has access to neurology textbooks, and she inspires Lou to take the treatment seriously. Even he admits that

> I have never before set out to learn all about the way my own brain works. […] I was almost sure I would not be able to figure out what the books said. But it is actually easy. I think I could have completed a college degree in this if I had tried. All my advisors and counselors told me to go into applied mathematics, so I did. They told me what I was capable of, and I believed them. They did not think I had the kind of brain that could do real scientific work. Maybe they were wrong. (206)

Lou's new education in neuroscience is a quest to defy the expectations of his teachers and to determine his future path in life instead of the one set out before him. It also makes him into a more critical thinker, capable or re-evaluating other people's opinions about himself.

The plot thickens as Lou is given another book, a (fictional) work on *Brain Functionality* by Cego and Clinton ('cego' is Spanish for 'blind,' perhaps a play on the word 'mindblindness,' or the blindness of the neurotypical researchers who see little of the complexity of the mind). The zealous Lou even reads the preface, where he finds something of interest: "I am surprised to find the name of the company I work for in [the acknowledgements]. They provided assistance with computational methods. Computational methods are what our division develops. […] When this book was written I was not yet working there" (217). It appears that the very knowledge that would save Lou is implicated within the work that his firm does for a living, which would also explain why Section A is the first group to be tested with the new procedure.

Just like Haddon, Moon presents autistic difference in a technological context. She keeps comparing the mental functioning of human beings to the data-processing functions of the computer. This persistent pattern of parallelisation might be the product of the Information Age's fascination with cognitive science, but Moon rewrites the tired metaphor from Lou's perspective when he begins to learn about the science behind cognition:

When I was in school, they taught us that the brain is like a computer but not so efficient. Computers do not make mistakes if they are correctly built and programmed, but brains do. From this I got the idea that any brain […] was an inferior sort of computer. This book makes it clear that brains are a lot more complex than any computer and that my brain is normal […] in many ways. My color vision is normal. My visual acuity is normal. What is not normal? Only the slightest things… I think. (260)

He realises that the metaphor is not adequate to describe the degree of difference between brains, autistic or otherwise, and computers, but the cautious 'I think' is evidence of a degree of self-reflection about the blind spots of Lou's cognition. Lou's presentation of his intact faculties suggests that whatever differences he experiences are rooted in very specific functions of the brain, and he sees the value of the computer metaphor. He uses it when he describes the differences between his mental organisation and that of the 'cured' Joe Lee, who insists that his brain works the same way despite the therapy he received: "If we were computers, Joe Lee would have a different main processor chip, with a different instruction set. Even if two computers with different chips do use the same software, it will not run the same" (15). The argument runs similar to how an autism advocate explains the alternative forms of cognition on his personal site:

Let's call the simple system SWODIN and the more complex system XUNI. Our story begins with the law of Murphy. As one might imagine, shit always goes wrong and nature forgets to include the manuals this time. This leads to the users of Swodin being in advantage of the few Xuni users, because actually the system is quite user-friendly and easy to learn. After they master it completely however, there is little room for further development, or specialisation, but hey, they have been lucky. The Swodin system comes with [one] built-in network protocol, so the Swodin computers easily communicate with one another. To their even greater luck, there are plenty of Swodin users around, so they set of[f] on the happy and cheerful business of chatting to each other.

In the middle of all this Swodin happiness was Jamie. Jamie had been given a Xuni computer. He hadn't really chosen this, as a matter of fact he didn't even know about the existence of other operating systems. He started poking around a little bit to explore his computer. As he found out, without [a] manual, a Xuni computer wasn't fun. It was utterly complex to use and everything had to be built from scratch. Jamie spen[t] hours and hours of very hard work, to get the basics functioning. [… T]he others, who could see a computer in the network, did not understand why Jamie was never answering to their chatting attempts. It seemed his computer wasn't even making connection properly. (Naja Melan 2006; the two operating systems allude to Windows and Unix)

The little parable proves that the computer metaphor of the mind does not cloud our view of the human mind's social functions. If the metaphor is extended further, it can express alternative visions of life, the nature of neurological differences. Autistic people actively develop that metaphor to describe the hardships of communicating across neurotypes.

As Lou devours the book, he notices some oddities in the organisation of the brain. "I wonder why the main language center is in the left brain when there is a perfectly good auditory processing area in the right brain. Why specialize like that?" (Moon 2002, 218). Lou is struggling with the idea that the human brain is a series of adaptations, each organised to serve a specific need: the modular view of the mind. He has his share of companions in the humanities. Stephen Dougherty argues that whereas the scientists in *Speed of Dark* are confident about the modularity of the mind, the book "betrays considerable ambivalence about modularity and other computer metaphors" (Dougherty 2010, n.p.). This is an exaggeration — Lou uses the computer metaphor with the knowledge that no metaphor can completely encompass the many functions of the mind. He is also aware that the state of scientific knowledge and the characters' experiences are demonstrating the validity of the massive modularity of the brain. The book is critical of the institutional matrix that coerces autists to become neuroconform, but not of modularity.

Dougherty delivers a dichotomic template of response when he claims that the reader's opinion of the work "depends in part on how seriously s/he take[s] the idea that the mind/brain is a computer. If the reader takes it seriously, then it more or less follows that Lou should have the operation. If cognition is computation, and autism is a processing failure, then repairs are in order" (Dougherty 2010, n.p.). Not quite. The reader's response is affected by many factors, but her view of the mind does not determine her response to the novel at all. One could perfectly well believe that the hardships associated with autism are remediable in the social sphere and still respect an autistic individual's wish to change neurotypes if his autistic mind-set conflicts with his self-image and desires; in this respect, the operation is no more objectionable than a sex-change operation for those who wish to realign their misgendered bodies with their personality and aspirations.

What is more, the computer metaphor could be true, but that would still allow some room for resistance to neurosurgery if one's views on collective liberty would mandate that no single technological innovation should be used to reduce neurodiversity and compromise the self-worth of other individuals who adhere to the identity group the person left. The computer metaphor of human cognition or the adaptationist modularity theses do not mean that autism is a processing

'failure' as such. That is a wrong conclusion, given the alternative Dougherty proposes: "if one rejects that there is a proper speed and an appropriate level of intensity for human perception of the world, then matters are quite different" (Dougherty 2010, n.p.). Here the scholar evokes something similar to a set of social norms for cognition that defines the desirable rate of functioning. But if normal cognition is set up as a standard, deviations from it cannot be automatically categorised as processing *failures*. Even if we demarcated an appropriate range and speed of human cognition as a norm, the novel in no way contests the modularity of the mind — its premise is built on this foundation. The 'reconstructive' neurosurgery and the following interpersonal therapy is not critical about the scientific understanding of autism that Dougherty identifies. What it does critique, though, is the patchy neuroethics of its fictional society. Here, I would like to return Nicholas Dames' idea of the social norms of cognition so we can avoid some of the assumptions and conclusions that Dougherty bases his argument on.

Speed of Dark's questions concerning the granularity of cognitive processing are fuelled by the same curiosity that electrified Victorian medical discourse about whether consciousness can be broken down to discrete units. Surveying the physiologically inflected criticism of the era, Nicholas Dames argues that such units of consciousness on the phenomenological level were linked to a perceptual threshold of "just noticeable differences" that physiologists eagerly wanted to quantify (2007, 178-182). The quest to find the threshold amount of information that our minds register as difference is a normative one, and it is because they sought to establish this social norm of what counts as acceptable sensitivity that we can speak about a hyper- or hyposensitivity to certain classes of stimuli in autism. For example, Lou comments on his olfactory sensitivity by saying that "[n]oticing smells is not appropriate" (Moon 2002, 3) after the rich description of fragrances he gives that adds texture to an otherwise drab office. Descriptions of faces, too, take on an ideological charge when an autist's stare meets the medical gaze:

> When she […] looks at me, her face has that look. […] I call it the I AM REAL look. […] She is real, she thinks, so she know what I need and don't need. It means she is real, […] and I am […] not completely real, even though I can feel the nubbly texture of the office chair right through my slacks. (4)

In this excerpt, Dr. Fornum's normative 'I AM REAL' gaze is Lou's expression for the superiority of an embodied representative of power/knowledge in a medical context. I would suggest that when Lou narrates the office chair's coarse fabric, he intends to undercut this

ideological inscription by that 'even though,' which reveals the dynamics of narratological detail in *Speed of Dark.* The *normative realism* of broad brush strokes, the 'Everyone knows this, and Everyone does that' mentality is pitted against the *perceptive realism* of finer, detail-oriented descriptions. If it is a normativised mind of Lou-after that triumphs in terms of character development, then stylistically speaking, the more memorable, more original narrative strategies are those of Lou-before's perceptive realism, which defamiliarises those 'just noticeable differences' that Victorian neurologists were after. We can therefore note that this strong affinity between physiological novel criticism's interest in the units of consciousness and narratology's investigations of descriptive granularity is not a matter of coincidence, but a result of a sustained inquiry into the social norms of cognition, albeit with different theoretical investments. That is why Dames' term can migrate into the field of cognitive literary theory.

Dougherty contrasts the 'computer metaphor-adaptationist massive modularity' construct with his position, "a fully embodied and intercorporeal perspective; one, that is, that refuses to treat the mind/brain as a computer processor" (2010, n.p.). This is a false dichotomy that originates in the author's misperception of cognitive science's methodological stances or the scope of processing. An embodied and intercorporeal perspective, such as that provided by social neuroscience, can and does utilise the computer metaphor to conceptualise interpersonal processes like empathy and empathetic distress (Decety and Lamm 2007, 2009). A neurophenomenological investigation of autism can and does treat the brain as an information processing system with specific subsystems for different tasks, i.e. as a modular organ (Glezerman 2013). In the same article, Dougherty further asserts that: "the theory of modularity […] entails a certain style of thinking about thought that has real consequences for our broader thinking about culture and sociality. Although modularity is an enormously influential theory in the cognitive sciences today, it is [not] conducive to the style of thinking about thought that Moon mainly promotes in her novel" (Dougherty 2010, n.p.). We are thoroughly in agreement that how we think about the brain's relationship to culture has consequences, however I find myself at odds with him on just what the consequences are. As an affective neuroscientist summarises the opinion of his discipline:

> In fact, when one compares the underlying processes of brains and digital computers, there are only modest relationships between the two. While computers obey a few rigid logical rules, biology carries out many subtle functions created by aeons of evolutionary selection. Brain rules do not follow the simple constraints of digital logic; rather, they reflect processes that have been refined for the multiple purposes of

adaptive fitness. (Panksepp 1999, 82)

So, *pace* Dougherty, the modularity thesis actually subverts the notion that we are simple computers, yet the metaphor retains its explanatory power when understood in context, as it sees the brain as system capable of second-order representation that can be simulated computationally (Cleeremans et al 2007). When he characterises the modularity thesis as an adaptive, biologically innate and functionally specialised view of the brain, Dougherty is generally right, but he concludes that this "leaves very little space for theorizing the connections between minds, brains, experience, and culture, precisely because it cedes so much in the first place to instinct, or to the notion of the program" (Dougherty 2010, n.p.). Nothing could be further from the truth.

Panksepp must have been thinking of people like Dougherty when he suggested that "[t]he reason many scholars who know little about modern brain research are still willing to assert that human behavior is not controlled by instinctual processes is because many of our operating systems are in fact very 'open' and hence very prone to be modified by the vast layers of cognitive and affective complexity that learning permits" (Panksepp 1999, 122). Baron-Cohen is chided by Dougherty for hypothesising the ToMM as an innate module, when the psychologist actually claims "[t]he available data allow us to interpret the theory of mind deficit in autism as strong evidence for modularity of social intelligence, but may not justify a rich innate module such as Leslie's ToMM. Rather, a ToMM may be the result of both innate *and acquired* factors in development" (Baron-Cohen 1999, 185, emphasis added). With a certain glibness, Dougherty quips that it would be "very convenient to have such a module in our brains, and undoubtedly it would save a lot of trouble. But it simply does not jibe with the fact that we must all learn about other people (and ourselves) through lived experience" (Dougherty 2010). Mind you, the lived experience of intersubjective encounters would never be encoded as such if there were no specific brain networks devoted to processing this information *as social*. For precisely this reason, the phenomenological turn in the cognitive neurosciences have sought to integrate ToM-based explanations of autism in embodied and enactivist accounts of social (mis)cognition (Klin et al 2003, De Jaegher 2013), and cultural variations and critical voices have been given more time and attention in neuroscientific research and theory (Lillard and Skibbe 2004, 282-289; Choudhury and Slaby 2012).

I am harping on Dougherty's failings because throughout his criticisms of the perceived

deficits of modularity theory to explain autism, he consistently portrays cognitive neuropsychology as an autistic form of doing psychology, which is unwilling to attend to the rich interpersonal modalities of social life and he misrepresents *Speed of Dark* in his final verdict:

> My hunch is that if Moon's cognitive science inputs had been more up to date, the novel would not have been so torn between the very human lessons that the characters' interactions body forth and the distinctly inhuman lessons that the science (fiction) promotes. The fact that Lou is cured of his autism and becomes less of a social creature is an unsettling outcome that, […] is underwritten by the modular model of cognition […] that Moon's novel fully embraces only in its final pages. (Dougherty 2010)

Clearly not, but the corresponding criticism about cognitive science 'inputs' is applicable to Dougherty himself. He is right, the novel does pivot on the ethics of neurosurgery and curing disability, and as Moon expresses it in an interview: "Any therapies that change brain function can be misused—though what constitutes misuse is presently the hot topic in this part of bioethics. […] Fixing a neurological problem is one thing; enhancing one's own performance is another; imposing the requirement to enhance someone else's performance . . . slides over into mind control of a very literal kind" (Moon 2004, 351). But what progressive critics, such as Arndt and van Beuren or Dougherty tend not to appreciate is that there can be genuinely differing viewpoints on what constitutes a desirable personal outcome and a life worth living. They criticise Lou's choice based on their political views of collective liberty (shouldn't Lou rather choose to remain as before and affirm the abilities of autists all over the globe?) rather than the motivations of the character.

They also refuse to accept the book as an honest depiction of real alternatives and different viewpoints (some do not take the treatment, sometimes it fails) that gives more room for discussion than novels which are closer to the politics of the authors. Moon addresses these concerns when she talks about her experiences of being an autism mum in the interview:

> One of the great challenges for any parent of a child with disabilities is how to love the child as he/she is, and yet remain open to change that may be beneficial. Some people come down hard on one side or the other of this: the parents who insist that they would never want their disabled child to be cured because that would invalidate their love for the child as he/she is, versus the ones who insist that everyone should leap at every chance at a cure. I can't. […] If/when such therapy becomes available, it will have to be [my son's] decision. (Moon 2004, 350)

Individual responsibility and decisions, of course, are shaped by the collective ethical

landscape, but we should not negate an individual's willingness to transcend themselves in the hope that it might have some oblique impact on collective identity, and especially not in a novel which has *de facto* cured autism already.

What Lou eventually learns about reading Cego and Clinton is not the importance of mental modules for pattern-seeking and social cognition, but something far more important about the ethics of scientific research. Digesting the density of an entire field's knowledge about the brain leaves more questions than answers in Lou. Why does he have a particular preference for some patterns but not others? Why does a particular, narrow sort of investigation seem to crowd out the desire for knowledge that truly alters our own worldview, the titular speed of dark being faster than the speed of light? As Lou expresses it: "The book answers questions other people have thought of. I have thought of questions they have not answered. I always thought my questions were wrong questions because no one else asked them. Maybe no one thought of them. Maybe darkness got there first. Maybe I am the first light touching a gulf of ignorance. Maybe my questions matter" (279-280). This is a turning point in the book, where Lou begins to use his capabilities and his potential to change as tools for critical thinking that could spearhead his improvement, becoming a fully realised agent, rather than just an obedient, docile mind.

He also becomes a critical reader of neuroscience, and when Dr. Ransome gets into the nitty-gritty details the next time he briefs Section A on the protocol, Lou is able to sense that there is something profoundly wrong going on with the procedure. First of all, he recognises some of the slides Dr. Ransome uses. Ransome claims that the illustrations accompanying his talk are "the normal brain's activity pattern when picking a known face from a photograph of several faces" and "the autistic brain's activity pattern during the same task" (308). Using his superior memory, Lou remembers differently… accurately. It was not presented as a selection task, but "it was normal brain activity when viewing a familiar face. A composite of… yes, I remember. Nine healthy male volunteers recruited from college students" (308). Lou explains that a 'composite' is a computer-generated drawing, very much like the social skills stimuli that Ransome shows Section A so that they know what kind of post-surgery retraining they'll receive – in other words, artificial images, which bear no resemblance to any one individual.

Ransome is misinforming potential volunteers to secure a viable study cohort for this clinical trial, something that would definitely not be approved by any self-respecting ethics committee, and Lou can identify that it occurs, but he is not sure what this misconduct means. He

does express a healthy dose of doubt about the procedure: "All the pictures look posed, and the people may not even be real people. […] We are supposed to become normal, real people, but they expect us to learn from these unreal, imaginary people in contrived, posed situations" (312). Lou's concerns about the usefulness of artificial stimuli to jumpstart social learning is relevant. It's the problem of ecological validity, i.e. whether the images Lou and his colleagues receive in treatment would be similar enough to natural situations. The way he questions the design of the protocol is a critical reading that emphasises his resistance to the medicalising model of autism.

There is also the matter of time and speed, always critical for the validity of the tests. We soon find out the reason why the scientists put such pressure on the company's workforce to become volunteers. Initally, Dr. Ransome explains that they want to start the treatment on the whole group at the same time because "the data are more comparable if the subjects—if you—are all close in time," but immediately afterwards, other kinds of anxieties surface: "I mean, suppose something happened that changed things between the time the first two started and finished… something that affected the rest of you—", which might sound like an almost convincing impression of someone caring about their study participants' well-being, but Ransome blurts out that the actual concern is another kind of change, "something political that changes attitudes…" (313). So it is not even scientific accuracy that requires the coordination of the treatment programmes, but the ability to experiment at all before government legislation would impose restrictions on human testing for this neurosurgical procedure. Moon's depiction of the underhanded ethical moves the study team make in order to go on with their pursuit of data is a plausible scenario, reinforcing the story's vision that the social norms of cognition are malleable and subject to damaging misuse if they are defined without the inclusion of neurominorities.

Speaking of attention, let me now consider another line of inquiry addressed by Victorian physiological criticism that is particularly appropriate to Lou's story: attention. In *The Physiology of the Novel*, Dames browses Thackeray's work for instances when either rapt attention, absorption or its opposites (inattention and distraction) appear in the text, establishing its relationship to Victorian attitudes toward work. In his chapter on "distraction's negative liberty" (Dames 2007, 73-122), Dames characterises attention as a mental alertness that has productive power, used in learning and reading for edification as a heightened state of receptivity. He recognises that

> Victorian physiology […] continually stressed the limitations of attention, to such an extent that their picture of attentiveness seems far closer to our contemporary category

of ADD: a […] temporally restricted capacity that [easily] becomes distraction. This scientific conceptualization of attention was often spurred on by the conditions of Victorian factory labor, where the perdurability of concentration was so evident: the longer that attention must be paid, the less effectively it will be paid. Victorian physiology's goal here [is] the explosion of the myth […] that "more" attention was always possible. (82)

In this context, Dames portrays fleeting attention as a source of relief, a respite from the demands of the text, and describes "alertness as a state of inattention *to something else*" (91).

Contrast this with the world of a data analyst like Lou, who lives and breathes information; for him, attention is linked to pattern recognition. When a concern for patterns appears as a theme in the narrative, it signals that Lou is paying full attention: "For the project I'm on now, […] Bach is perfect, the complex patterns mirroring the pattern I need. I let the place in my mind that finds and generates patterns sink into the project, and […] all I have to do is pay attention and ensure that the pattern remains symmetrical or asymmetrical or whatever the particular project calls for" (Moon 2002, 8). Lou is absorbed in his work, but often it is not so much a drudgery as being paid to exist in a state of permanent flow.

It is not as if Lou could turn it off and relax by being distracted. His pattern-seeking mind is fully functioning in idleness, as at the restaurant where they go with Section A after work: "I am watching the beer sign blinking in the window. It comes on in three segments, red, green, then blue in the middle, and then goes off all at once. Blink, red. Blink, green, blink blue, then blink red/green/blue, all off, all on, all off, and start over. A very simple pattern, and the colors aren't that pretty […], but still it's a pattern to watch" (10). Here, attention manifests itself by an increased granularity of the descriptions, but it points us towards an attention that is constantly operating on the textual level, and becomes a theme of its own. Whatever is narrated through Lou's filtered perceptions is by definition an evidence of attention. Thus all the passages that politicise cognitive differences in attention are also comments on the narratological structure of the novel and its strategies for representing pattern-seeking minds.

For Lou's mind, an unpatterned world is unpredictable, hard to process, a triumph of noise over signal. During his walk in nature, the last hurrah of his autistic cognition, he gazes into a waterfall, watching the droplets: "I concentrate on the water, seeing its pattern, the order in chaos and chaos in order" (Moon 400). Distraction is not a negative liberty in Lou's eyes, not a freedom from the hard, taxing labour of attention, for attention is his default mode of operation, a constant

heroic effort to make the world a more predictable, intelligible place. If inattention is a saving grace for Lou at any time, it is most useful when he is flooded with sensory stimuli. He talks at length about his childhood perceptions, linking attention and duration as parameters of cognitive processing: "my infant nerves needed a stimulus to persist longer before it would bridge the gap. [I was] lucky that techniques were available to provide my neurons this needed duration of signal. Instead of being labeled with an 'attention deficit' […], I was simply given stimuli to which I could attend" (49). In this passage, the use of 'simply' is the element most critical of our current medicalising models of disability, suggesting that a pragmatic treatment, an early intervention programme can minimise the disabling effect of cognitive differences in attention.

