



UNIVERSITY OF
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What reading fiction can do: The value of literature in challenging deficit-based understandings of autistic people

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy

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List of Abbreviations

AAC	Augmentative and Alternative Communication
ABA	Applied Behaviour Analysis
ADHD	Attention Deficit Hyperactivity Disorder
ASAN	Autistic Self Advocacy Network
AQ	Autism Quotient
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5 th Edition
E-S	Empathising-Systemising
ED	Executive Dysfunction
EMB	Extreme Male Brain
GCSE	General Certificate of Secondary Education
IQ	Intelligence Quotient
<i>M</i>	Arithmetic Mean
PBS	Positive Behaviour Support
PGCE	Postgraduate Certificate in Education
PTSD	Post-Traumatic Stress Disorder
QT	Quick Test
RMET	Reading the Mind in the Eyes Test
<i>SD</i>	Standard Deviation
ToM	Theory of Mind
TEACCH	Treatment and Education of Autistic and Communication-Handicapped Children
WAIS	Wechsler Adult Intelligence Scale
WAIS-R	Wechsler Adult Intelligence Scale Revised
WCC	Weak Central Coherence

Abstract

This thesis qualitatively explores what reading can tell us about the largely deficit-focused models that psychology currently offers to understand autism. There is a specific focus on exploring how reading might overcome dominant ways of thinking about social differences and how this can then be implemented to challenge stigmatised views towards and within autistic people.

Due to pre-existing assumptions that autistic people typically dislike fiction as a result of its inherent social nature, the everyday reading habits and preferences of autistic adults in comparison to non-autistic adults were initially explored (Chapter 2). While the autistic participants in Chapter 2 tended to prefer fiction and non-fiction equally, we¹ found that both groups enjoyed and engaged with fiction in their everyday lives. When asked about future shared reading designs, the autistic participants indicated a preference for smaller groups, providing texts ahead of time and adapting the reading aloud method to minimise social tensions and reduce recollections of negative school experiences.

We then explored an adapted shared reading design (Chapter 3) with four autistic – non-autistic pairs who came together for 4 weekly, one-hour discussions. Concerns with being read aloud to were addressed by having participants read the literary text in advance alongside the completion of a structured diary to record their reading reflections. Diaries were reintroduced during the weekly sessions to facilitate discussion around the book. Findings revealed that this adapted shared reading design seemed to elicit the same advantages as traditional shared reading designs. Specifically, within each pair a move was identified from participants starting with a sense of group difference towards a much more nuanced exploration of their subtler differences within a broader, felt sense of human similarity.

Chapter 4 explores the diary responses to the literature collected as part of the study described in Chapter 3, with the inclusion of additional participants for data saturation. Findings indicated that autistic and non-autistic participants approached the literature in similar ways. However, it was found that the autistic participants tended to show a greater ability to hold onto more internal representations, detail and possibilities at once and to respond with and to them at greater depth than the non-autistic participants had typically demonstrated. Chapter 5 then compared serious

¹First person plural is used for continuity with published chapters.

literature and non-fiction and to consider which might be best suited for use with autistic adults in future shared reading designs. Results suggested that the literary texts enabled participants to actively think, feel and experience a text as a felt reality, while non-fiction generally failed to move participants beneath the surface of the text. Within Chapter 5, the autistic and non-autistic participants again seemed to read in largely similar ways. However, autistic participants tended to continue holding onto detail beyond the reading experience by recalling specific characters or situations, while the non-autistic participants seemed to reduce their experience down to extract key ideas and information

This work has contributed to understandings of the different ways autistic and non-autistic adults read different kinds of texts and how this can better inform us about nuanced social differences between autistic and non-autistic people. Collectively, the thesis findings challenge the over-simplified deficit-based ways of thinking about autism that have come to characterise how psychology thinks about the condition. This work demonstrates the value of inter-disciplinary work in rehumanising explorations of autistic people and human social abilities more broadly.

Declaration

This thesis is the result of my own work. The material contained in the thesis has not been presented, nor is currently being presented, either wholly or in part for any other degree or qualification.

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I am extremely grateful to the participants who gave their time to take part in this body of research. This work exists because of the time and dedication you all gave. It was my absolute pleasure to embody your perspectives through the process of analysis, to feel moved by your own experiences of feeling moved by the texts you read and to be able to share some of those experiences here.

With thanks and love to my family. To my parents, Ann and Colin, without your practical and emotional support at various points throughout my life and especially during this degree I would not be writing this thesis. Mum, I am especially thankful to you for having always paved the way for me when situations and institutions were otherwise inaccessible. To Jake, know that you are living proof of how creative, insightful and deeply feeling autistic people can be, you have always been my main inspiration to challenge the deficit narrative. To my grandad, Peter, who is not here anymore, but whose unwavering belief in me helped me to get through the toughest days of writing this thesis. And lastly, to Alex, for making sure I continued to build and live a life outside of my degree and because without you the initial idea behind it might never have sparked in me.

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Dissemination

This thesis is submitted in fulfilment of the conditions for a PhD by published papers. In line with the University of Liverpool guidelines for submission of thesis by published papers, Chapters 2-5 are in the format of journal article manuscripts. Chapters 2, 3 and 4 have been peer-reviewed and accepted for publication and Chapter 5 is currently under review. Each Chapter is self-contained and the thesis comprises of four separate but inter-related research studies which explore the value of reading fiction in overcoming deficit-based understandings of autism. As a result of each self-contained Chapter contributing to the overall aims of the thesis, some literature is replicated. First person plural is used throughout the thesis to maintain continuity with published Chapters. Brief forewords are provided at the beginning of each Chapter to explain how they link to the preceding Chapters. A brief summary is presented at the end of each Chapter. Author contribution details are also presented at the beginning of each chapter.

Contributor statement

Melissa Chapple was primarily responsible for the conception and design of the studies in this thesis. Professors Rhiannon Corcoran, Philip Davis and Josie Billington provided additional guidance for the conception and design of the studies.

Melissa Chapple was responsible for the data collection, data analysis, data interpretation, and drafting of the initial manuscripts. Professors Rhiannon Corcoran, Philip Davis and Josie Billington assisted with sections of data analysis and interpretation where the data required additional perspectives and where expertise were needed for the method of close literary reading analysis that was implemented. Melissa Chapple is first author on all peer-reviewed manuscripts.

Melissa Chapple was primarily responsible for critical revisions of submitted manuscripts. Professors Rhiannon Corcoran, Philip Davis and Josie Billington provided additional feedback on Chapters 2-5.

Empirical work in peer-reviewed publication form

Chapter 2 was accepted for publication in *Research in Developmental Disabilities* on 30.05.2021 (Manuscript ID: RIDD-D-20-00531):

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Empirical work under review

Chapter 5 was submitted as an original research manuscript to *Frontiers in Psychology* on 23.07.2022 (Manuscript ID: 1001268) and is awaiting reviewer feedback.

Chapter 1

Background and literature review

1.1. Foreword

This chapter introduces the relevant background literature, focusing on the theories and research that are critically evaluated throughout the thesis. It begins by exploring what it means to be autistic before critically exploring the main historical medical roots of the term and deficit-based theories and research that have resulted. The chapter then introduces social approaches to understanding autism and the stigma experienced by autistic people, with a particular focus on the double empathy problem and neurodiversity movement. From here, the value of exploring reflections from narrative fiction, and particularly serious literature, in furthering understandings of autistic people and in promoting mutuality between autistic and non-autistic readers is explored. Each subsequent chapter of the thesis will further discuss literature relevant to the specific questions being explored.

The thesis author is an autistic adult who pursued the thesis in light of feeling that her own socio-emotional experiences did not align with the deficit-based thinking that currently dominates psychological understandings of autism. Through this background and literature review, she has constructed a narrative which aims to critique deficit-focused thinking about autism and to instead highlight the wider impacts of this type of thinking on the wider autistic community. Similarly, the author has drawn on previous research together with her own experiences in order to put forward a case for the use of reading reflections to develop more humanised understandings of nuanced autistic differences. Specifically, the author has herself felt that immersive fiction has been able to offer her a more felt and engaging social experience for complex self and social development. The author had a pre-existing sense that her own experiences of overload and difficulties in drawing fast-paced social conclusions were not simply cognitive deficits to be corrected, but instead represented a tendency to attend to and feel for multiple things at once. Therefore, the author was interested in how fiction, through its ability to encourage slower and more complex socio-emotional considerations, might be able to harness this tendency to hold onto multiple things at once without risking feelings of social or sensory overload.

1.2. A critical review of deficit understandings of autism

1.2.1. Difficulties defining autism

Since conceptualisations of autism began in the 1940s (Asperger, 1944, as cited in Frith, 1991; Kanner, 1943), there has been a growing interest in furthering understandings of what it means to be autistic (Fletcher-Watson & Happé, 2019; Verhoeff, 2013; Waltz, 2013). At present, diagnostic prevalence rates estimate that around 1 in every 100 people are autistic (National Autistic Society, 2022; World Health Organisation, 2022). Actual prevalence rates are likely to be even higher (Charman, 2002) due to the long-standing under-diagnosis of autism within marginalised groups (Begeer, Bouk, Boussaid, Terwogt & Koot, 2009; Cooper, Smith & Russell, 2018; Morgan-Trimmer, 2022). However, despite its growing relevance in society, there is still much debate over what *autism* actually means (Botha, 2021; Chapman, 2020; Hens, 2019; Milton, 2017). Approaches to defining autism have often tended to point to possible biological underpinnings (Bai et al., 2019; Baron-Cohen, 2008; Lenroot & Yeung, 2013), with most approaches agreeing that autism is present from birth and is life-long in nature (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019; National Autistic Society, 2022). However, there is currently no established cause or identifiable generic marker of what makes a person autistic (Chapman, 2020; Glynne-Owen, 2010; Happé, Ronald & Plomin, 2006). As a result, autism research has tended to focus on understanding autistic differences in cognition and resultant, observable behaviours (Baron-Cohen, 2008; Botha, 2021; Fletcher-Watson & Happé, 2019). Attempts to understand these differences have largely focused on the different social and sensory aspects of autistic perception (Bogdashina, 2016; Chapman, 2020; Fletcher-Watson & Happé, 2019; Milton, 2012). However, beyond the broad assumption that autistic people have some, unidentified, biological difference, leading to differences in their cognitive processing styles, attempts to further narrow down understandings of autism risk over-simplifying the complex human experiences of autistic individuals (Fletcher-Watson & Happé, 2019; Kapp, 2020).

This complex individuality means that autistic people are a highly heterogenous group (Botha, 2021; Glynne-Owen, 2010; Lenroot & Yeung, 2013), experiencing the world around them and their traits in different ways from one another. Similarly, there are difficulties in distinguishing between traits associated with the condition that we call autism and those associated with other neurodivergent

conditions, such as attention deficit hyperactivity disorder (ADHD) and dyspraxia (Antshel & Russo, 2019; Harkins, Handen & Mazurek, 2022; Kaur, Srinivasan & Bhat, 2018; Lenroot & Yeung, 2013). While autistic people are believed more likely to have other neurodivergent conditions (Brewer & Murphy, 2016; Lenroot & Yeung, 2013), the overlap in traits, together with the high heterogeneity of autism, can make it hard to infer whether autism exists as a separate, distinct condition (Botha, 2021; Lenroot & Yeung, 2013). It is then important for explorations of what autism means to remain broad and inclusive of individual differences (Botha, 2021; Milton, 2017; Milton & Bracher, 2013). Attempts to further understand autistic people then ought to move away from the assumption that a single or set group of traits can summarise what it means to be autistic (Botha, 2021; Chapman, 2020). The lack of value in identifying core features of autism has been a common issue for clinicians and researchers alike and has led to a wide-spread questioning of the validity of autism as a condition (Botha, 2021; Happé et al., 2006; Mottron, 2021; Timimi, 2011). For some researchers, this had led to conclusions that there should be a move towards diagnosing more homogenous subgroups of autism, or to dismiss the condition altogether (Happé et al., 2006; Frith, 2021; Mottron, 2021; Timimi, 2011). However, many researchers continue to highlight the importance of autism as an identity of personal, social and political relevance (Botha, 2021; Chapman, 2020; Kapp, Gillespie-Lynch, Sherman & Hutman, 2013). These researchers argue that heterogeneity should instead be taken to show that autism is a culturally influenced construct and not something objective to be discovered (Botha, 2021; Chapman, 2020; Milton, 2017). It is then more advantageous to think about autism as some sort of commonality that encompasses a group of diverse people, in a similar way to how we think about gender (Fletcher-Watson & Happé, 2019).

1.2.2. The medical model of autism

Autism was first introduced as a diagnosis in the 1980s (American Psychiatric Association, 1987), before which it had been conflated with schizophrenia diagnoses (American Psychiatric Association, 1968). Modern medical definitions of autism continue to evolve over time, with diagnostic criteria being regularly revised in line with changing understandings of autism (Waltz, 2013; Whiteley, Carr & Shattock, 2021). The current DSM-5 defines autism as a psychiatric condition resulting in: (1) social communication and interaction difficulties and (2) restricted, repetitive

behaviours, interests or activities (American Psychiatric Association, 2013). The medical model of disability takes a biomedical approach to understanding specific disabilities, defining conditions such as autism based on assumed inherent impairments (Milton, 2017; Waltz, 2013). The resulting focus is then on identifying key ‘symptoms’ associated with a disability in order to explore possible causes and develop prevention and cure strategies (Kapp, 2020; Milton & Bracher, 2013; Waltz, 2013). These eradication strategies are then seen as preventing or reducing ‘suffering’ from impairments (Milton & Bracher, 2013; Waltz, 2013). Despite a growing move towards self-identification as autistic as an alternative to diagnosis (Angulo-Jiménez & DeThorne, 2019; Lewis, 2016), medical diagnoses of autism remain common in modern society and are often a requirement for accessing support (Leedham, Thompson, Smith & Freeth, 2020; Mogensen & Mason, 2015). This continued reliance on diagnosis means that the medical model continues to influence public perceptions of autism (Kapp, 2020; Kenny et al., 2016; Waltz, 2013).

One core issue with this model is the positivist approach it takes to understanding psychiatric diagnoses (Botha, 2021; Chapman, 2020; Glynne-Owen, 2010). This approach treats autism as a natural phenomenon, which can then be objectively discovered through scientific enquiry (Botha, 2021; Chapman, 2020; Glynne-Owen, 2010; Kourti, 2021). Knowledge development then becomes centred around uncovering more objective truths about autism over time (Chapman, 2020), seeing each new development as a step closer to realising a more accurate understanding of the phenomenon. This view fails to account for the social construction that has occurred across time, having influenced current thinking about autism (Botha, 2021; Kapp et al., 2013; Kourti, 2021). This represents a broader issue within psychiatry, where concepts that are framed as conditions or ‘disorders’ fail to incorporate their socially constructed nature and lack of distinct biological markers (Allsopp, Read, Corcoran & Kinderman, 2019; Kinderman, 2019; Kinderman, Read, Moncrieff & Bentall, 2013). These human phenomena, such as autism, require a similarly human approach to knowledge production and the subsequent developments of any disability support that might be needed (Kinderman, 2019; Kinderman et al., 2013; Milton & Bracher, 2013). This is because attempts to understand complex human experiences through the same approach that is used to understand physiological disease results in a pathologisation of individual human experiences and behaviour (Kinderman, 2019; Kinderman et al.,

2013). Across psychiatry, this issue means that the possibility of finding value in the diversity of others' experiences is reduced (Kinderman, 2019; Kinderman et al., 2013).

1.2.3. Key developments in the medical history of autism

To understand the pervasive influence of the medical model on understandings of autism, it is important to understand how modern medical conceptualisations were derived. This is particularly important given that modern diagnostic criteria still largely take influence from the original criteria suggested for the assessment of autism and its historical subtypes (Carpenter, Happé & Egerton, 2019; Verhoeff, 2013; Waltz, 2013). Although autism did not appear as a formal diagnosis until the 1980s (American Psychiatric Association, 1987), it was first classified by clinicians during the 1940s (Asperger, 1944, as cited in Frith, 1991; Kanner, 1943).

1.2.3.1. Kanner's autism and Asperger syndrome

In response to public agendas for identifying children who were deemed as not typically functioning within education (Evans, 2014), Leo Kanner had begun working with children in America who were believed to have atypical development (Waltz, 2013). It was in his clinic that Kanner (1943) then identified a group of children whom he believed to have a distinct psychiatric condition, which he referred to as autism (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019; Waltz, 2013). The term *autism* had originally been coined by Eugen Bleuler in 1908 to describe what he believed to be a symptom of schizophrenia, where patients were seen as withdrawing from the external world, becoming absorbed within themselves (Baron-Cohen, 2008; Verhoeff, 2013; Waltz, 2013). Kanner's adoption of the term to describe the children he observed reflected his perception of social distance amongst them (Verhoeff, 2013). However, Kanner (1943) differentiated the concept by framing the children as having never been socially engaged, where Bleuler had used it to represent later social withdrawal (Verhoeff, 2013). Kanner's account of autism came to be known as *classic autism* over time, which defined the condition on the basis of socio-affective withdrawal, hyper-sensitivity to sensory stimuli and an insistence on sameness that was seen as leading to skills in rote memory (Baron-Cohen, 2008; Kanner, 1943; Verhoeff, 2013; Waltz, 2013). The observed desire for sameness was further perceived by Kanner as leading to 'extreme autistic aloneness'

in what he believed was an attempt by the children to remain undisturbed in their routines (Verhoeff, 2013). Kanner's conceptualisation together with connotations that had stemmed from Bleuler's use of the term led to assumptions that autism referred to a group of people who were deliberately turning away from socio-affective experiences in favour of self-absorption (Waltz, 2013).

Around the same time period, Hans Asperger made similar observations in children attending his clinic in Austria, which he had also referred to as autism (Asperger, 1944, as cited Frith, 1991; Waltz, 2013). It is thought that the overlap in findings between Kanner and Asperger came from Kanner having an awareness of Asperger's work and terminology (Silberman, 2017; Waltz, 2013). While the two clinicians had pointed to many of the same observed traits (Asperger, 1944, as cited in Frith, 1999; Baron-Cohen, 2008; Kanner, 1943), Asperger's work differentially focused on perceived enhanced language skills and high intelligence amongst his patients (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019). After Asperger's ideas were brought to English-speaking countries (Frith, 1991; Wing, 1981), the influence on Western psychiatry led to the inclusion of *Asperger syndrome* as a separate subtype within the wider categorisation of *autism* (American Psychiatric Association, 1994). The condition was differentiated from classic autism by applying the diagnosis to patients who did not have specific learning difficulties or language delays (Baron-Cohen, 2008; Waltz, 2013). However, the condition was ultimately removed as a diagnosis with the introduction of the DSM-5 (American Psychiatric Association, 2013), due to the large overlap between the condition and other subtypes of autism that brought into question the validity of its use (Verhoeff, 2013).

These early understandings and the clinicians that coined them were arguably limited by the societal norms that existed at the time (Waltz, 2008, 2013). This particularly limited considerations of social environments and cultural norms when interpreting the behaviours of autistic people (Blacher & Christensen, 2011; Waltz, 2008, 2013). However, there was a growing focus at the time on the ideologies of eugenics (Silberman, 2017; Waltz, 2013), which focused on encouraging the reproduction of so-called desirable human traits (Baron-Cohen, Klin, Silberman & Buxbaum, 2018; Czech, 2018; Waltz, 2013). This led to a resulting move towards the agenda of preventing psychiatric conditions like autism (Baron-Cohen et al., 2018; Czech, 2018; Shalvey, 2021; Silberman, 2017; Waltz, 2013). Such societal pressures, including from the Nazi regime that was in power in Austria at the time,

led to assumptions that Asperger's focus on traits of typical or superior functioning, such as high intelligence and language capabilities, may have served to protect his patients from Nazi euthanasia programmes (Waltz, 2013). However, recent revelations indicate that Asperger had actually been complicit in referring autistic patients whom he judged as having co-occurring learning and language difficulties to hospitals that were following Nazi euthanasia orders, where patients were then subsequently murdered (Baron-Cohen et al., 2018; Czech, 2018; Shalvey, 2021; Sheffer, 2018; Sher, 2020).

1.2.3.2. Issues surrounding diagnostic subtypes

Before its eventual removal as a diagnosis, there were concerns within the autistic community that distinguishing Asperger syndrome from autism may result in a caste system within which lower perceived levels of disability would be deemed favourable (De Hooge, 2019; Kapp & Ne'eman, 2020; Kenny et al., 2016). Although it has since been removed as a diagnostic category (American Psychiatric Association, 2013), the increased use of *high-functioning* and *low-functioning* autism to describe autistic people reinforced these concerns (Hens, Robeyns & Schaubroeck, 2019; Sequenzia, 2012; Silverman, 2008). Specifically, high-functioning autism was used to refer to individuals who were seen as functioning within everyday life due to their lower support needs and has often been used interchangeably with Asperger syndrome (Hens et al., 2019; Ruiz Calzada, Pistrang & Mandy, 2012; Silverman, 2008). As a result, being labelled as high-functioning risked undermining a person's need for support and any disability they experienced (Hens et al., 2019; Silverman, 2008). By contrast, low-functioning was used to refer to individuals with high perceived levels of disability, supposedly reducing their ability to function within everyday life (Baron-Cohen, 2000; Sequenzia, 2012). Therefore, the label risked creating stigma by implying reduced worth and capability within society (Sequenzia, 2012; Silverman, 2008). While these labels were not formal diagnoses, they were commonplace within medical environments and autism research (Baron-Cohen, 2000, 2008). Similarly, the use of typologies overall to describe autistic people are broadly criticised for creating severity assumptions based on a person's ability or inability to be productive within modern society (Hens et al., 2019; Kapp & Ne'eman, 2020; Sequenzia, 2012; Silverman, 2008).

For the development of the DSM-5, autistic advocates from the Autistic Self Advocacy Network (ASAN) lobbied with the relevant workgroup to try and overturn the decision to include an autism severity scale as part of the new criteria (Kapp & Ne’eman, 2020). While this overturn would have reduced problematic severity assumptions, the DSM-5 chose to instead employ criteria that dichotomised autism into types 1-3, where 3 indicated the highest level of severity (American Psychiatric Association, 2013; Chapman, 2020; Kapp & Ne’eman, 2020). In this instance, the decision to stick with a severity scale centred around the American Psychiatric Association’s request that all conditions in the DSM-5 have an included severity scale (Kapp & Ne’eman, 2020). However, the case is still often made for maintaining severity understandings of autism due to the belief that the right typologies could lead to increased homogeneity (Frith, 2021; Mottron, 2021).

1.2.3.3. The influence of Lorna Wing

The work of Kanner (1943) and later Asperger (Frith, 1991; Wing, 1981) led to a long-standing focus on social impairment amongst autistic people. One particular study that further influenced previous understandings of autism was Wing’s and Gould’s (1979) study. Results from this study were used to categorise autism into 3 areas of substantial difficulty: (1) social interaction, (2) social communication and (3) social imagination (Wing & Gould, 1979). These categories later became known as the triad of impairments (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019). Additionally, Wing and Gould (1979) continued to build upon the idea of extreme aloneness by assessing the willingness of autistic children to engage with social contact (Fletcher-Watson & Happé, 2019; Wing & Gould, 1979). Despite a modern move away from understanding autism based on the triad of impairments (Fletcher-Watson & Happé, 2019), research has continued to focus on socio-communicative impairments (for example: Cross, Farha & Atherton, 2019; Golan & Baron-Cohen, 2006; Kaur, Eigsti & Bhat, 2021) and difficulties with social imagination (see examples: Chizary, Sotodeh Asl, Makvand Hosseini & Sabahi, 2020; Ten Eycke & Müller, 2015, 2018).

Wing’s (1981) later development of the spectrum view of autism further developed understandings of autism (Baron-Cohen, 2008). This approach moved away from positioning autism as a categorical condition (Baron-Cohen, 2008), which had resulted in assumptions that autism was rare and distinct from the wider

population (Baron-Cohen, 2008; Milton, 2017). Instead, the spectrum view suggested the inclusion of conditions that shared the triad of impairments, such as classic autism and Asperger syndrome, into a wider group, the autistic spectrum (Baron-Cohen, 2008; Wing, 1981). The autistic spectrum became an umbrella term, encompassing various traits relating primarily to difficulties in social interaction and communication (Fletcher-Watson & Happé, 2019; Wing, 1981). Similarly, autistic traits became conceptualised as broader human traits present across the population, with some individuals having a distribution of the traits that met the diagnostic threshold, while others could have sub-clinical presentations (Baron-Cohen, 2008; Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001). This change accounted for the high heterogeneity between autistic people with the same diagnosis (Lenroot & Yeung, 2013). The spectrum view also enabled the consideration of strengths, rather than just difficulties, when thinking about autistic differences (Fletcher-Watson & Happé, 2019). The move also led to the inclusion of individuals who had previously been below diagnostic thresholds (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019). As a result, diagnostic rates subsequently increased from around 1 in 1,000 before the spectrum view was introduced, to around 1 in 500 after its initial implementation (Baron-Cohen, 2008).

While the spectrum view of autism is still commonly used to understand autism (American Psychiatric Association, 2013), debates exist around whether spectrum explanations should extend to broader behaviours in the wider population (Fletcher-Watson & Happé, 2019). Specifically, claims that everybody is ‘a little bit autistic’ have resulted, creating concern amongst the autistic community around the undermining of disability and autistic culture (Fletcher-Watson & Happé, 2019). Additionally, the spectrum view has been criticised for being too linear (Hearst, 2015, as cited in Fletcher-Watson & Happé, 2019), depicting the traits of both typical and autistic populations as scales that neatly join onto one another (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019). This then risks resulting in assumptions that autistic people can be more or less autistic, furthering problematic severity assumptions (Fletcher-Watson & Happé, 2019). Instead, the variability of experience across autistic people indicates a need to think about autism and autistic people in a more dimensional way (Hearst, 2015, as cited in Fletcher-Watson & Happé, 2019), understanding that two autistic people are very unlikely to be similar

in the exact same ways or to be significantly different from all non-autistic people (Fletcher-Watson & Happé, 2019).

1.2.4. Cognitive theories of autism

In addition to attempts to understand autism through a biomedical lens, there have also been attempts to identify core cognitive differences amongst autistic people (Baron-Cohen, 1997, 2002; Frith, 1989, as cited in Happé, 1999; Murray, Lesser & Lawson, 2005; Ozonoff & Jensen, 1999). These theories draw from medical definitions to understand the cognitive differences that are seen as driving behavioural differences amongst autistic people (Baron-Cohen, 2008; Bottema-Beutel, Kim & Crowley, 2019). As a result, theories have tended to focus on explaining (1) social difficulties and (2) restricted, repetitive interests (Baron-Cohen, 2008).

1.2.4.1. Theories of attention: Executive dysfunction, weak central coherence and monotropism

One theory which seeks to explain the medically labelled restrictive, repetitive interests observed amongst autistic people is executive dysfunction (ED) theory (Ozonoff, 1995, as cited in Hill, 2004; Ozonoff & Jensen, 1999). Executive function broadly refers to the ability to plan, execute and regulate actions (Hill, 2004), where *actions* include movement, attention and thought (Baron-Cohen, 2008). The theory proposes that ED is a core, defining feature of autism (Baron-Cohen, 2008; Ozonoff & Jensen, 1999), where ED then refers to an inability to plan actions and shift attention (Baron-Cohen, 2008; Hill, 2004). Arguably, the result is an observed preference for sameness to accommodate difficulties with changing attention onto new activities (Baron-Cohen, 2008). While the theory focused more on non-social behaviours of autism (Baron-Cohen, 2008), it has also been argued to apply to the planning, execution and regulation of social behaviour (Demetriou, DeMayo & Guastella, 2019; Hill, 2004). Hill's (2004) review of early ED research concluded that findings have consistently shown deficits in planning, inhibiting attentional interference, spontaneity and in self-monitoring thoughts amongst autistic people. A more recent meta-analysis (Demetriou et al., 2018) shows a medium effect size across research for ED amongst autistic participants, indicating autistic neurocognition coincides with attentional differences. However, findings are mixed

(Baron-Cohen, 2008; Demetriou et al., 2018), with experiences of ED amongst autistic people proving to be as heterogeneous as other experiences of being autistic (Demetriou et al., 2019; Demetriou et al., 2018). The theory has also been critiqued for taking a negative view of autistic interests through failing to explore the personal meanings behind them (Baron-Cohen, 2008). Similarly, the theory fails to explore the implied but overlooked contrasting executive functioning skill to inhibit other stimuli during a task amongst individuals who experience ED (Baron-Cohen, 2008).

In comparison, the weak central coherence (WCC) theory (Frith, 1989, as cited in Happé, 1999) attributes restricted, repetitive interests to a tendency amongst autistic people to attend to smaller facets of information, referred to as local processing. In earlier versions of the theory (Frith, 1989, as cited in Happé, 1999), this was framed as meaning that autistic people experienced global processing deficits (Baron-Cohen, 2008; Happé, 1999). Specifically, it was suggested that autistic people would have some difficulties integrating smaller chunks of information into a coherent whole, leading to difficulties understanding broader contexts (Baron-Cohen, 2008; Frith, 1989, as cited in Happé, 1999). Under this explanation, autistic people would then have difficulty generalising information across related categories of knowledge or experiences (Baron-Cohen, 2008). However, research on the generalisation skills of autistic people have shown mixed findings (Carruthers, Pickles, Slonims, Howlin & Charman, 2020; Hartley, Bird & Monaghan, 2020). Additionally, the original hypothesis was criticised for failing to explain at which level autistic people may struggle to process information as a whole (Baron-Cohen, 2008), with Happé (1999) arguing that it is implausible to imply that autistic people may not perceive everyday life in a coherent, global way.

More recent iterations of the theory reframe the original assumptions to highlight a processing bias for detail amongst autistic people, which is then preferentially attended to (Happé & Frith, 2006). Research has supported these reframed assumptions, showing that autistic people can perform equally to non-autistic people on central coherence tasks, but require more time to do so (Wałęcka, Wojciechowska & Wichniak, 2022). The theory has also been praised for taking a more balanced view in comparing autistic and non-autistic cognitive differences (Baron-Cohen, 2008; Happé, 1999). While those with a local processing bias might struggle to understand some wider contextual information (Happé, 1999), people with global processing biases would do so at the expense of attending to detail

(Baron-Cohen, 2008). Furthermore, the theory accounts for heterogeneity within the autistic community by positioning these biases as cognitive styles that likely have a normal distribution across the human population (Happé, 1999). This means that both autistic and non-autistic people alike can have either processing style (Happé, 1999), although the theory does position local biases as more typically occurring amongst autistic people (Frith, 1989, as cited in Happé, 1999; Happé & Frith, 2006).

The theory of monotropism further builds upon the WCC theory (Murray et al., 2005) employing a less pathological approach (Murray, 2020). The founders of the theory (Dinah Murray, Wenn Lawson and Mike Lesser) were autistic people seeking to better understand the in-depth interests that autistic people commonly report (Warren, 2021), often referred to as autistic ‘special’ interests. In this way, the theory sought to explain traits experienced and described by autistic people, as opposed to trying to understand observed autistic differences of behaviour as perceived through a non-autistic perspective (Lesser & Murray, 2020). The theory explains that autistic individuals may be more likely to have narrow interest systems, which subsequently direct and sustain attention onto detailed and often niche areas of interest (Murray et al., 2005). As compared to the WCC theory, monotropism theory does not assume a related difficulty in generalising information (Murray et al., 2005). Rather, the theory highlights that these narrowed interest systems are likely to result in a reduced ability to focus on multiple tasks at once (Baron-Cohen, 2008; Murray et al., 2005). As a result, the theory then presents similar benefits to the WCC in its ability to account for heterogeneity, with any individual, either autistic or non-autistic, able to have narrower or broader interest systems depending on individual cognition. Additionally, the theory draws attention to depths of feeling that can result from these narrower processing styles when processing socio-emotional information (Murray et al., 2005), suggesting social processing advantages. However, the theory does still position people who have narrower attention systems as struggling to ‘model other minds’, resulting in difficulties in understanding social breadth in contrast to the proposed propensity for emotional depth (Lesser & Murray, 2020; Murray, 2020).

1.2.4.2. Theories of socio-emotional deficits: The mindblindness, empathising-systemising and extreme male brain theories

One of the most pervasive theories seeking to explain the social differences observed amongst autistic people is Baron-Cohen's (1997) mindblindness theory (Dinishak & Akhtar, 2013). The theory argues that autistic people experience early delays in their theory of mind (ToM) development, leading to marked difficulties with perspective-taking (Baron-Cohen, 1997, 2008; Baron-Cohen, Leslie & Frith, 1985). Here, ToM refers to the ability to attribute mental states to self and others (Premack & Woodruff, 1978). ToM is then important in developing understandings of the intentions of others in order to subsequently empathise and predict future behaviours (Baron-Cohen, 2008). The theory argues that while autistic people eventually develop ToM skills, the developmental delay results in long-term 'degrees of mindblindness' (Baron-Cohen, 2008). It is suggested that autistic people might then find the behaviours of others to be confusing and unpredictable (Baron-Cohen, 2008). These proposed difficulties in perspective-taking are then assumed to result in difficulties making self-other comparisons (Lombardo & Baron-Cohen, 2011), due to the importance of understanding others in developing an understanding of self (Cooley, 1902). Specifically, it is suggested that we use our own perspectives to assimilate with or differentiate from the perspectives of others in order to better understand ourselves and to make predictions of our own behaviour, as well as that of other people (Lombardo & Baron-Cohen, 2011). The assumption is that non-autistic people will have some egocentrism, imposing their own perspectives onto similar Others and relying on stereotypes drawn from social schemas to predict the perspectives and behaviours of different Others (Lombardo & Baron-Cohen, 2011). In comparison, autistic people are then positioned as having extreme egocentrism, applying their own perspectives to all others, regardless of context and similarity to self (Bodner, Engelhardt, Minshew & Williams, 2015; Lombardo & Baron-Cohen, 2011). Autistic people are then seen as prioritising their own perspective, failing to account for the potential differences in understanding and feeling that others may experience (Bodner et al., 2015; Lombardo & Baron-Cohen, 2011).

However, these assumptions are contradicted by findings that autistic people more often employ an imagined third-perspective through which to view themselves (Arnaud, 2022; Burrows, Usher, Mundy & Henderson, 2017; Lind & Bowler, 2010), contrasting with findings of a bias for first-person assessments of self within Western samples (Arnaud, 2022; Burrows et al., 2017). While it could be argued that this third-person perspective is more objective, it is also more inter-personal,

requiring internalised self-other comparisons (Arnaud, 2022). Some research indicates that the bias towards third-person self-assessments is profound, with autistic people thinking through their own memories this way (Burrows et al., 2017; Lind & Bowler, 2010). This propensity appears to come from a sense amongst autistic people that they are not the most reliable judge of themselves, where non-autistic people typically consider themselves to be experts of self (Schriber, Robins & Solomon, 2014). These findings conflict with the mindblindness view of autism, while also demonstrating that deficit-based views of autism may lead to reduced self-confidence amongst autistic people. Furthermore, some autistic people do perform well on ToM tests (Frith & Happé, 1994; Gernsbacher & Yergeau, 2019; Williams, 2021). Similarly, research on non-autistic people has also shown a large variability in ToM test scores (Gernsbacher & Yergeau, 2019; Harmsen, 2019; Samson & Apperly, 2010). A review of ToM research concluded that egocentrism is a wider issue impacting all adults (Samson & Apperly, 2010). The argument is that perspective-taking requires the inhibition of interference from our own perspective and experiences, an ability that varies largely across the population (Samson & Apperly, 2010). Claims of an early developmental delay resulting in perspective-taking deficits amongst autistic people have also been contested (Gernsbacher & Yergeau, 2019; Peterson & Wellman, 2019; Williams, 2021). In particular, longitudinal research has demonstrated that autistic children show the same sequence of ToM development up to a point, with changes in ToM performance occurring later in development (Peterson, Wellman & Liu, 2005).

Baron-Cohen (2008, 2009) later developed the empathising-systemising (E-S) theory of autism, which sought to expand the mindblindness theory by also accounting for non-social traits. Original accounts of the theory proposed that autistic people experience a general empathy deficit in both cognitive empathy (ToM) and affective empathy (Baron-Cohen, 2008; Baron-Cohen & Wheelwright, 2004; Wheelwright et al., 2006). Affective empathy here is used to refer to the ability to recognise the feelings of others, to share those feelings and to respond appropriately to them (Fletcher-Watson & Bird, 2020; Rigby, Stoesz & Jakobson, 2018; Shamay-Tsoory, Aharon-Peretz & Perry, 2009). These suggested empathy deficits are believed to coincide with a cognitive preference towards processing information in a systematic way (Baron-Cohen, 2008, 2009; Wheelwright et al. 2006). Systemising refers to the observation of regularities and rules within a system

in order to predict its future functioning (Baron-Cohen, 2008). However, this definition of a system is similar to Baron-Cohen's own definition of cognitive empathy (Baron-Cohen, 2008), begging the question whether empathy can be an output of systemising. In particular, when we are faced with new social experiences, there is a tendency to draw from social scripts or schemas that enable us to generalise from our past social experiences and understandings (Baldwin, 1992; Kuethe, 1962). However, Baron-Cohen (2008) specifies that systemising is too rote to predict spontaneous socio-affective responses, resulting in empathic difficulties (Baron-Cohen, 2008, 2009). The theory suggests that everyone possesses a cognitive style that balances empathy against systemising (Baron-Cohen, 2008). Specifically, the E-S theory had proposed 5 cognitive profiles: (1) type E: higher empathy, (2) type S: higher systemising, (3) type B: balanced empathy and systemising, (4) extreme type E: significantly higher empathy with a resulting systemising deficit and (5) extreme S: significantly higher systemising, resulting in an empathy deficit (Baron-Cohen, 2008, 2009). The suggestion is that autistic people are more likely to have an extreme type S profile, and that anyone with this cognitive profile is more likely to be autistic (Baron-Cohen, 2008, 2009).

The E-S theory was expanded to include the related extreme male brain (EMB) theory (Baron-Cohen, 2008). The EMB theory sought to explain the previously misunderstood higher prevalence rates of autism diagnoses amongst males compared to females (Baron-Cohen, 2002, 2008; Fletcher-Watson & Happé, 2019), which had been observed since the initial identification of autism as a condition (Asperger, 1944, as cited in Frith, 1999; Kanner, 1943). The theory specifically proposed that females were more likely to be a type E profile and males more likely to be a type S profile (Baron-Cohen, 2002, 2009; Billington, Baron-Cohen & Wheelwright, 2007; Greenberg, Warrier, Allison & Baron-Cohen, 2018). This concept rests upon the assumption that male and female brains inherently differ in some neurological way (Baron-Cohen, 2008). These ideas are then related to autism through the suggestion that males are more likely to be autistic as type S is their typical profile, and so only one 'step' away from extreme type S (Baron-Cohen, 2008). By contrast, extending the assumptions that females are more likely to have a type E profile, they are seen as more steps away from an extreme type S profile and therefore less likely to meet clinical thresholds for an autism diagnosis (Baron-Cohen, 2002, 2008). The theory has long been criticised for its circularity and reductionist views of gender and

autism alike (Bolton, 2018; Rippon, 2019; Ridley, 2019). Additionally, the theory fails to account for the fact that medical understandings of autism and related research have historically tended to centre on males (Fletcher-Watson & Happé, 2019), meaning that less is understood about autistic people with different gender identities (Cooper et al., 2018; Fletcher-Watson & Happé, 2019). A cycle then results, where research samples are more likely to include autistic males, further developing understandings of autism that overlook the experiences of under-diagnosed gender minority groups (Fletcher-Watson & Happé, 2019). Furthermore, the neurological and genetic underpinnings of the theory are contested (Joel, 2011, 2021; Rippon, 2019). Findings instead indicate that our social environments and behaviours can influence our neurology in a way that may seem gendered due to the influence of cultural gender norms (Joel, 2011, 2021).

1.2.5. Empathy deficit research

Collectively, theories of autistic empathic deficits (Baron-Cohen, 1997, 2002, 2009) have had a lasting impact on how people typically think about what it means to be autistic (Hume & Burgess, 2021). Autism research has also experienced a long-lasting trend towards exploring these assumed empathy deficits (Brewer & Murphy, 2016; Dinishak & Akhtar, 2013; Gernsbacher & Yergeau, 2019). Early research, in line with suggestion from the E-S theory (Baron-Cohen, 2002), had concluded the presence of a broader empathy deficit amongst autistic people (Baron-Cohen & Wheelwright, 2004; Mathersul, McDonald & Rushby, 2013; Mazza et al., 2014) that encompassed both cognitive and affective empathy. However, Dziobek et al. (2008) highlight that there has been an absence of research into affective empathic experiences amongst autistic people, despite the profound belief that this is a skill autistic people lack. More recent thinking around autism and empathy has more often assumed that autistic people have average or even above-average affective empathy, alongside a cognitive empathic deficit (Rogers, Dziobek, Hassenstab, Wolf & Convit, 2007; Smith, 2009; Song, Nie, Shi, Zhao & Yang, 2019). Therefore, a particular research trend has ensued towards exploring autistic experiences of cognitive empathy in particular (for example: Dziobek et al., 2006; Dziobek et al., 2008; Icht, Zuckerman, Ben-Itzhak & Ben-David, 2021; Senju, Southgate, White & Frith, 2009; White, Hill, Happé & Frith, 2009). Empirical enquiry into cognitive empathy amongst autistic people has largely focused on ToM and on the recognition

of emotions expressed by other people (Brewer & Murphy, 2016; Gaigg, 2012; Bölte & Poustka, 2003; Rigby et al., 2018; Tanaka et al., 2012). A review of the research in this area concluded that autistic people show less recognition of facial emotions, less imitation of facial expressions and direct their own emotional expressions towards others less often than non-autistic people (Gaigg, 2012). However, other reviews and meta-analyses have found mixed results when exploring the emotional recognition abilities of autistic people (Harms, Martin & Wallace, 2010; Icht et al., 2021). These mixed findings suggest that there is not enough empirical backing to conclude that autistic people struggle to recognise the emotions of others (Brewer & Murphy, 2016).

Furthermore, research has shown that findings of emotional recognition difficulties amongst autistic participants are a result of alexithymia specifically, rather than a cognitive feature of being autistic (Bird & Cook, 2013; Cook, Brewer, Shah & Bird, 2013; Ola & Gullon-Scott, 2020). Alexithymia is a phenomenon where people struggle with the ability to identify their own emotional feelings and those of other people (Bird & Cook, 2013; Mul, Stagg, Herbelin & Aspell, 2018; Ola & Gullon-Scott, 2020). Autistic people in particular have been found to have higher rates of alexithymia (Kinnaird, Stewart & Tchanturia, 2019), with predictions of a 10% prevalence in the wider population and somewhere between 45-60% for autistic people (Ola & Gullon-Scott, 2020). However, it is important to remember that not everyone with alexithymia is autistic and not all autistic people experience alexithymia (Brewer & Murphy, 2016). It is also important to note that people with alexithymia still notice changes in expression (Cook et al., 2013) and empathise with the feelings of others (Brewer & Murphy, 2016).

The measures used to test various components of cognitive and affective empathy have also been criticised for their lack of ecological validity, meaning that they do not reflect real-life social experiences (Fletcher-Watson & Bird, 2020; Rippon, 2019; Williams, 2021). For example, the commonly used reading the mind in the eyes test (RMET) (Baron-Cohen, Jolliffe, Mortimore & Robertson, 1997; Baron-Cohen, Wheelwright, Hill, Raste & Plumb, 2001) asks participants to identify a singular emotional word that best depicts an image of 'disembodied' eyes (Rippon, 2019). Not only does the RMET fail to represent the way interpersonal judgements of emotion are made in real life (Fletcher-Watson & Bird, 2020; Rippon, 2019), but researchers also vary in what they use the test to represent. For example, Mazza et al.

(2014) used the RMET as a measure of emotional contagion, while other researchers have used it as an indication of cognitive perspective-taking (for example: Nahal, Hurd, Read & Crespi, 2021). While dynamic scenes exploring various aspects of cognitive and affective empathy are now more widely used (for example: Dziobek et al., 2006; Golan, Baron-Cohen, Hill & Golan, 2006; McDonald, Flanagan, Rollins & Klinch, 2003), the controlled nature of these tests make it unlikely that participants would become as emotionally invested in the material as they would in a real social experience. Additionally, different standardised ToM tests have not been found to relate well to one another, with insufficient evidence to support the internal consistency, test-retest reliability and ecological validity of the tests (Hayward & Homer, 2017; Yeh et al., 2021). Furthermore, although affective and cognitive empathy are found to be neurologically distinct, while sharing overlapping substrates (Reniers, Völlm, Elliott & Corcoran, 2014; Shamay-Tsoory & Aharon-Peretz, 2007), this does not mean that they should be studied separately (Harmsen, 2019). Where ToM tests encourage fast judgements from limited information, complex empathy requires more careful, slower assessments of social information, in a way that cannot be captured by standardised testing (Fletcher-Watson & Bird, 2020). Therefore, it may be that lower scores on ToM tests amongst autistic people could reflect deeper, more complex empathy that is not encouraged in standardised psychological tests. In a similar way, cognitive tests of ToM have been criticised for depicting high scores as an end point for ToM development in adulthood (Samson & Apperly, 2010). An individual's score on such a test is also not a good predictor of real-world empathic behaviours such as pro-social behaviour and rich socio-emotional understandings (Gernsbacher & Yergeau, 2019). Specifically, research has found that social cognitive ability, as tested by a range of standardised measures, only accounted for a small amount of real-world social skill variance amongst autistic participants (Sasson, Morrison, Kelsven & Pinkham, 2020). There is therefore a need for more comprehensive methods to explore the socio-emotional experiences of autistic people, that represent the complexity of real-world social skills (Fletcher-Watson & Bird, 2020; Sasson et al., 2020)

1.3. The social model of autism

Although pathologised, deficit views of autism continue to remain influential, there is a gradual move towards understanding autism using a social model of disability

(Kapp, 2020; Williams, 2021). This model broadly positions disability as resulting from disadvantage that comes from social structures and cultural norms (Kapp et al., 2013; Sasson et al., 2017). Where framings of autism as an impairment risk preventing autistic people from achieving successful, fulfilling lives, the social model instead thinks about disability in a way that advocates for the equal rights of disabled people (Grant & Kara, 2021). However, the distinction between medical and social understandings of disability is not clear cut, with both often overlapping in real-world contexts (Grant & Kara, 2021). Importantly, the social model of disability does not seek to replace medical understandings, but rather to offer a more balanced view that offers the opportunity to support the social needs of disabled individuals (Grant & Kara, 2021; Kapp, 2020). It is therefore important when implementing a social model of disability not to overlook inherent impairments associated with a particular disability (Grant & Kara, 2021; Kapp et al., 2013). For autistic people, this means that the social model can take account of inherent disability, such as sensory-processing related disability, as well as socially constructed disability, such as disability that results from being stigmatised (Chapman, 2020; Kapp, 2020; Kapp et al., 2013). As a result, a social model of autism enables a view where neurocognitive differences can be framed as advantageous in enabling contexts (Kapp, 2020; Lesser & Murray, 2020).