Lou's attention at work and on the fencing *piste* is aided by simulated auditory patterns that regulate his mental processes. Lou replays music in his head that fits a particular problem, in essence scoring social situations, which gives him the right tempo for a solution, underscoring the connection between his atypical mental pace and the duration of actions. Dames claims in his interpretation of elongated form, taking Daniel Deronda as a case study, that physiological novel theory was deeply influenced by contemporary musicology. He identifies "[m]elody and rhythm; the recurrence or repetition of thematic material over long stretches of intervening time and space (or, the *leitmotiv*); boredom and cognitive exhaustion" (Dames 2007, 127) as common concerns in the reception of Wagner's music and Eliot's novel. They signify a thoughtful experimentation with the audience's and the characters' attention, a reflection on the cultural anxieties about technological development (steam-powered transportation) and its effect on cognition. It is profitable to think of autism novels like *Speed of Dark* as updated versions of a similar nervousness about ubiquitous computing and atypical cognition in our time, which would also explain the pervasive presence of mental music. The fencing scenes illustrate this point well:

> It is like a dance: step-step-thrust-parry-step. Tom talks about the need to vary the pattern, to be unpredictable, but last time I watched him fight someone else, *I thought I saw a pattern in his non-pattern*. […] Suddenly I hear the music of Prokofiev's *Romeo and Juliet*, the stately dance. It fills my head, and I move into that rhythm, slowing from the faster movements. Tom slows as I slow. Now I can see it, *that long pattern he has devised because no one can be utterly random*. Moving with it, in my personal music, I'm able to stay with him, blocking every thrust, testing his parries. And *then I know what he will do*, and without thought my arm swings around and I strike with a punta riversa to the side of his head. (Moon 2002, 33, emphases added)

Lou adapts music to serve as a method of social cognition, of learning about the actions of his opponent. Fencing fast, he cannot tease out the pattern that guides Tom's attacks and feints. The change in tempo, ordained by the rhythm Lou perceives in the progression of phrases (the actions during the assault, but I intentionally evoke the musical sense as well), gives Lou an edge, where the more sustained attention span can win him the bout in the long run. The prediction of behaviour on the basis of pattern is the very foundation of cognition, and through hard work, Lou proceeds in deducing some form of order from the chaos, but it takes time. Lou encrypts his intentions by falling into rhythm with the music, which serves as a generator of pseudorandom patterns that are harder for Tom to perceive. A constant musical accompaniment of life is a second nature to Lou that frees his mind to see his opponent's intentions.

Consistent with Dames' research on musical and novelistic temporality, Lou listens to mental music when reading scientific literature, too. Bruch's violin concerto No. 2 in E Major is described in one of those rare poetic passages that Moon reserves for Lou's least narrative experiences. He says: "The long sweep of this music, which obscures the rosetted patterns [Bruch] brings out, helps me find and build the long, asymmetrical components that find rest in fluidity. […] I think it will be good music to have in mind while I am reading Cego and Clinton" (228). Indeed, this is the vision of the brain that is most espoused by textual evidence, not the mechanical computer analogy that Dougherty suggests – long, asymmetrical components finding rest in fluidity. The dynamic music of a mind in constant conversation with its environment.

Lou builds and re-enacts this process, making figurative and literal (synaptic) connections between his personal identity and the scientific ability to further shape one's mind. This is the same neuroplasticity that informs Malabou's hopefulness about the organ to defy the enduring pattern-instructions that genetics creates over unendurably long periods of time. Dames argues that some passages in Eliot's novel "demonstrate her worry that duration can in fact be too much, even if the scope of those temporal limits is unknown and possibly unknowable" (2007, 164), which bathes *Speed of Dark*'s ending in a new light. The organic neuroplasticity that rearranges the autistic brain to attend to social stimuli and habituate itself to sensory information might just take too long for said brain's proud owner to re-learn life. This is why some members of Section A haggle over the inclusion of a life extension procedure if they undergo the experimental treatment. "If I have to start over, I want more time to be that other person. To live", says Dale, throwing a juicy bone to the scientists: "I want to have time to live as a normal person. As many years as I have lived

autistic. More. […] It will be more data. […] Longer follow-up" (Moon 2002, 364). The complex negotiation between identities old and new, choice and coercion, between present investment and future data dictate different strategies of managing the unparalleled power of the novel's neuroscience to restructure the human mind. The extended duration of life is just one consequence of humankind's desire to experience human subjectivity in ever more creative, fluid ways. Whereas in Lou's former life he only catches glimpses of an affective life he wishes he could experience instinctively, after the treatment (and in his later, neurocosmopolitan years the book closes with), it is the shared jokes, wit and picking up on social nuances that Lou gets to appreciate – a side of life previously inaccessible to him.

But even before the surgery, Lou senses that his intense focus on inanimate patterns and normal people's obliviousness to the order of objects has a symmetrical counterpart:

> I remember things like what percentage of cars in the parking lot are blue because I pay attention to color and number more than most people. They don't notice, so they don't care. I wonder what they do notice when they look at a parking lot. What else is there to see besides the rows of vehicles, so many blue and so many tan and so many red? What am I missing, as they miss seeing the beautiful numeric relationships? (277)

As he finds out when he begins to read some neuroscience, it is social stimuli to which he cannot attend, the people in the parking lot, the web of status and relationships we weave from interactions. The social norms of cognition, being social and consequently networked, select a norm that prioritises the cognition of the majority, neurotypical socialisation skills and minded thinking, which help coordinate NTs' affairs, allowing stronger cooperation among wider groups of people and an improved predictability of NT reactions for those who possess normate mind-reading abilities. Those who fall outside of the norm become mysteries, requiring an interpretative apparatus to facilitate communication between neurotypes.

Autism novels like *Speed of Dark* latch onto our interpretative interest in other people. The mindblindness paradigm presents the condition as an "enigma" (Frith 1989), which contributed much to the hermeneutical gap between autists' responses to their environment and the neurotypical assumptions derived from their own interpretative horizon. In this chapter, I have ventured to find common ground between scientific accounts of the cognitive difference in autism and humanists' curiosity to interpret everyone on their own terms, free from the damage poorly applied metaphors can cause. I have sought to demonstrate that the narrative devices to convey a

sense of autism are extensively involved in my redefined version of Dames' concept of the social norms of cognition, which describes the standards governing our understanding of human behaviour and the limits of what experiences can be politely shared between people.

It is worth keeping in mind, though, that *Speed of Dark* only provides one *neurotypical* author's impression of living with autism, a mother of an autistic child. Even if Moon and other writers research their topics meticulously and their forewords never fail to thank the autistic first readers who have supplied comments to their work, these gestures do not make the books 'authentic,' and neither should this be taken as a criterion of analysis. Autism novels are *virtual* autobiographies, and they cannot be substituted for self-reported or experimental evidence about how an autist's mind actually works. The poetic devices themselves are worthy of study to show how they perpetuate or redesign our way of seeing other human beings, particularly those who have to find common ground between two differing cognitive styles. These novels encourage people to have the patience and courage to listen sympathetically and "think other-wise" (Wolfe 2008) across neurotypes.

VULNERABLE MINDS: CLAIRE MORRALL'S NOVEL OF NEUROCOSMOPOLITANISM

AND NURTURING A NERDY NEXT GENERATION

"[I]n dream we speak our own language; when we wake, the language of others. Surrendering our sleep is difficult not so much because it requires us to interrupt our fantasies as because it forces us to assume the language of others, to begin to talk . . . [...] This is the burden and the strain of consciousness: that we must speak a borrowed language." – Irving Massey (quoted in 2009, 63)

I would be the first to admit that Claire Morrall's *The Language of Others* is a bit of an odd-one-out in the corpus, for several felicitous reasons. First, this is the only novel I have found which features a female protagonist, the pianist and part-time librarian Jessica Fontaine. Secondly, this is also the novel which explores the segment of the autistic spectrum that comes closest to neurotypicality. Like most writers who tackle high-functioning autism and Asperger's Syndrome, Morrall explores the subject because the question of neuropolitics fascinates her. As she explains in an interview: "The side of Asperger's I wanted to write about was the milder form, where it is arguable how abnormal you are. […] What is 'normality'? I would argue that everybody has an element [of autism] in them" (Kean 2008). Thirdly, unlike *The Curious Incident, Speed of Dark* or *House Rules*, Morrall's take on neurological difference is more subtle, and most of the mannerisms that the other novels embrace, like savantism, meltdowns or intensely scienticised, obsessive interests are eschewed in favour of a more lyrical tone and characterisation, a realistic depiction of bullying and abusive relationships. The ambiguity of autistic behaviour is important from the perspective of narrative design, too, because many of the heavier-handed strategies for representing autistic difference (an enhanced sensory perception and direct expository passages addressing the readers, lecturing them on the facets of autism) are absent – its expression comes out more forcefully in the social situations Jessica has to navigate.

Told in three different time periods, we follow Jessica's story from childhood until the birth of her grandchild. The first, narrated in the third person, presents Jessica's early years in Audlands Hall, a dilapidated country manor that was purchased by her father, Roland at the insistence of her wife, Connie. The vast, labyrinthine structure of the crumbling stately house is the perfect place for the young Jessica: spacious, with nooks and crannies in which she can play in blissful solitude while her sister, Harriet and her cousins, Philip and Colin can play with the other children. Connie

organises sack races, treasure hunts and other diversions for the children, which don't interest Jessica, who prefers to wander around in the remote corners of her home. After a successful renovation effort, Connie organises an evening ball, complete with a piano quintet. The music enchants Jessica so much that she starts to mimic the musicians, which Philip and Colin mock and they they begin to bully her physically. Hiding her wounds, she asks for piano lessons. In her teenage years, the abuse continues, especially by Philip, who tries to seduce and kiss Jessica despite her protestations, upon which he breaks one of her fingers.

The second chain of events relates the story of her education at the Barber Institute of Fine Arts, where she studies piano and encounters Mary, another student, with whom she becomes fast friends. She also meets Andrew Courtenay, a psychologically wounded, Byronic violinist. Although very talented, his mother, Miranda's strict training regimen left him contemptuous of a disciplined life of practice, feeling railroaded into a success over which he had no control. Excessively controlling himself, superficially charming yet calculating and ruthless, Andrew seduces Jessica with his expressive interpretation of Tchaikovsky, Sibelius and Beethoven, and the two begin a troubling relationship. Andrew turns out to be severely immature, preferring the life of a couch potato, engrossing himself in comic books, animated cartoons and spinning tall tales in front of his family to please his domineering mother. He drops out of university and convinces Jessica that getting married is the right move, while everyone in her immediate vicinity, friends and family included, caution her about Andrew's darker side. Andrew arranges an immediate honeymoon trip to France, leaving in the middle of the wedding reception, Bilbo-style.

On their honeymoon, Jessica is threatened with physical violence when Andrew finds out that she has dared to take a walk alone. Soon, Jessica becomes pregnant and gives birth to Joel, a constantly crying, disturbed child, who appears to take after his father in his dictatorial attitude to love. However, as Joel develops into a schoolchild, Jessica finds him to be emotionally remote from the family, preferring to immerse himself in the world of technology, rapidly developing computer skills and a passion for sculpting plasticine cats named after famous composers. Meanwhile, Andrew's oppositional behaviour sees him moving from one job to another. This makes him depressed, desperate for attention and, ultimately, so fed up with Jessica's growing expertise at handling him that he initiates divorce.

The third time period covers Jessica's life eight years after the divorce. As a single mother, Jessica supports herself from her meagre income as a librarian. Andrew re-enters the scene, and

tries to win back the emotionally hardened Jessica's favours, who is more determined than ever to shut out Andrew once and for all. In the intervening years, Joel has grown up, now on the cusp of manhood. The twenty-three-year old has started a company designing violent video games featuring anthropomorphic cats. He is still at home, single-mindedly programming, sculpting and relying on her mother to do the household chores for him. When Jessica learns that Andrew's father, Donald is dying, the erstwhile couple meets so that they can attend to Donald at his deathbed. Andrew proposes that the two should get back together. Jessica rebukes him, and discusses their past with Miranda, who reveals that her tiger mother approach to childrearing was a response to his own brother's dissolute lifestyle, who died penniless in a derelict house.

Jessica also finds out from Joel that he has a girlfriend, Alice, and they are engaged. When Jessica meets Alice, the young lady informs her that Joel possesses a fortune from video game sales but she loves him for who he is, a quirky but charming fellow. Having aged considerably, the wheelchair-bound Roland and arthritic Connie decide to sell Audlands Hall, and throw one final party. After a row between the young couple, Alice surprises Jessica by forgiving his son so easily, and tells her that Joel is living with Asperger's syndrome. The revelation compels Jessica to reinterpret her whole life. Previously puzzling elements and events fall into place in her mind. Andrew appears at the party, his trusty violin at the ready, climbs atop the highest roof of Audlands Hall, and falls to his death. In the final scene, Joel presents his mother with her grandson while she muses about her survival in a chaotic social world where nothing is as it seems, and enjoys seeing the baby, ending the novel on a note of bittersweet contemplation.

In my reading of *The Language of Others*, I want to focus on a set of interlocking themes that deal with autism and its relationship to sociality. First among equals is the representation of fictional mental functioning, so I investigate the narratological apparatus of reporting the character's gaze, facial expressions and corporeality. Zooming out a bit, I next consider the depiction of sociopragmatic interaction between Jess or Joel and other neurotypical characters. Morrall's book situates autism predominantly in the private domain, investigating its hereditary nature as the author traces the effects of autism within the family. The uniting voice is Jessica's, who sees herself becoming a keener-eyed reader of people and situations due to her traumatic experiences. I read this autobiographical view of the self in the context of the fictional imagination and the social hermeneutics of interpreting oneself, which is a catalyst of Jessica's character development, as she learns to be neurocosmopolitan. Joel and Andrew's relationship allows the

writer to express the way masculinity and adulthood are imbricated in the discourse of autism and I shall be commenting on Jessica's normative interpretation of adequate masculinity when she narrates Joel's life and achievements. As a pianist, the height of joy for her is to play with her fellow alumna, Mary, and music takes on the role of conveying and experiencing emotions which she cannot always put into words. Music also stands in stark contrast with her and her family's attitude to reading fiction, which Morrall uses to display an autistic form of distant reading and a discomfort about fiction. As a form of pretence, both fiction and playing roles are attempts to (re)inscribe people into social positions and Jessica experiences the power of created roles first-hand as she struggles to survive and assert herself in the face of Andrew's Machiavellian powers. Finally, I explore Joel's figure, the autist-as-nerd, since his anxieties about communication and sociality are foregrounded in the technocultural landscape of the new millennium. I conclude that Jessica's methodical contemplation of the condition of humankind enables her to become a critical reader of everyday social situations.

We first catch a glimpse of Jessica as a child, as she roller-skates through the Long Gallery, one of the spacious hallways of Audlands:

> Her brown eyes, flickering with feverish excitement, were focused ahead of her for a change, shaken out of their normal downwards slant. Today she had to look where she was going. She almost laughed out loud. This was joy. Air rushed past her, a wind in her ears that banished the outside world. She was exhilarated by the freedom of her solitude. (1)

Morrall captures Jessica at a moment of intense personal joy, joy in autistic aloneness, excited by the raw kinaesthetic feeling that dulls the onslaught of sensations. The author creates the 'autism effect' by bringing attention to Jessica's gaze: she looks ahead *for a change*, where she would generally cast her eyes on the floor. Who would not look into the distance, anticipating where they were going? Unlike other children, who are eager to see the world, when Jessica looks ahead to the future, she is shaken from her usual *habitus*. And yet, she does not quite commit herself to laughter, the emotion cannot become manifest, socially perceptible. Already, the reader begins to sense that this is no ordinary child, but someone who takes pleasure in the immediate, the present, has trouble mediating her emotions, and is most comfortable in experiencing the world in smaller chunks, blocking out the unwanted bits. Such an autistic presence soon becomes more palpable when Connie invites Harriet and Jessica to gaze at the majesty of their fully lit lustre. As

Connie and Harriet start down the stairs, they notice Jessica,

> who was still on the staircase with her eyes on the chandelier. She had crouched down and was peering through the balustrades, still mesmerised by the candles […]. Light danced and shimmered over her face, changing with every passing moment, illuminating her round eyes and creating shining highlights in her glossy plaits.
> […] 'Go and play with the others now, Jess,' [Connie] called. […]
> But Jessica didn't move. (34)

Autistic presence is construed on two different levels: Jessica's intense, mesmerised gaze at the dancing lights of the candles, because she cannot disengage her attention from the spectacle, and her unresponsiveness. The autist is present, but she is not compelled to obey the social interpellations issued by her family, she won't be integrated. This is also apparent in how the other children blissfully enjoy all the running to-and-fro and guessing the clues in the treasure hunt, while Jessica finds a means of solitary enjoyment. As Kanner writes: "He just is there, and if sometimes he happens to stroll as far as the periphery of a group, he soon removes himself and remains alone" (Kanner 1943, 247). The idea of autistic presence, the strangeness of neuroatypical behaviour is the central experience from which the clinicians begin to build their description of autism, and Stuart Murray uses 'presence' as a key concept to refer to autists' distinctness, their inassimilability into easy social life. He observes that analysing this presence is an ethical task, as it allows the recognition of "the possibility of centrality and agency, of the occupation of the narrative foreground, and – potentially – that the person with autism might have some say in the definition of terms through which he or she is seen" (Murray 2008, 32). Gaze as a tool of social attention wields a certain regulatory power, but in everyday life, it is also a form of basic respect – you pay attention to others and recognise their existence – and a vehicle for adding non-verbal commentary to one's words and actions.

Autistic presence is often evoked by the uneasiness of meeting someone's gaze, as when Jessica meets Andrew for the first time: "We looked at each other. Or I assumed he looked at me while I looked at the violin under his arm. I couldn't meet his eyes. I tried, but only got as far as his mouth" (Morrall 2008, 19). Jessica narrates her discomfort with reciprocating attention. One reason for her discomfort might be that the eyes tell no stories for her. When she does meet Andrew's gaze at another point in her life, the reader gets to see the richness of detail Jessica perceives in his unfathomable orbs: "All I could see was his eyes, right in front of mine, still and

expressionless green, surrounded by a clear, innocent white, his eyelids pale pink and edged with long pale eyelashes. How did people read expression in eyes? They were just physical objects. There was nothing there that could speak" (127). Since she can only see the details and does not see the face as a Gestalt, she is oblivious to the clues and expressions that carry social information.

Jessica prioritises the verbal, very much the same way the readers can only extract narrative information from the text, and cannot read what is not spelt out for us. As such, hermeneutic impasses like this, when the narrator is unable to extract sufficient information from the environment (which would be available for a 'normal' character) suggest some neurological difference. It is also a metatextual gesture that signals a more general unease with interpreting people's bodies as objects that betray their intentions and emotions. "I often make mistakes with identification," Jessica admits. "After all, there isn't a lot to go on. Two arms and two legs, two eyes, a nose and a mouth" (97). In Morall's portrayal of how Jessica perceives others, the materiality of the face and the human body is often seen as a non-signifying, merely receptive medium, which strikes the neurotypical reader as jarring and counterintuitive.

Jessica continues to be fascinated with the question of corporeal signification throughout her life. The Long Gallery, where she skated as a child, is host to several busts of the Roman emperors. Jessica inspects the physiognomy of Caligula in a philosophical mood:

> I've often studied his face, looking for signs of his nature. Can you tell what kind of man he was? Is there something in the bone structure, the set of the nose, the size of those blank eyes? Did his cruelty embed itself into his face, mark it and brand it so that posterity could recognise the evil, or was he born with those features, merely reflecting the genetic shape of his ancestors? What can you read from people's faces? Can you tell anything about them at all, or are we doomed to misread, misunderstand, misjudge? (165)

The anxieties expressed by this enigma also touch upon the question of whether nature or nurture shapes human character more, a dilemma that haunts the discourse of autism. I would argue that this ambiguity and Jessica's awareness of social misinterpretation speaks of a wisdom that was accentuated by her life as a victim of abuse and a person living on the autistic spectrum. It is a wisdom that allows her to be a critical reader of physiognomic character. As she says: "I don't believe in blond men now. I always imagine an arrogance lurking beneath those shining curls, a cold ruthlessness concealed behind the gold veneer" (7). For Jessica, reading the mind is a fraught exercise, but one that instils in her a gentle hermeneutic scepticism about the existence of 'correct'

interpretations of character.

Her growing socio-cognitive acuity, and Harriet's misreading of Philip's intentions suggests that it is a folly to assume that one can assess people accurately all the time. For Jessica, though, understanding people takes effortful cogitation until the end of novel:

> I'm learning to unravel the riddle of other people. When I was a child I hardly noticed their existence, the treasure hunt that went on without me. As a teenager I began to realise there were clues but I couldn't find them. In my years with Joel and Andrew I could read the clues, but they didn't make sense. Now, finally, with my new understanding, I'm getting there. The treasure of perception is just around the corner. (365)

The passage hails very close to the theory-theory account of social knowledge. Some psychologists, such as Emma Williams (2009), defend the notion that while typically developing individuals do not use explicit rules of inference to judge other people's behaviour, autists might be doing just that: "it is in engagement with other people rather than in thought that people normally and fundamentally know other people as intentional beings" (Reddy and Morris 2004, 657). When Williams focuses on the autobiographical writings of ten autistic individuals, she identifies the "enigmatic" quality of social interactions, difficulties with picking up cues from others and a rule-bound algorithm of interpretation as key phenomenological themes in their life-writing, which support a TT view of autistic social cognition (Williams 2009). All of these features are present in Jessica's life in one form or another.

Jessica sees Mary as the epitome of mind-reading: "She knows everything and still gives the impression that she can read your thoughts, but nobody seems to mind very much. People always like her" (167). Harriet is no less of a role model: she's two years younger than Jessica, "but she was frighteningly like a middle-aged woman. Where did she get all that common sense, her ability to judge situations and assess people so accurately? […] What did Harriet know? Seventeen years old, the world's greatest oracle, in training for the post of guru to anyone who would listen" (114), she observes, with a mix of awe and sarcasm. Just by looking at Harriet or Mary, the reader might see metacognition as universally beneficial. But in the figure of Andrew, the author reminds the readers that the mind-reading Jessica covets is a double-edged sword, and it can be a weapon of exploitation, too.