1.3.1. Stigma as a socially constructed disabling factor

Stigma refers to the process of being denied social acceptance as a result of physical difference, personal character or social identity (Goffman, 1963). Goffman (1963) proposes that stigma results from the process of categorising people based on some sense of what is deemed ordinary or typical within relevant social contexts. This process, known as stereotyping, then results in negative thoughts and attitudes towards atypical individuals (Kinnear, Link, Ballan & Fischbach, 2016). From this process, polarising *us and them* comparisons are drawn (Cage, Di Monaco & Newell, 2018; Goffman, 1990; Pearson & Rose, 2021; Wood & Freeth, 2016). It is this *Othering* which leads to discriminatory behaviours towards autistic people and subsequent felt stigma, which can in turn become internalised, leading to further personal consequences (Goffman, 1963, 1990; Link & Phelan, 2001). Stigma and the discrimination that results can broadly be split into three main areas (Link & Phelan, 2014): (1) structural stigma, which refers to systemic stigma that comes from

institutions, social structures, policy and societal views towards minorities; (2) interactional stigma, which results when a person is stigmatised within social encounters through power dynamics and stereotyping; and (3) personal response, which refers to a stigmatised individual becoming aware of their stigma and internalising stigmatising attitudes about themselves.

1.3.1.1. Structural stigma

For autistic people, structural stigma is largely influenced by the fact that the medical model currently dominates how most people within society think about autism and autistic people (Grinker, 2020; Pearson & Rose, 2021; Waltz, 2008, 2013). Under this model, autistic people must be experiencing negative consequences from being autistic, such as difficulties in work or education, in order to obtain a diagnosis (Pearson & Rose, 2021; Waltz, 2013). In addition, deficit theories of autism further reduce what it means to be autistic down to core areas of difficulty (Dinishak & Akhtar, 2013; Pearson & Rose, 2021). Therefore, these theories reduce the behaviours and experiences of autistic people into negative stereotypes about autism (Dinishak & Akhtar, 2013). This has subsequently led to a widespread stereotyping of autism within society (Pearson & Rose, 2021). Additionally, stigmatised views of autistic people have led to autism being treated as a sort of commodity in modern years, with a focus on intervention programmes that are time-intensive and costly while claiming to reduce disability (Grinker, 2020).

These systemic stereotypes are often filtered throughout society via mass media, resulting in widespread stigma towards autistic people (Holton, Farrell & Fudge, 2014; Nordahl-Hansen, Tøndevold & Fletcher-Watson, 2018). Portrayals of autism through mainstream media then hold the potential to either worsen stigma or conversely, to increase humanised understandings towards autistic people (Nordahl-Hansen, Øien & Fletcher-Watson, 2018). For example, the 1988 film *Rain Man* is argued to have increased public discourse about what it means to be autistic in a way that was seen to have pushed societal understandings of autistic people forward (Hacking, 2010; Kehinde, Nagrodzki, Clay & Wilkinson, 2021). Similarly, the development of Tom Cruise's non-autistic character from seeing his autistic brother as comparatively deficient, to later fighting for others in charge of his brother's care to see his complex humanness, portrayed the shared empathic understanding that autistic and non-autistic people can feel together. However,

despite the emotional complexity generated between these characters and conveyed to an audience, it is now also a somewhat controversial portrayal, due to the stereotypes that have resulted, particularly around autistic people possessing some sort of special ‘savant’ skill (Hacking, 2010). This tendency to depict autistic people as having a superior, redeeming skill dominates many media depictions of autism and is often a way that writers ascribe value to autistic characters (Nordahl-Hansen et al., 2018a; Nordahl-Hansen et al., 2018b). Furthermore, media depictions tend to match diagnostic criteria closely, further enforcing medicalised understandings of autistic people through negative, pathologised stereotypes (Nordahl-Hansen et al., 2018b). These clinical depictions lead to misunderstandings of what it means to be autistic through misrepresentations that fail to capture the complex human richness of the lives of autistic people (Nordahl-Hansen et al., 2018a; Nordahl-Hansen et al., 2018b). The same issues around negative stereotyping are also argued to be true of autism depictions within some fiction and non-fiction books (Bates, 2010).

1.3.1.2. Interpersonal stigma

These stereotypical portrayals of autistic people across media map onto common stereotypes held by non-autistic people about autistic people, such as the view that autistic people possess a ‘special’ skill (John, Knott & Harvey, 2018). Furthermore, when non-autistic participants see or are shown depictions of disruptive behaviour or increased support needs amongst autistic people, there is a resulting increase in stigma and desire for social distance (Gillespie-Lynch et al., 2021; Shtayermman, 2009). These judgements of autistic people tend to be made quickly, even when the diagnosis of the person has not been disclosed (DeBrabander et al., 2019; Grossman, 2015) and are resistant to later change (Jones, DeBrabander & Sasson, 2021; Sasson et al., 2017). Research has shown that these negative social judgements of autistic people are made even when non-autistic participants only observe 1 second of footage (Grossman, 2015). These findings indicate that autistic people are likely to face stigma whether or not others know that they are autistic. While disclosure of being autistic has been found to sometimes reduce stigma (Morrison, DeBrabander, Faso & Sasson, 2019; Sasson & Morrison, 2019), disclosure can worsen stigma if the observing individual holds strong stigmatising views towards autistic people (Morrison et al., 2019). Although perceptions of autistic people as awkward appear to relate to the characteristics of autistic people (Morrison et al., 2019), stigma and

willingness to engage with autistic people are otherwise determined by the qualities of the observer (Gillespie-Lynch et al., 2021; Morrison et al., 2019). Specifically, if an observer is more accepting of social inequality, less open or has reduced perspective-taking skills, more stigma towards people with psychiatric labels can result (Gillespie-Lynch et al., 2021). While acceptance training has been found to reduce explicit stigma towards autistic people, there was no change for implicit stigma (Jones et al., 2021). This indicates that increased understanding towards autistic people is not enough on its own to overcome the complex stigma that autistic people face.

1.3.1.3. Dehumanisation and discrimination

Structural and interpersonal stigma cumulate in a way that results in dehumanised attitudes across society towards autistic people. Goffman (1963) explains this link as resulting from framings of stigmatised people as subhuman in order to support the fragile idea of ‘normal’, explain perceived differences and justify stigmatising beliefs. This can then lead to acts of discrimination as a result of reduced empathy that comes about from feeling the group in question is undeserving of human emotions (Goffman, 1963). In this way, theories of an autistic empathic deficit particularly risk resulting in the dehumanisation of autistic people, due to the view that empathy is uniquely human (Fletcher-Watson & Bird, 2020; Yergeau, 2013). As autistic people are a minority group, non-autistic researchers and clinicians have then typically held power in being able to construct narratives about autistic people (Botha, Dibb & Frost, 2022; Waltz, 2008, 2013). Where these narratives come through medical understandings or scientific enquiry, they can then give the illusion of depicting objective truths (Botha et al., 2022). Across time, these narratives have tended to dehumanise autistic people while driving normalisation agendas (Waltz, 2008, 2013). For example, Bettelheim in the 1950s described autism as a ‘living death’, portraying autistic people as neither entirely human or alive (Waltz, 2008).

Research by Cage et al. (2018) found that non-autistic participants did not attribute uniquely human traits to autistic people, despite the overall sample otherwise showing a good knowledge of what it means to be autistic. The result was that autistic people were seen as more childlike and not having self-control (Cage et al., 2018). Such dehumanising views risk closing down feeling and broader moral behaviour towards autistic people, in a way that then makes it hard for these views to

be challenged (Botha, 2021; Pearson & Rose, 2021). At an interpersonal level, the result for autistic people includes social exclusion as well as violence and abuse within their personal relationships (Griffiths et al., 2019; Pearson, Rees & Forster, 2022). At the institutional level, there has resulted pervasive social exclusion in areas such as employment and social care (Baldwin, Costley & Warren, 2014; Griffith, Totsika, Nash & Hastings, 2012; Richman & Bidshahri, 2018; Taylor, Henninger & Mailick, 2015), alongside a broader, long-standing focus on curing and preventing autism (Botha, 2021; Waltz, 2008, 2013). Specifically, eugenics-based discussions around preventing autistic existence remain commonplace (Botha, 2021; Waltz, 2008). While biological prevention or treatment methods do not currently exist, there is a sustained focus on behavioural ‘treatment’ programmes which aim to abate observable autistic traits (Glynne-Owen, 2010; Milton & Bracher, 2013). These programmes, such as TEACCH (treatment and education of autistic and communication-handicapped children) and ABA (applied behaviour analysis), focus on bringing autistic behaviour closer to so-called typical behaviours (Waltz, 2013). Where a normalisation of behaviour is observed, it is then assumed to have ‘treated’ socio-cognitive differences amongst autistic people (Glynne-Owen, 2010; Pearson & Rose, 2021; Waltz, 2008, 2013).

TEACCH (Schlopler, 1977, as cited in Glynne-Owen, 2010; Schlopler, Mesibov & Hearsey, 1995) is a commonly used school-based intervention that assumes all autistic people think and behave in similar ways. The result is a focus on strict routines and structure, with the underlying aim of modifying or ‘improving’ the behaviour of autistic children (Glynne-Owen, 2010). Similarly, ABA (Lovaas, 1987) uses behaviourism to teach autistic children a standardised set of behaviours (Glynne-Owen, 2010). While the normalisation agendas of these interventions are in themselves dehumanising, ABA in particular has received heavy criticism due to Ivaar Lovaas’ original views in developing the programme (Botha, 2021; Fletcher-Watson & Happé, 2019) and also for the traumatic experiences that autistic people who have received ABA have themselves reported (ASAN, 2012). Specifically, Lovaas himself labelled autistic people as ‘subhuman’ and ‘in need of rebuilding’ (Lovaas, Schaeffer & Simmons, 1965; Waltz, 2008), having originally led research that used ‘painful electrical shocks’ to modify the behaviour of autistic people (Lovaas et al., 1965). While ABA claims to have a high ‘success’ rate (Glynne-Owen, 2010), this overlooks the harm that ABA has caused autistic people (ASAN,

2012). Additionally, changes in behaviour are likely to be brought about by conformity pressures (Mueller, 2020). Although ABA now works against Lovass' ideologies, there still remains a damaging focus on changing autistic behaviour through positive reinforcement (Fletcher-Watson & Happé, 2019; Milton, 2014). Therefore, ABA and the more recent derivative, PBS (positive behaviour support), continue to heavily push normalisation agendas that remain harmful to autistic people (Fletcher-Watson & Happé, 2019; Kapp et al., 2013; Milton, 2014).

1.3.1.4. Personal responses to stigma

Experiences of stigma and dehumanisation risk resulting in an internalisation of these views amongst people who are aware of their stigmatised identities (Goffman, 1963; Hinshaw & Stier, 2008). Specifically, people within stigmatised minorities can experience shame, self-hate and self-degradation as a consequence of the stigmatising views they regularly face (Goffman, 1963). The experience of stigma and any subsequent internalisation leads to increased stress and lower wellbeing for autistic people (Botha & Frost, 2020). This is due to a phenomenon known as minority stress (Meyer, 2003), where marginalised people experience physical and mental health consequences as a result of daily stigma and the personal impacts of that stigma (Botha, 2021; Botha & Frost, 2020; Meyer, 2003; Perry, Mandy, Hull & Cage, 2022). Consequentially, autistic people have been found to be at higher risk for a variety of mental health conditions including depression and anxiety (Bakken et al., 2010; Mazurek, 2013), post-traumatic stress disorder (Rumball, Brook, Happé & Karl, 2021; Rumball, Happé & Grey, 2020) and eating disorders (Huke, Turk, Saeidi, Kent & Morgan, 2013), with death by suicide a leading cause of death for autistic people (Hirvikoski et al., 2016). Additionally, the mental health difficulties faced by autistic people can result in feelings of loneliness, which can in turn worsen mental health in a circular way (Mazurek, 2013; White & Roberson-Nay, 2009). Furthermore, the early focus on extreme social aloneness (Kanner, 1943; Wing & Gould, 1979) has resulted in a lasting stereotype that autistic people on the whole are averse to social situations (Jaswal & Akhtar, 2019). While any individual, autistic or not, can lack social motivation at any given time (Fletcher-Watson & Crompton, 2019), the assumption that a person automatically lacks social motivation based on their neurotype can result in social exclusion and resultant loneliness amongst individuals who desire social contact (Jaswal & Akhtar, 2019). Importantly,

meaningful social inclusion enhances feelings of belonging amongst autistic people (Milton & Sims, 2016) and is important in encouraging feelings of self-worth, decreasing loneliness and in preventing suicide amongst autistic people (Pelton et al., 2020; Umagami, Remington, Lloyd-Evans, Davies & Crane, 2022). Therefore, it is imperative that research agendas prioritise overcoming stereotypical and stigmatising views towards autistic people and work towards creating positive and meaningful social inclusion.

Whether an autistic person is accepted by others has been found to predict stress and depression (Cage et al., 2018). However, concealment of external behaviours that differ from perceived social norms, known as *masking* (Pearson & Rose, 2021), also results in poorer mental health by increasing stress and depression amongst autistic people (Cage et al., 2018; Cage & Troxell-Whitman, 2019; Pearson & Rose, 2021; Perry et al., 2022). Masking is a process that can be both conscious and subconscious (Pearson & Rose, 2021) and is common amongst marginalised groups, serving as a means to reduce observable differences (Goffman, 1963). Masking can also increase feelings of shame due to a sense of letting down the wider autistic community (Perry et al., 2022). The process of masking also requires a person to continually monitor how other people might perceive them, leading to increased cognitive demand (Pearson & Rose, 2021). This continual monitoring of other minds then further illustrates the ability of autistic people to model other minds.

1.3.2. The double empathy problem

Deficit accounts of autism can also be critiqued for failing to account for the bi-directional nature of social interaction (Chown, 2014; Milton, 2012; Milton, Heasman & Sheppard, 2018). As a result, these views take a one-sided approach to explaining social miscommunication and misunderstandings of perspective between autistic and non-autistic people (Milton, 2012; Milton et al., 2018) These one-sided approaches have a tendency to ignore the fact that social context and mutuality must be developed within an interaction (Milton, 2012, 2020). Instead, there is a tendency to assume that the same core social norms exist for everyone, which are then assumed to be easily learnt and applied across situations for most people (Chown, 2014; Milton, 2020). Milton's (2012) double empathy problem emphasises this creation of mutuality within interactions as important for resultant reciprocal social

encounters. Therefore, social communication breakdowns are then positioned as resulting from a failure to achieve mutuality and subsequent reciprocity within a given interaction (Milton, 2012). The theory argues that these communicative breakdowns are then more likely to be experienced between people who have different processing styles, such as those with different neurotypes (Milton, 2012; Milton et al., 2018). Milton (2012) argues that this is due to the different social realities that each individual experiences, which in turn leads to the formation of different norms for socio-emotional interactions. It is these differences which then make breakdowns in communication more likely to occur in mixed-neurotype encounters (Chown, 2014; Milton, 2012; Milton et al., 2018).

Through these understandings, the double empathy problem argues that non-autistic people are at least equally likely to have difficulty imagining the perspectives and feelings of autistic people (Chown, 2014; Milton, 2012). Research has supported this idea, finding that non-autistic people overestimate how helpful they are when interacting with autistic people (Heasman & Gillespie, 2019), struggle to interpret autistic perspectives (Edey et al., 2016; Heasman & Gillespie, 2018), struggle to recognise autistic facial expressions (Brewer et al., 2016) and are worse at perspective-taking with autistic people than non-autistic people, even when autism is not disclosed (Sheppard, Pillai, Wong, Ropar & Mitchell, 2016). Research has found that these difficulties stem from autistic people having qualitatively different expressions and communication styles than non-autistic people (Brewer et al., 2016; Edey et al., 2016; Mitchell, Sheppard & Cassidy, 2021; Sheppard et al., 2016). Additionally, research also indicates that autistic people share the same-neurotype communicative advantages that non-autistic people experience when interacting together (Crompton, Ropar, Evans-Williams, Flynn & Fletcher-Watson, 2020; Heasman & Gillespie, 2019; Mitchell et al., 2021; Williams, Wharton & Jago, 2021). Specifically, findings have shown that autistic people experience a sense of increased rapport and empathy when interacting together, leading to more social comfort (Crompton, Hallett, Ropar, Flynn & Fletcher-Watson, 2020; Crompton et al., 2020c; Heasman & Gillespie, 2019; Russell et al., 2019).

In part, this same-neurotype socio-communicative advantage amongst autistic people appears to result from an assumption of common ground and willingness to overcome any socio-communicative difficulties that arise (Crompton et al., 2020a; DeBrabander et al., 2019; Heasman & Gillespie, 2019; Morrison et al., 2020).

Specifically, findings demonstrate that autistic people appear to have more flexible understandings of what a successful interaction looks like, resulting in more understandings towards one another when difficulties arise (Crompton et al., 2020a; Heasman & Gillespie, 2019). Additionally, research has shown that while both non-autistic and autistic people rate other autistic people less favourably, autistic people are able to overcome these initial negative impressions in a way that does not reduce their interest in subsequent social interactions (DeBrabander et al., 2019; Morrison et al., 2020). Interestingly, findings have further shown that when autistic people judge others to be more socially atypical, this can actually result in positive impressions (Granieri, McNair, Gerber, Reifler & Lerner, 2020). These findings appear to result from a sense amongst autistic people that they can be more authentically themselves with other autistic people (Crompton et al., 2020a). While this shows that a willingness to overcome social difficulty can promote mutuality (Crompton et al., 2020a; DeBrabander et al., 2019; Heasman & Gillespie, 2019; Morrison et al., 2020), it does also appear that autistic people communicate in ways that are distinct from non-autistic people and more recognisable to other autistic people (Crompton et al., 2020a; Crompton et al., 2020b; Williams et al., 2021). Specifically, research has demonstrated that autistic people interacting together experience increased communicative flow and attend to the same socially salient information when compared to mixed interactions (Crompton et al., 2020b; Williams et al., 2021).

Therefore, the double empathy problem (Milton, 2012) can largely be taken to arise from the fact that social communication is most successful when interacting partners are inferring the mental and emotional states of people who feel most similar to them (Gerensbacher & Yergeau, 2019). It is arguably non-autistic people who are most likely to experience this ease of developing mutuality in their everyday interactions as a result of not belonging to a neurominority (Botha, 2021; Chown, 2014; Milton, 2012). By contrast, autistic people are more likely to experience breakdowns in communication on a more regular basis as a result of being part of a neurominority, where same-neurotype interactions are less likely to occur in day-to-day life (Chown, 2014; Milton, 2012). When mixed-neurotype communication breakdowns occur, autistic people are then often blamed due to the lack of familiarity of non-autistic people with navigating these difficulties (Chown, 2014; Milton, 2012). The result of this dynamic then means that non-autistic people may be less likely to be accommodating to autistic people by working together to create a

mutual social understanding (Chown, 2014; Lesser & Murraray, 2020; Milton, 2012). On the other hand, it is believed that autistic people are more likely to avoid assumptions of shared norms, due to their increased familiarity with navigating a lack of mutuality (Chown, 2014; Milton, 2012). Instead, autistic people are thought to be more likely to remain open to difference, focusing on careful mutuality development (Chown, 2014; Crompton et al., 2020a; Limburg, 2021; Milton, 2012). As a result, it has been suggested that autistic people may then possess better understandings of society (Chown, 2014; Milton, 2012), and be better able to tailor their socio-emotional responses to others on an individual basis (Lesser & Murray, 2020). What this means is that attempts to improve double empathy understandings between autistic and non-autistic people should therefore seek to improve interpersonal openness, moving non-autistic people away from assuming pre-set norms and social understandings (Chown, 2014; Milton, 2012).

1.3.3. The neurodiversity paradigm

One model of understanding autism that seeks to move away from assuming pre-existing norms and typicality is the neurodiversity paradigm (Singer, 1998, as cited in Milton, Ridout, Martin, Mills & Murray, 2020; Singer, 2016). The neurodiversity paradigm focuses on equal human rights for those with neurocognitive differences, known as neurodivergence (Singer, 1998, as cited in Milton et al., 2020; Singer, 2016). The paradigm challenges the idea that typical, neuronormative cognition exists at all (Mueller, 2020; Murray, 2020; Singer, 2016). Rather, the neurodiversity paradigm argues that all brains are neurodiverse, which is to say that all brains and perceptions will differ from one another to some extent (Milton, 2020; Singer, 2016). Within this view, typical neurocognition becomes re-framed away from individuals who represent the ‘norm’ to individuals who do not have a distinct, neurodivergent difference (Murray, 2020; Singer, 2016). The term neurotypical can then be thought of as referring to a majority neurodiverse group, who individually have their own unique ways of interpreting the world, but without a distinct neurodivergent condition (Murray, 2020; Singer, 2016). The positioning of both neurotypical and neurodivergent people as diverse highlights their core human similarities in cognition, thought and behaviour, regardless of their differences (Milton, 2020; Murray, 2020; Singer, 2016). Through this paradigm, autism then becomes defined as a normal but distinct variation of human perception that is

different rather than disordered (Chapman, 2020; Singer, 1988, as cited in Milton et al., 2020).

Through this understanding, the neurodiversity paradigm maintains the importance of understanding autistic people as a socially and politically relevant marginalised group, or neurominority (Botha, 2021; Chapman, 2020). Instead of looking for essential criteria to define autism by, this view instead draws attention to understanding clusters of overlapping experiences that are important to consider in understanding autistic people (Chapman, 2020; Fletcher-Watson & Happé, 2019). One important aspect of this movement has been the focus on enabling autistic people to reclaim their identity, resulting in a sense of shared culture for many people in the autistic community (Chapman, 2020; Kapp, 2020; Milton & Bracher, 2013). By driving forward understandings of autism that foster this approach, there is an ability to move away from the focus on curative treatment, towards a focus on supporting empathic social inclusion (Chapman, 2020; Kapp, 2020).