Andrew can manipulate Jessica by a strategic display of readability, opening up in front of

her. When he storms out of the concert hall and breaks down crying over living a life created for him, he invites Jess' sympathy and grants her some insight into what goes on in his mind:

> Now that I'd seen into his deepest thoughts, I was tied to him for the rest of my life. I could see his flaws. I knew he was unreliable and insecure. But I had never loved anyone before. Every time I had doubts, I thought back to that night on the station, the way he had cried, and I was hit again by those extraordinary emotions. Irresistible, unstoppable. (83)

He uses this power to 'elevate' Jessica into the enviable position of a mind-reader and thereby chain her for himself, securing his marriage proposal. In retrospect, Jessica can see what made Andrew so successful and irresistible: "He was witty, I suppose, clever with words, able to read a situation and recognise other people's weaknesses" (371), or more accurately, read minds. He is socially savvy and sufficiently Machiavellian to take advantage of Jessica. In this respect, he is entirely unlike Alice, who is "so much more certain than I was at her age, so capable. She has natural, instinctive skills, an ability to read people and manage them. She's never had to peer through fog or translate from a foreign language to make sense of the world" (353). In fact, Joel and Alice's marriage serves as a counterpart to the Jessica-Andrew relationship that goes beyond the mere sharing of initial letters: both 'J's share a neurological make-up that makes them vulnerable to social deception, while both A's are 'managing' types, who exercise their mind-reading ability upon the 'J's to nudge them in the direction they want. But Alice allowed Joel to follow his passions without undue compromises and only convinced Joel to tone down the violence in the computer games to create family-friendly software. In a rather telling move, Andrew criticises Jessica about her lack of social insight: "You think you know me, but you don't. You can't penetrate beyond what you see. You're blind, Jess and you don't even know it" (278), he says before an argument that gets physical, using the language of mindblindness. On the other hand, instead of blaming him for his shortcomings, Alice "has taught [Joel] how to be generous, a previously underdeveloped aspect of his personality" (367), and she is supportive of Joel's quirks.

The interpretative uncertainty of Asperger's also manifests in Jessica's verbal behaviour. In conversation, everyday phrases become stumbling blocks when Jessica attempts to engage in small talk. When she tells Harriet that he has a new boyfriend, problems of interpretation arise:

> She grabbed me by the arm.
> 'What's he like?' Harriet said.

I was confused.
'Andrew? What's he like?'
Like? I didn't know what she meant.
'Is he tall, dark and handsome?'
'Well,' I said, thinking. 'He's tall but not dark. He's blond. I don't know if he's handsome. How can you tell?' (22)

The mundane polysemy of words like 'like' bring a range of interpretative options to the conversational partners. Harriet wants to know what to expect of Andrew, whether he is a strong, masculine presence that would make an ideal boyfriend for Jessica in Harriet's eyes. When she answers, Jessica can easily correct Harriet on the obvious physical features, but she is more uncertain about his good looks. There is no acid test of handsomeness, and for Jessica, it might not even be a concern when someone can play the violin with such talent that it steals her heart. This passage also shows how a person is constituted in speech due to intermental processes which would help Harriet in evaluating whether Andrew's a good match for Jessica, but the presence of neurological difference complicates the easy sharing of intermental frames of reference.

This level of indeterminacy is not limited to subjective assessments, it pervades Jessica's conversations in more ordinary circumstances. For example, when Andrew asks, visibly awed by the majesty of Audlands Hall: "'So which bit do you live in?' he said. I couldn't decide what he meant. Was he talking about me personally? My bedroom? Or which bit did we all live in? What did he mean by 'live'? The kitchen? Or the drawing room? I didn't know how to answer" (24). The range of options that dizzies Jessica are natural products of the pliable language use that characterises everyday conversations. Speakers usually rely on others to find the relevant meaning of the words in a particular situation by a shared set of conventions about speakers' intentions that would fit their present circumstances, in which they are guided by the principles of relevance theory. These are less accessible to Jessica because of the 'touch of autism' that Joel inherits.

This tacit knowledge about what conversational topics can be addressed directly and what proper manners forbid to speak of complicate Jessica's understanding of the implied messages. One time, Andrew implies that he is an 'experienced' man:

'I had plenty of admirers in my first year,' he said, whenever I asked. 'There were lots of people in the hall to do things with.'
What things? Who? Where were they all now? He only ever had casual conversations with the others students — he wasn't part of a special group. (28)

Such a token euphemism for Andrew's sexual conquests (and judging by Andrew's personality, the word 'conquest' is indeed apt) leaves Jessica thoroughly confused and falsely believing that the admirers only approached Andrew socially. Such misunderstandings indicate a very basic vulnerability that exposes Jessica to the machinations of more experienced mind-readers. Jokes, teasing and conversational implicatures create a speaking community based on the ability of the speakers to mean more than what they say. In this world, Jessica is a perennial foreigner. Or rather, she was until her relationship with Andrew: "At the door, she turned and looked at me over [Andrew's] shoulder. [Mary] put both thumbs up and winked. I didn't know how to react. People didn't have little intimate conspiracies with me about boyfriends. I had always been excluded from that world" (28), Jess recognises. It reminds us that McConachie's cognitive hegemony need not be a consciously cultivated relationship — it develops in a system of reciprocal interactions, and when unwritten social conventions are breached or not reciprocated, an unconscious labelling and hierarchy is constructed by the neuromajority. This passage might also offer a tentative explanation for why Jessica stays in an abusive relationship for so long. Her marriage to Andrew rewards Jessica by including her in the world that approves of her sociability: "Me and Andrew and Mary. I had a boyfriend and a girlfriend. I was just like everyone else" (56), which is a reassuring, unstigmatised position to be in. It fills Jessica with a feeling of normality that she did not often experience prior to Andrew.

Her effortful attempts to blend in and master the game of sociopragmatics puts a strain on her marriage that becomes clear to both when they finally separate. In this conversation before her divorce, Morrall shows us Jess at her most optimistic and equally clueless state:

> 'It's the end of the road, Jess.'
> 'What road?'
> He didn't reply. [...]
> 'I don't understand what you want.'
> 'No, that's the trouble. You don't understand much, do you?'
> 'That's not fair. I work very hard to understand you.'
> He looked at me with contempt. 'Quite, My point exactly. You work very hard at it. It doesn't come naturally, does it?'
> But if you don't understand people, what can you do? Surely it's better to make an effort, to pretend, to work at it? There must be something to be gained from trying. (267-268)

Andrew terminates the relationship to maintain his position of power in a situation that is

otherwise face-threatening: he cannot hold a job for more than a few weeks, he leads a dependent life and is unable to find his place in a marriage that was based on control from the get-go. Meanwhile, Jessica has been adapting to Andrew, and has managed to handle his domineering personality, slowly wrestling away the emotional control that gave Andrew the upper hand.

Jessica does not immediately understand his figurative speech because she cannot think of a frame in which she and Andrew are separated, albeit her preference for literalness heightens the emotional disconnect. Andrew interprets this mistake as a form of callousness, a further erosion of control that is the final straw. Andrew strikes back against this by emphasising Jessica's social naivety, which masks Andrew's overwhelming desire to stay in the driver's seat rather than to adapt to a more egalitarian marriage. He frames his failings as Jessica's, and her (undiagnosed) autism becomes a scapegoat for the failure of their relationship. But her further empathy and concessions would have lead to her complete emotional dissolution as an individual.

Jessica is right, there is something to be gained from trying, from pretending. Most enactivists would agree: pretending is exactly how the self learns to construct social narratives, but for that competence to develop, it requires a supportive environment, unlike Jessica's marriage. Andrew does not give any positive reinforcement – he only approves of her because she willingly occupies her socially prescribed position as his wife. Living the life of a traditional married couple is of great emotional value to Jessica, since the enactment of familiar schemata supplies an autistic person with a sense of predictability and reassuring routine. She would experience a deep distress without that, because she craves a set practice of life.

Morrall also shows the vulnerability of autistic people to normative social standards when Jessica attends a parent-teacher meeting. Joel's skills become the topic of the conversation: "'He really must learn to be more tidy,' she said. This seemed a minor complaint to me. […] 'You might like to have a look at other children's work. […] His letters were a bit wonky, but I thought he was doing well until I saw the other children's work. I couldn't believe their neatness. It seemed so unnecessary" (227-228). Joel's handwriting might be an indicator of minor neurological dysfunction that is a "part and parcel of autism spectrum syndromes" (Gillberg and Kadesjö 2003, 64), but a school system that focuses on such minor discrepancies rather than encouraging the student to work on more essential skills shows a strong normative component. Inculcating conformism is an integral feature of the institution's disciplinary function, which allows Joel's development to be "recorded, accumulated, and used to subject individuals in new ways," while

this epistemological power also "generates a kind of clinical knowledge" (Deacon 2006, 183) about Joel's autism. The unnecessary neatness exposes how this regulatory practice singles out 'problem children' in the hope of homogenising them. That is why Jessica's conversation with the schoolteacher can continue with the following assessment:

 'He is still quite immature,' she said.
I almost let my mouth drop open to gape at her. Joel, immature? He could discuss concepts like personal space, self-control, excellence. 'In what way?' I asked. 'I always find him very mature.' She crossed her legs. She didn't understand about intelligence. 'He doesn't mix well […] with the other children or join in their playground games. He doesn't play football. […] Perhaps you should encourage him to take an interest […], find some out-of-school activities. He needs that contact with his peers. Could you invite some of his classmates round every now and again, give him the chance *to learn how to behave like them*? He simply doesn't have the social skills of most children of his age. […] Children do need to learn to think of others. […] I'm sure we'll resolve all these little problems,' she said and smiled, her mouth glistening with pink lipstick.
They aren't Joel's problems, I wanted to say. They're yours. He just doesn't fit into your way of thinking." (Morrall 2008, 229-231, emphasis mine)

This is a direct encounter with the hidden curriculum of schooling: normative socialisation. If Joel were to commingle with his peer group, it would hardly benefit him as much as the schoolteacher believes, since he would be subject to ridicule and bullying, for children are incredibly quick to pick up this hidden element of education, and enthusiastically reproduce it in their own sphere. 'Your way of thinking' (the disciplinary model of education) can only understand 'maturity' as a concept that tracks the social skills which would enable children to function in society without any further government expenditure. It is also a gendered normativity, which is evident from the teacher's dismay at the horrible fact that Joel doesn't play football. Football, a predominantly cooperative sport that relies on dexterity and deception, requires sophisticated mental models of the players' intentions, a sensitive response to leadership, a keen eye for strategy and a measure of acting. Crucially, the athletic skills acquired on the playing field do not easily translate into everyday social knowledge, but playground football does integrate the young players into a social unit that depends upon intuitively learnt patterns of sociality for success.

Morrall draws a parallel with another parent-teacher meeting, one from Jessica's early life. Unlike Joel, Jessica was a well-rounded student, bright for her own age, with exceedingly good reading skills. When Connie comes to consult Jessica's teacher, Mr. Kelvin's praise overlooks

some more pressing concern:

> 'But does she understand what she's reading?' said Connie. He frowned. She thought he could read her disbelief and was dismissing her opinions without considering them properly. She felt herself flush. 'Of course she does,' he said. 'If she can read the words, she can understand them. Words are the tools to comprehension.' […] 'But . . .' Connie began, unsure how to express what she wanted to say. 'Does she play with other children?' Mr Kelvin's gaze moved into the distance, a bored expression creeping into his eyes. 'I have no idea, Mrs Fontaine. I think you should concentrate on her intellectual abilities and not worry about how well she can play games.' (93)

Connie knows about Jessica's hyperlexia, that is, a precocious ability to read, which might not be accompanied by a reading comprehension that would be typical of her mental age. Connie is a more conventionally sensitive parent than Jessica will grow up to be, and she knows that her daughter's social skills are lacking, so she attempts to steer the conversation in a direction that addresses her little girl's problems with integration. I would like to suggest that the two parent-teacher meetings are a good example of Alan Palmer's claim that the mind is a socially distributed phenomenon: "This image is in the minds of others, but we are attributing it to this particular mind. Surely then, our identity is distributed among the minds of others. […] In a sense we are not so much what we say we are, but what we do" (Palmer 2004, 169). In autism novels, the situated and stigmatised identity of characters on the spectrum are not just inherent in the individual minds of the autistic protagonists, but are socially distributed in the minds of the neurotypical characters as well, who assess and react to behaviour they find unconventional in unique ways, governed by the social norms of cognition.

Connie and Mr. Kelvin's talk about Jessica shares a peculiar feature with Jessica's own experiences at the parent-teacher meeting: the experts' ignore the mothers' concerns about their children. The main difference lies in their attitude. While Connie worries that Jessica won't fit in and seeks help, Jessica couldn't care less about the non-normative aspects of Joel's childhood and she fights for his other skills to be recognised instead. The lack of imaginative play and social skills that raised a red flag for Joel's teacher and Connie are a testament to NT society's prescriptive view on the matter. Sport is just one venue of socialisation where children with autism suffer from the competitive, comparative ethos, supported by the social norms of cognition that define what counts as appropriate activity for children at any given stage of development.

In Jessica's own life, it was the treasure hunts organised by her mother that were similarly

'pointless' activities which tacitly reinforced the norms of socialisation: "The treasure was always a great disappointment to Jessica. It was usually only a few lollipops that had to be shared by everyone, but no one else seemed to mind. It was as if the real treasure was the hunt, the running, the fun" (4). Combining the same kinaesthetic thrill and concentrated effort for a common goal that makes football fun, such games are organised by the adults to create an environment where social learning can occur informally. The scenes where unspoken assumptions guide group intermental thinking shows that Morrall presents her autistic characters against a backdrop of normative child-rearing practices. This design thematises autistic people's difficulties with interactions that don't suit the characters' development and create frustration with all things social.

The force with which normative socialisation pervades Jessica's adult life returns on the ill-fated honeymoon trip to France. Wishing to escape from the suffocating unfamiliarity of a new country, Jessica goes to the beach early in the morning, when she can commune with nature:

> There weren't many people on the beach yet. A boat drifted lazily across the sea […]. It parted the still, glassy water, leaving an ever-expanding arrow behind it. I sifted the sand with my fingers and examined the tiny, multi-coloured grains. It was warm on the surface, but cold lower down. I dug into it with a piece of driftwood […]. It was pleasant sitting here alone, no one to speak to, no one to know me. (137)

The scene recalls Lou's lonely wanderings in Harper Falls, and the point is similar: the exhaustion that comes with social cognition and the negotiations of autistic life is best remedied by visiting unpopulated areas, where the primary sensory stimuli are not of human origin. 'No one who minds is here,' says Lou, 'no one knows me here,' echoes Jessica, and the relief from the constant barrage of socialisation is essential to remain sane in a world unwilling to accommodate the needs or accept the preferences of neurominorities. This brief respite is shattered by Andrew when Jessica comes home. He cannot tolerate not supervising her, so he twists her arms and threatens to hit her because of a quotidian display of independence. The forced sociality (and Andrew's rebarbative idea of what counts as marriage) destroys the autistic pattern of oscillation that favours periods of intense aloneness to recuperate after social events, while Andrew's aggressive, patriarchal behaviour symbolises the worst excesses of normativity.

It is remarkable that although everybody believes Jessica and Joel to be quirky and socially awkward, readers have to wait until the end of the novel for someone to confirm that either of them might be autistic. Still, there is one brief glimmer of acknowledging their neurological difference.

Jessica's mum, Connie brings up the topic in conversation with Cathy:

> Connie sighed, weakened by the intimacy of their circumstances. [...]
> 'She is very difficult,' she acknowledged. […] 'Actually, I did try to talk to the doctor once, when she was younger. I thought she might be autistic.'
> 'And?'
> 'He laughed at me. He said if I'd seen the kind of autistic children he had to treat, I wouldn't have suggested anything so ridiculous.'
> […]
> 'He should have retired years ago, He's far too old to be practising. Find a younger doctor who's more up-to-date.'
> 'He must know what he's talking about,' said Connie. 'He's a doctor.'
> 'Ask to see a specialist.' (36)

The two women have a shared vision of Jessica as a problem child, and Connie knows Jessica enough to have taken a mental step in the right direction, but she is not confident in her intuitions, so she consults the doctor, investing him with the discursive power to confer the diagnosis upon Jessica. In this conversation, the value of expert knowledge and the reliability of experts are contested as different clinical pictures and lay knowledge of autism clash in a shifting historical context of science. Judging by the age of the paediatrician, it seems likely that his idea of autism only covers the Kannerian type, bringing with him his working knowledge of the '70s and early '80s, when the English-speaking community of practitioners were yet to recognise Asperger's contribution. Connie respects his refusal to diagnose Jessica despite her correct intuitions, acknowledging his status as a figure of authority who can apply the discourse of the DSM. Cathy, on the other hand, knows the difference between your tired old GP and someone who is knowledgeable about childhood disabilities, so she urges Connie to seek a second opinion.

It is my conviction that the unprofessional attitude of the doctor and his dismissal of Jessica's autism is the real story. In fact, I have found the novelist's treatment of Jessica's obliviousness to the similarities between herself and her son troubling until I have read the consultation scenes more carefully. By not enabling Jessica to live with an autistic identity, neurotypical sociality remains a mystery for her much longer than it should have been. Jessica could have learnt the language of Others more easily, albeit with a foreign accent, had she known that she was an autist. Indeed, Joel's successes stem from her mother's attention to his needs.

Jessica's difference comes into contact with expert knowledge near the end of the novel. Discussing the path her life took, she comments upon the psychological effects of asociality:

"Apparently, loneliness is a twenty-first-century disease which leads to alcoholism, drug-taking, depression, suicides. It's better to be married if you want to live longer. *I defy all of this research. I thrive on the emptiness of my house*" (368, emphasis mine). Jessica's case is exceptional, and the novel's juxtaposition of an abusive marriage, autism and the scientific-journalistic complex that disseminates this normative knowledge invites the reader to conclude that the truth generated about autism is contingent and there are always exceptions to such truth claims.

In autism novels, the power of expert knowledge is countered by the tacit knowledge of individuals who are affected by the condition. Jessica's recognition of her own autism comes through her experiences with Joel and her conversations with Alice, whose brother is also an autist. When she finally talks to Jessica about Joel's condition, the news rearranged her previous knowledge about herself as well. The revelation is cathartic. For Alice and her family, "it was an enormous relief, because everything suddenly made sense. It was so much easier once [my parents] realised that his behaviour wasn't their fault" (334). Jessica puts it in more auditive terms: "There's a roaring in my ears, a waterfall of immense proportions. Powerful and terrifying, but at the same time a release of pressure that has been steadily building up for years. It's a shock, but a liberating one" (336). In Joel and Jessica's case, autism is no longer a diagnosis or a stigma, but an enabling discourse that gives definition to disparate crumbles of experience, an interpretative framework which helps to interpret the language of others.

The linguistic metaphor is further developed in Jessica's own view of Joel's remoteness: "When you talk to him, you always feel that something is missing, that you've lost a key point in the translation. No wonder he prefers to operate in his computer language, obsessively creating fantasy places where he has control over any threatening and unpredictable characters. It must provide him with security in an otherwise uncertain existence" (335). Even more notable than the divide between Joel and the rest of the world is the absence of a common language between Joel and Jessica. In this respect, they are utterly different from Moon's Section A, who have their own private language and need not resort to much explanation when they conduct their affairs amongst themselves. Despite their shared neurotype, Jessica's maturity and her past struggles to make her voice heard have granted her some fluency in Neurotypical, which Joel is yet to learn.

The ignorance of the experts contributed heavily to Jessica's lack of identification with Joel, who reads him for a long time essentially as an extension of his father rather than herself, when they are the ones who ought to be sharing a language. The other sort of language, the machine

tongue of programming is more intuitive for Joel because it only has semantics and syntax but no pragmatics – every command does exactly one thing, without any conversational implicatures. Jessica reads the algorithmic procedurality of virtual worlds as a privileged space of autistic existence, its predictability a relieving fantasy in itself. Her evaluation of the digital era is confirmed by scholars like Hacking and McConagh, who claim that autism became conceivable at precisely the point where technology gave birth to modernism, and its milder form rose to fame when the world started operating machines that mimic some aspects of autistic cognition (see Chapter 7). When Jessica starts to identify with Joel's personality, she sees him anew: "He is undergoing a transformation, losing his blurred outline, beginning to make sense. It's as if I only ever half-knew him" (338). Jessica's half-knowledge and belated reunion with Joel originates from the dismissal of maternal expertise and the refusal to see autism as a spectrum condition, where milder cases matter, personally as much as clinically.

What programming is for Joel, it is music for Jessica. During her performances with Mary, she joyfully immerses herself in melodies: "We sway with the music, […] and there's a wonderful sense of working together that I don't experience anywhere else in my life. We are one, instinctively knowing each other's responses without discussion. […] We understand what is never spoken, what couldn't be spoken because there is nothing to say" (52). Both music and programming are semiotic Others of natural languages, as they are outside the sphere of socially relevant interpretation. Just as in *Speed of Dark*, music is a tool for Jessica to get into a flow, very different from her experiences with the give-and-take of small talk. What allowed her to reach this level of fluency in solfeggio is the tenacity with which she practiced the tonal units of expression. In the detached tone of the heterodiegetic narrator, we catch a glimpse of how Connie relates to Jessica's youthful practice:

> In the distance, twelve-year-old Jessica was playing scales. Up and down, up and down, automatic and energetic, quite inappropriate on this languid summer day. This wasn't what Connie had expected when she'd agreed to piano lessons. Even when Jessica practised real music, with tunes that you could grasp hold of, she approached them obsessively, repeating sections so often that they ceased to have any meaning. The scales dominated, as if they had found a little niche in Jessica's brain that had been waiting for their arrival, a mathematical corner that was thirsty for pattern and shapes. (143)

It's as if Jessica instinctively took to heart the ancient wisdom of *repetitio est mater*

studiorum. She repeats and repeats the basic building blocks of music, satisfied by the regularity of the scales, and takes the enjoyable phrases out of context, to utter them time and again in a musical echolalia until they are absorbed completely. The autistic joy of finding patterns, repetition and what Jessica has called 'control' and 'security in an otherwise uncertain existence' when she spoke about Joel is literally at her fingertips when she plays the scales (typing and playing the piano is surprisingly alike on the motor level). The character-bound narrator's suggestion that this obsessive practice is 'inappropriate' is conveyed through what Alan Palmer calls contextual thought report, "the short, unobtrusive sentences, phrases, or even single words that describe an aspect of a character's mind and that are often combined with descriptions of action or context" (Palmer 2004, 209-210). It is a comment that translates Connie's NT expectations of what music would suit that 'languid summer day' — definitely something played *allegro non molto*.