1.3.4. The importance of autistic advocacy and co-production

Many autistic people see their autistic identity as a positive aspect of themselves that does not require any kind of normalisation (Kapp, 2020; Kapp et al., 2013). This positive view of self within the autistic community has been particularly enabled by the neurodiversity movement (Kapp et al., 2013). However, autistic advocates have been working to develop an inclusive autistic community culture since before the creation of the neurodiversity paradigm (ASAN, 2012; Waltz, 2013). Early self-advocacy importantly served to not only create an inclusive community for autistic people but to also challenge dominant societal narratives about autism (ASAN, 2012; Waltz, 2013). For example, Jim Sinclair's (1993, as cited in ASAN, 2012) manifesto 'don't mourn for us' was a crucial turning point for the autistic community (Waltz, 2013). Sinclair challenged the narrative of autism as a devastating condition, imploring parents to dismiss pre-conceived ideas of typical development (ASAN, 2012). Jim Sinclair, alongside other key autistic self-advocates such as Cal Montgomery and Mel Baggs, continued to build upon this work by highlighting the lack of autonomy that autistic people have over their lives and narratives when normalisation agendas are prioritised (ASAN, 2012; Kapp, 2020). As a result, this early advocacy brought autistic perspectives to the forefront of thinking about autism in more humanised ways (ASAN, 2012). Advocacy has since

tended to contest the focus on cure, pushing instead for research to prioritise autistic quality of life and social inclusion (Kapp et al., 2013; Ne'eman, 2012; Winter, 2012). In understanding where deficit models of autism have come from and why they have been so influential, autistic advocates draw attention to the issue of autistic people having long been talked for or about as subjects of interest (Kourti, 2021; Winter, 2012). Through this approach, there has resulted a failure to include the thoughts and feelings of autistic people themselves when constructing narratives about autism (Sequenzia, 2012; Winter, 2012). More recently, there has resulted a drive towards understanding autism through the lived experiences of autistic people, rather than employing positivist approaches to knowledge production (Fletcher-Watson et al., 2019; Pellicano, Dinsmore & Charman, 2013; Sequenzia, 2012; Wright, Wright, Diener & Eaton, 2014). Autistic people have then been further able to reclaim their identity while also ensuring that what people understand about autism is humanised and relevant to the lives of autistic people (Fletcher-Watson et al., 2019; Milton & Bracher, 2013).

However, simply listening to the lived experience narratives of autistic people in producing knowledge about autism is not enough to overturn the power dynamics that exist when researching autism (Fletcher-Watson et al., 2019; Winter, 2012). Instead, advocates encourage the involvement of autistic people as researchers who are able to actively shape knowledge production (Fletcher-Watson et al., 2019; Kapp, 2020; Kourti, 2021; Milton & Bracher, 2013; Pellicano et al., 2013). This approach is largely encouraged by the ASAN, who coined the mantra 'nothing about us without us' to challenge the problematic power dynamics within autism research (ASAN, 2013, as cited in Milton & Bracher, 2013). In addition to overturning power dynamics, the double empathy problem (Milton, 2012) means it is also crucial that lived experience data are interpreted through the perspectives of autistic researchers themselves (Glynne-Owen, 2010). Where autistic people are included in research as co-creators or leading creators of knowledge, they are able to shape autism research in more empathic ways that meet the values of the wider autistic community (Fletcher-Watson et al., 2019; Pellicano et al., 2013). While power dynamics in research can risk making co-production tokenistic (Fletcher-Watson et al., 2019; Milton & Bracher, 2013), the creation of empathic and respectful mutuality between researchers and autistic co-producers has led to more impactful outcomes for autism research (Fletcher-Watson et al., 2019).

It is also important for research teams using this approach to remain aware that autistic people are not a homogenous group, and that research should reflect the plethora of perspectives and experiences that autistic people have as individuals (Milton & Bracher, 2013). In particular, not all autistic people see their autistic identity as a positive, core part of themselves or feel part of a wider autistic community (Chapman, 2020; Kapp et al., 2013). While the dominance of the medical model together with internalised stigma could explain some of this difference in self-perception, it is important to consider that autistic people with different support needs and intersectioning identities will have different experiences of being autistic (Chapman, 2020). Therefore, it is important to avoid reducing autism down into a group identity, as this would risk excluding those who do not identify with autistic community culture or the neurodiversity paradigm (Chapman, 2020).

1.3.5. Creative methodologies

It is also important for any social support designed for autistic people to also be applicable to non-autistic people in order to overcome the double empathy problem and build two-way understandings that avoid stigma (McCreadie & Milton, 2020; Milton, 2012). It is argued that creative methodologies would be particularly advantageous when designing double empathy interventions, due to the proposed ability of creative methodologies to shift people out of familiar, default ways of thinking (McCreadie & Milton, 2020; Mueller, 2020). This is because the nature of creative methods would require participants to remain more open in their thinking (Ida, 2020; Mueller, 2020). Ida (2020) proposes that creative methodologies would therefore enable multiplicitous thinking, where individuals are able to hold in mind multiple ways of thinking in a way that then moves them beyond considering themselves and others based on their social group identities (Ida, 2020). It is then suggested that people from different socio-political identities would begin to think about how their pre-conceived differences have been constructed through cultural norms (Ida, 2020; McCreadie & Milton, 2020). The proposed result would be a shift from thinking about group differences, towards a dismissal of groupness where nuanced, individual differences within a broader shared experience would become the focus (Ida, 2020). This move from difference to shared identity is not only important in overcoming stigma towards autistic people, but also in moving autistic

people away from *us and them* thinking that can result from being stigmatised and risk reinforcing stigma by reinforcing group boundaries (Bolton, 2018; Pearson & Rose, 2021).

1.4. Reading

One potentially useful creative methodology for overcoming stigmatised views of autistic people is the exploration of how autistic and non-autistic people read different kinds of texts. This is because certain texts, such as fictional narratives, are believed to enhance socio-emotional skills amongst readers, encouraging an openness towards different minds both within and outside of the text (Corcoran & Oatley, 2019; Djikic, Oatley & Moldoveanu, 2013a; Mar & Oatley, 2008). Research into the topic has found a small positive effect between fiction familiarity and scores on standardised empathy and ToM tests (Djikic, Oatley & Moldoveanu, 2013b; Dodell-Feder & Tamir, 2018; Mar, Oatley & Peterson, 2009; Mumper & Gerrig, 2017; Oatley, 2016; Panero et al., 2016; Samur, Tops & Koole, 2018; Stansfield & Bunce, 2014). Furthermore, Kidd and Castano (2013) and a subsequent replication by Black and Barnes (2015) found that reading literary fiction, as compared to popular fiction and non-fiction, immediately increased empathy on such tests. However, some attempts to replicate Kidd and Castano (2013) have failed to find the same effect (Panero et al., 2016; Samur et al., 2018). Additionally, much of the overall research into fiction and socio-empathic skill has taken a correlational approach, and implemented the use of fast-paced tests with limited ecological validity, such as the RMET (Corcoran & Oatley, 2019; Mar & Oatley, 2008; Oatley, 2016). While these findings are then limited by their objectivity-focused approaches, qualitative accounts of the personal and interpersonal benefits from reading, particularly fiction, are plentiful (Davis, 2020; Davis & Magee, 2020; Dowrick, 2019; Ellis, McCann & Dalsgård, 2019; Green, 2020; Longden et al., 2015). These benefits have been observed within case examples of autistic readers (Davis, 2020; Savarese, 2018), with autistic people having also authored countless examples of renowned, highly empathic and socially complex fiction, non-fiction and poetry (for example: Dolan, 2020; Fox, 2021; Higashida, 2013, 2017; Limburg, 2017, 2021; May, 2018, 2020; McAnulty, 2021; Packham, 2016). However, little attention has been paid to whether autistic people might benefit from their reading experiences,

and how this might help us to understand autistic people in more humanised ways (Barnes, 2012).

1.4.1. Social simulation through narrative texts

In order to consider the potential value of reading as a methodology, it is firstly important to understand what and how readers can gain through the experience of reading. Originally, psychology had overlooked the human value of reading, perceiving it as an enjoyable distraction from the difficulties of everyday life (Mar & Oatley, 2008). However, more recent thinking about reading suggests that fictional and life narratives can model our real social world, enabling readers to exercise and expand their socio-emotional skills (Corcoran & Oatley, 2019; Mar & Oatley, 2008). The unique value of reading here is that fictional and non-fictional narrative texts enable readers to experience simulations of countless social experiences, including those that might not otherwise be available in an individual's personal life (Mar & Oatley, 2008; Oatley, 2016; Waytz, Hershfield & Tamir, 2015). Fiction is argued to be particularly beneficial, due to its three levels of social embeddedness: the minds of characters, through the minds of the author, through the mind of the reader (Zunshine, 2011). However, life narratives are also believed to provide socio-emotional benefits to readers, particularly when compared to expository non-fiction (Zunshine, 2011).

Importantly, human social skills including empathy and ToM do not differentiate between real and fictional minds (Zunshine, 2011), meaning that engagement with the skilful depiction of complex fictional minds which do not conform to stereotypes about human behaviour may bring about the interpersonal benefits akin to real social interaction, such as feelings of social closeness (Merga, 2017). The benefit of reading, as compared with real-world mind modelling, is the time that is afforded to slowly and carefully explore the minds held within a text, alongside the deeper contextual information that is unavailable in the real social world (Mar & Oatley, 2008; Mumper & Gerrig, 2019). It can then be argued that narrative texts are able to deepen our empathy for other minds as a result of being able to take us further into a mind than we can gain access to in our everyday lives (Mar & Oatley, 2008; Waytz et al., 2015). This is because in everyday life, there is a human tendency to reduce our understandings down into linear narratives that cut away complexities, such as layered feelings and deeper contexts, in order to fit them

into our schematic understandings of the world (Mar & Oatley, 2008). When reading, readers go beyond making quick, snapshot judgements to actually projecting themselves into the situation and minds available, in a way that requires them to simulate the socio-emotional complexity as it unfolds (Mar & Oatley, 2008; O'Sullivan, Davis, Billington, Gonzalez-Diaz & Corcoran, 2015). It is this imaginative projection of self that differentiates reading from other medias such as narratives in TV and film, due to readers being required to uncover socio-emotional complexities themselves (Mar & Oatley, 2008).

The projection of self, referred to as transportation, while reading means that self-other boundaries become blurred, with readers own memories and feelings being evoked along the way (Mumper & Gerrig, 2019). What results is an intimacy between the reader's own mind and the other minds within the text, enhancing empathy and perspective embodiment (Mar & Oatley, 2008; Mumper & Gerrig, 2019). While cognitive researchers might position this as egocentric (for example: Lombardo & Baron-Cohen, 2011), a reader's own thoughts and feelings can, and often do, differ from the thoughts and feelings that they imagine when embodying minds within a text (Mumper & Gerrig, 2019). Therefore, readers still make continuous self-other comparisons, but it is argued that these comparisons become more nuanced within narrative simulations (Mumper & Gerrig, 2019). This is because reading encourages a reader to first explore the common humanity between their mind and those within the text, rather than first drawing on pre-conceptions about difference (Koopman & Hakemulder, 2015; Mar & Oatley, 2008; Mumper & Gerrig, 2019). This then makes narrative texts a valuable tool in moving people to feel with and think through minds that are otherwise inaccessible to them and which they may think of in stereotyped and stigmatised ways that are hard to overcome (Ellis et al., 2019; Mar & Oatley, 2008). While reading, these different minds can feel less threatening to a reader's sense of self and any long-held beliefs than they might in the real social world (Ellis et al., 2019; Mar & Oatley, 2008). Reading therefore offers a route to overcome stigma between people by enhancing a reader's propensity to feel empathy for minds that they might otherwise consider out of their emotional reach (Ellis et al., 2019; Mar & Oatley, 2008). Importantly, the evocation of personal feeling and memory together with the new experiences provided while reading can change a reader's longer-term norms by creating new, deeply felt associations to these norms in memory (Mumper & Gerrig, 2019). Fiction can then

inform our subsequent understandings and experiences outside of the reading experience, when different minds might once again be encountered (Mar & Oatley, 2008; Mumper & Gerrig, 2019).

Reading can also be an important tool in overcoming internalised stigma amongst marginalised readers (Billington et al., 2019). The blurring of self-other boundaries while feeling for minds within a text can unexpectedly move readers to value and feel for themselves (Billington et al., 2019; Waytz et al., 2015). This is because reading enables marginalised individuals who subsequently feel diminished within society to uncover a surprised and felt sense of worth that had been lost through experiences of stigma and related trauma (Billington et al., 2019; Davis, 2020). Additionally, when readers are transported into a text, enhanced meaning results, which further provides readers with a sense of purpose that is essential to human wellbeing but so often lost within marginalised individuals (Waytz et al., 2015). It is the process of being immersively transported into a reading experience that is thought to be essential for socio-emotional benefit (Bal & Veltkamp, 2013; Billington et al., 2019; Ellis et al., 2019). Inexperienced readers might then struggle to gain from reading, as a result of their initial struggle with becoming immersed (Ellis et al., 2019). However, inexperienced readers who are not expecting to find empathy for others and for themselves within a text might then conversely be the most likely readers to benefit from reading once immersed within it (Billington et al., 2019; Davis, 2020). It is therefore important to consider text qualities that might enhance a reader's ability to readily immerse within a text.

1.4.2. The importance of serious literature

Serious literary texts in particular are believed to enhance immersion for readers, resulting in greater socio-emotional benefits (Koopman & Hakemulder, 2015; Mar & Oatley, 2008; Oatley, 2016). The term serious literature refers to texts, whether fictional or life narratives, that engage with core human issues, encouraging readers to do the same (Davis & Magee, 2020; Koopman & Hakemulder, 2015; O'Sullivan et al., 2015). It is argued that serious literature, due to its enhanced insight into human psychology, makes the narrative simulation and minds within the literature feel even more real to the reader (Davis, 2020; Koopman, 2016). Serious literature is then argued to enhance meaning, making readers more likely to feel empathy towards different minds and to find it for themselves in the process of reading

(Billington et al., 2019; Mar & Oatley, 2008). While benefits can be drawn from non-literary narrative texts, stories that lack literary elements risk reinforcing previously held scripts and schemas (Mar & Oatley, 2008). This is because non-literary stories that do not move the reader beyond their default understandings and ways of thinking enable them to apply their social scripts to the text, without the text acting upon the reader (Mar & Oatley, 2008; Oatley, 2016). Koopman and Hakemulder (2015) argue that it is particularly the enhanced self-reflections evoked when reading serious literature which are most able to move and change a reader.

It has been argued that the core of what separates serious literature from other narrative texts is its use of language that captures core human feelings (Davis, 2020; O'Sullivan et al., 2015). This literary language holds within it the power to surprise readers out of their stereotyped social scripts and into a more live reality (Davis, 2020; O'Sullivan et al., 2015). Therefore, literature actively prevents readers from thinking in automatic ways that rely on previously held knowledge to draw quick conclusions (Davis, 2020; Djikic et al., 2013a; O'Sullivan et al., 2015). Instead, literary language encourages readers to hold onto ambiguity, meaning that readers are encouraged to engage in multiplicitous thinking (Ida, 2020), holding in mind multiple considerations which come through multiple embodied minds (Koopman & Hakemulder, 2015; O'Sullivan et al., 2015). It is this holding of ambiguity that is important in slowing readers down, preventing them from quickly assuming knowledge, without gaining anything new from the experience (Davis, 2020; O'Sullivan et al., 2015). During these moments, readers are encouraged to hold onto intangible feelings, staying in the moment with them before turning them into something that might be more recognisable (Farrington, Davis & Billington, 2019). When readers stay with powerful moments of the literature in this way, they are enhancing the flexibility of their models of meaning (O'Sullivan et al., 2015). This is particularly beneficial for readers who might have come to the text with rigid beliefs (O'Sullivan et al., 2015). What is particularly important about literary language here, is that it is small moments, such as a single word or phrase, that can move readers (Billington et al., 2019; Davis & Magee, 2020; Koopman & Hakemulder, 2015). These small, nuanced moments of meaning then hold within them the larger ability to suspend judgement amongst readers, providing room for deeper empathic feeling and mind embodiment to occur (Koopman & Hakemulder, 2015).

When moments of being moved by literature result for a reader, it can be argued that the reader is no longer simply reading, but rather is actively *doing* the literature with the author (Barnes, 2018; Barthes, 1969, as cited in Muldoon, 2021). It is the process of active doing, rather than a rote application of knowledge that can result in a change of self beyond the reading process (Barnes, 2018; Koopman & Hakemulder, 2015). Therefore, serious literature in particular could be a powerful tool in overcoming stigma within a reader, both towards others and towards themselves (Koopman & Hakemulder, 2015). Furthermore, it is believed that the experience of being moved by literature is more likely and more powerfully felt when faced through adversity (Davis, 2020; Strick & Van Soolingen, 2018). What this means is that texts depicting adverse experiences can move readers more deeply into feeling with minds that they might not otherwise consider feeling with (Strick & Van Soolingen, 2018). Additionally, readers themselves who have faced adversity and learned to view themselves through it, might then find more empathy for themselves when reading texts that hold adversity within them (Davis, 2020). As a result, serious literature that deals with human adversity might then be most likely to move inexperienced readers into surprised feeling for themselves and others.

1.4.3. Shared reading

Shared reading of serious literature is thought to be even more advantageous for readers (Billington et al., 2019; Corcoran & Oatley, 2019; Ellis et al., 2019). When reading together with others, these additional minds to think and feel through then add an additional level of perspective-taking (Billington et al., 2019; Ellis et al., 2019; Longden et al., 2015). Specifically, it is the shared discussions that arise organically within shared reading groups which offer readers insight into one another's perspectives (Ellis et al., 2019). That all readers have access to the minds within the texts means that the minds of group members who have lived significantly different lives or who are perceived as having distinctly different identities become more available to the other readers in the group (Ellis et al., 2019). Additionally, shared reading holds core advantages over other shared social experiences (Fearnley & Farrington, 2019). This is because other social experiences require an acceptance of some shared norms for the experience between group members, which limits the depth of the experience and the breadth of people who can be comfortably included within it (Fearnley & Farrington, 2019). By comparison, shared reading blurs the

boundaries between private and public thoughts and feelings in a way that societal norms might otherwise not enable (Billington et al., 2019). This also distinguishes shared reading designs from traditional book clubs, where book clubs tend to attract readers from similar walks of life to share similar experiences together (Corcoran & Oatley, 2019). While this can bring together communities who might benefit from reading with similar Others (Corcoran & Oatley, 2019), it is shared reading which offers the unique opportunity to bring together readers who might not otherwise come together and feel with one another (Billington et al., 2019; Corcoran & Oatley, 2019).

Furthermore, shared reading breaks down the power dynamics that typically exist within a group interaction (Ellis et al., 2019; Fearnley & Farrington, 2019). Within a shared reading group, there is a reader leader whose role is not to make decisions for the group, but rather to hold open complexity, encouraging readers to stay with feelings of being moved for longer (Ellis et al., 2019; Fearnley & Farrington, 2019). Similarly, the reader leader does not analyse reader responses, but rather feels with them in a way that forms another human connection within the room and encourages interactions within the group (Ellis et al., 2019; Fearnley & Farrington, 2019). Through this breaking down of traditional group power dynamics, it is the text itself which can be seen as the ‘expert’ in the room, rather than an individual person (Fearnley & Farrington, 2019). While reader leaders initially read the text aloud, readers themselves are often moved to volunteer to read aloud, in a way that encourages them to take responsibility for making the literature feel alive for their fellow readers (Ellis et al., 2019). Similarly, while the reader leader is the person who brings the serious literature to the group to be read, the choice is informed by the preferences of the readers in the group, avoiding a prescriptive approach (Ellis et al., 2019). This approach overall gives readers a sense of ownership for the group, resulting in a sense of community and of personal meaning within it (Corcoran & Oatley, 2019; Ellis et al., 2019). Through their ability to cut across social norms and allow more time for careful, sensitive thinking, shared reading groups then offer a way to connect different minds and to engage inexperienced readers (Billington et al., 2019; Corcoran & Oatley, 2019). Inexperienced readers within the group dynamic are not only surprised to find empathy for themselves in unexpected moments of feeling, but are also encouraged

to turn moments of difficulty and struggle into something where further emotion and thought can organically grow (Billington et al., 2019; Longden et al., 2015).

1.4.4. Considerations for exploring reading methodologies with autistic people

Taken together, the literature on the human value of reading, and particularly of serious literature, indicates that there could be a particular benefit of reading for autistic people. Specifically, the social simulation experiences that result from reading (Corcoran & Oatley, 2019; Mar & Oatley, 2008; Oatley, 2016; Waytz et al., 2015; Zunshine, 2011) may offer a more controllable social experience, where slower, more careful considerations of socio-emotional information would be encouraged not disadvantaged. Furthermore, the marginalisation and stigma that autistic people face (Cage et al., 2018; Grinker, 2020; Pearson & Rose, 2021; Waltz, 2013) means that they may then be more likely to benefit from serious literature (Billington et al., 2019; Davis, 2020; Ellis et al., 2019; Strick & Van Soolingen, 2018). Importantly, any benefits for autistic people in using literature to develop their socio-emotional skills could also serve to move away from a focus on meeting neuronormative milestones, instead encouraging autistic readers to find value in their own experiences (Billington et al., 2019; Ellis et al., 2019; Mumper & Gerrig, 2019). Furthermore, the exploration of reading reflections between autistic and non-autistic people could also act as a more balanced and ecologically valid research tool for comparing autistic and non-autistic social experiences.

However, despite these possibilities, there has been minimal enquiry into the value of reading for autistic people (Barnes, 2012). The main reason for this appears to stem from theoretical assumptions, particularly those of the E-S (Baron-Cohen, 2008, 2009) and mindblindness (Baron-Cohen, 1997) theories, which would position autistic people as struggling with social material that depicts other minds. While the theories do not address the topic of autism and reading per se, the related autism quotient scores disliking fiction as an autistic trait (Baron-Cohen et al., 2001). Comparatively, the WCC (Frith, 1989, as cited in Happé, 1999) and monotropism (Murray et al., 2005) theories might predict autistic people as being able to engage with the depth of feeling contained within fiction, but would still assume some difficulty in modelling fictional minds and taking on multiple, embedded perspectives (Baron-Cohen, 2008; Lesser & Murray, 2020; Murray, 2020). These broad assumptions around social incapacity, together with more specific assumptions

from the triad of impairments that autistic people lack social imagination (Wing & Gould, 1979) appear to have cumulated in assumptions that autistic people lack the capacity to imaginatively and emotionally engage with fiction (Barnes, 2012). Specifically, Ten Eycke and Müller (2015) compared imagination in autistic and non-autistic children who were asked to draw houses and people. The study concluded that the autistic drawings of people, but not houses, were less imaginative which was taken to indicate that autistic people might have broader social-specific imagination difficulties. However, in a later study (Ten Eycke & Müller, 2018), it was reported that autistic and non-autistic children could perform equally on the same social imagination task. What this second study concluded was that a local processing bias for detail together with greater executive functioning was conducive of a better imagination. Although these studies explore drawings of fictional content, rather than engagement with fictional texts, the implications are that autistic people might struggle with all forms of social imagination (Barnes, 2012; Ten Eycke & Müller, 2015), depending on their executive functioning and propensity to attend to finer details of social information (Ten Eycke & Müller, 2018). The cumulations of these assumptions around the capacity of autistic people to engage socially, emotionally and imaginatively with fiction has led to a long-standing assumption that autistic people would instead prefer factual non-fiction (Barnes, 2012; Baron-Cohen et al., 2001).

The current evidence, albeit limited, does not support these assumptions, instead showing that autistic people can and do enjoy fiction (Armstrong, Paynter & Westerveld, 2019; Barnes, 2012; Davidson & Ellis Weismer, 2018). Specifically, Barnes (2012) asked participants to rank four text descriptions in order of preference to explore the reading preferences of autistic adults compared to non-autistic adults. The texts were varied by whether they were about an object or about people and these were then split into fiction and non-fiction examples. While Barnes (2012) did report an overall non-fiction preference, the results also demonstrated that there was no apparent avoidance of fiction or social content amongst the autistic participants. Additionally, reading preferences are very individualised and will therefore be heterogeneous within any given community. Therefore, research such as that by Barnes (2012) should not be taken to support previous theoretical assumptions of distinct non-fiction preferences, but rather to show the range of preferences that exist for autistic people. Therefore, the lack of fiction avoidance observed within Barnes'

(2012) sample indicates that autistic people, much like non-autistic people, are capable of enjoying a range of reading materials. Similarly, research with autistic children from ages 2 to 6 (Armstrong, et al., 2019) and ages 8 to 14 (Davidson & Ellis Weismer, 2018) has shown that autistic children have an overall fiction preference which matches that of their non-autistic peers. This early research indicates that a person's neurotype has little impact on their reading preferences. Furthermore, implications that autistic people do enjoy fiction indicates a potential for autistic people to benefit from fiction.