Jessica's love of music, especially at its most rote and mechanical, has its counterpart in Lou's fencing, who methodically learnt how to pick up on the subtle movements of his opponent. Their shared musicophilia indicates a preference for the non-social semiotics of notes that channel their emotions, even if Lou only uses music to guide his thinking, whereas Jessica expresses emotions through her performance. Her own perception that "[t]he other Jessica was unreachable. Music must have helped me to wake up" (346) uses the metaphor of CONVERSION as AWAKENING to enunciate her position as someone who can confidently find her way in life now.

In her mind, this awakening and Andrew's music is fused together, reflecting on this in the moments prior to Andrew's death: "When I was a student, did I love the man or the music? The man, I used to think. The music, I think now. My emotions were too new then, too overwhelming for me to sort out" (359). For all his ghastly powers, Andrew did play on Jessica's heartstrings, which helped her 'emergence' into the social world. Still, Andrew refused to play music for long, wasting his talent and not participating any further in Jessica's belated *Bildung*.

As Andrew turns away from music, he begins to appreciate the fictional, the narrative. During their time together, Jessica noticed how Andrew "spent much of his spare time reading [comic books], over and over again. […] But he read the comics earnestly, without laughing" (21). Not all media has this effect on him, however: "Every afternoon, we had to race back for children's television. *Wacky Races*, Dick Dastardly, Penelope Pitstop. [… H]e would watch obsessively, grunting at every bizarre disaster, every punchline. I tried to join in, I really did, but I couldn't understand them. There was nothing there that I could relate to" (21). The rhetorical direction of

the narration constructs Andrew as immature, preferring graphic novels and animated shorts over more highbrow fare, and his compulsion to watch them will return with Jacob Horner's enthusiasm for forensic shows in *House Rules*. For a while, Jessica holds the view that Joel inherited his social awkwardness and nerdish preferences from Andrew, and that is why he turned to computer games. These ideas are symptomatic of the cultural ideology that equates realistic literary novels with complex characters, one which denounces new media and popular genres as immature and childish. Commenting on the consumption of fiction by autistic people, Julie Brown exhibits a similar prejudice: she labels the characters of the "*Lord of the Rings*, [fantasy] narratives, science fiction or Japanese comic books" as "superficial" (25) and therefore appealing to AS readers. To claim that characters in Tolkien's epic or science fiction or manga are shallow and uncomplicated is based on extreme cultural myopia, betraying a commonly-held assumption that these genres are somehow less complex. Complicated psychological profiles or moral dilemmas are omnipresent in these media, and they require intact mind-reading skills to enjoy them. These pieces of art are indubitably fictitious, and appreciating even a simple cartoon such as *Wacky Races* does exercise one's metacognitive skills. Jessica's nonplussed reaction is juxtaposed to Andrew's *Schadenfreude* and mirth at the misfortune of the racers, and from the vantage point of mind-reading, Andrew does come off as responding more 'maturely' than clueless Jessica.

He is also a compulsive fiction-maker, who regales her mother with tales about Jessica's fictitious Eastern European ancestry, the nobles who have fled from Russia after the Revolution:

> 'And there was a pair of sealskin gloves,' said Andrew. 'Jess keeps those safe at home.' My thoughts were fluttering round my head, trapped and bewildered, not knowing how to find the exit. I knew what he was saying wasn't true, but he sounded so convincing. Had my mother told him something I didn't know about? Was he lying or just making up stories? (63)

Gentle Jessica always gives Andrew the benefit of doubt, who mercilessly exploits this in order to please her haughty mother. Jessica's doubt stems from the twin discomforts of moral dismay and the demand it imposes upon her to play along — an autistic honesty forbids her to continue this part of the conversation, ceding high ground to the grandiloquent Andrew.

Jessica's unease with fiction is a life-long trait, not just a form of resistance against Andrew's mystification. In this scene from her childhood, we see her from Connie's perspective at bedtime, which captures the difference between the two siblings' attitude to fiction:

Connie sat on the end of her bed for a bit longer because she thought she ought to, without knowing what else to talk about. […] She knew she should keep trying, but it was such hard work, so unrewarding. She was looking forward to reading to Harriet. […] Harriet would be waiting for her. She could tease her and they would giggle together and then she could read some of *The Magic Faraway Tree*. Harriet loved the goblins and the pixies and the fairies. She wasn't contemptuous about them and didn't demand proof of their existence. It was fun reading to Harriet. (95)

Connie's patient but fruitless lingering at the side of Jessica's bed is a moving display of helplessness once her correct assumption that Jessica might be autistic is invalidated by paediatricians. The readers surmise from Connie's desperation that Jessica is troubled by the inventiveness of Enid Blyton, and cannot accept the secondary world of the children's book, where fairies and other flights of fantasy exist. Because Jessica cannot pretend and breathe a fictional world to life, she suffers through her bedtime stories.

The irony of Jessica's fate is that she eventually ends up being a librarian. Readers with an eye for Jessica's dash of autism might be puzzled at her claim that "my interest still lies with books" (103), since she has never been too keen on them in the first place. According to her, "I'm good at recommendations because I read newspaper reviews. I get the story from the back cover, read the first page for the style and the last four pages to find out what happens and I've got them sorted. […] I study the back of the latest Ian McEwan. I think I've got the general idea" (103-105). Her interest in books apparently does not extend to the actual artistry of the wordsmith much, since she cannot immerse herself in the storyworld, but she likes categorising them.

Her colleague, Isolde is her polar opposite. She is seen with a new book every day, and enjoys almost everything she reads. "She lives alone," Jessica tells us, and she imagines her "going to bed early, racing through the last exciting pages. She devours everything — literary novels, romances, thrillers, non-fiction" (103). The juxtaposition of Isolde and Jessica highlights the tinge of autism in the pianist-turned-librarian, who appreciates books as information, rather than as enjoyable narratives. Jessica's skimming might prove jarring, because it goes completely against the current activity of the reader, who is bringing her to life at that very moment, imaginatively (re)constructing her virtual existence from the author's instructions.

Jessica's interest in books is put into context when she confesses that she is a bit of a technophobe and everything in the past few years has changed "with the advent of computers and virtual knowledge" (103), but she cannot keep up with it. For all of Ian Hacking's ingenuity about

reading autism as a reflection of a more technological age, the Aspergian Jessica does not really come off as nerdy in the way he uses the term: her social awkwardness is not coupled with technological aptitude or any obscure interests. Even her arthritic mother, who always tries so hard to be hip and in tune with the times, is more engaged with technology than Jessica. When she visits her parents back in Audlands, Jessica comments on her new pastime: "She's discovered the Internet. [… S]he sits there nearly all day, wandering round the planet, exploring all those worlds of fun that she missed when she was younger, using her mind where she once would have used her legs. […] She's calmer than she used to be and does all her talking in chatrooms. It seems safe to let her get on with it" (162). Connie's new hobby is a venue for a more fulfilled life despite her rheumatism, offering imaginative mental trips, similar to how travel literature transported readers into the world of the unfamiliar and the exotic. Her social connections are also affected, as she finds new friends in chatrooms, and unlike the more hysterical discourse that tends to frame young people's use of the Internet, Jessica sees her mother's changed sociality as an improvement, thanks to her technological prowess that Jessica doesn't share. As arthritis is a physical disability in its more severe forms, we could emend Hacking's view on autism by extending the beneficial powers of the Internet to include people with physical disabilities in support groups, who get information and emotional support from fellow sufferers (van Uden-Kraan 2008, Lorig et al. 2008).

To see Hacking's prototypical autistic nerd, we have to look to Joel. He is the epitome of the start-up entrepreneur who is socially awkward and almost mythically adept in IT skills: "He formed his own company — ScarlattiSkills — at seventeen, and designs computer games. His ability must be an offshoot of his father's neglected talent. Patterns, new ideas, fast thinking, alternative ways of seeing things" (13-14). Jessica never hesitates to connect father and son, who are positioned as others to her ideal of a self-reliant life, appearing as loveable burdens that encroach upon her personal space. She doesn't discredit her son's abilities, but she has different values about what is "lasting and worthwhile" (14), preferring something less frivolous, like Mahler and the Mendelssohns.

The clash between the generations is all the more troubling because Joel's lifestyle leaves little room for Jessica to breathe freely: "He never goes away. He doesn't have any friends, only work colleagues. Something's not quite right. He couldn't get on with other children when he was younger, but why can't he do it now? Twenty-three years is a long time to have no social life" (14). It is hard to precisely locate the source of that final judgement. On the one hand, it is clearly

issuing from Jessica's mind, through whom the section is focalised. On the other, Jessica hardly had any more social life during her teenage years than Joel had up to this point. As a mother, however, she wants to make some room for herself in her life, getting some free time and the sense of agency that comes with it. Still, this expression of opinion is more than just an individual's cry for autonomy; it is the expression of a group's normative opinion as well, and a neurotypical group at that. As Palmer notes: "A particularly important function of intermental thinking […] is the formation and maintenance of group norms and conventions" (2004, 227). Jessica adopts an NT view of people on the spectrum in this passage, that their social awkwardness and reliance on caregiver support is a burden on the productive body and mind. This thought is shared by the neuromajority, and it shows how the mind is always a socially distributed phenomenon, as Jessica's situated identity compels her to agree with the social norms of the neuromajority when it allows her a little more freedom. Mind you, Jessica's obliviousness to her autism 'helps' in this struggle, which reinforces the narratologist's claim that intermental thought demarcates the boundaries of social groups and norms.

Computers and autistic people are joined in the popular imagination, and Jessica is not immune to that sort of thinking, either. As she pithily summarises, "Joel's work is everyone else's play" (170), which is an apt observation about the digital entertainment industry that spends a lot of work hours developing code that provides fun. If Ioan James is right, the same autistic mind-set which compelled Alan Turing to produce machines that manipulated symbolic language (James 2006, 167-175) is apprehensible in Joel's uncannily intuitive use of the computer. In a scene that brings *The Matrix* (1999) to mind, Jessica watches his son over the shoulder as he works his magic on the keyboard: "He tapped away, his fingers moving so fast that it was impossible to see what he was doing. […] He would press keys just to find out what happened, and get excited by the chain of events that he had set off. The screen was filling with figures, symbols, meaningless threads of letters that could have been the work of an eight-year-old-genius or complete nonsense" (259). Computers are delightful pieces of machinery to many autistic users because of the contingency effects that result from the user's actions — everything that happens is entirely within the control of the person operating the machine. In our childhood, we all depend upon contingency-detecting mechanisms in our brain to endow ourselves with a sense of self as we correlate our bodily movements with changes in the environment. As typically developing brains mature, people move away from expecting and preferring perfect contingency to more imperfectly predictable

experiences, whereas autistic children continue to prefer an environment that leans closer to a perfect fit between one's actions and their consequences (Gergely and Watson 1999, Gergely 2001). The intuitive connection between autistic individuals and computers is elevated to a legendary level, quite unlike Naja Melan's image of the hapless (presumably autistic) programmer who was given a Xuni computer which does not make much sense for its users until they spend an inordinate amount of time with it (see Chapter 8 on *SoD*). Jessica's anxieties about Joel's nerdishness and (a)sociality until he finds a girlfriend is a worrying representational commonplace, but his relationship with Alice not only redeems him in the eye of his mother, it also brings the revelation about Asperger's for the whole family.

Jessica herself found the confines of a heterosexual marriage to be very suffocating. In fact, her biggest victory is that she avoids Andrew's traps after the divorce and stays independent. Andrew's musical stunts to get more attention from Jessica ultimately fails when she points out that Andrew's solo on top of the department store no longer felt "like a chore, something you'd been forced into" (248), thereby breaking Andrew's master narrative about why he loathes playing music. Jessica's final sigh of relief is a confirmation that she has changed: "I breathe in, taste the freshness and freedom of the air. I'm safe. I've grown up and walked beyond the role that Andrew created for me" (248). Pretence and role-playing are considered to be problem areas in autism, but the roles Jess were cast in during her childhood and marriage were foisted upon her, and continued to be ill-fitting until she shook them off. Andrew's gender essentialism forced her to adopt a persona she does not feel comfortable in. In one instance, he urges her to wear lipstick, but when Mary applies it to Jessica's lips, it just feels wrong:

> I held my lips apart, conscious of the artificiality of my pose and the sticky slithery texture of the lipstick.
> 'It's horrible,' I said.
> 'No,' said Mary. 'You look lovely.'
> But I didn't. I couldn't bear the feel of it on my lips, the way it made me feel *like an impostor*. I resisted the urge to wipe it off, knowing how anxious Andrew was to impress his difficult mother. (58, emphasis added)

An impostor who has her exaggerated gender role imposed upon her, to be precise. A thematically connected event in her childhood enhances our view on this. When she dances in a ballet show at school, and she sees herself with make-up on for the first time, Jessica exclaims, "[i]t's not real. […] I hate it" (91). This is an expression of rebellion against roles Jessica abhors

and the performed aspects of femininity, but it is also productive to read it as a denunciation of make-believe performances in general, something that fits with autistic people's preference for truthful representations. As Jessica grows into adulthood, however, she begins to reinterpret her femininity and sees the more empowering side of role-playing. As she is preparing for her marriage, the rituals of beauty give her courage and an added sense of agency: "Nail varnish, lipstick, mascara. […] I was no longer myself. I was capable of doing anything" (123). No longer seeing her made-up self as a depersonalised mask, she re-evaluates role-playing as liberating, looking forward to a married life that might help her defy other people's expectations of what a strange, shy, socially awkward girl can do. "I loved the new person I'd thought that I had become in my wedding dress. I'd thought I would be able to forget myself for a while and act out a new role, transform myself into a traditional bride for a day" (126), she admits. Conforming with tradition does look appealing when the alternative is to fall victim to Andrew's iron will and his idea of a honeymoon that feels more like a kidnapping.

Passing as normal does require a certain amount of role-playing, but Jessica has always been curious about the element of performance in social events like parties, and her curiosity ties in with her new attention to people. Giving a concert at the Great Hall of her conservatory, she takes great pleasure in seeing people undergo a transformation for the night: "I was fascinated by the way people changed when they dressed up, became someone different. […] Skinny people became slim, fat people warm and shapely. I began to see what attracted people to each other. A glistening aura that was not normally on show. But then again, maybe they were able to appreciate the potential without all the dressing-up. Maybe I was the only one who couldn't see it" (68-69). Respect for others is articulated in the lexical 'upgrading' of derogatory terms for gentler, more polite words, as if language itself dressed them up. In the concert scene, Jessica begins to tap into the unwritten rules of neurotypical sociality, supposing that the 'glistening aura' of politeness, the care for one's self-image has a special allure for people.

She places herself outside of the norm, as an observer who cannot manage status and face in the social world, but the conspicuous role-playing she sees at the concert grants her a moment of awareness about the values of gregariousness, and this epiphany will drive her to seek more occasions for social approval, including her devastating marriage. As such, thematising pretence and role-playing is a fundamental tool of Morrall's book to convey the hidden and unspoken benefits of sociality, and we can follow Jessica's development from an obliviousness to social

roles through her condemnation of the artificiality of gender roles and her later insecurity in playing them to her divorce and, later, creating room in her life for reassuring solitude.

Occasionally, social encounters fill Jessica with anticipation and self-doubt, inspiring her to define her alterity more sharply:

> The Finnegans are always laughing. […] Sometimes the laughter energises me as I approach the front door, and I experience a strong desire to be part of it. At other times, like today, it makes me feel inadequate. […] I've been there with [the Finnegans] when some small event becomes suddenly funny. I can join in with them, seeing the situation through their eyes, and it all feels perfectly normal, but I can't reproduce this sense of fun when I'm on my own. (45-46)

Jessica interprets the contagious effect their laughter has upon her as a tool of inclusion which fuels the emotional reciprocity of a 'normal' life. Apparently, she can also take their perspective to share the joke, which is a big achievement. The emotional disconnect between Jessica's receptivity to other's emotions *versus* the ones she cannot reproduce evokes the reader's sympathy and represents another stable feature of autism. By her own admission, she has "a brief, desolate picture of myself outside, peering in at everyone as they lean towards each other, communicating, lit by soft, intimate lamplight. How did Mary manage these cosy chats? Nobody ever told me anything" (67), as if people have to be educated how to communicate intimately, instead of an intuitive, instinctive process that typically developing people go through as they grow up. It is in these short vignettes of doubt and earnest quizzicality that Jessica's autism is poignantly felt by the typical reader, who looks at social competences with a new eye.

A moment of unexpected kindness can also place Jessica in a tight spot. The couple's marriage, believed by both families to be a huge mistake, brings Andrew's mother to a show of empathy towards Jessica that challenges Andrew's account of her viciousness, which Jessica took more or less for granted until that point.

> When we got up to leave, Miranda grasped my arm briefly. 'You will let me know what's going on, won't you? I want to help you both.' 'Of course.' I was surprised by the small intimacy of her touch. She was trying to express affection in a way that was unfamiliar to both of us, and I felt the need to reciprocate, but didn't know how. (121)

This subdued, but nonetheless surprising breach of Miranda's prior character confuses Jessica for at least two reasons: she has to reinterpret Andrew's mother as a more caring person than Andrew painted her, but also because of the physical contact, which, if unexpected, can be

distressing to autists. Reciprocating the act would involve Jessica opening up emotionally and finding the right gesture to accompany the mood, but without intimating that Andrew depicted her in a different light, another stumbling block that makes Jessica hesitate. As she later muses, when she talks to Harriet: "People put too much emphasis on discussing their feelings. […] In the end, they shape their emotions into whatever they think the other person wants to hear" (293). This bothers Jessica, as the conventions of polite discourse erode her sense of emotional integrity which defines her and endows her with an identity she worked so hard to establish.

The encounter with Miranda left its mark on her, compelling Jessica to become a more critical reader of Andrew and Miranda's social character: "Who wielded the more honest brush, him or her? I longed to see clearly through the accumulation of paint, the technique, the brushstrokes, to the canvas beneath. Why wasn't it easier to go straight to the truth without having to scrape through layers and layers of camouflage?" (122). Jessica is tired of the constant masquerade of identity and positioning in ordinary life. She would prefer the face-threatening honesty that cuts through the façade of polite discourse, where everyone has vested interests and uses language to gain and maintain social influence.

The climate of this subdued emotional life contributes to the greatest crises of sociality in her relationship with Andrew. These symptoms find their mirror image in Donald and Miranda's marriage, who have such a deeply entrenched silence between them that it is hard to break down: "We don't talk much. It's difficult. There are too many spaces between us, too many years which should have been filled with conversations, arguments, reconciliations. Instead, everyone has retreated, built great edifices of protection that can't be scaled, concrete surfaces that can't be climbed. Nowhere to fix the rope" (252). The metaphor that Jessica uses is that of the unassailable fortress, which might recall Bruno Bettelheim's *The Empty Fortress* (1967) and the critical book written in response by an autism mum, Clara Clairborne Park's *The Siege: The First Eight Years of an Autistic Child* (1972 [1967]), both of which imagine breaking the ostensibly impenetrable social bubble of autistic people as a military operation to rescue subjectivity from its fortress. (Park's daughter, called Elly in the book to protect her identity but actually called Jessica, might have been an inspiration behind the author's choice of name for her protagonist).

Morrall takes this iconic concept from the early years of autism research and advocacy, and shifts its meaning from autism to a wider concern, the breakdown of communication between spouses. Throughout the novel, Jessica keeps seeking a position that she could occupy in peace,

without the crises of sociality that have scarred her. As the book ends, a happy Joel and Alice visit Jessica, hugging her. Jessica reflects in silent self-communion:

> I have learnt to love Alice in a quiet, satisfying way. But I don't need her. I don't need anyone. I'm still the baby who didn't want to be held, who was happy in an isolated corner somewhere upstairs in Audlands, out of earshot. I'm most comfortable without too much emotion. Whenever I step out into the wide avenue of normality, I'm cleverly disguised, a skilled impostor. (368)

Who has she become, after all those years of musical joys, traumatic formative experiences, her forced socialisation, her drama of emotional emergence? Not the same kind of impostor when she first saw herself in make-up. No longer the insecure young woman who could be manipulated willy-nilly, who would succumb to the social norms of cognition that define her relationship with the neuromajority in absolute terms. This cleverly disguised impostor − while not entirely at home with the neurotypical world − has acquired the skills to pass. She has become neurocosmopolitan, a traveller between mindworlds, who can effectively manage her identity and carve out a nice for herself, "a place where I can breathe easily. Alone, surrounded by space, my hair blowing in the wind" (376). One great merit of the novel is Jessica's quiet victory to define herself, so different from Christopher's triumphant future or Lou's ambiguous but dramatic ascent into space.

To sum it up, Morrall's goal to explore the boundaries of the autistic in fiction has been fulfilled through the narrative design, the affective colouring and thematic reinforcements of neurological difference, committing some of the more egregious stereotypes of autism to the rubbish heap. Jessica's quest for personal space and emotional acceptance is a moving, but deliberately slow-placed narrative which devotes a significant amount of time to mind-reading as she practices interpreting people and becomes a critical mind-reader. She acquires the social skills to join the ranks of a neurocosmopolitan world. Morrall evokes autistic presence by the corporeal performances of Jessica, but also by showing the internal struggles to interpret a biosemiotic and linguistic realm, where meaning is underdetermined by the neuroatypical mind. Her battles to tame Andrew and stand up to him is a further dynamo of her improving mind-reading skills; their relationship is a struggle to define who does and does not become readable and when. As a figure conveying the power of cognitive cultural hegemony, Andrew's masculinity cannot tolerate atypicality, and his expectation that Jessica should be more susceptible to his whims becomes his downfall. The destructive marriage has its counterpoint in Joel and Alice's relationship, a healthier,

more supportive partnership that accepts and adapts to autism.

The grand theme of vulnerability to the social norms of cognition surface in Jessica and Joel's school career, as well as in their relationship with their parents, even though they cannot seem to find a common tongue. This is more surprising in the case of Joel, but their reliance on the language of others to communicate is due to the dismissal of their parents' concerns by experts. In their view, the milder cases of autism should not be granted the same expert attention as the more typical ones, so they are interpellated as normal and expected to function as such. The forced sociality leaves its mark on both of the characters, in different gendered expressions: Jessica uses music and Joel learns programming to find areas of achievement where they can profit from their attention to detail, rhythms and patterns that avoid the pragmatics of ordinary language use. The echolalic practice of the scales and Andrew's lyrical melodies coax Jessica out of her shell, experiencing emotional highs that otherwise remain muted within her.

Besides music, the consumption of fiction is brought into the thematic purview of *The Language of Others*, questioning the connection between autism and invented worlds, non-existent characters. Andrew's empathetic engagement with cartoons and comic books are contrasted with Jessica's distant reading as a librarian, who only reads the blurbs and skims a couple of pages in order to categorise books. Joel's game designs turn from violent shooters to educational software as Alice begins to subtly alter his vision of fun. Video games are read by Jessica as a medium more suited to the autistic mind, with its master themes of control and predictability. Although Jessica professes to be interested by books, in her own childhood, she could not tolerate fictional narratives, and her incredulity is definitely written to be a tell-tale sign of autism.

Emotions, the ability to experience them or to liberate them, is a key to understand the subtle development of Jessica. As she matures, she gives up on sheer conformity and moves towards a hybrid position, she begins to handle her emotions better, which is consistent with the observed pattern of symptom amelioration for people with a milder form of autism. The family is the privileged site for the discussion and venting of emotions — it is also the most prominent stage for the crises of sociality that trouble Jessica. Such crises prod her to reassess some of the other people in her life, which instils anxiety in her, because she is loath to change her opinion of others. As a defence, couples attempt to lock their positions in place (e.g. Jessica and Andrew, or Donald and Miranda), but these never amount to a solution, creating a climate of silence instead. Morrall crystallises the image of the (empty) fortress from the early years of autism research to emphasise

the damaging effects of a social life that does not accept alternative patterns of interaction. By the end of the novel, Jessica emerges as a neurocosmopolite who can rest easier, knowing that she has found a place for her life that will be secure. She rejoices that the destructive spiral of emotional bullying and unresolved tensions are broken with Joel and Alice's relationship and child.

In the final analytical chapter on Jodi Picoult's *House Rules*, Jacob Horner's autism will be investigated in a more ethical and less affective context, but there are a number of recurring themes. Just as Morrall reflected upon fiction's allure, so will Picoult interrogate its role in enhancing the autistic comprehension of normative social life, mind-reading skills and alternative scenarios. The same pretence that caused so much trouble for Jessica reappears in the polyphonic attempts of the characters to deceive one another and paint themselves in a better light. The metaphorical framing of autism participates in the diegetic interpretation of social situations in *House Rules*, such as when Theo, Jacob's brother wants to conceptualise his relationship with his brother. The authorial strategies of eliciting empathy will form the core of my argument about the representation of Jacob's trial, stating that the novel's polyphonic structure places special demands on the reader's affective allegiances to show that Jacob is in fact capable of similar perspective-taking. Finally, I return to the philosophical underpinning of autistic subjectivity I have already brought to bear on *The Curious Incident*, Ian Bogost's object-oriented ontology, to demonstrate that the power of ontography, anti-narrative lists and other elements of storytelling shape our perceptions of Jacob's autism.

CHAPTER 10

REACHING OUT, BEYOND EMPATHETIC BOUNDARIES:

JODI PICOULT'S OPTIMISM ABOUT MIND-READING, AGENCY AND AUTHORSHIP

"A mother visits her son, smiles to him through the bars.
She's never loved him more."
– Tuomas Holopainen (Nightwish 2011), "Song of Myself"

Appreciating the many layers on which Theory of Mind organises the structure of *House Rules* necessitates a broad overview of the novel, with a fairly thorough presentation of the story and the ancillary themes that serve the narration of an autistic mind. Picoult's novel is told from the perspective of five characters: Jacob Hunt, an adolescent living with diagnosed Asperger's Syndrome in Townshend, VT; his younger brother, Theo; his mother, Emma, who writes an advice column for the local newspaper; Rich Matson, a detective working in Townshend; and Oliver, a farrier-turned-lawyer. According to Emma, Jacob was a healthy baby until age 2-3, when he was given his shots for multiple childhood diseases, after which he started exhibiting symptoms of autism. Following the diagnosis, Jacob's father, Henry left the family to start a new life in the Silicon Valley as a programmer, while Emma has dedicated her life to ameliorate his son's symptoms, sending him to the same school as his younger brother, Theo. In this effort, however, she has neglected Theo, who has struggled with tolerating Jacob's quirks, turning him into a social outcast as well. Unable to cope with the lack of attention, he periodically escapes from home and enters other families' houses while they are not at home to imagine a life where he is appreciated.

Jacob's school years have been tough on him, too, as he tried with all his might to make friends in vain. This has not been helped by his pattern of interests, prominent among them his passion for forensics and crime scene investigation. In order to improve his ability to carry on conversations and make more people accept him, her mother hired Jess Ogilvy as Jacob's social skills tutor. Jess has an abusive, brash but charming boyfriend, Mark, who is jealous of the attention Jess showers on Jacob and frequently teases him because of his neurological difference.

One day, Jess is found dead in a culvert with a rainbow blanket wrapped around her. Her death occurred in the home she was housesitting. Rich Matson gets involved in the investigation. First, he begins to suspect Mark because of the history of abuse, but as soon as Emma sees the footage of Jess' body on TV and recognises Jacob's blanket, she informs the police that her son

might be implicated. Soon, Jacob's obsession with crime and his neuroatypical behaviour becomes damning evidence in the eye of Matson, and Jacob finds himself going to court not as a witness but as a potential murderer. Emma hires the inexperienced lawyer, Oliver to defend Jacob, and the two adults develop a relationship. During the trial, pressure mounts on Theo, who has been keeping a low profile but was actually in the house the day Jess Ogilvy died, and he was the last one to see her alive. He flees to California and informs Henry of Jacob's trial, in the hope that he can rekindle his fatherly instincts. The trial proceeds as planned; Oliver and Emma sees Jacob's best defence in an appeal to legal insanity, something Jacob cannot handle because he cannot understand that such legal finagling and pious fraud is beneficial to him. In his own way, he tries to convince Oliver, Theo and Emma that their best bet would be to let Jacob tell the truth. Aware of how autism would be perceived by the jury, his mother has to restrain her frustrated son.

As the trial comes close to ending and the Hunt family waits for the verdict at home, Jacob produces one of Jess' beloved objects, an iPod, which prompts Jacob and Theo to reveal their relationship to Jess' death. It turns out that Theo broke into the house Jess was in, found her naked under the shower, which shocked her and caused her to slip and fall, receiving a fatal shock to her head. Jacob was to meet Jess there for his tutoring, but when he found her body, Jacob recognised that Theo was on the premises and when he saw the chance to protect his brother, he altered the scene to make it look like a murder and turn it into a case he authored. In the end, it is implied that both boys will be acquitted if they testify. The novel ends on a note of reconciliation as the brothers listen to the iPod together, suggesting that both have learnt to empathise with the other.

Despite the soothing conclusion, *House Rules* is a great deal more than a mix of moral pap about justice for all and loving our family despite our differences, a novel where the good guys always win. True, it is a work of middlebrow fiction, defined as a cultural register of narrative that is "attentive to style and literary merit, but […] also easily accessible and interesting to a wide […] college-educated audience […], the professional-managerial class" (Ho 2008, 13). It is a form of fiction which reinforces the views of the upper middle class, confirming its individualist view of the world. It suggests that conflicts

> can only be resolved (or not) due to the choices and commitments of the individuals within that institution: the bureaucrat who decides to bend or follow or fight to change the unjust rules, the members of the courtroom jury who might or might not allow existing biases to affect their verdict in the end. […] No matter how seemingly overpowering organizational life may be, they all have the freedom to make certain

decisions for themselves. (Ho 2008, 27-28)

This pattern of individual heroism, whether it is company whistleblowing (*Speed of Dark*) or forensic self-sacrifice (*The Curious Incident*), is an integral element of the autism novels. The legal environment is also a stable feature of Picoult's other books, but the novel explores neurodiversity in the nexus of five people with varying degrees of insight into Jacob's condition. This produces a multiperspectival narration, which gives the reader a richer view of the NT/AS characters than single-narrator novels, as we can apprehend the conflicting cognitive biases of the protagonists and the personal histories that prompt such self-deceptions.

Like other autism novels, the largest departure from the canonical course of events is Jacob's idiosyncratic behaviour, which warrants explanations from Jacob in the form of expository material, 'mini-essays' and anecdotes within the narrative. These vignettes frame what can be read from Jacob's habits, expression and words within an emic perspective. Autism novels thus become one of the primary sources of knowledge about the condition that translates clinical language. As Rita Felski writes: "That literary works yield limited perspectives does not prevent them from also serving as sources of epistemic insight," so literature becomes a form of phenomenology, where "we come to know something of what it feels like to be inside a particular habitus, to experience a world as self-evident, to bathe in the waters of a way of life" (Felski 2008, 84, 92). Such informative use of literature is not at all surprising, given that reading scientific books is too abstruse and technical for the reading public to tell them what autism *means* for a family or a person in their daily lives. Despite the long tradition of declaiming against the mimetic and the referential in literary theory, texts can and do impart facts about life, which are embodied in stories about human nature and its interrelationship with human institutions. In *House Rules*, science is literally put on trial, as experts testify in court about autism and how it affects behaviour.

But by far the most significant element that structures Picoult's narrative is the strategic deployment of ToM, both as a scientific construct and as a practical ability that the characters make use of. The three elements of empathetic social engagement (pretence, ToM and altruistic behaviour) shape the narrative design of the book and provides one long argument that autists experience their lives meaningfully and act as rational agents. I shall be examining make-believe scenarios and acts of pretence that affect the plot or the characterisation of the protagonists in order to show that mind-reading skills and decoupling are portrayed as essential to social agency, forming the basis of altruistic behaviour. My main argument is that although Picoult rehearses

some of the standard tropes about autism, she also humanises the autistic character by writing scenes in which these components of empathetic social engagement (and their occasional, situated deficits) are found to some degree in both NT and AS people. She creates a counternarrative in which deep intersubjectivity and participating in a community of minds become tools for rethinking sociality along neurocosmopolitan lines, welcoming autists back into the fold of humanity where they belong, despite the deleterious effects of the 'ToM deficit' discourse.

Most of the characters use pretence to create alternative scenarios which empower them. First of all, Jacob's interest in all things murderous compels him to orchestrate a crime scene worthy of the fictional detective show he obsessively watches, *CrimeBusters*. At the beginning of the novel, Theo looks aghast at one such scene of his brother playing dead: "He is sprawled like a starfish in front of the fireplace. Blood covers his temple and his hands. For a moment, I can't move, can't breathe. […] *This is not real*, I remind myself" (3, emphasis in original). Even at this early stage, Jacob appears as the author of a murder mystery, carefully spreading clues and fake blood to test his family members as investigators. The novelist's representation of Jacob in this scene already subverts received notions about autism, since Jacob sets a crime scene, which is a creative act of 'writing' fiction.

He embraces fictionality and explores the troubles with representational fidelity through his special interests. Theo confesses that he was affected by what he saw, and he responded with an act of repulsive but wish-fulfilling pretence: "when I saw Jacob in the kitchen with his corn-syrup blood and his fake head injury and all the evidence pointing to me, for a half a second, I thought: *I wish*" (14, emphasis in original). This initial plot point is recapitulated in Jess' accident, the 'murder' the novel is about. The crime scene surrounding Jess' body was set up by Jacob to suggest that Mark kidnapped her until Jacob revealed the location of Jess' body and wrapped Jess in his own rainbow quilt, signing the scene as his. As an added, social bonus, "[a]fter all those years of Theo sticking up for me, I finally got to be the big brother" (600), as Jacob says, which implies that by guiding suspicion away from Theo, he gained a sense of agency he could only wish for, because his disability and his overprotective mum hindered his capacity to develop mature life skills. From its inception, *House Rules* establishes Jacob as a person capable of pretence and authorship, going against the assumption that autists lack imagination and disprefer fiction. The novel's preoccupation with pretence becomes one of its master tropes, both in terms of pretending something is real or fictional, and in the more performative sense of pretending to be normal.

Pretence is everywhere. Emma writes the advice column for a local newspaper as 'Auntie Em,' an assumed name and role, which enables Emma to pretend that she has the authority to give expert advice to all and sundry. Rich, the detective is an avid reader of Auntie Em's columns, who sees her as "forever coming up with the most practical solutions, as if the key to the great riddles of existence involves surgically cutting away the emotional component and looking at just the facts" (35). This is not at all how Emma handles the more ambiguous role of her own motherhood, where her decisions are nothing if not emotional, noting that "Real mothers admit it is easier to fail at this job than to succeed" (179). But among the Hunts, Theo is the person for whom make-believe is the most emotionally fulfilling act. When he breaks into other people's homes, he enacts elaborate scenes of normal family life: "I eat my sandwich and *picture* my mother coming out of the kitchen, carrying a big roast turkey on a platter. 'Hey, Dad,' I say out loud to the empty seat on my left, *pretending* that I have a real father instead of just a guilty sperm donor who sends a check every month" (15, emphases mine). In these one-man shows, not unlike playing with dolls, the empty suburban home is populated with the Norman Rockwell image of the ideal nuclear family that was constructed in the popular culture of the 1950s as a healthy, wholesome, normative space for the socialisation of white, middle-class America.

Even the relatively minor characters in *House Rules* cannot escape from the grand game of performative make-believe. Oliver, the inexperienced lawyer has to act more like his seasoned colleagues, and has to put the best spin on his periodic legal blunders in front of Emma. His pretence of professionalism eventually leads him to woo Emma. When they become romantically involved, he even has to pretend he is no more than a lawyer in front of Jacob, in which he fails miserably and sends Jacob into a flying rage. Finally, in a morally ambiguous scene, Rich Matson pretends to be genuinely interested in Jacob's conversation about crime scenes as if he is requesting Jacob's assistance as an expert to cajole him into confessing Jess' murder.

The skill to pretend, as we have seen, is strongly dependent upon the imagination and ToM, cognitive functions which are stereotypically described as diminished in autism. But instead of contrasting a lack of imagination with 'healthy' fantasies, Picoult is careful to portray Jacob as a person who can appreciate fiction. He has no troubles following *Flowers for Algernon*, for example, but due to his own perspective on disability, he comments that the protagonist, Charlie Gordon "never should have had the experiment done," since "if he never had the procedure, he would never *know* he was missing [his intelligence]" (312). He correctly infers a hypothetical

mental image of a fictional person with no qualms about his fictional status, and he has no difficulty in attributing mental state terms to Charlie. His perspective also makes him more than a mere consumer of fiction: he becomes a critical reader.

In one of the 'mini-essays' which interrupt the flow of the narrative to give Jacob's view on everything, he even goes one step further — he muses about what he would write: "If I were going to create a science fiction series on television, it would be about an empath—a person who can naturally read the auras of people's emotions and, with a single touch, can take on their feelings, too" (185). (One wonders what Jacob would make of Lois Lowry's *The Giver*.) Jacob demonstrates not only his desire to gain insight into the workings of another person's mind, but also shows that he is far from inept at reading fiction. He observes that

> [a]nyone who cries at a movie is a closet empath. What's happening on that screen bleeds through the celluloid, real enough to evoke emotion. Why else would you find yourself laughing at the hijinks of two actors who, offscreen, can't stand each other? Or crying over the death of an actor who, when the camera is turned off, will dust himself off and grab a burger for dinner? (185)

His line of argument bears an uncanny resemblance to how Colin Radford connected the tears shed by people who get emotionally involved in reading fiction to the empathetic imagination (Radford and Weston 1975, Radford 1977). Jacob gives his own opinion on the paradox of fiction from the alienating perspective of autism, and Picoult is no doubt using the pretext of the empath to practice 'cognitive estrangement,' the strategy identified by Darko Suvin in science fiction to defamiliarise our customs and ways of thinking.

In the novel, Jacob is caught up in a web of multiple representations: due to the murder case, in legal and psychological discourse, but he cannot escape it in the cosier domain of the family, either. The vertigo that comes with this is nowhere more visible than in the passage where Jacob is watching himself as a child on video:

> As I'm watching, there's a sudden streak of silver static that makes me cover my ears, and then there's another segment of video. It's been accidentally taped over my Oscar-worthy autistic toddler film, and in it I am much older. […] Jess took the video. […] On television, *it's like I'm watching a make-believe show and Jacob isn't me, he's a character.* It's not really me who closes his eyes when my mother tries to take a picture on the front lawn. It's not really me who walks to Amanda's car and sits in the back like I always do. (488-489, emphasis mine)

Jacob finds it defamiliarising to see his younger self recorded in an embarrassing situation. The experience is heightened by Jess taping the footage – Jacob's grief lends the scene an uncanny sense of mourning. But in the very act of estrangement, the factual, documentary recording sheds its verisimilitude and takes on the quality of fiction in the eyes of Jacob. He experiences himself as fundamentally 'other' and it could even be interpreted as a moment of self-consciousness of his status as a fictional character in our world. Despite the tantalising possibility of interpreting the scene in a postmodern manner, the simple diegetic situation leaves Picoult a moment to reflect upon the power of representational methods, even the truthful ones, to alter the perception of our selves. In this moment, Jacob is brought face to face with the permeable boundaries of representations, giving him an opportunity to see how he might appear to others, which also ties in with the larger theme of the book that portrays autism through multiple perspectives.

Communicating lived experiences across neurotypes can be done in any number of ways, but a solid, reliable method to get your point across is metaphor. Although Douglas Biklen warns scholars that metaphors are ubiquitous in the field of autism and they can "simultaneously [ignore and minimise] the importance of the autistic perspective" (2009, 108), in autism fiction, the metaphor-generating power of the condition also signals a willingness to connect imaginatively. As Theo says, Jacob "may be freaking brilliant, but sometimes whatever's cooking in his brain doesn't quite translate onto the page. I guess it's a little like being the world's fastest bullet train but your wheels don't fit the rails" (Picoult 2010, 314). Theo reaches the point of catachresis, heaping one convoluted metaphor on another in his effort to express Jacob's struggles with neurotypical norms. Theo sees the autistic mind as a design incompatibility and a foreign tongue that needs to be translated somehow, articulated in a language that everyone can understand.

The reader might notice another kind of perspective-taking through the use of metaphor when Emma visits Jacob in jail. When Emma urges Jacob to pick up the phone:

> Instead, he closes his eyes. He sways forward and rests his cheek against the window, spreads his arms as wide as they can go. I realize he is trying to embrace me. I put the receiver down and step up to the window. I mimic his position, so that we are mirrors of each other, with a glass wall between us. Maybe this is what it is always like for Jacob, who tries to connect with people and can't ever quite manage it. Maybe the membrane between someone with Asperger's and the rest of the world is […] a see-through partition that allows only the illusion of feeling […]. (256)

The wonderful trick in this passage is that although Emma interprets this encounter as

unsatisfactory, only an illusory sense of feeling as if through a membrane, it allows her to gain some insight into how it must feel like for Jacob to live among neurotypicals, and she develops genuine empathy towards her son. The scene is also notable for how the two *achieve* that empathetic resonance. The moment is preceded by Jacob pressing against the window, then Emma accurately reads Jacob's intention and mirrors his posture – she has an 'aha' moment that very instant, re-enacting the mental actions necessary for empathy on the macro scale. Even if the metaphoric image of that partition suggests the impossibility of 'truly' touching one another, in fact, the most significant sense of human connection, visceral empathy becomes strong in the mother and her son. This connection is established in a key scene to suggest that despite the difficulties imposed by a neuronormative society, reinforcing that glass wall, intersubjective re-enactment reveals something about other kinds of minds, so they can share the burden of existence with the empathisers and modify their preconceptions.

Moments of unity like that, though, are only one side of the coin. Both Emma and Theo report occasional instances where they find themselves sacrificing (voluntarily or involuntarily) the human connections they so crave. As Theo complains: "The problem is, Jacob's difference doesn't confine itself to Jacob. It's like the time my mother's red shirt bled in the wash and turned all my clothes pink: my brother's Asperger's has made *me* different, too. I could never have friends over, because what if Jacob had a meltdown?" (119, emphasis in original). The social effects of living with an autistic person is metaphorised as a contagion by which the accommodations made for an inclusive lifestyle alter society, creating new blends. Although these new blends promise much to the critical readers who laud hybridity as a socially progressive form of identity, Picoult does not shy away from showing these hybrid identities as 'tainted' in Theo's view.