Case examples of autistic readers have also demonstrated that autistic people can benefit from serious literature. For example, Davis (2020) reports the experiences of Imelda, an autistic reader with mental health difficulties. Imelda, after reading the poem *Invictus* (Henley, 1988, as cited in Davis, 2020) found a renewed sense of personal meaning and autonomy that took her beneath the surface of her feelings, in a way that traditional therapy had been unable to do (Davis, 2020): "I just started to repeat those last two lines [I am the master of my fate, I am the captain of my soul]. I kept on thinking 'I am'. I've got this thing about people telling me what's best for me: I know what's best for me. No, no: 'I am the master of my fate, not you.'" Although Imelda is just one autistic reader, and reading experiences amongst autistic people are likely to be as heterogeneous as other experiences, this demonstrates that autistic individuals, like non-autistic individuals, can hold the capacity to benefit from serious literature. Additionally, in *See it Feelingly*, Savarese (2018) presents various examples of autistic people engaging with and benefitting from serious literature. In one example an autistic reader, Tito, who is reading *Moby Dick* (Melville, 2006, as cited in Savarese, 2018) feels a sense of identity with the whale, which in turn surprisingly moves Savarese himself to feel with Tito. To take another example, Jamie was able to embody the perspective of author Leslie Marmon Silko (Savarese, 2018), which was accessed through the minds of Silko's characters within the book *Ceremony* (Silko, 2007, as cited in Savarese, 2018). When asked by Savarese, Jamie reported feeling that Silko would not have stereotyped autistic people, which Jamie drew from an embodied sense of the ways Silko had thought about and felt through human difference and adversity (Savarese, 2018). Overall, *See It Feelingly* (Savarese, 2018) demonstrated that autistic readers are able to use their personal feelings and memories to get inside a text in the same way that has been observed across readers of narrative fiction (Mumper & Gerrig,

2019). These readers were not looking to rote learn about social scripts and schemas through the process of reading, as dominant theories might predict (for example: Baron-Cohen, 1997, 2008, 2009). Rather the readers were seeking to be moved, desiring to read on even amidst distressing emotions that had been evoked by the text (Savarese, 2018). Savarese (2018) therefore demonstrates that not only can reading benefit autistic readers, but that non-autistic people exploring the reading reflections of autistic people can themselves be moved to empathically feel with autistic people across their differences. What both Davis (2020) and Savarese (2018) movingly illustrate is that disseminating these reader reflections can then in turn demonstrate the complexity of autistic socio-emotional experiences to wider audiences. There is then a need for research to explore how reading might serve to benefit autistic people, both personally out of their own reading and more broadly, in challenging stereotypical, deficit-focused views about autism.

1.5. Aims and outline of the thesis

1.5.1. Thesis aims

The focus of the current thesis is on what reading can do to challenge dominant, stigmatised ways of thinking about autism and autistic people, including how reading can benefit autistic people in finding self-value. Aside from initial research into autistic reading preferences (Armstrong et al., 2019; Barnes, 2012; Davidson & Ellis Weismer, 2018), explorations of reading experiences amongst autistic people have been largely overlooked. What is particularly lacking is an exploration into how autistic people read and whether they benefit from reading in similar ways to non-autistic people. This raises questions around what kinds of texts and text qualities might evoke the most socio-emotional benefits for autistic readers and how this compares to that of their non-autistic peers. Given the rising need for interventions that seek to overcome stigma towards autistic people, the current thesis centred around two core aims: The primary aim of the thesis was to explore whether and how reading can overcome stigmatising, deficit-focused views towards autistic people. This aim was three-fold in nature exploring: (1) interpersonal changes in understandings towards autistic people, (2) how reading can overcome self-stigmatising amongst autistic readers themselves and (3) how explorations of the experiences and reflections of autistic readers can inform less stigmatised understandings of autistic differences within research. Building upon this first aim,

the second aim of the thesis was to inform the design of future shared reading groups for use in promoting double empathy and overcoming stigma between autistic and non-autistic readers. This thesis sought to meet these two core aims by exploring the following research questions:

- (1) What are the differences and similarities between autistic and non-autistic adult readers and what can this tell us about what it means to be autistic?
- (2) Can reading with and about diverse individuals and different minds overcome stereotypical views and promote double empathy understandings for autistic and non-autistic adult readers?
- (3) What kinds of texts and text features enable autistic and non-autistic adult readers to get the most out of their reading experiences?

1.5.2. Thesis overview

Given the long-standing assumption that autistic people lack the socio-emotional capacity to engage with fiction (Barnes, 2012; Baron-Cohen et al., 2001), there is a need to explore how autistic readers might benefit from different reading experiences and how this might compare to non-autistic readers. Furthermore, Armstrong et al. (2019) and Davidson and Ellis Weismer (2018) focused on childhood reading habits, while Barnes (2012) focused on the preferences of text descriptions that were created for the study. Therefore, there is a need to explore autistic reading habits in an ecologically valid way. Chapter 2 sought to address this evidence gap, by using questionnaire and interview data to compare the everyday reading habits and experiences across time of autistic and non-autistic adults. Chapter 2 demonstrated that autistic adults read a variety of texts, including narrative fiction, which they benefitted from in similar ways to non-autistic adults. Chapter 2 began to explore the ways in which future shared reading groups which aim to include autistic and non-autistic adults may need to be adapted in order to be accessible to autistic adults. Findings from Chapter 2 then demonstrated that the autistic participants were uncomfortable with the idea of being read aloud to and reading in groups.

Building upon these findings from Chapter 2, Chapter 3 explored the outcomes of a shared reading experience between pairs of autistic and non-autistic adult readers. Additionally, Chapter 3 sought to fill the evidence gap around whether the shared experience of reading and its ability to overcome stigma towards

marginalised groups (Billington et al., 2019; Ellis et al., 2019) would extend to autistic and non-autistic readers. Instead of being read aloud to, the design was adapted so that the readers read the serious literature in their own time alongside a reflective, structured diary. Participants then came together once a week for four weeks for shared discussions, where they were provided with their diary as an optional way to facilitate shared reading discussions. Chapter 3 demonstrated that the shared reading experience for each of the four pairs led to an overcoming of stigma and the double empathy problem in a way that led to the participants viewing each other as similar with nuanced differences. Therefore, Chapter 3 highlights that the ability of shared reading to overcome stigma also applies to autistic and non-autistic readers reading together and without a reading aloud element. Chapter 3 also challenges dominant theoretical models of autism (for example: Baron-Cohen, 1997, 2008, 2009) by demonstrating the ability of autistic adults to engage with the socio-emotional complexity of the text and to meaningfully interact with a non-autistic reading partner.

Chapter 4 builds upon Chapters 2 and 3 by exploring the value of serious literature as a research tool to compare the empathic experiences of autistic and non-autistic adults. In this way, Chapter 4 builds upon available case examples of individual readers (Davis, 2020; Savarese, 2018) to fill the evidence gap around whether the benefits of serious literature (Davis & Magee, 2020; Koopman & Hakemulder, 2015; O’Sullivan et al., 2015) would apply to autistic readers. Specifically, Chapter 4 explores the analysis of the diary reflections that were taken during the reading process in Chapter 3, together with new participants who engaged in the same reading process. Chapter 4 demonstrated that the exploration of reflections in response to serious literature provided a more balanced and ecologically valid way of comparing the empathic experiences of autistic and non-autistic adults, when compared to standardised measures of empathy. This related to the findings which demonstrated that the openness afforded when considering literature meant that autistic experiences could be understood without the influence of typicality norms. Additionally, the findings in Chapter 4 built upon Chapters 2 and 3 by further challenging deficit-focused theoretical assumptions of what it means to be autistic. Specifically, in Chapter 4, the autistic readers seemed to often read in more literary ways than the non-autistic readers, engaging in a more in-depth way with the literature which meant they were better able to feel for the depth of the

socio-emotional content. This furthered the critique of dominant theoretical models of autism by demonstrating that the assumptions of the WCC and monotropism theories may partly explain autistic socio-cognitive differences. However, Chapter 4 demonstrated that the attention to detail and resultant depth of feeling did not occur at the expense of mind-modelling abilities for the autistic readers. Rather, the autistic readers often showed how they could represent more competing minds, thoughts and beliefs when reading the novel than the non-autistic readers.

Chapter 5 further developed the findings from Chapter 4 by exploring how autistic and non-autistic adult readers read different kinds of text extracts and what results from these reading experiences. Considering findings from Chapter 2, Chapter 5 compared a) non-fiction and serious literature due to findings in Chapter 2 that autistic people do benefit socially from some non-fiction and due to findings in Chapter 4 that autistic people can be skilled literary readers and b) texts that are directly about a failure to achieve mutuality in social interaction or about autism itself compared to texts that are more broadly about core human emotional experiences. The primary aim of this exploration was to identify, with consideration for the data in Chapter 2, which kinds of texts might be most beneficial for use with autistic and non-autistic adults in designing future shared reading interventions to overcome the double empathy problem. Chapter 5 also further develops Chapter 2 by introducing pre-recorded audio of each text in the study being read aloud by an experienced reader, in order to explore how liveness might be facilitated within intervention designs. Chapter 5 concluded that autistic and non-autistic readers engage with different kinds of texts in largely similar ways as one another. For both groups, the serious literature, as compared to the non-fiction text, evoked the most feeling from the readers and moved their thinking beyond stereotyping and Othering. By contrast, the non-fiction texts struggled to move readers out of their default ways of thinking and so, for both groups, failed to evoke deeper explorations and feelings. Modern literature was particularly advantageous for the readers, due to its more familiar language and social context that did not result in concern and related difficulties getting inside the text, as the classic literature had. However, it appeared that autistic readers tended to stay with the detail of the text, holding onto its complexity for later use. In comparison, non-autistic readers tended to reduce the information from the reading experience down into pre-existing social scripts for easy future use. Chapter 5 then builds upon Chapters 2-4 in challenging the deficit-

focused argument that autistic people experience a deficit in understanding socio-emotional information. However, Chapter 5 again supports Chapter 4 in demonstrating that the WCC and monotropism predictions that autistic people do better with detail-focused processing may explain autistic differences in socio-emotional processing. However, as in Chapter 4, autistic readers again did not struggle to understand social breadth or the modelling of other minds, suggesting that the WCC and monotropism stereotype autistic socio-cognitive experiences in unhelpful ways.

The final Chapter addresses the findings across Chapters 2 to 5 in relation to the broader thesis aims and research questions. The Chapter will consider the findings in relation to the strengths and limitations of the research, considering implications for future research. Recommendations will be made for both future research enquiry and in designing shared reading groups for use in overcoming stigma and the double empathy problem between autistic and non-autistic people. The thesis conclusion will then consider the overall findings of the thesis to emphasise how the overall thesis has contributed to understandings of autism and in highlighting the value of reading as both a research tool in autism research and a means to overcome stigma towards autistic people when reading with non-autistic people.

1.5.3 Methodological considerations

Qualitative methods were used within the thesis due to the ability of qualitative analysis to further understandings of autism that are led by the narratives of autistic people themselves (Fletcher-Watson et al., 2019; Glynne-Owen, 2010; van Schalkwyk & Dewinter, 2020). Additionally, qualitative research offers a more interpretivist approach to understanding autism, due to the encouragement to assess and transparently incorporate researcher perspectives and approaches to knowledge production (Clarke & Braun, 2014; Glynne-Owen, 2010). In this way, the use of qualitative analysis overcomes concerns with positivist approaches to understanding autism (Botha, 2021; Chapman, 2020; Glynne-Owen, 2010) and enabled a move away from norms around typicality. The thesis author is an autistic adult, and due to the importance of autistic narratives being interpreted from autistic perspectives (Glynne-Owen, 2010), three autistic adults joined the research team as experts by experience as outlined in Chapters 2, 3 and 4. An expert by experience had planned

to join the team for the research that is reported in Chapter 5, but left due to financial constraints and was not replaced due to the time and financial limitations of the research. A social model approach was taken to thinking about the data during qualitative analysis, with particular consideration of the double empathy problem (Milton, 2012) and the neurodiversity paradigm (Singer, 1998, as cited in Milton et al., 2020; Singer, 2016) when interpreting data. However, in line with the value of considering social and medical models together, experiences reflecting a sense of inherent difference and disability were also included within analyses.

Additionally, when implementing reading as a methodology, it is suggested that researchers must treat participant responses in the same way that the readers themselves approach the text (Billington et al., 2019). This process means that participant responses are read in the same way as serious literature, looking for moments of movement within participant responses which are both felt with by the researchers and marked as key points of psychological change in the readers (Billington et al., 2019). This method of close literary reading analysis enables researchers to maintain the complexity of the literature and the ways in which it can surprise readers out of their default thinking and provide a language for intangible thoughts and feelings (Billington et al., 2019). Therefore, as a method, reading enables access to a reader's inner life, giving access to raw experiences and moments where readers are between what has been previously known and what will later be made sense of (Billington et al., 2019). Qualitative research is therefore required to give researchers access to these reader experiences. This method of close literary reading analysis was implemented within the thesis when participants were engaging directly with a text, or reflecting on a text that had been read for a study. A further advantage of this method is that the process moves from observation to one where the contemplation of reader experiences moves the researchers in a way that the data are able to act upon them, putting them into the same state of movement between what was previously known and what will be made sense of (Billington et al., 2019). This process ensured that researcher knowledge was moved empathically by the experiences of the participants in the thesis, in a way that avoided overly-restrictive conclusions around differences. Where this form of analysis was implemented, the writing of the analysis results aimed to include raw, moving moments from the participants' reflections in order to try and bring about a similar process of being moved by the data for the readers of the research.

Particular methods and forms of qualitative analysis were chosen to meet the research questions and needs of the data within a given Chapter. For Chapter 2, Framework Analysis (Ritchie & Spencer, 1994) was chosen in order to capture the most data possible from the sample, due to the richness of the data in Chapter 2. This qualitative analysis method was also chosen due to Chapter 2 dealing with participant reflection on past reading experiences across time, meaning that an explicit, deductive evaluation of participant narratives was most appropriate to understand the participants' experiences. Additionally, quantitative analysis was included as a supplementary assessment of the questionnaire data in Chapter 2, in order to demonstrate that the group differences around fiction preference were not statistically significant, but instead of qualitative interest. Although Chapter 3 deals with a smaller sample, the focus on longitudinal case studies meant that a variety of rich data were analysed for this Chapter. Therefore, the first two stages of Framework Analysis (Ritchie & Spencer, 1994) were initially implemented due to the rigour they enable that prevented data loss and ensured that the richness of the vast data being considered could be maintained. There was then a shift to reflexive thematic analysis (Clarke & Braun, 2014), due to the ability of thematic analysis to better maintain the narrative flow of the data as compared to Framework Analysis. The combination of Framework and thematic analyses enabled a deductive assessment of participants' own opinions and thoughts. However, the reflections on the text that had been read for the study meant that there was also a need to understand the implicit psychological shifts being experienced by participants. Therefore, close literary reading analysis was additionally implemented in Chapter 3 (Billington et al., 2019) to inductively analyse data. As Chapters 4 and 5 explored participant reflections in response to a particular text, this form of close literary reading analysis was again implemented. Within these Chapters, reflexive thematic analysis was implemented as a way to deductively analyse data due to the need to explore surface-level psychological themes within the data (Clarke & Braun, 2014).

Each Chapter includes a methods section which outlines the specific measures and methods of analyses that were implemented and how these were utilised within a particular study.

1.6. Chapter summary

This introductory chapter has demonstrated the need to further understandings of autistic differences that move away from positivist approaches and instead encourage more open, empathic thinking about autistic people. The chapter then highlights the potential value of narrative fiction and in particular serious literature in being able to move understandings of autistic people forward in this way, both within social interactions and also more broadly in knowledge production within autism research. The following Chapters in the thesis will explore how autistic adults engage with different kinds of texts and whether their reading experiences differ from non-autistic adults. Taken together, these Chapters will explore the individual value of reading for autistic people and whether exploring these experiences can overcome stigmatising views towards autistic people. This thesis will therefore begin to move understandings of autistic socio-emotional experiences forward and inform the development of future shared reading designs for use between autistic and non-autistic adult readers.

1.7. References

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Chapter 2

An analysis of the reading habits of autistic adults compared to neurotypical adults and implications for future interventions

2.1. Foreword

The current Chapter sought to explore and contribute to the first thesis aim by seeking to challenge over-generalised dominant theoretical assumptions around the capacity of autistic adults to contemplate fiction and the social complexities contained within it. The Chapter also contributed to the second thesis aim by exploring the thoughts of the autistic adults within the study around typical shared reading design features.

Given that theoretical assumptions have positioned autistic people as lacking the capacity to engage with fiction, this Chapter explores the reading preferences of the autistic and non-autistic adults included in the study, with a particular focus on fiction and non-fiction preferences. The Chapter goes beyond the currently available literature by exploring how the autistic and non-autistic participants in the study engage with different kinds of texts in their everyday lives and what outcomes have resulted from their different reading experiences. In this way, the Chapter addresses the first research question of the thesis as it compares how the autistic and non-autistic participants in this study engage with reading and what each group derives from it. The Chapter also begins to address the third research question, by exploring what kinds of texts and texts features autistic and non-autistic participants feel have been most enjoyable and beneficial to them over time.

Chapter 2 was accepted for publication in *Research in Developmental Disabilities* on 30.05.2021 (Manuscript ID: RIDD-D-20-00531):

Chapple, M., Williams, S., Billington, J., Davis, P., & Corcoran, R. (2021). An analysis of the reading habits of autistic adults compared to neurotypical adults and implications for future interventions. *Research in Developmental Disabilities, 115*, 104003. doi: 10.1016/j.ridd.2021.104003

The format of the content has been adjusted to match the style of the current thesis. The author roles for this study were: Melissa Chapple designed the study collaboratively with Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis. Melissa Chapple recruited the study participants through advertisements to autistic and non-autistic communities and through social media. Melissa Chapple conducted the initial analysis and wrote the first draft of the manuscript. Sophie Williams joined the study as an expert by experience and worked with Melissa Chapple to analyse a subsection of the data to inform the final analysis. Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis all assisted with the final stages of the data analysis and provided feedback on the prepared manuscript. All authors reviewed and agreed on the final manuscript before submission to the journal. Melissa Chapple was responsible for the peer-review revisions to the manuscript with guidance from Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis.

2.2. Abstract

Background: While research has consistently highlighted the usefulness of narrative texts for social development, this has not been fully explored with autistic adults. It has long been assumed that autistic individuals lack the social understanding to contemplate fiction, preferring non-fiction. This study aimed to explore the self-reported reading habits of autistic adults compared to neurotypical adults, accounting for higher education demands.

Methods: A qualitative design was used, with 43 participants (22 autistic; 21 neurotypical) completing a reading habits questionnaire and subsequent semi-structured interview.

Results: Neurotypical participants tended to prefer fiction, with autistic participants showing no preference between fiction and non-fiction. Four themes were identified from interview data (1) reading material choices; (2) text investment; (3) in-text social understanding; and (4) reading as a social learning device. Both groups reported evidence of empathising, perspective-taking and social understanding while reading. The autistic group additionally reported social learning outcomes from reading.

Discussion: Findings contradict prior assumptions that autistic individuals lack the social understanding required by fiction. Instead, findings show that social benefits

of narrative texts extend to autistic readers, providing important social learning experiences.

2.3. Introduction

Reading, particularly fiction, is believed to support continued social and emotional development (Corcoran & Oatley, 2019; Mar & Oatley, 2008). This has yet to be explored in autistic individuals, who have difficulties interpreting and responding to the social behaviours of neurotypical individuals (American Psychiatric Association, 2013; Milton, 2012). This exploration is particularly important, with findings that autistic individuals experience mental health difficulties and loneliness (Mazurek, 2014) resulting from general difficulties forming and maintaining friendships (Sedgewick, Hill, Yates, Pickering & Pellicano, 2016). The social simulations that reading provides could allow autistic individuals to comfortably explore social situations and perspectives without the social and sensory pressures that make socialisation difficult (American Psychiatric Association, 2013). Additionally, findings show that regular readers develop social connections with fictional narratives (Merga, 2017), which could theoretically reduce loneliness. However, this exploration has been hampered by deficit-focused approaches that assume autistic individuals lack the socio-cognitive capacity needed to enjoy and contemplate fiction (Baron-Cohen, 1997, 2008, 2009). This paper reports qualitative findings on how autistic adults, in comparison to neurotypical adults, engage with reading in their daily lives.

2.3.1. Facilitating social understanding through reading

Fiction and narrative non-fiction are argued to provide immersive simulations of the real social world, projecting readers into situations that enhance understandings of characters' perspectives (Mar & Oatley, 2008; Waytz, Hershfield & Tamir, 2015). Fiction in particular is argued to be inherently social, with three proposed levels of social embeddedness: (1) the mind of the character, (2) within the mind of the author, (3) within the mind of the reader (Zunshine, 2011). This complex social simulation process, with the addition of rich contextual information that is often unavailable in real-world settings, is believed to encourage perspective-taking (Mar & Oatley, 2008; Oatley, 2016). During this simulative process, readers infer character emotions and perspectives from their own thoughts and feelings, through

the activation of past, personal memories that link to narrative circumstances (Mumper & Gerrig, 2019). This reliance on personal experience alongside the projection of self is argued to temporarily blur self-other boundaries. This, according to Koopman and Hakemulder (2015), results in more nuanced self-other comparisons, particularly when contemplating literary characters. Although the blurring of self-other boundaries is viewed by some as problematic and ‘egocentric’ in the context of real-life social understanding (Lombardo & Baron-Cohen, 2011), reading provides richer detail which can be processed for longer. Thus, reading acts like a flight simulator by providing many social experiences to support social skill training, reinforcing existing knowledge and helping to develop new social understanding (Mar & Oatley, 2008; Mumper & Gerrig, 2019).

Although social benefits are believed to result from all fiction, literary fiction is thought to be particularly provocative of empathic responses (Koopman & Hakemulder, 2015). Within shared reading groups, literary fiction and poetry extracts are utilised to promote personal evocation to enhance the liveness of texts (Longden et al., 2015). This adds a fourth level of social embeddedness to fiction: the text through the mind of other readers. Reading groups such as these provide a potential avenue for supportive social interventions.