Often, there are passages in the text when we see NT characters recognising some of their actions to be almost autistic. Emma herself experiences social isolation, which engenders a newfound recognition that Asperger's cannot be confined to the person with the diagnosis:

> I didn't notice, at first, when my friends forgot to mention at whose house the next playgroup was taking place. *I didn't read between the lines* when I hosted and two of the mothers begged off because of previous engagements. […] Isolation. A fixation on one particular subject. An inability to connect socially. Jacob was the one diagnosed, but I might as well have Asperger's, too. (48, emphasis mine)

This also ties in with Zunshine's warning that mind-reading is not a binary ability, but a

gradient one, so NTs can just as easily misinterpret *some* situations. Emma's recognition betrays her anxieties that could be shared by people who are in daily contact with Asperger's.

Neurological difference is not always valenced positively in the metaphors created by Emma: "It is hard to see your eighteen-year-old son clutching a stuffed toy. But that's what autism is, a slippery slope. One minute, you convince yourself that you are so far up that hill you can't see the bottom anymore, and the next, it's covered with black ice, and you are falling fast" (133). The unpredictability of uneven development in Asperger's does give you an image of a rollercoaster ride, with its ups and downs. The same dispreference of chaos is expressed by Jacob in another simile: "The best way I can describe [facing the unpredictable world] is like being in the path of a flash flood. [… E]ven when you see that wall of water rushing toward you, you know you are powerless to budge an inch" (67). Seen from the inside, autistic urges are experienced as a natural force, often outside of conscious control, provoking socially stigmatised responses. Nonetheless, metaphors help Jacob translate what he feels for NTs, especially in moments when he is completely withdrawn from the world. The text acquires a poetic tenor outside of the 'comfort zone' of narrative prose when he writes about his meltdown:

> This is where I go, when I go: It's a room with no windows and no doors, and walls that are thin enough for me to see and hear everything but too thick to break through.
> I'm there, but I'm not there.
> I am pounding to be let out, but nobody can hear me.
> This is where I go, when I go:
> To a country where everyone's face looks different from mine, and the language is the act of not speaking, and noise is everywhere in the air we breathe. I am doing what the Romans do in Rome; I am trying to communicate, but no one has bothered to tell me that these people cannot hear.
> This is where I go, when I go:
> Somewhere completely, unutterably orange.
> This is where I go, when I go:
> To the place where my body becomes a piano, full of black keys only—the sharps and the flats, when everyone knows that to play a song other people want to hear, you need some white keys.
> This is why I come back:
> To find those white keys. (110)

Full of haunting repetition, this section jolts the reader out of the narrated sequence of events. The anaphoric rhythm of the sentences and the rhetorical *commoratio* of metaphors for isolation are haunting, heightening the musicality of its language. In the final set of sentences,

music, too, becomes metaphorical, implying that neurocosmopolitism is borne of the willingness to communicate and the desire for acceptance.

The mental space of the meltdown is evoked later by Jacob, when the constellation between emotions, sociality and music is further elaborated: "Maybe this is why funeral dirges are always in a minor key; being on the other side of dead isn't that different from having Asperger's" (167). I do not want to write this passage off as a misguided metaphor gone wrong, although it is easy to see how autism is rather different from being dead. It would be fruitful to reinterpret this 'other side of dead' with being cut off from the world, similar to major depression. Even then, it might be ethically challenging to see autism placed as a halfway state between the fully living and the fully dead, implying a kind of hierarchy where sociality and communication is tantamount to life and any step 'downwards' into withdrawnness constitutes a step towards 'being dead to the world.' The sombreness of tone and the musical metaphors that Picoult selects here nonetheless bring conflicting emotions to the reader's mind: the need to commiserate and the social unity in transcendence that the funeral dirge evokes in listeners.

The pathos elicited by the poetic interlude fits like a glove into the *rhetoric of scientific sadness*, "a novelistic, poetically intensified account of sadness […] in which autistic people are mourned even as they are apparently explained" (Duffy and Horner 2011, 2002). Horner and Duffy see clinicians' accounts of autism as emotion-laden stories with a poetic tinge, which hints at the permeability of novelistic and scientific discourses when autism is represented. There is a dialectical relationship between two genres of narratives in explaining autism from the outside and the inside. Both need the rhetorical strategies of the other to establish their authenticity ('No, I haven't made my image of autism up, I've read the textbooks and the papers' and 'No, I am not a heartless reductionist, I use poetry and storytelling to express how I feel pity for the suffering of these people'), while trying to distance themselves from the other ('I am not judging, I am not labelling these people, I am just showing you how it must feel like' and 'I am not making this stuff up, here's the data'). In both modes, the reader is requested to take the viewpoint of the narrator and to empathise with the autistic character.

Medicine is a fertile source of metaphors for Jacob as well. In a stereotype-breaking move, he proves himself adept at setting up make-believe scenarios to express how he feels strong, visceral emotions that neurotypical people don't feel: "Imagine what it would be like if someone sliced your chest with a scalpel and rummaged around inside you, squeezing your heart and lungs

and kidneys. That level of complete invasion is what it feels like when I make eye contact" (70). Recruiting the reader to participate in this act of imagination strengthens the image of a invasive surgical procedure, which would only be a routine act of eye contact for neurotypical speakers.

Asking for the empathy of others is a recurring request in *House Rules*. Oliver wants the jury to sympathise with Jacob, Emma and Jess want Jacob to think of others, Theo wants sympathetic attention from his family and the author invites the reader to empathise with her characters. To sort out the multiple functions of empathetic narrative design, Suzanne Keen has developed a three-fold typology of *authorial strategic empathising*. In her definition, this "indicates the intentional (not always efficacious) work of narrative artists to evoke emotions of audiences closer and further from the authors and subjects of representation," which occurs "when an author employs empathy in the crafting of fictional texts, in service of 'a scrupulously visible political interest'" (83). Locating empathy in the political context is appropriate here, because both scientists and novelists are interested parties in garnering empathy for autistic people. Jacob himself is implicated in a juridico-medical discourse in which representation becomes a pivotal concern. I'll be examining Keen's tripartite system to show its usefulness and where its flaws lie when we need to account for Picoult's strategic empathising work in creating Jacob.

The first in Keen's typology is *bounded* strategic empathising, which "occurs within an in-group, stemming from experiences of mutuality, and leading to feeling with familiar others" (Keen 2010, 83). This form of empathising can be exclusionary, as experiences define group membership, but the persistent reader can theoretically 'read herself into' the implied audience, whereas the disinvited reader "may not choose or be able to live up to the terms of the ideal audience projected by a narrative" (84). When a novelist writes a story "to more than one audience simultaneously, with a hope of bridging the gap between them," they may do so with the intent to "reach—and change—the attitudes and beliefs of the target audience" (84), which Keen terms *ambassadorial* strategic empathy, that "addresses chosen others with the aim of cultivating their empathy for the in-group, often to a specific end [and it is] time sensitive and context and issue dependent" (84). Due to the timeliness of autism novels, ambassadorial strategies of evoking sympathy seems to be the way novelistic and scientific discourses attempt to frame the condition, but there are subtle differences in how emotions are aroused in the rhetoric of scientific sadness and the autism novel.

The difference is in how *broadcast* strategic empathy is utilised in the two discourses. This

form of empathy "calls upon every reader to feel with members of a group, by emphasizing our common human experiences, feelings, hopes, and vulnerabilities" (84-85). As Keen observes, it is a legitimately universalising discourse, appealing to our shared psychological make-up. With the global market widening, it is no surprise that narratives which make use of broadcast strategies of empathy (i.e. middlebrow novels) are the ones that tend to prove successful around the world. Thus they become acceptable targets for the elite – who are distrustful of shared commonalities and deep emotional engagement – and cultural critics, who are wary of the power of fictional empathy to provide a canalised outlet of emotions, stifling social change generated by real-world solidarity.

In an unlikely move, it is the detective Rich who becomes the mouthpiece for broadcast strategic empathy: "it's never the differences between people that surprise us. It's the things that, against all odds, we have in common" (291). With this move, he highlights the educational role novels play in promoting justified universalism across situated, embodied minds. Novelistic and scientific discourses resort to some form of ambassadorial strategic empathy when they feature autists, but novel-writers specifically want to win the hearts and minds of their readers, arguing that those on the spectrum are capable of empathy, whereas scientists usually deploy empathy to stir up the same thrill they feel upon finding a delicate theoretical problem. Autism researchers who have created the rhetoric of scientific sadness are addressing lay audiences to accumulate more prestige to continue research into the fascinating, puzzling life that autists lead. They do so with clearly defined group boundaries and they play on the estrangement effect to convey their own usefulness in unravelling the mystery to public audiences. As a result, their accounts will shade into bounded strategic empathy, because whatever fellow-feeling or pity they evoke in their audience could well end up directed towards the scientist. This is where the problem with Keen's typology of authorial empathy becomes apparent, as it seems to assume that all writers or narrators speak for in-groups that they themselves represent.

In the case of neurotypical writers and scientists, there has to be additional room for the counterpart of the ambassadorial strategy, an *advocative* strategic empathy in discussions of autism that appeal to feelings. It is a strategy in which members of the out-group who have made some in-roads into the culture of another group decide to evoke empathy on the behalf of the out-group, acting as mediators towards members of their own group, who are yet to feel empathetically touched by the values and experiences of the out-group. Advocates for the reasonableness of (o/O)thers provide an essential service to their in-group, who might be resistant to direct

ambassadorial strategic empathy, as they translate the experiences of the minority group into terms that are easier understood by the dominant group. In this effort, advocates might employ any of Keen's strategies to profit from the extra social and cultural capital they hold within their in-group to break down barriers of inattention or wilful ignorance of the minority group's concerns. This is the favoured strategy of most scholars and activists who speak up about political issues when they feel convinced by the arguments of another group about their full inclusion in the political sphere.

On the other hand, speaking for someone else, and by extension, surrogacy in a wider context, has its fair share of problems in disability studies. As Michael Bérubé remarks, the field has been "too reluctant to acknowledge that with regard to people with severe cognitive disabilities, the surest way of recognizing their dignity is to recognize their guardians as people with the right and the responsibility of speaking for others" (2010, 103). This is not to say that autists cannot become capable of telling their own narratives, but we do have to acknowledge that the structures of thinking that inform an autistic person's choice of words and topics might significantly differ from what proper argumentative discourse requires, especially in the legal context, which is the source of conflict in *House Rules* and *Speed of Dark*. The metaphors and metonymies by which autists articulate their experiences and neurotypical characters contextualise them in fiction are readily understood as part of an *authorial* strategy of advocative empathy. They anchor neurological difference in striking language that translates across neurotypes through the common language of the body and our perceptive capabilities.

Such novelistic discourse also portrays the stance of the deficit model of autism, if only to set up a counternarrative against it, to better represent the neurotypical view. Emma says of Jacob:

> I think that's the attribute I miss seeing the most in my son: empathy. He worries about hurting my feelings, or making me upset, but that's not the same as viscerally feeling someone else's pain. [… H]e's learned empathy the way I might learn Greek—translating an image or situation in the clearinghouse of his mind and trying to attach the appropriate sentiment to it, but never really fluent in the language. (82)

Make no mistake, feelings of empathy are well-reported in the more ethnographically inclined works on autism, and self-reported in a wide circle of those living with the condition, too. But the capability of feeling empathy does not automatically entail that the person feeling it will give the routinised, normate responses expected of them.

It is crucial at this point to distinguish between two sources of empathy. On the neural

level, empathy can arise from a person processing someone else's emotional state, which is called *cognitive empathy*, because it depends on the cognitive awareness of others – it generates automatic, affective responses to the distress and joy of others. This is only one half of the equation though. There is also a more restricted level of empathy, *rule-following empathy* which, because it speaks to our basic capability for affective responses, has also been called *affective empathy* (Krahn and Fenton 2009), but I consider this latter version a misnomer. This form of empathy is a logical, algorithmic deduction of internal states, which retains autists' demonstrable moral agency without the need to posit an unimpaired ToM mechanism.

Understanding that Jacob's prosocial behaviour is a form of rule-following empathy and not a cognitive one means that his empathetic skills can improve with autism-specific social skills education. Jess taught him how to interpret facial expressions, tone of voice and the pragmatic aspects of communication. Her work was useful in breaking down complex social expectations into simpler rules, albeit ones gradually rising in complexity. In Jacob's own words: "What those doctors and books all say about how Aspies like me cannot feel anything on behalf of others— that's total bullshit. We understand when someone else is in pain; it just affects us differently […]. I see it as the next step of evolution: I cannot take away your sadness, so why should I acknowledge it?" (397). In this instance, Jacob is plain wrong, insofar as acknowledging one's sadness does take away some of it — you ease the pain by sharing it with somebody who can empathise with you.

He is nonetheless right to recognise that there are evolutionary reasons for the emergence of empathy as a basis of prosocial action (Decety et al. 2012). However, research in the animal kingdom suggests that it is a widely shared feature of social life in non-human animals, too, aimed at relieving the distress of conspecifics and promoting group cohesion. As Jaap Panksepp remarks: "the capacity to have affective feelings is an evolutionary birthright embedded within the intrinsic and ancient organizational dynamics of the mammalian brain, situated largely in subcortical realms known as the extended limbic system" (1998, 341). *Pace* Jacob, it is highly unlikely that in an era of global communication and easy travel our capability for experiencing empathy towards others would prove to be a hindrance in helping society prosper (Rifkin 2009).

The expression of emotions is the greatest stumbling block Jacob faces during the trial, in no small part due to the Anglo-Saxon grand jury system, which relies on the social manipulation of emotion to specific ends: it operates on the principle that justice is served by convincing supposedly impartial members of the jury of the guilt or innocence of the accused. The novel's

main tension is that the supposed 'peers' sitting in the jury box are of a different neurotype than Jacob. He astutely observes that this legal requirement "would mean [that] every single person on the jury should have Asperger's syndrome, because then they'd *really* understand me" (Picoult 2010, 297, emphasis in original), which calls attention to the ethical imperative that the proper representation of those with disabilities extend to the peer group on whose judgement their fate should lie. As we progress, we realise that the trial involves strategically revealing information to affect the jury's reading of everyone's minds, harnessing their ability to take other perspectives into consideration. Notice how Jacob tries to compliment Theo, and how he is shocked by Theo's lack of receptivity towards a sincere, albeit indirect compliment: "I included [Theo] in a starring role in my crime scene, and he got furious. He was cast as the perpetrator … how could he not see that as the highest form of flattery?" (24). Such misunderstandings are plentiful in cross-neurotype communication, as social situations are evaluated differently in AS and NT mind-sets, which turns *House Rules* into a comedy of errors at times.

The title itself is worth analysing as a piece of moral discourse — it implies the need to make the rules that govern social interaction explicit for Jacob, who cannot pick up on them instinctively. The five house rules, set up by Emma, tells Jacob to clean up after himself, tell the truth, to brush his teeth, to arrive in school on time and to take care of his brother Theo (24). The interpretation and observation of the rules matter a great deal for Jacob: "I don't get into trouble because rules are what keep me sane. Rules mean that the day is going to go exactly the way I am predicting it to be. I do what I'm told; I just wish everyone else would do it, too" (24), he confesses. Some of those rules (because they are explicit, and come from the highest source of authority, Mum) conflict with the set of oblique rules that govern societies. Truth-telling with no respect for the context of the utterance and the people who hear it lands Jacob in a lot of trouble.

Jacob expresses his wish that society would do away with the double standards of norms. Disability studies criticise the performance criterion of humanity (i.e. you have to act normal to be 'human' in the eye of the dominant social discourses), and there are several moments in the novel when Jacob is instructed to produce the outward signs of felt emotions:

> I find Oliver staring at me. 'Do you miss Jess?'
> 'Yes. She was my friend.'
> 'Then why don't you show it?'
> 'Why *should* I?' I ask, sitting up. 'If I know I feel it, that's what counts. Don't you
> ever look at someone who's hysterical in public and wonder if it's because they really

feel miserable or because they want others to know they're miserable? It kind of dilutes the emotion if you display it for the whole world to see. Makes it less pure.' (479-480)

Jacob believes that there is a certain selfishness in the public display of emotions. He, who is less receptive to emotional contagion, feels that the display of emotions to affect others is 'less pure' because it is not felt for the sake of deep emotional involvement, but to curry favour and empathy, which could be put to Machiavellian ends. This is a technique that Detective Matson is thoroughly familiar with – he sees suspects who attempt to deceive him every day: "Maguire's eyes fill with tears. I wonder if he really is sorry about Jess Ogilvy's death, or just sorry that he's been caught" (174). The stark contrast between detective fiction's genre-defining suspicion *vs.* Jacob's naive agnosticism towards deceptive behaviour thematises the power of the suspicious mind to misrepresent the mental states of others. Jacob's response to a question at the trial is telling. He is asked as to what he would do if a witness told a lie: "How would I know? […] Only the liar knows he's lying" (298). A suspicious mind with the ability to interpret nonverbal behaviour is at an advantage in all social contexts where deception is a viable strategy, and typical audiences are particularly fascinated by the drama of searching for clues of dishonesty on the face, as TV series such as *Lie to Me* attest. And therein lies one of the paradoxical pleasures of autism fiction.

Novels like *House Rules* implicitly demand something remarkable from their readers: using their imagination to empathise with characters whose social information-processing systems have been impaired and thus have a hard time dealing with emotions. The greatest irony of an autism novel as read by a neurotypical is that with their greater repertoire of social scripts, NTs are more likely to anticipate gauche turns of phrases and social *faux pas* than the autistic protagonists. When the judge asks Oliver what he is looking for to better accommodate Jacob we take a peek into Oliver's thoughts: "Sympathy for a client who is incapable of showing any himself…" (409). The lawyer's free indirect thought responds to the same narrative tension that catalyses the action for Picoult. An additional twist to this is visible in the scene where Emma and Jacob try to reverse their usual strategy of presenting Jacob: instead of allowing him to pass as neurotypical, they have a pressing need to acknowledge his autism so the jury will acquit him. The alterity that the jury recognises in Jacob constitutes a minor victory:

> I watched the faces of the jury as they stared at Jacob, and I saw the same expression I've seen a thousand times before. That mental distancing, that subtle

acknowledgement that there is *something wrong with that boy*. Because he doesn't interact the way they do. Because he doesn't grieve the way they do. Because he doesn't move or speak the way they do. (501, emphasis in original)

It might be painful for Emma to see these people shutting Jacob out, but getting the jury to understand that his son processes internal states differently is essential to reach a proper, just verdict. Notice that Emma is able to read the inner psychological turmoil of the jury just from glancing at their facial expressions. This is exactly the capability impaired in Jacob.

Jacob's difficulties with mind-reading play into his moral dilemma that leads to the rearrangement of the crime scene. He has to give his reasons to two audiences, the diegetic jury and the real readers. Summing up the motives behind his actions in third person, he explains:

Jacob Hunt neglected to realize, at the time, that he might be implicating himself in the murder. He neglected to consider that the scene he'd come across (at worst, murder at his brother's hand, and at best, a death accidentally caused by Theo) might instead be a death by natural causes: a slippery floor, a skull fracture, and a hematoma. None of this, however, really matters. […] Think whatever you want. The only thing that really matters is this: I'd do it all over again. (602-603)

Neglecting to consider the social interpretation of his actions and the possibility that Jess' death was an accident do not constitute the same kind of mind-reading error – the neglect of other people's inferences could be ascribed to an underappreciation of social mindreading, whereas coming to the conclusion that Theo caused Jess' death and was therefore the killer is just the opposite, an attribution of intent on the basis of the available physical information. He does not regret his act to drive suspicion away from Theo and to implicate the abusive boyfriend, Mark in the murder, because he adhered to the house rules by protecting his brother. He demonstrated altruistic behaviour, both towards Theo and presumably towards Jess, too, when Jacob hides the body in the culvert and covers it with his quilt: "I think about her even when I'm not here; [that's why] I bring my quilt. […] I think if she could talk she would have been really proud of me for wrapping her in it. *Good job, Jacob*, she would have said. *You're thinking of someone else for a change*. Little did she know, that was all I was thinking about" (584). By constructing a hypothetical narrative from his own vantage point, he proves that the received wisdom on autism needs updating thanks to his selfless, altruistic acts. We have to take Jacob's word for it that his oversight was the result of quick thinking in highly unusual circumstances. Given due time, if his family and the legal system listened and communicated with him earnestly, he could have easily

told them how Jess died. Which is an opportune moment to discuss another damning problem: nobody actually listens to Jacob's story until very late in the course of events.

Leaving Jacob's role undetermined for as long as possible is necessary to sustain the narrative tension for 600 pages, but it is also a critical commentary on the unwillingness of society to accept the autistic perspective as a true account of any situation, or on his family's willing self-deception to keep themselves in the dark. For instance, there is a great deal of irony in Emma forbidding Theo to tell Jacob about Jess' death out of fear for upsetting him, considering Jacob saw the events personally (135). All the more so, since informing him and having an earnest conversation about Jess' death would have corrected the false assumptions the NT characters had about Jacob's involvement in no time. Then again, we would not have the novel in that case.

In the scene where Oliver and Emma first discuss the feasibility of the insanity defence, Oliver offers Emma the opportunity to involve Jacob in the decision-making process: "'Why don't we go ask Jacob?' 'No way,' Emma replies. 'Unfortunately, that's not your choice,'" says Oliver in return, tongue-in-cheek (302). There is little doubt to my mind that, in her view, Emma tries to protect Jacob from distress, but she is also curtailing his agency to decide about his fate. Jacob is not allowed to drive a car because Emma would not risk Jacob meeting a police officer. She believes Jacob's literal-mindedness would put him in trouble, but she does not consider teaching Jacob some explicit rules about an encounter with a police officer (84). Throughout the novel, we get the sense that Emma is prone to self-deception when it comes to Jacob's capabilities. One time, Emma asks point blank whether Jacob committed the murder-that-did-not-take-place (369-371); Jacob, of course, tells the truth, and yet Emma keeps gathering evidence which proves to her that Jacob has been purposefully omitting events that would incriminate him. In inner speech, she attempts to explain Jacob's partial truthfulness: "I've convinced myself that everything Jacob *hasn't* told me has been an oversight, a typical Aspie side effect of having so much information that some of it gets lost or forgotten. I have convinced myself that this could not have been deliberate" (371). Emma is deluding herself when she thinks Jacob is incapable of withholding information if it protects his brother, Theo.

Clearly, he also conceals his mind, despite having a hard time lying with a straight face. At the beginning of the novel, Jacob gets wind of a dead body found somewhere near Townshend by eavesdropping on a conversation on police radio. He rides his bike to the scene, but upon returning home, he is confronted by Theo: "If he asks, I'm going to have to tell him about the scanner and

the dead body and the hypothermia. And that makes me angry because *right now I want to keep it all to myself* instead of sharing it" (41, emphasis mine). Keeping it all to himself is a tortuous route to empowerment, but it makes Jacob's reactions to Jess' accident infinitely more plausible.

As the plot develops, however, Jacob becomes more willing to share his motivations with his family. When he aces a math test, Emma believes it's best to celebrate in style and allows Jacob to set up a fictional crime scene. The visiting Oliver disapproves of it, afraid of what the neighbourhood will think. As soon as Jacob starts to assuage Oliver's fears, he starts comparing this fictional murder scene with what happened at the other house: "'At Jess's—' 'I don't want to hear it,' I interrupt, covering my ears. Every time I think I have a chance to save Jacob's ass, he does something like this" (427), Oliver complains. We are lead to believe that people won't listen to Jacob out of kindness. They resist the thought that he could be capable of murder, in spite of actions that might look like a rehearsal for the perfect crime.

This silencing also shows that Jacob's neurotypical allies don't want him to narrate his whole story. Emma is so adamant to preserve the official narrative she has built up in herself that when Theo finally plucks up the courage to confess that he was the one who broke into the professor's home, and he was the last person to see Jess alive, Emma just doesn't want to hear him, and she misinterprets her son's willingness to talk as worrying about Jacob (436). Picoult depicts Emma as the most active mind-misreader, who silences those around her to preserve her sense of agency as a mother and a protector of her children. In these scenes, the role of listening to others and representing their minds with great interpretative care show their centrality to the plot. Reading the novel as a tragicomedy of error through the lens of narrative mindreading yields more insight into the ethical dilemmas that are entailed in the relationship between the carer and the disabled person in a world which does not fully acknowledge the social difficulties of autists.

In closing, I would like to draw attention to a couple of curious narrative strategies that modify the perception of Jacob's neurological difference. Oftentimes, his personal sections feature digressions, asides and lists, similar to how Christopher interleaves his story with random facts. For example, Jacob lists twelve things he hates, which can also send him into an autistic meltdown (22-23), a list of some ten-codes used by the Vermont police on radio (30), a half-a-page's worth of facts about forensics (114-115), a logical analysis of a prior conversation with Oliver, complete with premises and deductions (442) and a discussion on the love and mating habits of prairie voles (455-456). These digressions are information dumps, designed to break the flow of narration and

to show Jacob's love for the actual, factual, ordered world of simple and straightforward meanings.

Covertly, they are also meant to clash with the social, human-centric content of the narrative, asking us to subtly reconsider these lists as a form of Bogost's 'alien ontology'. He writes that such "ontographical cataloging hones a virtue: the abandonment of anthropocentric narrative coherence in favor of worldly detail. Quasi-ontographical prototypes are common throughout literature and the arts, where catalogs and lists pepper a narrative, disrupting a story with unexpected piquancy" (41-42). That piquancy is the alien perspective, but for Bogost, "the alien is not limited to another person, or even another creature. The alien is anything—and everything—to everything else" (34). Unlike in orthodox Marxism, where alienation is the root of all evil and a product of living in a class system, in the critical writings of Bogost, alienness is the original quality of all relationships between objects, both animate and inanimate. By decentring the interrelated (neurotypical) human being, whose primary mode of existence is the establishment of relationships, it elevates even the most remote autistic minds onto a platform where they are on equal footing with other modes of being: a flat social ontology. We might then understand Jacob's inaccessibility, or his recitation of the Fibonacci sequence in one scene as a way of stepping outside the boundaries of narrative, escaping the anthropocentric world's coercion to perform humanity.

The other narrative strategy places authorship into its focus. The first thing one notices when reading the book is that the chapters are preceded by an account of a well-known serial killer or a murder case, describing the role forensic analysis played in capturing the killer. Noticeably, in the vignette of the first case, the otherwise objective assessment of Dorothea Puente shades into the subjective: "Puente began corresponding with a writer named Shane Bugbee and sending him recipes […]. Call me crazy, but I wouldn't touch that food with a ten-foot pole" (1). This appearance of the 'I' in the description is all the more remarkable because in the subsequent nine cases, there is nary a subjective 'I' to be found until the last case, "My Brother's Keeper." The title is a reference to Picoult's earlier work, an in-joke, but consider the passage, quoted earlier in context: "None of this, however, really matters. […] Think whatever you want. The only thing that really matters is this: I'd do it all over again" (603). These are the closing words of the novel as well. This final revelation that the most authoritative passages of the text originated from Jacob's pen and point of view compels the reader to re-evaluate the narrative presentation of the work. Jacob might be the master narrator of his tale in more than one respect, gaining storytelling agency and a position alongside the heroes of forensic analysis, such as Dr. Henry Lee, his role model.

If the 'I' actually denotes Jacob rather than the author, it would suggest that the sections detailing the cases come from the notebooks he has written about *Crimebusters* to indulge in his all-consuming interest to set the world right. His factual storytelling, set in italic, and his enactment of fake and real forensic investigation in the story becomes a means for *self-poiesis* through what, in the clinical view, would be deemed an obsession about a stereotypical topic. Julie Brown argues that "a messy writing process," or clumsy, illegible handwriting, "a 'scrapbook' cut-and-paste quality to the manuscript; a tendency to quote or refer to other texts excessively; a naive attitude toward plagiarism" (Brown 2009, 17) are common problems autistic writers face during the process. This fits Jacob and Christopher's modus operandi and compositional attitude perfectly.

The interesting question is whether Jacob could have narrated the *whole* book, including the parts that were ostensibly narrated by Emma, Theo, Oliver and Rich, too. Brown notes that because of their deficits in understanding people, writers with AS have a "lack of knowledge about human nature [which] makes creating characters problematic" (Brown 2009, 25). She claims that autistic authors get around this by either not creating any fictional characters, or by modelling fictional characters on people they know so they can get the richness down on paper (loc. cit.). I am not convinced that Jacob is able to create such a vivid interior life for the other four characters, but I would like to leave the option open for other scholars to argue for. Interpreting the final 'I' as evidence of partial authorship, it fits into an emerging paradigm of autistic characters who are yearning to tell their own tales and become capable authors, who can arouse the curiosity of their audiences, delivering satisfying stories about personal achievement and a triumph of the individual over the prejudices of society.

In this statement, Picoult and other autism novels reiterate the generic promise of middlebrow literary fiction, which understands interpersonal conflicts less cynically than highbrow fiction – not as the result of glacially changing, conservative structures but as a product of the dynamic negotiations of human beings with personal convictions, extending their goodwill beyond their own communities. In Melanie Ho's words, "the middlebrow represents a kind of optimism of the intellect: far from placating readers […] who were simply looking for light reading to make them feel better about their industrialized lives, middlebrow texts provided a venue for readers to think about issues relevant to self-development, social relationships, and even societal progress" (Ho 2008, 30). *House Rules* is an example of this rich optimism, founded on the belief of the benefit of empathetic human action. These voices are sorely needed in our times to recognise

the common humanity in us that extends beyond the social categories of difference – they extol the virtues of listening to others in our frail, precarious existence and praise the healing powers of prosociality in a world that exacerbates some of our most knee-jerk responses to difference.

CHAPTER 11

FINAL OBSERVATIONS AND CLOSING REMARKS

"The living were not merely within their own bodies, the dead were never really gone. We were somehow part of every person who had ever moved us or who had been a catalyst for change, and they were part of us, if we, in our rigid ideas of self, so allowed it to be." — Donna Williams (2004, 166)

If there is one thing I hope to have demonstrated in this dissertation, it is that we can no longer ignore autistic voices in cognitive literary studies. Although in her recent work, Lisa Zunshine and Ralph James Savarese have begun a conversation on a neurocosmopolitan literary study of novels, to my knowledge, the tools of cognitive literary studies haven't been used for thorough, close readings of autism novels, where disability is in the foreground and autistic cognition is the driving force of the novel, giving it its unique voice. Another aspect that this dissertation sought to emphasise is the relevance and non-triviality of results coming from the experimental sciences, which enhance our understanding of fictional narratives. Psychological work has profoundly influenced autistic people's identity and their coping strategies in a neuronormative world, but it has also helped to debunk widely-held misconceptions about the range of social skills within autism or the aetiology of the condition. Real-mind discourses have refined certain narratological practices, such as the privileging of inner speech or 'unreadability,' and I have cited such interdisciplinary work to reconfigure the transfer of knowledge between the cognitive sciences, disability studies and literary theory, illustrating their mutual benefit for the creation of an integrated, consilient way of reading the autism novel.

When I began to investigate autism and its connection with literary theory and criticism, I had two initial assumptions. First, that autism spectrum conditions were now recognised enough to have become meaningful to ordinary people, creating a subgenre of literary works that articulate and refashion its meanings at a particular historical point in time, the post-millennial world. Second, I assumed that autism was researched widely enough that we need more self-reflection now on the meanings autism has accrued in psychological and literary theoretical work. To this came a third assumption as I began to grapple with the material: that, besides its ordinary meaning as a neurological condition, autism has become meaningful as something other than itself, a cultural barometer about affluent societies' attitudes to technology, sociality and self-knowledge.

During the arduous, but delightful writing process, these assumptions have taken on a shape

of their own. The contextualisation of the autism novel I have undertaken in Chapter 6 has been influenced by a widely shared understanding between writers, scholars and readers that autism is profoundly tied to our modern world. It may be read as a warning sign that humans are losing their social and empathetic skills while all this new-fangled machinery starts to dominate humankind, or maybe it is a token of a promising future which enables previously solitary people to construct communities and manage their techno-mediated identities more meaningfully, rearranging ossified social practices. These interpretations are all enabled by my critical reading of disability studies scholarship, which allows literary studies to contemplate them in interaction with one another.

Similarly, the recognition of autism as an object of research prompted a certain attitude in the psychologists who study it: they conceptualised the condition as an enigma, waiting to be explained, which positioned them as authoritative experts with epistemological capital. The rhetoric of scientific sadness (Chapter 4) has been so influential that it has travelled almost intact from clinical research into the works of cognitive literary theoreticians, whose reliance of the Theory of Mind+'mindblindness' paradigm has constrained the range of meanings autism can take in a story. This has occasionally gone so far as to blind them to the shared humanity of able and disabled people. However, cognitive models of reading and practices of interpretation have an unparalleled explanatory power when dealing with literary texts. Bringing autism within the purview of cognitive literary studies strengthens the robustness of the theory, but only if we show awareness of the disabling theor(rh)et(or)ical baggage and shed it like outgrown snake-skin.

Finally, the dissertation sought to find a healthy balance between the interpretative instinct to always read literary objects as something else (in the hermeneutics of suspicion: symptoms) and the ethical urge to take fictionalised autistic experience seriously, which sometimes amounts to a literalism actively discouraged in undergraduate introductions to literary studies. Since autism is a condition which is sometimes manifested in literal-minded language use, that knowledge brought with it a heightened awareness of how writing and literary reception were key topics the authors chose to reflect upon – they portray autists as people who consume fiction and aspire to be writers of their own stories themselves. I have striven to acknowledge the ethical stakes of representation, but I was more interested in what the figure of autism is used for in the novels, and how a semblance of the autistic mind-set is constituted by authorial techniques of narration rather than in whether the portrayal of autism is progressive enough or less stereotypical than usual.

New, postclassical approaches of narratology focus on literature as a technology for

producing virtual minds and thus prove to be invaluable in assessing the figural and thematic effects of mental representation in literature. Literary works of art give us alternative lives, richly tapestried with imaginative experiences that delight us, startle us with their language and show the process of how social meaning is generated in the interpersonal conflicts of daily life. I have therefore adopted its basic tenets, like the assertion that novel-reading is almost always mind-reading, or that attending to mindedness in literature reveals important clues about how literary fiction interacts with our notions of humanity and the evolution of the social sphere.

Autism novels constitute a meeting point of the two cultures, the arts and sciences. These fictional narratives are steeped in science, both psychological and natural, for autism is both an object of social scientific research and a subject position that comes with a strong preference for lawful predictions and an algorithmic field of reasoning. Able autists are depicted as people who have an affinity for the impersonal structures of our existence and a drive to understand and predict complex systems. They map social interactions as flowcharts and hope that the situations they encounter conform to their acquired social scripts. They expand upon topics, usually of a scientific nature, that are tangential to the narrative situation, but offer an insight into their styles of thinking. The novels frequently deal with the psychological construct of autism, featuring scientists, psychiatrists, psychologists and other experts who assess, diagnose, support, experiment or perform surgeries on autistic individuals. Scenes in which autistic protagonists or their family consult with the experts allow the authors to show the kind of governmentality in action that disables neuroatypical lives. Lay protagonists form their opinions of such expert knowledge in a cautious, possibly sceptical tone. The science which underpins disabling practices toward autists are presented as instances of biopower at work, while the protagonists pursue avenues of inquiry which are shown to be critical of the conflux where technologies of control and unethical or outdated science meet. Autism novels strategically use and reinterpret scientific findings to imaginative, emancipatory ends, but we occasionally find examples, such as *Speed of Dark*, which use science to normalise autism, even as the protagonists embrace their autistic identity. For that reason, autism novels construct ethical scenarios in which disability, biopower, identity politics and the individual's expression of atypical personality are refracted through the lens of science and the genre requirements of the middlebrow novel.

Within recent literary criticism, cognitive literary studies and narratology, autism has become more prominent. In fact, the dissertation argues that autism has played a constitutive role

in the emergence, development and unprecedented visibility of mind-related research in the literary sciences. They imported the concept of Theory of Mind and other notions about minded life from cognitive psychology, speculative ideas about the phylogeny of the human brain from theoretical psychology and experimental results from the neurosciences to put 'effortless' mind-reading skills into the focus of fictional aesthetics and reception, revealing that it is a major theme of most novels. I have claimed that scientific, psychologically supported work in literary theory show us a vision of written fiction as a technology for producing simulated experiences. They effectively put us into the shoes of other, non-actual individuals with narrative instructions about how we should set the stage for the characters as they interact with the fictional world and one another. The concepts of ToM and simulation are intimately linked in research with spontaneous pretend play, make-believe, imagining counterfactual scenarios and empathetic perspective-taking, all of which are necessary foundations for any successful reading of fiction. The current paradigm of research, as I point out, finds autistic individuals to be deficient in most of these areas compared to typically developing children and other mentally affected groups. These conclusions, summarised by the word 'mindblindness,' generated wonder and curiosity in literary scholars who search for the elusive qualities of literariness and continue to be fascinated by the reported imperviousness of some autistic people to the joys of literature.

Autism novels critically comment on this widely-held belief, discussing the production and consumption of fiction by autistic characters. Jessica Fontaine's work in the library and her skimming of blurbs, Jacob Horner obsessive enthusiasm for detective stories, Christopher Boone's detestation of proper novels, Lou's preference for neuroscience textbooks over imaginative works all derive from the received wisdom that fiction is not for autists. The novels I examined tended to subvert the idea that autistic characters shy away from literature or prefer less highbrow work out of some immature sensibility lurking within them. Christopher and Jacob use detective fiction as a tool of survival, giving them cognitive models of interaction which help them become more social. Lou uses Biblical stories to make a life-changing choice, and he takes control of his life as a result. Jessica's son, Joel produces his own narrative world with the computer games he designs, establishing a sense of agency in a chaotic, unpredictable life-world. These characters further enhance our vision of the connection between fictionality and atypical minds, since they remap the borders of disability's accepted cultural territory, emerging through the creative uses of fiction.

Some characters are active writers, too, composing their own lives after novelistic patterns:

Christopher is an admirer of Sherlock Holmes and pretends to be a master detective. He adjusts his behaviour to better fit crime fiction tropes, and even produces an account of his adventures in a narrative book. Jacob Horner, another self-styled expert of crime, is likewise hinted to be at least a co-author of *House Rules'* story, and he is a prodigious diary writer to boot. The production and consumption of fiction in these novels put the problems with authorship up for discussion. Chapter 4 was dedicated to the question of reading autistic lives and the discourses affecting them critically, which is a recurring theme in the novels as well, primarily with Lou's critical reading of normative brain science. Autism novels have found a sister discourse in the autobiographies, mostly because fictional writings tend to imitate the confessional, direct, reflexive tone of published self-writing. NT writers' project a similar narrative voice on their disabled characters, giving them an illusion of interiority and depth the autobiographical works created since they began authenticating a new discourse about autistic experiences. But we have to recognise, along with Savarese and Zunshine, that autobiographies are not the royal road to understanding autism. They write: "we have extrapolated too much from Grandin: not all, maybe not even a majority of, so-called high-functioning autistics or Aspies believe that they have difficulty reading other minds. For another, Grandin explicitly states that she has gotten better at this activity, which suggests that such a deficit is anything but strictly innate or hardwired" (Savarese and Zunshine 2014, 25). This proves to my mind that autobiographies have been given a free pass on critical reading, and this manifests in the uncritical adoption of visual thinking as an autistic paradigm in, for example, *The Curious Incident.* Both Grandin and other writers enunciate their own position and their own unique mind-set in these works, emphasising their experiences, so we should be careful about generalising to a reified, singular 'autistic cognition' from these writings. Fictional works in the novels reconfigure these themes to better coincide with the ethical stances the real authors espouse or wish to present, eschewing mimeticism for striking characters and clear exposition. The embedded narratives are metafictional devices which provide moments of self-awareness about the writing and editing process, making the novels less naive and more entertaining to read.

In particular, autistic composition and narration challenges neurotypical conceptions of narrativity and tellability. This originates from the detail-oriented processing style typical in autism and an impaired sociopragmatical use of language. People with the condition experience difficulties with narrative production that would conform to NT standards. Unmotivated digressions, lectures on a favourite topic, a lack of contextual information provided,

mismanagement of time sequences, impressionistic associations that are not shared with the listeners all hamper the acceptance of autistic storytellers, and these identifying features have migrated to Christopher's book and Jacob's story as well. Even though these obstacles exist in real life, autistic characters are shown to be individuals who perceive more than that and seek patterns in sensory data neurotypical folks might not see, since their adaptive unconscious discards a lot of the irrelevant percepts as noise. Some autists see them as signals. The processing differences come down to the mismatch of cognitive granularity between ASC and NT populations.

These differences appear in the novels on the textual level: descriptions focalised from the autistic perspective prove to be far more detailed, sometimes to the detriment of plot, betraying the narrators' preference for the mimetic rendering of reality. The flow of the narrative is frequently interrupted with digressions, diagrams, and other non-narrative devices which makes the adept readers stumble as they try to figure out the significance of irrelevant textual elements. Lists are an obvious case: the non-hierarchical list describes no cause-and-effect relationships, and even if they characterise, they do not narrate, only enumerate. Through these stylistic idiosyncrasies, autistic characters perform their own identities in writing. Such processes of self-reflection enable them to become critical readers of fiction, and their life histories push them towards being even more critical readers of social situations.

In the novels, autists are constantly negotiating social demands. One might say that the central conflict defining the autism novel is the disabled individual's resistance and adaptation to the demands of socialisation and normative narrative. They are usually aided by their families in this project, with less success than usual, because the normal social scripts for teaching good behaviour and adaptive problem-solving entail the use of abilities that are impaired in autism. Fortunately, there are supportive communities who manage some of the quirks that come with the condition: fellow autists, the empathetic – if troubled – family members and the enthusiastic communities the protagonists voluntarily seek out stand up for the individual in times of need. The role of the community is to mediate societal expectations so that they can transform social relationships between typical and atypical participants. Jessica relies on Mary and later, Joel's girlfriend, Alice to make sense of the social world and to interpret her relationship with Andrew. Siobhan tells Christopher about the conversational maxims that influence written, novelistic communication, editing the manuscript to comply with some neurotypical expectations. Theo and Emma instruct Jacob how to behave in court and how to communicate effectively. Members of the

fencing club supply Lou with textbooks and the autistic people at the Center and in Section A discuss neurological discoveries and their ethical ramifications. These communities offer a vision of a more inclusive society on the micro level but, primarily, they function as challenges to the autistic character, who has to evaluate differing viewpoints constantly.

The antagonists of the books, when they appear, are the characters and institutions that disparage and disdain autism – they might wish to erase this form of alterity, either by curing it away or by violently silencing it. This is not at all necessary from the writer's standpoint. One could perfectly well imagine a detective novel in which the protagonist with Asperger's seeks to apprehend a serial killer or an SF novel which just happens to have a brilliant character on the autistic spectrum, but the spaceship takes the fight to the Galactic Empire instead. The works I have analysed become autism novels by virtue of placing neuroatypicality into their centres, as the defining conflict which brings drama into the storyworld. Consequently, the resolution of the plot is almost always a gesture towards neurocosmopolitanism, a happy coexistence of typical and autistic people who project confidence due to their newfound identity as travellers between literal worlds and mindworlds, feeling at home in both.