2.3.2. The potential for reading to support autistic individuals

The exploration of the potential of reading to support the social understanding of autistic people has been restricted by dominant theoretical assumptions, such as the mindblindness theory (Baron-Cohen, 1997) and the empathising-systemising (E-S) construct (Baron-Cohen, 2009). These theories assume that autistic individuals have difficulties attributing mental states to others (Baron-Cohen, 1997, 2008), known as theory of mind (ToM) (Premack and Woodruff, 1978). This is argued to result in extreme egocentrism, with autistic individuals believed to apply mental states of the self to all others without consideration of similarity to self (Lombardo & Baron-Cohen, 2011). The E-S construct argues that this proposed empathic understanding deficit results in the acquisition of an opposite skill based on systematic, rule-based understandings. This has been generalised to assume that autistic people would struggle with the social complexities of fiction, preferring factual material. These assumptions are articulated in the autism quotient (AQ), which explicitly refers to the dislike of fiction as an autistic trait (Baron-Cohen, Wheelwright, Skinner, Martin

& Clubley, 2001). Given findings that reliance on non-fiction reading (with the exception of literary biographical narratives) is associated with lower ToM scores, fewer social connections and increased loneliness (Mar, Oatley, Hirsh, dela Paz, & Peterson, 2006; Mar, Oatley & Peterson, 2009), it is vital to rigorously scrutinise the assumptions made about the reading habits and preferences of autistic individuals. Previous empirical research has also speculated that proposed limitations with imagination and social understanding amongst autistic individuals could result in difficulties with the suspension of reality required for fiction contemplation and enjoyment (Barnes, 2012; Ten Eycke & Müller, 2015).

These deficit-focused views of autistic socio-cognition embed a limited one-sided view of the social difficulties experienced by autistic individuals, and therefore cannot fully explain autistic cognition. As social communication is two-way within any given social pair, it is inappropriate to blame one individual for social communication breakdowns (Milton, Heasman & Sheppard, 2018). Therefore, difference-based views of social interaction are more helpful as the basis of exploring autistic socio-cognitive skills. This is the view proposed by Milton's (2012) double empathy problem. This theory argues that social communication breakdowns occur due to the different cognitive and emotional styles that exist between autistic and neurotypical individuals, resulting in different generalised norms and expectations (Milton et al., 2018). Deficit views are believed to result from the fact that autistic individuals are likely to be blamed for communication breakdowns by neurotypical individuals (Chown, 2014). Therefore, it is important that interventions aiming to improve social interaction are applicable to both autistic and neurotypical people and take a difference rather than deficit-based approach (Milton & Moon, 2012). This adds to the potential of reading as a facilitatory method for social understanding because it can be adapted to allow both autistic and neurotypical individuals access to narrative depictions of one another's emotional and cognitive perspectives.

However, it is first important to understand how autistic individuals engage with different text types. This is particularly important due to arguments that reading benefits are exclusive to literary fiction (Koopman & Hakemulder, 2015) and assumptions of fictional barriers for autistic individuals (Baron-Cohen et al., 2001). Research with autistic children between the ages of 2 and 6 years (Armstrong, Paynter & Westerveld, 2019) and the ages 8 to 14 years (Davidson & Ellis Weismer,

2018) has showed an overall fiction preference, with no differences to non-autistic same age peers. Barnes (2012) initially explored text preferences amongst autistic adults, in comparison to non-autistic adults, with participants asked to rank four text descriptions based on preference. This included texts about (a) objects and (b) people, each split into fiction and non-fiction examples. Although these findings supported AQ assumptions of a non-fiction preference amongst autistic participants, this was due to a strong preference for non-fiction over fiction for object-focused texts. As the study used only text descriptions and did not explore real-world reading preferences, further research is required to explore the reading preferences and habits of autistic adults in comparison to non-autistic adults.

2.3.3. Current aims

The current study fills an evidence gap by qualitatively exploring the reading preferences and habits of autistic adults, in comparison to neurotypical adults. It places lived experience at the core of understanding how autistic individuals engage with reading generally, something that has become important in redefining scientific understandings of autism (Wright, Wright, Diener, & Eaton, 2014). The study had four key aims: (1) to examine existing preferences and reading choices within fictionality and genres; (2) to explore the level of social understanding, including ToM, while reading; (3) to assess social outcomes from reading; (4) to assess autism-specific considerations for future intervention designs.

2.4. Methods

2.4.1. Participants

Participants were recruited through social media and local advertisements. Snowball sampling was also used for autistic participants. Initially, 145 participants indicated a willingness to be involved in the study, 33 of these did not meet study eligibility and 68 dropped out prior to arranging an interview without providing reason. One neurotypical participant was removed from analysis due to evidence of English language difficulties. The overall autistic and neurotypical groups were split into higher education students and non-students, to ensure the spread of likely reading needs, as found in a pilot study (Chapple, unpublished MSc thesis). Inclusion criteria included proficient English language skills, no self-identified learning difficulty that would impact reading, and an estimated Wechsler Adult Intelligence Scale (WAIS)

IQ score of 90 or above as assessed by the Quick Test (QT) (Ammons & Ammons, 1962). For neurotypical participants, exclusion criteria included scoring 32 or above (the suggested cut-off score for autism) on the AQ (Baron-Cohen et al., 2001), or having an existing neurodivergent condition. All non-student participants were excluded if they had been enrolled on a higher educational course in the past 12 months. Autistic participants without a formal diagnosis were included to keep the sample representative, and to take account of accurate gender representation, due to the longstanding underdiagnosis of autism in women and genders outside binary norms (Cooper, Smith & Russell, 2018; Fletcher-Watson & Happé, 2019). Formally diagnosed autistic participants had no additional exclusion criteria, but undiagnosed autistic participants with an AQ score below cut-off were excluded.

Table 2.1 Participant AQ and IQ Scores Between Neurotypes [mean(\pm SD)]

	AQ ^a	Estimated IQ ^b (WAIS Equivalent)	IQ ^b (Raw QT)
Autistic	36.32 (7.21)	100.55 (7.84)	42.23 (2.99)
Neurotypical	14.95 (6.90)	101.24 (9.20)	42.05 (3.35)

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

Overall, 43 participants (see Tables 2.1, 2.2 and 2.3 for demographics) took part in a total of 31 interviews. This comprised 22 autistic participants (male N=8; female N=11; gender neutral N=3; 11 students) aged 19-67 ($M=31.95$, $SD=12.24$) and 21 neurotypical participants (male N=7; female N=13; prefer not to disclose N=1; 12 students) aged 19-61 ($M=37.80$, $SD=14.64$). The team originally sought 22 participants of each neurotype, however, data collection was stopped due to achieving saturation. Participants were interviewed either (a) in-person, in groups of ≤ 6 (neurotypical = 5, autistic = 1) with all participants from the same group (i.e., all autistic students, all non-autistic students, all autistic non-students, all non-autistic non-students), (b) interviewed alone, in-person (neurotypical = 6, autistic = 6), or (c) via a Skype video call interview (autistic = 13; two were conducted with audio only). All in-person interviews took place in a designated, quiet interview room at the

University of Liverpool. The study was approved by the University of Liverpool research ethics committee.

Table 2.2 Autistic Participant Demographics

Participant No.	Age	Gender	AQ ^a	IQ ^b (WAIS Equivalent)	Level of Education Completed*	Autism Status
1	21	Male	35	90	Bachelors	Diagnosed
20	22	Male	15	110	Bachelors	Diagnosed
31	23	Female	43	102	Bachelors	Self- Identification
36	20	Male	43	98	A Level	Diagnosed
43	47	Male	29	100	Advanced craft certificate	Diagnosed
45	67	Male	33	102	Below GCSE	Diagnosed
60	22	Male	41	116	A Level	Diagnosed
63	20	Female	23	92	GCSE	Diagnosed
67	19	Male	33	92	A Level	Diagnosed
71	46	Female	37	108	PGCert	Referral
77	51	Female	35	110	Bachelors	Diagnosed
82	27	Female	42	98	Masters	Referral
87	26	Gender Neutral	37	102	Bachelors	Diagnosed
90	38	Gender Neutral	35	92	PGCSE teaching qualification	Diagnosed
91	35	Female	42	90	Degree underway	Diagnosed
94	42	Female	37	104	GCSE	Diagnosed
95	29	Female	39	104	Foundation Degree/Diploma	Diagnosed
97	31	Female	49	110	Masters	Diagnosed

98	33	Female	35	110	Bachelors	Diagnosed
113	25	Female	37	98	Bachelors	Diagnosed
122	28	Gender Neutral	42	92	Bachelors	Diagnosed
140	31	Male	37	92	A Level	Diagnosed

*GCSE is the standardised senior school qualification in the UK

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

Table 2.3 Neurotypical Participant Demographics

Participant No.	Age	Gender	AQ ^a	IQ ^b (WAIS Equivalent)	Level of Education Completed*
3	22	Female	29	98	Bachelors
4	26	Female	8	100	Doctoral Level
11	25	Male	14	96	Masters
21	55	Prefer Not to Say	11	108	Masters
24	22	Male	10	100	Bachelors
27	50	Female	16	90	GCSE
32	19	Female	13	90	A Level
35	26	Female	28	100	Masters
40	61	Female	7	96	Postdoctoral
41	22	Male	12	90	Bachelors
44	22	Female	18	96	Bachelors
50	60	Male	25	116	A Level
55	50	Female	5	96	Masters
58	38	Female	18	116	Masters
59	29	Female	17	90	Masters
62	53	Female	17	104	Masters

66	47	Female	18	120	Doctoral Level
109	31	Male	21	116	Bachelors
116	36	Male	7	100	Bachelors
117	42	Male	6	102	A Level
135	58	Female	14	102	Bachelors

*GCSE is the standardised senior school qualification in the UK

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

A demographics questionnaire asked for participants' age, gender, and highest qualification. Eligibility questions were asked at this stage.

2.4.2. Screening measures²

The Autism Quotient (AQ) (Baron-Cohen et al., 2001)

The AQ is a 50-item questionnaire that uses statements to elicit a score which reflects autistic traits in clinical and non-clinical samples. The AQ was used to assess the number of self-reported autistic traits in both samples.

The Quick Test (QT) (Ammons & Ammons, 1962)

A single 50-item version of the QT was used. The raw test score can be converted to a WAIS equivalent IQ score. The test involves participants looking at 4 pictures and deciding which picture each word goes best with. Although providing only an estimated WAIS IQ, this was considered adequate for this study where its brevity was an asset.

2.4.3. Interview measures

Reading Habits Questionnaire, Adapted from The Reading and Media Habits Questionnaire (Stanovich & West, 1989)

The reading habits questionnaire is a 9-item questionnaire adapted to meet the study aims to explore reading preferences. The adaptation involved removing text response

²Cronbach's alpha values were 0.95 for the AQ and 0.67 for the QT. As the QT is used for data summary, this is not of particular concern for this paper.

and television-based questions and adding questions around fiction and genre preference. The questionnaire was used as an initial assessment of reading habits (see Figure 2.1) and to tailor interview questions.

A semi-structured interview schedule was derived from pilot study findings (Chapple, unpublished MSc thesis). The schedule for this study focused on seven main areas, (1) follow up on the reading habits questionnaire: *'Why do you prefer your favourite fiction/non-fiction genre?'* (2) relatability: *'How easy or difficult do you find it to relate to a situation in reading material?'* (3) visualisation and escapism: *'How specific or general are your visualisations when reading?'* (4) social situations: *'Do you feel like you understand social situations in texts?'* (5) concentration: *'Can you easily switch between storylines?'* (6) previous theoretical assumptions: *'Do you feel you empathise/sympathise with people in texts?'* (7) intervention: *'How do you feel about classic literature?'* The schedule consisted of structured open questions, such as shown above, and follow up questions.

Dictaphones were used for recording. Recordings were manually transcribed and uploaded to NVivo 10 (Castleberry, 2014).

2.4.4. Procedure

Potential participants completed screening via a Qualtrics link with the informed consent procedure, followed by a demographic questionnaire, the QT and the AQ. Participants were assigned to the relevant group based on screening data, as outlined in sections 2.4.1 and 2.4.2. Participants who screened out or did not leave an email address had their data removed, those who screened in were invited to stage two. Informed consent was obtained at the time of interview, followed by the reading habits questionnaire. Interviews typically lasted 60-90 minutes, depending on how the interview was conducted (i.e., individual or group). Field notes were taken by the interviewer during interview. No follow up interviews were conducted. All interviews were carried out by the first author, an autistic female PhD researcher who has undergone Master's level training on semi-structured interviewing. An autistic research assistant sat in on one of the interviews to observe the interview process. Participants were invited to contact the first or fifth author for more information prior to interview, however, no participants made contact. Autistic participants were informed they would be interviewed by an autistic researcher. The interviewer was acquainted with a minority of interviewees but was unfamiliar with

most. Participants were asked to refer to themselves by number to protect identity. In total, eight participants (4 autistic) were invited to provide feedback on the research findings. Only two participants (1 autistic) returned feedback, and both felt that the findings reflected the reported reading habits from their interviews.

2.4.5. Analysis

SPSS was used to analyse quantitative data from the reading habits questionnaire and to summarise demographic data.

Edited transcription was used, with the omission of irrelevant false starts, filler sections and repetition, unless used to convey significance. Transcription was completed by the first and second author who have prior experience of transcription. Resultant transcripts were checked by the first author, and not sent back to participants as there were no areas of unclarity or missing data. Interview transcripts were analysed in NVivo 10 (Bazeley & Jackson, 2013) using Framework Analysis (Ritchie & Spencer, 1994). Framework Analysis was chosen as it relies on a rigorous, sequential protocol which reduces data loss and is, therefore, good for large data sets (Parkinson, Eatough, Holmes, Stapley & Midgley, 2016). Framework Analysis protocol for psychological research provided guidance:

Stage 1: Immersion) The first author transcribed 28 interviews and manually coded all transcripts. The second author transcribed the remaining three interviews (two autistic), and selected one autistic and one non-autistic group interview transcript to code. Initial coding explored the data, highlighting topics of interest.

Stage 2: Organising) The first author sorted all data into an organisational framework within NVivo 10, using the seven interview topics as initial categories.

Stage 3: Indexing) The first author recoded all data on a line-by-line basis. The second author recoded the two group transcripts they had initially coded for comparison with the first author. These two authors met weekly to discuss codes, and, although no data were collected about percent agreement/disagreement, for the most part the codes were very similar between coders. Any differences in codes that did emerge were resolved through discussion. Inductive, exploratory coding was used, using participants' own language where possible (Saldaña, 2009) to maintain the grounded nature of the data.

Stage 4: Charting) Recoded data were moved into initial subthemes by the first author. This process was continually checked by the second author to ensure

interpretations matched. When the resultant subthemes and themes were agreed by the first and second authors, they were checked by the rest of the team. Data were reorganised, and themes renamed and refined until consensus was reached.

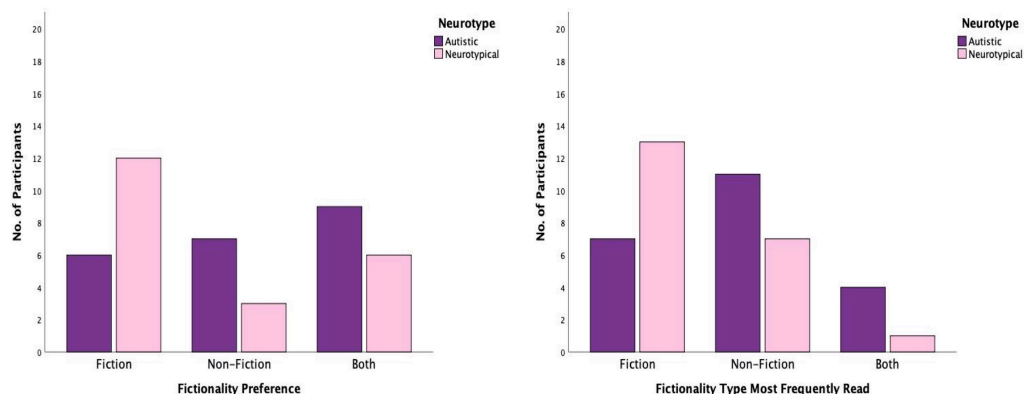
Stage 5: Mapping) Initially, two frameworks were produced, one for each of the autistic and neurotypical groups. This enabled the team to check subthemes and themes within each group, ensuring themes accurately reflected the data. When both frameworks were agreed upon by the team, data between the two groups were combined to highlight similarities and differences.

The first and second author are autistic researchers, meaning data were analysed from autistic and non-autistic perspectives within the research team.

2.5. Results

2.5.1. Questionnaire results: Statistical analysis

Figure 2.1 Clustered Bar Graph of Fictionality Preferences and Frequency Split by Neurotype



Fisher's Exact Test revealed that the relationships between neurotype (autistic; neurotypical) and (a) fictionality preferences ($p=.139$) and (b) fictionality reading frequency ($p=.116$) were non-significant (see Figure 2.1 for depiction).

2.5.2. Questionnaire results: Qualitative summary

The groups did not differ significantly in relation to either fictionality preference or the frequency at which participants read fiction and non-fiction (see section 2.5.1. for details of these analyses). Sample data are summarised here to provide deeper

qualitative understanding of participant preferences and habits in addition to interview data in section 2.5.3.

12 neurotypical participants compared to 6 autistic participants stated a preference for fiction. For the autistic group, the majority (N=10) stated that they enjoyed fiction and non-fiction equally while 7 compared to 3 non-autistic participants stated a preference for non-fiction. Additionally, 11 autistic participants reported reading non-fiction most frequently while 13 non-autistic participants reported reading fiction most frequently (see Figure 2.1 in section 2.5.1. for a visual depiction of data on fictionality preferences and reading frequency).

When asked about general reading habits, both autistic (N=17) and non-autistic (N=15) participants read frequently at a rate of more than once per day. When looking at genre, 7 autistic participants reported preferring science-fiction with 5 preferring the fantasy genre. 7 non-autistic participants reported a preference for classic literature with a further 6 preferring crime and mystery.

2.5.3. Interview results

The final framework (see Table 2.4) comprised four themes: (1) reading material choices (2) text investment (3) in-text social understanding and (4) reading as a social learning device. Results show large overlaps between autistic and neurotypical participants. Where group differences are clear this is emphasised and later summarised in section 2.6. Participant quotes are split by group (A: autistic, N: neurotypical). The analyses below focus on delineating similarities and differences between the two groups within each theme.

Table 2.4 Final Framework with Subtheme Participant Frequency Counts

Theme	Subtheme	Autistic Group Frequency	Neurotypical Group Frequency
Reading Material Choices	General Motivators and Barriers to Reading	22	21
	Learning-Related Reading	22	21
	Reading as Escapism	22	21
	Re-Reading Behaviours	21	20
Text Investment	Achieving and Maintaining Immersion	22	21
	Immersive Difficulties and Facilitation	22	21
	Effects of Prolonged Absorption	22	21
In-Text Social Understanding	Social and Emotional Understanding in Texts	20	17
	Perspective-Taking	20	20
	Difficulties and Facilitators	21	17
	Personal Identification with Narratives	22	21
Reading as a Social Learning Device	Social Design Considerations	21	_*
	Social Outcomes	22	20
	Text-Specific Design Considerations	21	18

*The neurotypical group were not asked about social design considerations due to available literature on reading aloud designs in typical populations

2.5.3.1. Reading material choices

Group similarities

Reviews and recommendations were a key motivator that influenced text selection and reading habits. Recommendations from friends and family were influential for nine autistic and twelve neurotypical participants. These recommendations resulted in increased pressure to engage with texts, but also acted as a method of social connection:

(P95A) ‘it’s sort of like a relationship tie, where I do it so that we have something to talk about, otherwise maybe we won’t connect the same.’

(P58N) ‘I have some very close friends...one of these things that we talk about when we’re all together is “have you read this book?”’

Although students had more learning-related reading pressures, reading to learn was a common motivator across groups. Most participants relied upon non-fiction for learning purposes. However, six autistic and three neurotypical participants found fiction valuable for conceptual learning due to the surrounding social complexities:

(P87A) ‘if I read something with the same theme but through fiction, for me that makes a lot more sense, it’s got a lot more emotion involved’

(P62N) ‘if facts about history or politics were related to me as part of a story, I would absorb that much better’

Fiction was described as being used to facilitate escapism for the majority of participants. This often resulted from wanting a positive distraction from everyday life, particularly during difficult times:

(P91A) ‘there are times in the past when I’ve been worried or anxious that I’ve read and it’s stopped me worrying’

(P3N) ‘a lot of reading fiction...was just that little like “this is my own world where I don’t have to deal with anything else at the moment”’

Fantasy texts in particular were described as facilitative for escapism, due to the in-depth world building and resultant immersion. However, some participants struggled to suspend disbelief while reading fantasy, finding science-fiction more plausible. Both groups described a need for consistent rules within fantasy texts:

(P60A) ‘I like things to be at least basically believable...if I’m reading something and all the events seem believable within the lore that book has, or within the universe it’s created, then it’s completely fine with me.’

(P4N) ‘I get slightly annoyed if I read a fantasy book and they set up rules for that universe and then they break the rules, that really annoys me’

Participants in both groups re-read favoured texts. Participants tended to re-read non-fiction for deeper understanding and fiction for repeated enjoyment. For both groups, re-reading, particularly fiction, provided comfort during difficult times:

(P90A) ‘I call these set of books my old jumper books... that you put on to feel kind of safe and warm, they’re my books that I turn to when I need nurturing and need comfort.’

(P58N) ‘when you are feeling a bit down, or perhaps something bad has happened, you sometimes want the comfort of something familiar’

Group differences

Specialised interests were a key motivator for autistic participants, and were more nuanced and in-depth than general interests described by neurotypical participants. Reading, primarily non-fiction, helped eleven autistic participants to further engage with their specialised interests:

(P71A) ‘the last few years now I’ve been really interested in the history of why we eat the way we do, and how we used to eat two-hundred years ago...so it’s not just cook books, it’s how the food landscape has evolved.’

Additionally, eight autistic participants described past education experiences as a barrier to reading. For these participants educational reading demands made reading feel unenjoyable. Three participants felt this had created a barrier to the enjoyment of classic literature:

(P98A) ‘there are a lot of classics that I really love, but I think also, some of them have sort of been ruined by me having read them in school’

For the neurotypical group, physical and digital social opportunities were a unique barrier to reading. This resulted in preferences for alternative medias such as TV that enabled a shared social experience. In comparison, reading was viewed as solitary entertainment that prevented socialisation:

(P21N) ‘reading tends to be an exclusive thing I think you just read and you might as well say to the other person “well, don’t bother me.”’

When looking at fiction preferences, five autistic participants found overly-realistic texts to be a barrier to enjoyment, something that was not reported by

neurotypical participants. This was because over-realistic texts were seen as a barrier to escapism, and had resulting negative effects:

(P1A) ‘It’ll go too realistic and get too grim, I don’t mind grim stuff or dark stuff it’s just when it has that element of realism it feels like it hits too close to home.’

2.5.3.2. *Text investment*

Group similarities

Participants reported varied levels of immersion, such as hyper-focusing and transportation. Transportation and resulting escapism were particularly a feature for fictional texts resulting in immersive reading experiences that permitted vicarious enjoyment:

(P60A) ‘I want to be taken to that other place, feel what they’re feeling, experience it as though I’m experiencing it in real life.’

(P35N) ‘sometimes I will think I’m travelling together with the character... just like I experience the same situation as the character.’

Internal representations were described as important for transportation maintenance. These primarily consisted of visual and auditory representations, and were consistent with individual processing styles. When representations were hard to form, participants described using facilitators that made texts easier to represent and follow. Facilitators included real-life exemplars, such as people and places known to participants, and external aids such as media tie-ins:

(P36A) ‘My sister got me the Game of Thrones books, and I really struggled to follow who was saying what...we watched an episode and I went back and read it, and it was a lot easier to read.’