Synthesising the strands of knowledge as diverse as disability studies, cognitive neuroscience and literary scholarship is bound to find contradictions within contemporary conceptions of any phenomenon, and all the more so for a condition as controversial and fascination as autism. The dissertation's strength lies in critiquing the underlying assumptions of the research programme of cognitive literary criticism and some beliefs prevalent in literary disability studies. One of the main arguments concerned Theory of Mind-based explanations of autism and I have concluded that they are neither exclusive nor sufficient to describe the full extent of the peculiarities that make up autism. Those cognitive literary accounts which insist too much on ToM as a dominant skill for reading, or that mind-reading is the sole reason fiction is interesting for us will never be a satisfactory explanation for the success of (autism) fiction to captivate the reader. Scholars and lay readers will always be delighted by the poetic language of the narrative, the vividness of the descriptions, the well-crafted metafictional moments and the puzzling textual elements, to name just a few other aspects which enhance the aesthetic experience. This necessitates the narratological thrust of my readings, as disability critics seldom attend to the micro-level techniques that articulate cognitive cultural hegemony or contest neuronormative ideals of narrative, but these can be extracted from the text with close reading. At the same time, I

have my reservations with the conclusions of those critics who vehemently argue that there is no substance behind ToM-deficits, that the deficit model is entirely flawed or that autism novels must first and foremost accurately and authentically depict the condition, taking no liberties with the autistic personality for the sake of story. I encountered ill-informed attacks on adaptationism and the modular view of the mind, which I hope to have debunked with recent, robust, relevant research that refutes the more vitriolic voices. To this date, working scientists and scientifically minded philosophers operate with a vision of the mind as a product of evolutionary adaptation that developed different systems for different adaptational problems, bringing in important, new results that improve the public understanding of autism as a human variety, not merely a disorder.

Not that science was safe from scrutiny, though. I have examined the development of scientific descriptions of autism from Kanner and Asperger to Bettelheim and beyond, dissecting the DSM, up to its latest manifestation. I indicated that the diagnostic criteria have changed over the course of time, which gave Asperger's Syndrome as an individual diagnosis some time to shine, only to be lumped back together with all other autistic spectrum conditions. I suggested that diagnostic labels have the power to stigmatise, but also to create a strong sense of identity, and when these are taken away, they can shatter people's self-understanding. This incites activists to fight for the recognition of different flavours of autism. I have sought to qualify the claims of the neurodiversity movement, who demand that autism be defined as a source of different ability rather than disability. In the literary realm, narratologists have tried to respect the unreadable mind in its steadfast illegibility and argued that unnatural minds cannot be explained away or conventionalised. Yet, as I argue, the standards of what constitutes an unnatural mind in narratology rests on how we interpret cognitive scientific research: the critique of the ToM approach to social cognition and the promotion of the Narrative Practice Hypothesis, which holds that young children learn verbally, through storytelling. Further research is needed whether autistic protagonists can be read as a limit case for the unnatural mind, not exactly unreadable if you know who you are dealing with, but certainly a formidable interpretative challenge. I have left the option open for literary scholars to develop these ideas further.

Another option would be to 'simply' read these characters as mere 'unreliable' narrators. After all, they do underrepresent and misrepresent the emotional states of other characters, and they fail to include common sense psychological explanations to everyday human behaviour in their narration. However, they are aware that they don't know these things, and often comment

upon the impossibility of true interpersonal knowledge. Erecting these signposts, they construct a self-conscious account in which their limited view is acknowledged and honestly laid out for the reader to consider. In light of this, unreliability does not seem to me an appealing way to account for their peculiarities. Interpreting them as unnatural minds that challenge the conventions of how a working human mind is depicted in a story is a more productive reading, which problematises the social norms of cognition and their representations.

This under- and misreporting is an important question for theories of reader response. In Chapter 7 on *The Curious Incident*, I have outlined the problem of the gaps that hinder the easy and effortless interpretation of the social situations that Christopher underreports. The first wave of cognitive literary sciences and the field of reception aesthetics have established a framework in which researchers found that readers bring their expectations to the reading material in the form of common cultural scripts and schemata of thought, which supplied them with interpretative frames that could be combined or blended together at will, producing novel cultural forms and flexible interpretations of behaviour. Because autistic people have a harder time learning social scripts, generalising them and using them flexibly in their everyday life, it should come as no surprise that fictional narratives, which rely heavily upon these skills, will be a problematic area for many people living with autism.

However, reading comprehension is always a tough negotiation between the conventions of the genre, the opinions of the experts and the real-life experiences of flesh-and-blood readers. Autism novels are not an exception to our general reading strategies: we interpret neurotypical and autistic narration according to the same protocols and problem-solving heuristics. The only difference lies in the defamiliarisation and estrangement of the conventional tropes of mind-presentation in autism fiction. NT readers will have a harder time with them, they need to make more of an effort to comprehend the mind-style of neuroatypical characters, but this only foregrounds the processes that readers already activate unconsciously during standard reading anyways. Even in such a complex electronic literary genre as hypertext fiction, readers arrange the gaps between story segments and descriptions with recourse to social scripts and schemata that are available to them to create a possible representation of the macrostructural story. Computer-based narratives and data manipulation are congenial to the autistic mind, with its algorithmic simulation of sociality and object-oriented puzzle solving, which is something I have discussed in greater detail in the Chapters 7&9 on *The Curious Incident* and *The Language of Others*, respectively.

Nonetheless, as I have claimed in connection with Hacking's view that autism is the mirror of an Internet decade or the born-digital generation, we lose a lot when we begin to see autism as a reflection of our time, with no attention paid to the lived experiences of autists. A figurative reading that we are all a bit autistic has been available since the late 1980s with *Rain Man*, which is a tepid and unsatisfactory way of 'including' such disabled difference in society. On the whole, our world is no more autistic, less gregarious, less caring or shallower than the generations before us. Nor will we become more mindless or sociopathic, those husks of humanity that pervade the jeremiads of pessimists. To the credit of this age, it has enabled an autistic identity to assert itself, and we have more technological opportunities to interact with other people on a more social level.

The figurative reading of autism as a symptom of societal 'decay' misses the fact that autism novels show their protagonists integrating into society neither because the gap between the normal and the pathological itself has closed, nor because the ideology of normativity has been superseded, but because society became more aware of differences, and built bridges between the two neurotypes without destroying the logic underpinning the norm. The autistic subject can function with more self-awareness in a more compassionate society, which sees the worth of autistic lives. This does not invalidate the very real, daily disturbances of contact, the temper tantrums and the meltdowns of autistic people, the frustrations and fears of alterity among adults and peers — as long as stigmatised identities exist and as long as autism persists, frictions will remain a powerful reminder that autistic difference is still with us. I do not wish to paint a rosy picture that autism has been accepted and society seamlessly integrated people on the spectrum. Similarly, these novels are not straightforward tools for inclusion and their main effect is not to show autism 'as is'. They are imaginative examples of the many conflicts that neurological differences can create. They are opportunities for reflection *and* genuine empathy. They delight with their experimental techniques of presenting unique minds and depict believable characters in a world coming to terms with new social technologies in a relatively old medium, the novel.

Let me now turn to the overarching picture that emerges from my investigations. There is an easily detectable frame which defines all of the protagonists' journey, and it is one from ignorance to knowing: the frame of cognition. Knowledge about the self, knowledge about others, knowledge about the working of different kinds of human minds are central to all of the novels I have worked with. *Speed of Dark* is vocal and blunt about this: knowledge, what is known and how it is known is a pivotal narrative concern. Lou comes to know the workings of the human

mind and how it can be re-appropriated so he can achieve his goals. But in more subtle ways, the other novels feature this metanarrative as well: Christopher didn't know who killed Wellington or whether her mother is alive, and he finds out both, albeit very-very awkwardly. Jessica did not know she and her son had Asperger's, and that changed her own conception of the self. Jacob was ignorant about the perspectives other people had on his behaviour, Emma, the jury and the reader didn't know how Jess died, and nobody knew how well Jacob would hold up in court. In all of the novels, acquisition of psychological and narrative knowledge guides the protagonists to gain more awareness of their own condition, with transformative results.

Most of the transformation comes not from a mere information exchange, though. These people learn that they are able to do far more than they previously thought themselves capable of. Christopher can independently travel from Swindon to London, socialise with the neighbours, succeed at his maths exam and write a book. Lou can learn brain science, he can spot deliberate fraud in the lead scientists' presentation, he can change how his mind works, he can stand up to authority and he can go into space. Jessica can divorce from Andrew (what a coup!), she can become a 'skilled impostor' and affect neurotypical airs when necessary, she can love and nurture her son, Joel, and she can find solace in comforting solitude, again, after her internal turmoil. Jacob can write a book, represent himself in court, take matters into his own hands and protect his brother with true altruism while participating in family life meaningfully. All these skills of coping with a neurotypical world show that disabled characters can exhibit *agency* that was previously denied to them by learning how to game the system without compromising their own goals and beliefs. Their agency is not just self-knowledge: it is the acquisition of patterns of behaviour and their appropriate execution in context. The autistic characters in these novels become the masters and mistresses of their own fate by rethinking what they can do, by destroying the barriers an able-minded civilization have erected, sometimes deliberately, sometimes unwittingly, to curtail disabled peoples' power to determine the terms according to which they lead their lives.

Knowledge and agency work in tandem to transform these people's lives, and with it comes a new form of thinking: a neurocosmopolitan one. A neurocosmopolitan identity is by definition a hybrid identity. The autistic characters who have reached this state move comfortably from a socially situated autistic perspective to a temporary appropriation of neurotypical standards to get what they want, passing with effort, but passing successfully nonetheless. As Savarese says in his conversation with Zunshine, neurocosmopolitism signifies, among other meanings, "the effect on

autistics of the journeying I mentioned—what might be termed neurohybridity or mobility" (Savarese and Zunshine, 2014, 20). The NT characters who gain some insight into the working of the autistic brain are capable of walking a mile in their shoes, and as a result, they are more accepting of the quirks ASC people have. They are also capable of tailoring their social interactions with autists so their conversational partners can participate on equal terms in the discussions that take place. Oliver in *House Rules* acts more neurocosmopolitan by the end of the novel, Marjorie, Tom and Pete Aldrin in *Speed of Dark* all show more respect and treatment Lou differently as time goes on. Alice, Jessica and Joel in *House Rules* all adjust their temperaments to better suit a mixed-mind world, and even Christopher's mum and dad reconcile their differences with him.

Neurocosmopolitism is put forward as a model in which NT privileges are surrendered for the benefit of autistic individuals and autists can express their collective preferences and alternative behavioural strategies in a less stigmatising social environment. "This ability to feel 'at home' in other neurologies," writes Howard Sklar, "is one of the benefits of reading the life stories of people with intellectual disabilities, and it […] makes fictional representations of intellectually disabled characters compelling, especially from a neurocosmopolitan sensibility" (Sklar 2015, 244). This is eminently valid for autism novels, in which readers belonging to another neurotype can experience a plausible semblance of what it feels like to be neurotypical… or autistic. And that order is meaningful: we must never forget that both reading communities avail themselves of these narratives. NT behaviour is as dis/familiar and unpredictable to autists as are autistic actions for NTs. In any case, these confluences of interpretation are not here to help one community or the other to uphold and conform to a standard; instead, the narratives redefine the standard itself.

There were a few avenues of research I have been unable to follow, because they would have departed from the central argument of the dissertation. First of all, I have regretted not tackling more novels. This is obviously the easiest way of extending the work that began here, simply adding novels and bringing the same reading strategies to the new texts – but this could prove to be the least inspiring way of contributing to the framework I have established in this dissertation, with no novel findings *per se*. Yet, the sheer volume of books can direct professional readers' attention to larger themes and other narratological tricks of conveying neurological difference. On the other hand, the minute differences become more significant when it's only *one* novel among many which depicts autism in another light. In this manner, simple addition and

comparison gains methodological significance as we take a step back from the intricacies of the individual texts and perform distant readings instead.

Autism fiction is not only interesting *as* autism fiction, that is, as a novel dealing with a disabled way of life. Further research could find a lot of material in its other genre functions: middlebrow novels are still underresearched in academia, since scholars see them as rather predictable and lacking novelty value or literary qualities. But they are an integral part of the literary world – scholars would benefit from examining these novels more thoroughly as reinforcing certain middle class attitudes to family, nurture, work and entertainment in their sociological context. This would also open up the option to investigate the actual responses of readers on both sides of the empathetic gap. This work has been started by Marco Caracciolo, but his was a survey of reviews only, and the researcher cannot direct his inquiries towards specific aspects of the text that way. Empirical studies of reading autism fiction could elucidate the exact mechanisms of strategic empathising, as developed by Suzanne Keen.

Having been educated in an institution with a strong gender studies programme, it would not be out of place to write on the gender aspects of autism fiction. This is something I have deliberately avoided, and for good reason: it would have required even more interdisciplinary research and it would have meant a profound reorientation of the dissertation's structuring arguments. Not that the gender aspect would have made my other arguments invalid, and it was not deliberately downplayed – I have addressed unequal gender relations in Morrall's story and my readings are informed by the central tenets of gender studies. It is just that the gender focus did not feel like a long, coherent theme running through the novels in question. Still, gender studies research can unearth, as it usually does, new threads of analysis and more works to consider; I would be delighted to read feminist critics writing intersectionist accounts of autism fiction.

The theoretically-minded reader might ask: can this consilient and neurocosmopolitan mode of reading be used to interpret neurotypical narratives? One would have to make a very well-argued case for it first. Generally speaking, I do not think that reading glasses for myopic people would be of much help to hyperopic eyes. This extension of the cognitive paradigm deals specifically with autism, and in a (slightly) wider context, intellectual disability, but it will be of precious little use to reading texts where such disability is not present. That being said, if – armed with this knowledge – a scholar should find characters with suspiciously similar traits in texts written prior to the 1940s, it would be a major victory for literary disability scholarship, as it would

suggest that there are more Bartlebys than we knew of before. While I have disparaged the overzealous inclusiveness with which certain scholars have tried to create an autistic canon, I do not deny that we could find early 20th or 19th century works in which characters could be recognised as autistic today. I would suggest that this project should be conducted with the utmost interpretative care and a healthy dose of humility about those findings, since there is a strong self-confirmatory bias in literary canon creation. Once the hypothesis is set, it is damned hard to steer a scholar's mind away from proving that everyone was autistic.

The narratological approach I have taken yields insights about the workings of written fiction, but autism is present in other media. Characters with Asperger's and autism pop up in full-length feature movies, TV series, musicals and theatre productions. A transmedial investigation of fictional autism narratives would do a great service to literary scholars, as it could shed light on what changes in the 'autism story' from one mode of expression to another. An easy example comes to my mind: I have seen a Hungarian production of *The Curious Incident* at a theatre in Budapest. Being a very narratorial text, I was curious to see how the director handled the problem of the many digressive chapters that pepper the narrative, which should be 'spoken' by Christopher. In fact, half of these interludes were *read by Siobhan* from Christopher's book, leaving him free to act out the physically demanding parts, which is a brilliant solution and a nod to the frequent metareferences to Siobhan's interference with the text in the original. These sorts of observations, coupled with sound theory, could enhance our understanding of why books, fiction and pretence play a huge role in the lives of the fictional autists we have come to know.

In my reading of the novels, they teach, above all, that attention to autistic people, caring for their viewpoint and transforming the world to suit them a little better makes all the difference. Likewise, reshaping cognitive literary studies to acknowledge and critically incorporate autism into its theoretical foundations improves the discipline and enhances our appreciation of literature as a phenomenon. So what does autism mean for the novel? A world of difference. Beautiful, shocking, sometimes painful, but above all, inspiring difference, and a moral obligation to respect and aid in word and deed those who are still not understood.

In these final words, I have to admit, this dissertation has been a personal quest, too. Adventuring into the deepest caves and tiniest recesses of the mind, I have sketched out a map of the warped floors that make autism beautiful, disarming traps and turning back at the dead-ends that imperil the unwary heroes who search for the treasure of perception, as Jessica put it. I have

slain enemies such as Scientism, severed the head of Determinism, steered clear of Obscurantism, and the graduate student's worst foe, Procrastination. I have stood before the monstrous Nex, and I have seen my fellow adventurers slain by a single, careless strike. Somehow, I was left alive, with an inkling of what insight the treasure might bring, but I hold no Holy Grail in my hands. Now, I stand in an inn, awaiting my call into the Wizards' Tower, where I shall recount my adventures and be judged on the merits of my account. Let the adventures of discovery continue, with a compassion and curiosity that ennobles the soul. The road goes ever on.

"Enter Ionia, the cradle of thought
The architecture of understanding"
– Tuomas Holopainen (Nightwish 2015), "The Greatest Show on Earth"

adaptationism: The scientific view that the vast majority of physical, psychological or behavioural traits of complex organisms are the result of biological adaptation by natural and sexual (or possibly, group) selection. The view has caused some controversy in evolutionary biology and psychology, with implications for the study of the human mind.

Asperger's Syndrome (AS): A milder form of autism, derived from the name of Hans Asperger, the Viennese psychologist who first described children with autistic features on the Continent. This subtype of autism has been recognised in the DSM-IV but the new edition, DSM-5 has eliminated it and subsumed people belonging to this category under the wider umbrella term of autism spectrum disorders (ASD). The other classification of diseases, the ICD-10 still retains the separate diagnosis of Asperger's (F84.5).

autism (ASD, ASC): Autism, or autism spectrum disorders are a set of changes in the human mind-body that puts it on a different developmental trajectory. For the purposes of this dissertation, I conceive of autism as a distinguishable human developmental variety with highly heterogeneous expressions in individual human beings. Some psychologists advocate the use of the term ASCs, or autism spectrum conditions instead of "disorders" so as not to stigmatise autistic individuals. "People on the spectrum" is a synonym which emphasises the wide variety of different abilities and ranges of functioning autistic people exhibit.

Broader Autism Phenotype (BAP): the phrase is used to illustrate the idea that parents and grandparents of diagnosed autists also show some autistic traits, albeit on the subclinical level, suggesting that two people with subclinical traits can, due to assortative mating, deliver children in whom these traits combine can develop more pronounced symptoms of autism.

Diagnostic and Statistical Manual of Mental Disorders (DSM): The so-called "Bible" of psychiatrists and psychologists, this volume, published by the American Psychological Association, is an encyclopaedia which taxonomically lists all the psychological traits, symptoms and syndromes deemed clinically significant by the community of psychologists.

fiction: Fiction is a genre of narrative which deals with the counterfactual, with events that did not happen in the primary world of humankind. It is often entirely a figment of the imagination, with elements, motifs, themes and characters that are not found in the reality of the writers and readers of the narrative. Even in its most realistic mode, fiction is devoted to the illusory reality effects that the discourse of documentary writings, such as autobiographies, histories or other accounts provide. A fictional narrative relies on the audience's capability to imagine scenes which did not occur to imaginary characters who are described to behave in recognisably human ways. Often, this means that fictional characters act in accordance with real-life mental behaviour and physical actions which convey their state of mind and which help them to reach their goals, to resolve their internal and external conflicts as defined by the narrative design. Autistic people have a hard time conceptualising certain fictional narratives precisely due to their imaginative status, and they might exhibit difficulties in the narrative comprehension of the fictional character's state of mind as a result of their own unfamiliarity with conventions of genre, fiction, and neurotypical scripts and schemata of behaviour.

mirror neurons, the Mirror Neuron System (MNS): a set of neurons dedicated to the representation of actions of an organism and its conspecifics. Mirror neurons activate when an animal performs an action, or when it sees another animal perform it. The Mirror Neuron System aids in social and cultural learning. It is hypothesised to be related to the Theory of Mind-mechanism and higher-order empathy. Its disorder is suspected to be playing a part in the development of autism.

modularity of the mind: A view within psychology and philosophy that the human mind consists of a number of separate mechanisms, evolved to solve particular adaptational problems. The theory of existing, innate modules, especially for the higher faculties of the human mind caused controversy in and outside of psychology due to the misconception that it supports genetic and evolutionary determinism, as the modularity thesis claims that certain behaviours and predilections are innate and hardwired into the human psyche. The converse of this position is that the human mind is a general-purpose learning mechanism, more malleable by experience than the modular view would allow.

narrative: a genre of discourse which captures the felt experiences and cultural identities of sufficiently human-like agents in a specific storyworld, situated spatially and temporally. A

narrative defines cause-and-effect relationships as they relate to the human condition in all of its forms. It is a mode of speaking that translates easily into any genre: it can be factual and fictional, it might be historic or fantastic, it may be realistic or fanciful, it may present human psychology in great detail, or it could describe the experiences of organisms alien to our own way of thinking. Narrative is, by definition a product of a situated activity which codifies individual or collective perspectives on a natural or social event. Narrative is remarkable because it diverges from the canonical state of affairs: it is usually produced when a person or community experiences a change in their status, behaviour and daily life, or when it faces a hermeneutic impasse. Narrative is a cognitive tool: it seeks to make changes meaningful for the community which experiences it, and it attempts to integrate the microcosm of the community into the macrocosm of natural phenomena and wider societal influences. Narrative is a travelling discourse, it encompasses many different media, and therefore its expressions are highly conventionalised by the practitioners of the media it appears in.

narrativity: a scalar property according to which any given culturally mediated artefact possesses story-like qualities, insofar as they feature humanoid protagonists who experience an imbalance or disruption in a textually crafted world and perform actions to produce temporally located events in the storyworld.

neurotypical (NT): A word coined by the neurodiversity movement for people whose minds follow a typical developmental trajectory (in this context: non-autistic people).

Theory of Mind (ToM): A hypothesised faculty of the human mind, which is responsible for treating human people as thinking beings and not objects. Its module (ToMM) is a neural mechanism that attributes beliefs, feelings and other mental content to living beings from the biosemiotic cues (facial expressions, tone and pitch of voice, posture, etc.) it processes.

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Had a dream to understand
A single grain of sand
He gave birth to poetry
But one day'll cease to be
Greet the last light of the library"
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"The thought of my family's graves was the only moment I used to experience true love
That love remains infinite, as I'll never be the man my father is […]
I see all those empty cradles and wonder
If man will ever change

I, too, wish to be a decent man-boy but all I am
Is smoke and mirrors
Still, given everything, may I be deserving…"
– Tuomas Holopainen (Nightwish 2011), "Song of Myself"

"Mother
I am always close to you
I will be waving every time you leave
Oh, I am you

The care, the love, the memories
We are the story of one

Father
I am always close to you
I will be waving every time you leave
Oh, I am you
The care, the love, the memories
You are forever in me"
– Tuomas Holopainen (Nightwish 2015), "Our Decades in the Sun"