(P109N) ‘when I read a place description, I generally find I relate it to a place I already know’

Group differences

It was clear that immersion posed more difficulties for autistic participants, with eight reporting barriers, compared to just one neurotypical participant. This seemed to be due to difficulties for these autistic participants in disconnecting from the external environment. Although neurotypical participants did report environmental

barriers, these were short-term, context-dependent factors. In comparison, the autistic participants described general long-term barriers:

(P90A) ‘I can never, ever, ever disengage from where I am, ever...there is always a little tiny bit of me like “right, but you’re still in the moment here.”’

(P41N) ‘I can’t read on the train, I can read on the tube as daft as it sounds, because the sound of the tube just completely drowns out everything else’

Both groups described sometimes being so absorbed in reading that real-life necessities were overlooked. However, this seemed to be of a higher intensity for autistic participants. This resulted in reduced contextual awareness for five autistic participants, raising important vulnerability considerations:

(P77A) ‘if I become transported into a book then I’m not going to be able to hear if somebody says something frightening, or they might steal my pocketbook if I’m not watching.’

Due to these more invasive life impacts, five autistic participants imposed control behaviours to reduce impacts:

(P97A) ‘I make sure that I block particular websites that I want to spend time on; ‘cos otherwise I’ll be pretty engrossed in reading but I have my work to do.’

2.5.3.3. *In-text social understanding*

Group similarities

Social and emotional understanding while reading was evident across groups, with only six autistic and three neurotypical participants reporting difficulties.

Specifically, both groups reported empathic experiences, with ten autistic and fourteen neurotypical participants explaining this further:

(P20A) ‘I do often empathise a lot with what a character’s thinking of doing, even if it’s not necessarily what I would do.’

(P4N) ‘it’s that whole idea of creating empathy and understanding people have had completely different lives to the life that I’ve had.’

Taking the perspective of characters was also frequently reported by participants across groups. This included the ability to switch between different character perspectives, resulting in deeper social and emotional understanding:

(P122A) ‘it can help you get a better understanding of the overall situation, because you’ve got the different characters and how they’re reacting to things’

(P59N) ‘she’ll take very different characters and write their point of view...that really helps because you’re not just seeing it from one side.’

Explicit description within texts was used by participants across groups to understand social and emotional aspects of texts, such as character perspectives. Indirect cues were also used, particularly where explicit description was unavailable, including word choices and sentence structure:

(P94A) ‘even if it’s not sort of spelt out explicitly, word choice will tell you a fair bit about how the character’s reacting’

(P135N) ‘Sometimes it can be silence in the spaces between, sounds not necessarily expressions or facial expressions, it can be something else.’

Participants also reported personal identification with texts which was often important for enjoyment. Characters and people within books were a common focus:

(P91A) ‘I do feel a connection with them, but it’s more if they’ve done something or had something similar happen to them that’s happened to me.’

(P58N) ‘it’s nice to know others have done or experienced things that perhaps you have as well.’

Eight autistic and six neurotypical participants desired representation of their demographic identities. However, participants also found the difference of others in texts to be of interest. Nine participants from each group reported an interest in personal stories:

(P82A) ‘I read Reddit.com, and this is because I find that it’s kind of the most unfiltered way to get people’s stories’

(P27N) ‘I like to see how people’s lives have gone, or how they’ve gotten on, or what they’ve done’

Group differences

Some general social aspects of texts were consistently difficult for seven autistic participants. In particular, character intent was difficult for ten autistic participants; however, two found difficulties diminished upon becoming regular readers:

(P122A) ‘when I first started getting in to my reading, I didn’t really get any of it, and after a while you pick up the tropes and things and start going “oh, this character’s on a heroes’ journey,” and you can start predicting it from that.’

While six neurotypical participants reported some difficulty with anticipating character intentions, these difficulties were mostly contextual and infrequent. Only

one neurotypical participant had a general intent difficulty similar to what was common amongst autistic participants.

Only one autistic participant described being unable to achieve empathy for characters. Three autistic participants actively sought empathy, with one feeling guilty when empathy was absent:

(P1A) ‘you read a really emotional story of like an asylum seeker fleeing from war, and you’re like “ok that’s obviously a bad thing,” but you feel bad because it doesn’t hit you as hard as you feel it should.’

For six autistic participants, empathising was easier if the experience was familiar. One participant was completely unable to empathise with unfamiliar situations and another actively researched novel situations to try and facilitate empathy.

Autistic participants additionally relied on inner monologue and character interaction dynamics to infer social and emotional content, something not reported by neurotypical participants:

(P97A) ‘the other characters and their interactions, then that’s really helpful; because then it doesn’t leave me any guess work’

In relation to identification, autistic individuals tended to identify with authors:

(P82A) ‘I actually find it easier to connect with the author than I do their characters.’

Additionally, interest in authors’ lives and experiences were more common amongst autistic participants, with fifteen showing some level of interest compared to five neurotypical participants.

Fifteen autistic participants, compared to five neurotypical participants, found general character struggles to be relatable and useful. For one autistic participant, reading about struggles was a useful tool to identify and prepare for future personal struggles:

(P113A) ‘somebody in a book, their parents are going to tell them they’re getting divorced then their parents might say “can you come over to the house, we need to have a talk?”...when my mum came over and seemed kind of upset and said “can you come over to the house we need to talk?” I instantly knew...it kind of helped me prepare for that situation.’

In relation to identity representation, nine autistic participants felt under-represented, and felt that when autism was depicted it was misrepresented, with negative, stereotypical portrayals:

(P113A) ‘they’re often male characters, and they often are like the stereotypical awkward autistic person with zero social skills.’

Some autistic participants had additional minority identities, including gender, age, belonging to the LGBTQ community, class and mental health, that they felt were also under-represented. While the issue of representation of minority identities was present for neurotypical participants, this was less profound due to the majority of narrative perspectives aligning with their neurotype.

2.5.3.4. Reading as a social learning device

Group similarities

Ten neurotypical and twelve autistic participants reported no explicit real-world social learning benefits from reading. However, both groups reported peripheral social improvements as a result of reading, this included vocabulary, humour and tone. An additional peripheral improvement was character investment, which served as a social and emotional connection for eight neurotypical and nine autistic participants:

(P63A) ‘I feel like I’m becoming friends with the characters... when I read it back, it’s like meeting an old friend of mine.’

(P35N) ‘each character has their own personality and style, and I can take this story and they are real friends for me’

This was more important for the autistic group, as connections were supplementary to real-life socialisation and alleviated social connection difficulties.

Both groups had mixed opinions about literature and poetry texts. Common barriers included language difficulties that made reading too effortful. However, participants who enjoyed poetry and/or realist literature felt they were more representative of societal issues. Additionally, both groups found enjoyment from analysing literature and poetry:

(P63A) ‘the classics...they used to have a lot to analyse in them, and I like how the language is in them.’

(P27N) ‘I prefer rhyming poetry and how people match the words’

Group differences

Reading resulted in more social outcomes for autistic participants, with seventeen, compared to ten neurotypical participants, finding reading helped their real-life social and emotional understanding:

(P113A) ‘I look at the behaviour of people in books and the steps in that behaviour, and use that to kind of predict what steps people might do in real life.’

Texts were described as an easier method for social learning by thirteen autistic participants, compared to three neurotypical participants, because it provided the luxury of time and back-and-forth reading for checking reflections and perspective-taking:

(P63A) ‘I get to turn the pages around, and go back and forth if I don’t understand, so I get to read at a detailed level. I find it hard to do it in real life, because it’s happening more chronologically.’

In comparison, neurotypical participants believed their social skills developed naturally through experience, using texts to learn about new situations.

When looking at intervention design, fourteen autistic participants mentioned a desire for social learning, however the autistic group had additional social considerations. Seven participants avoided social situations due to difficulties with face-to-face interaction and environmental sensory difficulties. Additionally, five participants emphasised the importance of alone time and shorter interactions:

(P60A) ‘I don’t like to be too social for too long because it starts to be quite draining.’

Group size was also important for four autistic participants who preferred one-on-one or small groups. Preparation was additionally important, with nine participants emphasising a need to have texts ahead of time.

Additionally, five neurotypical, compared to two autistic participants, stated a preference for having poetry read aloud. When asked about the idea of participating in a reading aloud session many autistic participants were uncomfortable:

(P60A) ‘I’m not so comfortable with the idea of being read to because in my mind that’s what you have for children’

However, eight liked the idea of audiobooks or audio files, due to improved control over auditory information:

(P63A) ‘if I had this audio file, I can replay it, or replay parts that I didn’t really hear.’

Five disliked the idea of listening instead of reading regardless of method.

2.6. Discussion

2.6.1. Summary of findings

This study aimed to examine the differences and similarities between autistic and neurotypical adults in (1) reading habits and preferences; (2) social understanding within texts; (3) the social outcomes of reading; and (4) intervention considerations. Relative findings between groups are discussed in Sections 2.6.1.1. to 2.6.1.4 in relation to previous research.

2.6.1.1. Reading habits and preferences

Both groups read frequently and generally read fiction for escapism, reading non-fiction for learning purposes. This expands on Barnes’ (2012) findings, showing that, when given the option, autistic people enjoy fiction and non-fiction equally. This also adds to findings of fictional preferences amongst autistic children (Armstrong et al., 2019; Davidson & Ellis Weismer, 2018), showing fiction can be enjoyed by autistic individuals of all ages. This questions the assumption that a preference for fact over fiction is characteristic of autism (Baron-Cohen et al., 2001). The interview data suggest that autistic participants use factual books to engage with specialised interests, further explaining Barnes’ (2012) findings of an autistic preference for factual non-fiction. However, here it was clear that autistic participants also enjoyed personal stories. In short, the inherent social nature of fiction (Mar & Oatley, 2008; Zunshine, 2011) and its use for enjoyment and learning by autistic participants, challenges the simple E-S notion of an autistic empathy deficit (Baron-Cohen, 2009).

Additionally, autistic participants preferred science-fiction and fantasy for fiction, in contrast to the neurotypical preference for literary or crime fiction. Autistic participants required consistent rules for fantasy, seemingly consistent with the idea of systematic processing in autistic people (Baron-Cohen, 2009). However, the same need for consistency applied to neurotypical readers here too. The preference for science-fiction and fantasy dispels concerns that autistic people may struggle with reality suspension and imagination (Barnes, 2012; Ten Eycke &

Müller, 2015). Rather, some autistic participants found over-realistic fiction content difficult. Additionally, both groups desired transportation into a narrative world, showing that the simulative and immersive experience afforded by fiction (Mar & Oatley, 2008) is sought out and enjoyed by autistic readers.

2.6.1.2. Social understanding within texts

Contrary to proposed autistic social deficits (Baron-Cohen, 2008), both groups reported social and emotional understanding while reading. Specifically, both groups reported empathic and perspective-taking skills while reading. The lived experience data presented here contrast with the mindblindness theory and egocentric explanations of autistic perspective-taking (Baron-Cohen, 1997). Instead, these findings support the double empathy idea that autistic people have different perspective-taking approaches (Milton, 2012). The self-other blurring afforded by reading could permit autistic people to implement their own perspectives to understand and relate to social information (Koopman & Hakemulder, 2015). Therefore, the additional information provided in texts (Oatley, 2016) may help to overcome real-life barriers autistic people encounter when trying to understand neurotypical perspectives (Milton et al., 2018).

However, autistic participants did report more difficulties with social and emotional understandings. This was primarily around intent, and is therefore likely to reflect the double empathy problem (Milton, 2012), due to the under-representation of autistic narratives in fiction. This under-representation was highlighted by autistic participants, who felt further misrepresented if they belonged to other minority groups. This could be particularly important, given the proposed significance of personal experience in relation to narrative contexts (Mumper & Gerigg, 2019). However, both groups still identified with people and contexts in texts. Autistic participants in particular showed identification with character struggles and increased empathy with situations that felt familiar. Therefore, under-representation may not bar identification and subsequent investment. Interestingly, autistic participants showed more interest in authors' intent and background compared to neurotypical participants. This focus on author intent may reflect the use of higher-order cognitive empathy to extract author perspectives from texts (Zunshine, 2011).

2.6.1.3. Social outcomes of reading

The autistic group especially found reading to be a useful social learning tool. This shows that the suggested social learning values of narrative contemplation can extend to autistic readers (Mar & Oatley, 2008; Mar et al., 2009). These findings were evident regardless of whether the participants reported reading classic literature, challenging the view that literature is needed to support social outcomes (Koopman & Hakemulder, 2015). Additionally, some participants across groups reported simulated friendships with characters, consistent with Merga's (2017) findings that readers gain friendship connections from books. This could, at least temporarily, improve feelings of loneliness for autistic people (Mazurek, 2014). Books also acted as social catalysts within real-life friendships because, in both groups, text choice was influenced by others' recommendations. This indicates another way reading could support friendships for autistic people (Sedgewick et al., 2016).

2.6.1.4. Intervention considerations

Both groups expressed mixed opinions about reading poetry and classic literature. The most common issues were to do with older and metaphoric language posing comprehension challenges. The autistic group were asked about shared reading design considerations for future reading interventions. Findings emphasised the importance of preparation and the provision of relevant materials and discussion topics ahead of time. Social concerns were also expressed including face-to-face contact, which was felt to be less challenging in smaller groups and for shorter durations. These considerations suggest that the current shared reading group designs may need to be refined so that interventions become more like conventional small group book clubs. These adjustments are important as autism-based interventions should be both accessible and adapted to individual needs (Milton & Moon, 2012). Another key concern was that some of the autistic readers expressed discomfort at being read to, a key component of shared reading (Longden et al., 2015). However, findings show audiobooks, or smaller audio files, may provide an increased feeling of control, reducing processing demands to an acceptable extent for autistic participants.

2.6.2. Limitations and future research

As participants in this research study were volunteers, they were likely to be more avid readers. This was a particular issue for neurotypical participants, who were mostly recruited through the University and reading-based locations. Therefore, any generalisations to the wider population are limited. Furthermore, the quantitative summaries and explorations within this study were designed to further explore the current sample, rather than providing generalisable results. While this study has provided qualitative data to expand on the findings of Barnes (2012), larger scale quantitative data are needed to explore the accuracy of the non-fiction preference assumption amongst autistic individuals. The qualitative data presented here do however, warn against the over-simplification of autistic socio-cognitive and emotional profiles as encapsulated in dominant deficit-based theories (Baron-Cohen et al., 2001). Additionally, the current study only included autistic participants with co-occurring learning disabilities, if the disability was unrelated to reading and writing. This exclusion of individuals with significant reading and writing disabilities further limits generalisations.

This study used a retrospective questioning technique so that individuals were answering questions about their past or typical reading habits and preferences. Future research in this area should therefore seek to explore proactive text responses, similar to shared reading paradigms (Longden et al., 2015).

Although current findings provide a base understanding of the general reading habits of autistic adults, more research is needed before interventions can be designed. In particular, further exploration is needed to consider how narrative exploration could aid neurotypical understanding of autistic adults' perspectives. The data also highlighted a need to adapt shared reading group interventions to enable autistic adults to get the most out of reading texts with others.

2.6.3. Conclusions

In conclusion, the findings of this study contest prior assumptions that autistic individuals dislike fiction (Baron-Cohen et al., 2001). The findings agreed with and expanded on Barnes (2012), by showing an equal preference for both fiction and non-fiction in the autistic adults included in this research. These findings also critique prior over-simple assumptions to do with empathic and ToM difficulties in autistic people (Baron-Cohen, 1997, 2008). Participants across groups demonstrated affective empathic text responses, as well as an ability to take the perspective of

characters. In this research it was found that adult autistic readers showed an in-depth appreciation for narrative literature, with resulting emotional investments and wider social understanding becoming possible. This, together with findings about social learning experienced by autistic participants, shows that reading is a potentially advantageous supportive intervention for autistic adults wanting to build their social confidence. Furthermore, reading could be an important tool for double empathy interventions, to improve mutual social understanding between autistic and neurotypical groups (Milton, 2012) and as a means to reduce loneliness. However, further research is needed to explore how reading could be implemented in a double empathy paradigm.

As one participant put it:

(P71A) ‘I often feel like I say things and I’m making myself perfectly clear, and I’m not being understood in the slightest. So, if there was some way you could use reading...I’d be willing to give it a go.’

2.7. Chapter summary

This Chapter contributed to the first thesis aim as the findings contest dominant theoretical assumptions of autism, both in terms of the capacity of autistic people to engage with fiction but also more generally around assumptions of social understanding deficits amongst autistic people. The Chapter also addresses the second thesis aim by exploring how traditional shared reading groups may be adapted in order to encourage comfortable inclusion for autistic adults.

The current Chapter addressed the first research question of the thesis by exploring the core similarities and nuanced differences in the ways that the autistic and non-autistic participants read in their everyday lives. Findings indicate that while both groups enjoyed and benefitted from fiction, the autistic participants also reported benefitting from non-fiction. However, both groups shown a willingness to engage with serious literary texts, indicating a need to explore whether the typical benefits associated with reading serious literature would also apply to autistic adult readers. Both groups also reported feeling that texts depicting similar minds and familiar situations were important for empathic engagement. This was especially important for autistic participants, who often desired representation of their marginalised neurotype identity. The Chapter also started to address the third research question, by drawing attention to the kinds of texts and text qualities that

are beneficial to autistic and non-autistic readers. Findings also highlight a need to adapt current shared reading designs to be inclusive to autistic adults. The participants here preferred the idea of reading a text alone and in full rather than being read aloud to in a live setting and highlighted a need for smaller groups or paired reading sessions to enable them to comfortably engage socially. However, the findings in this Chapter explored retrospective reflections of reading and its benefits, together with prospective ideas about shared reading. Therefore, future research is needed to explore how autistic and non-autistic adult readers engage with and benefit from texts in the process of reading.

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Chapter 3

Overcoming the double empathy problem within pairs of autistic and non-autistic adults through the contemplation of serious literature

3.1. Foreword

This Chapter sought to address the first aim of the thesis by exploring the impact of reading together on any interpersonal changes between autistic and non-autistic adults. The Chapter also addresses the second aim of the thesis by implementing an adapted shared reading methodology which was informed by the findings from Chapter 2. Specifically, the autistic and non-autistic participants read a literary fiction book alone before coming together in pairs for one-hour weekly discussions over a four-week period. To address concerns amongst the autistic participants in Chapter 2 about being read aloud to, participants were instead asked to complete a structured diary while reading which prompted reflections about each chapter of the book. These diaries were then provided as prompts for re-immersion in the text during the discussion sessions.

This Chapter sought to address the second research question by exploring how thinking and feeling together about fictional minds might overcome stereotypical thinking and so overcome the double empathy problem between the autistic and non-autistic participants. The Chapter also sought to partially build upon the third research question by exploring whether serious literature could bring the autistic and non-autistic participants to achieve double empathy, given previous findings that literature is advantageous in overcoming stigma between readers from different walks of life.

Chapter 3 was accepted for publication in *Frontiers in Psychology* on 28.06.2021 (Manuscript ID: 708375):

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The format of the content has been adjusted to match the style of the current thesis. The author roles for this study were: Melissa Chapple designed the study collaboratively with Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis. Melissa Chapple recruited the study participants through advertisements to autistic and non-autistic communities and through social media. Melissa Chapple conducted the initial analysis and wrote the first draft of the manuscript. Joe Anthony Myrick and Cassie Ruddock joined the study as experts by experience and worked with Melissa Chapple to analyse the data to inform the final analysis. Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis all assisted with the final stages of the data analysis and provided feedback on the prepared manuscript. All authors reviewed and agreed on the final manuscript before submission to the journal. Melissa Chapple was responsible for the peer-review revisions to the manuscript with guidance from Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis.

3.2. Abstract

Recent research based on the needs of the autistic community has explored the frequent social misunderstandings that arise between autistic and non-autistic people, known as the double empathy problem. Double empathy understandings require both groups to respect neurodiversity by focusing on individuality across groups. This study aimed to explore how literature, through its ability to uncover nuanced emotional response differences between readers, could facilitate double empathy understandings within pairs of autistic and non-autistic adults. A longitudinal, qualitative design was used, with 4 gender-matched pairs. Participants read *Of Mice and Men* for 1 week, whilst completing a structured, reflective diary. This was followed by 4 one-hour paired reading sessions, where pairs discussed the book and their reflections in depth. Participants were then invited to a final one-on-one interview to discuss their thoughts and experiences of the paired reading sessions. Thematic and literary analysis of the session and interview data revealed four themes (1) The Book as Social Oil; (2) From a World of Difference to a World of Affinity; (3) Emotional Intelligence: From Thinking About to Feeling with; (4) From Overwhelming to Overcoming. All participants reported having achieved an individualised view of one another to explore their nuanced differences. The non-autistic group reported a more sensitive understanding of what it means to be

autistic, while the autistic group overcame concerns about non-autistic people stereotyping autism, and instead reported feeling valued and accommodated by their non-autistic partners.

3.3. Introduction

Autism is a neurodevelopmental condition that results in distinguishably different socio-cognitive processing styles which pose advantages and disadvantages within current societal norms (Fletcher-Watson & Happé, 2019; Robinson, Billington, Gray & Chapple, 2019). Since the identification of autism as a condition in the 1940s, the framing of autistic people has been dominated by the medical model of disability (Waltz, 2013). More recently, self-identification as autistic has become an important route to inclusion within the autistic community, promoting belongingness and improved self-understanding (Lewis, 2016). However, with many individuals continuing to rely on medical diagnosis for identification (Leedham, Thompson, Smith & Freeth, 2020; Mogensen & Mason, 2015), the medical model continues to influence how autism is thought about and explored, resulting in deficit-based conceptualisations and priorities (Kapp, 2020; Waltz, 2013). These deficit-based approaches result in a ‘lock and key’ mentality towards autistic individuals, assuming that they need to be unlocked in some way to bring their information processing style closer to typical human neurocognition (Waltz, 2013). The problem with this approach is that it rests on the assumption that there is a typical form of human neurocognition, a state of ‘neuronormativity’ often referred to as being neurotypical (Milton, 2020; Mueller, 2020).

As a result of these assumptions, dominant theories such as the mindblindness, empathising-systemising, and extreme male brain (Baron-Cohen, 1997, 2002, 2009) theories have viewed and explained autism through a largely deficit-based lens. These theories build upon a key underpinning idea that autistic individuals have profound perspective-taking difficulties, otherwise known as theory of mind deficits (Baron-Cohen, 1997). This long-standing assumption has led to a belief that autistic individuals have fundamentally impaired social abilities (Baron-Cohen, 2009; Lombardo & Baron-Cohen, 2011). Furthermore, there is an embedded assumption of impaired emotional intelligence amongst autistic individuals, with assumed deficits in recognising and empathically responding to the emotions of others (Baron-Cohen, 2009; Bodner, Engelhardt, Minshew & Williams, 2015; Rigby, Stoesz & Jakobson,

2018). From these theoretical assumptions and medicalised framings, intervention research has typically sought to alter the differential socio-cognitive processing styles that result from being autistic (Pearson & Rose, 2021; Waltz, 2013). In this way, it is seen as advantageous to bring the behaviours of autistic people closer to those associated with neurotypicality (Waltz, 2013). However, any consequent behavioural changes are thought, by some, to be short-term and brought about by conformity pressures (Mueller, 2020).

In contrast, social models of disability oppose these deficit-based assumptions. Instead, social models explore disability that results from disadvantages bounded in social construction and cultural norms as well as inherent disability (Kapp, Gillespie-Lynch, Sherman & Hutman, 2013; Waltz, 2013). In taking this view of autism, perceived neurocognitive disadvantages become differences that may be advantageous in enabling contexts (Kapp, 2020). One social movement that has been particularly provocative in changing conceptualisations of autism and autistic people is the neurodiversity paradigm (Singer, 1998, as cited in Milton, Ridout, Martin, Mills & Murray, 2020). This paradigm focuses on equal human rights for those with neurologically divergent conditions such as autism, and contests the idea of neuronormativity (Singer, 2016). Instead, the neurodiversity paradigm follows the view that all human brains and resulting perceptions differ to a degree (Milton, 2020). It is therefore proposed that each individual has a unique processing profile that cannot be grouped into a singular socio-cognitive framing (Milton, 2020; Mueller, 2020). As a result, those who would otherwise be framed as neurotypical are instead viewed as those who find dominant social constructs and norms to be enabling (Murray, 2020). Similarly, attention is drawn to the unique differences between autistic people that are often lost when summarising autism as a condition (Kapp, 2020; Milton, 2020). However, the paradigm also acknowledges the presence of a sense of shared culture and identity that has emerged for many within the autistic community (Kapp, 2020). Furthermore, with the neurodiversity movement has come an increase in autistic self-advocacy, encouraging a focus on the lived experiences of autistic people in framing what it means to be autistic (Bottema-Beutel, Kapp, Lester, Sasson & Hand, 2021). As a result, autistic people are increasingly involved in developing research enquiries and subsequent understandings of autism (Fletcher-Watson et al., 2019; Wright, Wright, Diener & Eaton, 2014).

One theory in particular that has led to a positive-reframing of how we think about autism is Milton's (2012) double empathy problem. The double empathy problem contests the view that autistic people have a theory of mind deficit, and instead draws attention to difficulties of reciprocity and mutuality between autistic and non-autistic people (Milton, 2012; Milton, Heasman & Sheppard, 2018). Although these difficulties can occur between any two people, it is believed that the social realities of autistic and non-autistic people are more likely to differ, resulting in common two-way perspective-taking difficulties (Milton, 2012). It is further argued that because a lack of social reciprocity is regarded to be relatively uncommon or easily repaired within non-autistic interactions, then autistic people must be to blame for breakdowns of reciprocity within an autistic - non-autistic interaction (Chown, 2014; Milton, 2012). Research on mixed-neurotype interactions have supported the double empathy problem, finding that non-autistic people recognise fewer autistic facial expressions (Brewer et al., 2016); struggle to identify autistic mental states (Edey et al., 2016; Sheppard, Pillai, Wong, Ropar & Mitchell, 2016); overestimate how helpful they are during communication with autistic participants (Heasman & Gillespie, 2019); and perceive a reduced sense of rapport compared to same-neurotype pairings (Crompton et al., 2020c). Furthermore, research has indicated that when autistic people interact with other autistic individuals, they may share some of the same-neurotype advantages observed within non-autistic pairings. Specifically, research has found that autistic people are more socially comfortable with other autistic individuals (Crompton, Hallett, Ropar, Flynn & Fletcher-Watson, 2020; Morrison et al., 2020); communicate information more efficiently (Crompton, Ropar, Evans-Williams, Flynn & Fletcher-Watson, 2020); have a better understanding of each other's social intentions (Heasman & Gillespie, 2018); and show an increased willingness to overcome initial negative impressions (DeBrabander et al., 2019). However, findings have indicated that autistic individuals may not have the same-neurotype advantages for perspective-taking that are seen for non-autistic individuals (Brewer et al., 2016; Edey et al., 2016). While deficit-models would attribute this to an autism-specific theory of mind deficit (Baron-Cohen, 1997), it is possible that autistic people make more open-ended assessments of mental states that avoid premature conclusions. This is a reasonable suggestion since autistic people are more experienced in dealing with the lack of mutuality experienced within mixed-neurotype interactions that are commonplace

for autistic people (Chown, 2014; Milton, 2020). Such a suggestion is consistent with autistic individuals taking more time to establish mutual social understandings while being less likely to draw rapid, heuristic-based social judgements based upon an assumption of pre-existing mutuality.

Research that explores the double empathy problem through a neurodiversity lens is important in challenging stereotypes towards the autistic community. Stereotyping, the holding of indiscriminate negative assumptions about individuals within a group (Kinnear, Link, Ballan & Fischbach, 2016), derives from the dominant model and deficit views of autism which reduce all autistic people and their experiences down to shared categorical impairments (Green, Davis, Karshmer, Marsh & Straight, 2005; Pearson & Rose, 2021). This negative stereotyping leads to a polarising *us and them* assessment that further disadvantages autistic people (Cage, Di Monaco & Newell, 2018; Goffman, 1990; Pearson & Rose, 2021). Importantly, this process called ‘Othering’ is a component of stigma that often results in discrimination and felt stigma (Goffman, 1990; Link & Phelan, 2001). The resulting felt stigma is reported by parents of autistic children (Gray, 2002; Liao, Lei & Li, 2019; Mak & Kwok, 2010), as well as by autistic individuals themselves (Griffith, Totsika, Nash & Hastings, 2012; Pickard, Happé & Mandy, 2018; Shtayermman, 2009). The stigma towards the autistic community is enhanced for those with intersecting identities, such as autistic individuals from racialised minorities (Broder-Fingert, Mateo & Zuckerman, 2020; Spense, 2020). These stereotyped and stigmatising views of autistic people further contribute to the socio-communicative breakdowns reported by the double empathy problem (Pearson & Rose, 2021; Sasson et al., 2017).

By contrast, methodologies that promote neurodiversity framings of autistic people are more likely to draw attention to individual differences, overcoming stereotyping and aiding double empathy (McCreadie & Milton, 2020). When assessing which methodologies to use for this purpose Ida’s (2020) theoretical assessments around multiplicity and neurodiversity should be considered. Specifically, Ida (2020) argues that methodologies which afford openness to multiple possibilities should be favoured. Where this multiplicity is achieved, individuals look beyond their separate identities to assess how their differences are constructed (Ida, 2020; McCreadie & Milton, 2020). These assessments of individual differences are believed to be facilitated by shared experiences that enable

a dismissal of coarse group-based understandings (Ida, 2020). Additionally, explorations of the nuanced difference within wider similarity are important to overcome the double empathy problem (McCreadie & Milton, 2020; Mueller, 2020). Furthermore, it is argued that strictly scientific research methodologies should be avoided to prevent reliance on binary, neuronormative ideologies (Ida, 2020; Mueller, 2020). Instead, creative and open methodologies that provide an immersive shared experience are more likely to afford multiplicitous, double empathy understandings (Mueller, 2020).

One potential methodology that would afford this type of multiplicitous thinking is the discussion of fiction. This is because the shared reading of fiction promotes communal thinking about a text, whilst also enabling explorations of individual differences within (Longden et al., 2015). Additionally, it is argued that fiction is inherently social, drawing on three levels of perspective-taking or ‘theory of mind’; (1) the mind of characters, (2) through the mind of the author, (3) through the mind of the reader (Zunshine, 2011). In this way, shared discussions around fiction may add a 4th level of perspective-taking, exploring the first three levels through the interaction with other readers and thus other minds (Longden et al., 2015). While the first three levels provide a shared experience that results in communal thinking, it is the fourth level that is important for the shared exploration of individual differences. Additionally, it is believed that in the act of reading readers infer emotions and perspectives through the evocation of past, personal memories that promote more mindful self-other comparisons (Mar & Oatley, 2008; Mumper & Gerrig, 2019). This means that shared reading may be a particularly advantageous methodology for autistic people because it engages the ability to make more open-ended and in-depth assessments of perspective. Importantly, the social simulations of fiction are believed to inform real-world understandings (Mar & Oatley, 2008; Mumper & Gerrig, 2019). Therefore, any understandings that are developed towards autistic individuals through the contemplation of fiction should result in broader understandings of the autistic community. As a result, shared fictional reading becomes a potentially useful tool in overcoming the double empathy problem.

It is argued that serious literary fiction is the most provocative form of fiction for eliciting empathic understandings of different perspectives, where serious literature refers to literature that engages with significant human situations and as a

result enables its readers to do the same (Koopman & Hakemulder, 2015; Davis & Magee, 2020). It is the powerfully moving language of serious literature which is important in this regard because it jolts people out of normative, stereotyped thinking patterns (Davis, 2020; O’Sullivan, Davis, Billington, Gonzalez-Diaz & Corcoran, 2015). Furthermore, serious literature requires the consideration of multifaceted, often ambiguous, meanings within complex social constructs that are not conducive to the drawing of hasty conclusions (Davis, 2020; Mar & Oatley, 2008; O’Sullivan et al., 2015). Reading aloud methodologies incorporate this shared contemplation of serious literature (Longden et al., 2015). Within these groups, the liveness that results from reading aloud results in strong absorption and felt unpredictability that promotes complex literary assessments (Davis & Magee, 2020; Longden et al., 2015). While this type of methodology may be advantageous in overcoming the double empathy problem, research has highlighted that some autistic people are uncomfortable with the idea of reading in a group and being read aloud to (Chapple, Williams, Billington, Davis & Corcoran, 2021). Instead, the value of shared reading within pairs of autistic and non-autistic individuals may be more tolerable as well as more likely to elicit double empathy understandings.

The current study qualitatively explores changes in understanding and the double empathy problem between autistic and non-autistic participants as a result of shared reading discussions. Specifically, participants read and subsequently discussed John Steinbeck’s novella, *Of Mice and Men* (1937). This book offers a provocative shared experience, with multiple examples of stigma towards minority groups, bringing the necessary consideration of difference to the forefront (Ida, 2020). To account for the concerns of autistic people in participating in groups, the study focused on pairs of autistic and non-autistic individuals. Furthermore, in place of live readings, participants completed a structured diary entry per chapter which were subsequently used as discussion aids. The study aimed to address the research question: ‘can discussions of literary texts involving autistic and non-autistic people overcome the double empathy problem and result in empathic understandings of one another’s perspectives?’

3.4. Methods

3.4.1. Participants

Participants were recruited through social media and local advertisements into a wider project that included this study and an earlier, unpublished³ study upon which this one built (see Section 3.4.4.). Initially, 20 participants, of whom 15 were non-autistic, indicated a willingness to be involved in the wider project. Due to the lower number of autistic volunteers, these participants were prioritised for study inclusion. Non-autistic participants were paired with autistic participants based on gender and, where possible, age and educational background. Five pairs had been intended for inclusion. However, one autistic participant dropped out of the study due to time restrictions, resulting in four pairs. The decision was made not to include a fifth pair due to having achieved data saturation; a result of the longitudinal nature of the research, with each pair contributing 15 to 16 pieces of qualitative data. Inclusion criteria included being 18 or over, having proficient English language skills, and being able to travel to the University of Liverpool. Non-autistic participants had additional inclusion criteria of scoring below 32 (the suggested cut-off score for autism) on the autism quotient (AQ) (Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001) due to potential trait overlap. Two non-autistic participants who identified as dyslexic were permitted inclusion into the study. This was because the participants identified as neurotypical rather than neurodivergent, and were comfortable with the reading, writing, and comprehension that the study required. Autistic participants had no additional exclusion criteria, as all participants reported a formal diagnosis and none reported learning difficulties that might have resulted in altered comprehension or difficulties in reading and discussing the text.

Overall, 8 participants (see Tables 3.1 and 3.2 for demographics), within 4 participant pairs, took part in this study. The 4 autistic participants comprised 2 male and 2 female participants aged 19-48 ($M=30.25$, $SD=12.53$). The 4 non-autistic participants also consisted of 2 male and 2 female participants that were aged 23-33 ($M=28.75$, $SD=5.06$). It happened that all pairs comprised 1 participant from a racialised minority and 1 who was of white British nationality. Data on race and nationality were not formally collected from participants but this was raised by participants themselves within the qualitative discussion sessions. Of those who were from a racialised minority, 3 were autistic and 1 non-autistic. All 8 participants were invited to a follow-up interview, with 1 non-autistic participant not providing a

³This study has since been published and is the study contained within Chapter 4

follow-up interview. The study was approved by the University of Liverpool Research Ethics Committee.

Table 3.1 Participant AQ and IQ Scores Between Neurotypes [mean(\pm SD)]

	AQ ^a	Estimated IQ ^b (WAIS Equivalent)
Autistic	40.35(6.24)	98.50(6.81)
Non-Autistic	11.75(1.26)	102.50(3.79)

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

Table 3.2 Participant Demographics

Pair No.	Participant No.	Age	Gender	AQ ^a	IQ ^b (WAIS Equivalent)	Level of Education Completed	Neurodiversity Status
1	1	29	Male	42	96	GCSE	Autism Diagnosis
1	7	23	Male	10	100	Masters	Identifies as Neurotypical
2	8	26	Female	12	102	Bachelors	Identifies as Neurotypical
2	20	19	Female	31	92	A Level	Autism Diagnosis
3	9	33	Female	12	100	Doctoral Training	Neurotypical
3	11	48	Female	44	108	Doctoral Training	Autism Diagnosis
4	10	33	Male	13	108	Foundation or Diploma	Neurotypical
4	18	25	Male	44	98	Masters	Autism Diagnosis

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

3.4.2. Screening measures

A demographics questionnaire asked for participants' age, gender, and highest completed qualification. Eligibility questions were also asked at this stage.

The Autism Quotient (AQ) (Baron-Cohen et al., 2001)

The AQ is a 50-item questionnaire that uses statements to elicit a score that reflects autistic traits in clinical and non-clinical samples. The AQ was used to assess the number of self-reported autistic traits in both samples.

The Quick Test (QT) (Ammons & Ammons, 1962)

A single 50-item version of the QT was used to quickly assess the comprehension abilities of participants, a factor that was considered important within a methodology that relies on text comprehension.

3.4.3. Session and interview measures

Participant diaries

As part of the preceding study (see Section 3.4.4. for further details), participants read *Of Mice and Men* (Steinbeck, 1937) at a rate of 1 chapter per day for 6 days. For this study, diaries were returned to participants as optional conversational prompts.

For each chapter participants were asked to answer the same 5 questions. Questions 1 to 3 were designed to prompt general reflections about narrative events and characters: (1) *what thoughts or feelings did chapter X prompt?* (2) *do you think the characters in chapter X were realistic?* (3) *did you like or dislike the characters in chapter X?* Questions 4 and 5 were added based on previous findings that autistic readers think more about author intent (Chapple et al., 2021): (4) *did you think about the author when reading chapter X?* (5) *what did you think the author was trying to achieve in chapter X?* In the current study, these 5 questions served as optional conversational prompts during the discussion sessions (see Section 3.4.4. for further details on the sessions).

Pre-session questionnaire

A pre-session questionnaire was designed to explore participant views on the group which they did not identify with (neurotypical or autistic). Participants were asked (1) to define what it meant to be autistic/neurotypical as appropriate, (2) how they think the two groups differ, and (3) why they chose to take part. To take account of familiarity with autism, the non-autistic group were asked whether they personally know an autistic person.

Post-session questionnaire

A post-session questionnaire was designed to evaluate participant thoughts after each session. Participants were asked (1) what things (if any) were discussed about the book or diaries, (2) what things (if any) were discussed outside of the book or diaries, (3) whether the discussion helped them to understand the other participant better, (4) whether they gained any self-understanding, (5) whether they enjoyed the session, and (6) whether their understanding of autistic and neurotypical differences

and social interactions had changed as a result of being involved in the discussion sessions.

Interview schedule

For the 7 participants who chose to take part in the follow-up semi-structured interview, this occurred at least 1 week after their final shared reading session. During the interview, participants were asked about (1) whether they had benefitted from being involved in any way, (2) what they thought of the sessions, (3) if and how their understanding changed towards the other group, (4) whether the study helped their self-understanding, (5) if they felt the other member of their pair had sensitively understood them and the group they identified with, (6) how they would now define the other group, and (7) if anything could have been added to the study that they felt could have improved personal outcomes. The schedule was made up of structured, open questions and follow up questions.

Dictaphones recorded the interviews which were subsequently manually transcribed by the first author. All field notes and questionnaires were also converted into text documents. Documents were uploaded to NVivo 10 (Castleberry, 2014) to facilitate analysis.

3.4.4. Procedure

Potential participants completed a screening process using the Qualtrics online platform. It included the informed consent procedure, a demographic questionnaire, the QT and the AQ. Participants who screened out based on the exclusion criteria, or who did not leave an email address for contact had their data destroyed. Non-autistic participants who screened in were matched to the four autistic participants and invited into the study.

All 8 participants first took part in the connected study, in which they read *Of Mice and Men* (Steinbeck, 1937) while recording their thoughts in a structured diary. For this preceding study, participants read alone and did not meet with the partners that they were paired with for the current study. The diary was completed for 7 days, the first 6 coincided with reading one chapter of the book per day. On day 7, participants completed 3 writing tasks that prompted reflective thinking about the overall novel. For this preceding study, the participant diaries were analysed to assess whether autistic and non-autistic participants engage with serious literature in

similar ways. In the current study, the book and diaries were instead used as conversational prompts for the shared reading sessions.

The discussion sessions occurred weekly for four weeks and lasted for one hour. Two of the participant pairs attended the four sessions in person in a designated, quiet interview room at the University of Liverpool. The other two pairs took part via Skype due to COVID-19 imposed restrictions at the University. Before the first session, participants completed the pre-session questionnaire. During the informed consent procedure, it was explained to participants that the lead researcher would be present for the full duration of the session and could offer assistance of any kind. However, the researcher otherwise remained silent during these sessions, and participants were made aware that the researcher would not be involved in the discussions. For the in-person sessions, the researcher sat at the other end of the room, in peripheral view of the participants. For the Skype sessions, the researcher remained visible via webcam to try to replicate the in-person discussion sessions. The physical presence of a researcher was incorporated into the study design to ensure discussions remained respectful and to enable note taking. In both settings, it was explained to participants that the researcher would take notes on discussion topics. Field notes were recorded to summarise the topics being discussed within pairs. Where participants were having back and forth discussions that were neither summarising *Of Mice and Men* (Steinbeck, 1937), or repeating their diary responses, the researcher made direct transcriptions of the dialogue between participants. Field notes and direct transcriptions were chosen to record the session content as opposed to audio or video recordings because it was felt to be less intrusive. Participants were given their individual reading diary at the start of each session and instructed that they could discuss anything, whether related to the book or not and so were allowed to structure their own sessions. Participants were reimbursed £10 for involvement in each study component.

The first author is an autistic, female PhD researcher, who is trained to Master's level on semi-structured interviewing. The first author facilitated all of the discussion sessions and conducted all 7 of the follow-up interviews, with no other researchers present. All autistic participants were informed that the facilitating and interviewing researcher would also be an autistic adult. The researcher was acquainted with two of the autistic interviewees but was unfamiliar with the other six participants.

Participants were later sent the results from the study and invited to provide feedback. Participants were specifically asked (1) *'do you have any thoughts about how we've understood your data?'* (2) *'Have you thought about the sessions since the study?'* (3) *'What things about the study have felt important since?'* (4) *'Has your experience of being involved in the project altered how you approach daily communication?'*

3.4.5. Analysis

SPSS and Microsoft Excel were used to organise and calculate descriptive statistics and scores from the screening questionnaires.

Interviews were transcribed using edited transcription, with the omission of irrelevant false starts, filler sections and repetition, unless used to convey importance or significance. Transcription was completed by the first author who has prior experience of interview transcription for post-graduate research. Resultant transcripts were not sent back to participants as there were no areas of unclarity or missing data due to poor sound quality. One participant was sent their pre-session questionnaire and first post-session questionnaire due to unclear data, this process resulted in recovery of the main points within the data. Qualitative data from session questionnaires, researcher field notes and interview transcripts were analysed primarily using thematic analysis (Clarke & Braun, 2014), with a combination of Framework Analysis (Ritchie & Spencer, 1994) and a form of literary close reading analysis (Billington et al., 2019). The first two stages of Framework Analysis (immersion and organisation) were implemented using NVivo 10 (Castleberry, 2014) due to the rigor of these particular stages that reduced data loss, making it ideal for the longitudinal nature of the data. After this stage, rather than implementing the re-coding process that follows in Framework Analysis, the team switched to a manual thematic analysis to group data into themes. This shift, implemented in stages three and four, was chosen because thematic analysis better enabled the articulation of the narrative flow of the data and the inter-disciplinarity of the research. Finally, a form of literary close reading analysis (Billington et al., 2019) was implemented in stage five that relies on participant language as 'the main point of access to moments of subtle mental change' that give access to the 'imprints' of reading (Kaszynska, 2015). These qualitative analyses combined to ensure a deep and rich exploration of the data, necessary to explore the complexity

of human interaction mixed with literary explorations across time. As a result, analysis stages were as follows:

- 1) The first author transcribed the raw questionnaire and field note data, and the 7 interview transcripts, followed by a first reading of all data with memo creation for data immersion. The second, third and sixth authors reviewed data from one pair for immersion.
- 2) The first author sorted all data into an initial, organisational framework within NVivo 10. Initial ideas were discussed with the rest of the team and the organisational framework was reorganised accordingly.
- 3) The first, second, third and sixth authors deliberated on the organised categories and identified four themes. Themes were refined through continued discussion and exploration of the data examples within each theme.
- 4) The researchers picked out key quote examples from the data for each theme and sent these quotes grouped into the four categories without labels to the fourth and fifth authors for review. Upon agreement of the categories, the authors were then sent theme names and explanations for review.
- 5) To further explore each thematic outcome, the second and third authors, experienced in the literary analysis of texts and participant responses, applied a literary close reading analysis to the data examples chosen by the team for each theme. This final analysis was then reviewed by the rest of the research team for approval.

The first author is an autistic researcher. Additionally, the fourth and fifth authors are autistic adults who were invited to join the research team as experts by experience. These authors were consulted on the analysis as detailed above, as well on the theoretical framings and language used within the paper. Where the fourth and fifth authors raised concerns with regards to the analysis or wider paper framings, alternative framings were agreed. As a result, all data were analysed and subsequently understood from autistic and non-autistic perspectives.

3.5. Results

3.5.1. Pre-session questionnaire summary

Of the non-autistic participants, two reported no personal link to an autistic person, one reported a professional link, working with autistic children but not adults, and another reported that their partner's relative is autistic.

The most common reason overall for engagement with the study was interest. Half of the non-autistic participants additionally reported getting to hear the lived experience of an autistic adult as a motive. In comparison, half of the autistic participants reported the ethos of the study in meeting wider autistic community goals as a motive. Additionally, financial reimbursement and self-exploration were listed as unique, individual motives.

3.5.2. Qualitative analysis results

The final analysis comprised four themes: (1) the book as social oil (2) from a world of difference to a world of affinity (3) emotional intelligence: from thinking about to feeling with, and (4) from overwhelming to overcoming. Participant quotes are split by neurotype group (A: autistic, N: non-autistic), and by timeframe (S0: pre-session; S1-4: discussion sessions in order; S5: final interview).

3.5.2.1. The book as social oil

Although participants were free to discuss any topic of their choosing during the sessions, all pairs centred their discussions on the book and their associated diary responses. In this way, the text acted as a meaningful shared experience for participants to begin their dialogues. That both readers knew the book and its characters, was reported by participants as having reduced the usual social awkwardness often felt on first meeting:

(P11A) [S5] ‘actually having a topic that you could talk about and around helped. I think if we’d have just gone in a room and said “right, chat” then there would have been a lot of awkward silences’

(P8N) [S5] ‘it’s less awkward ‘cos you’ve got like prompts [the literature] gives you a conversation starter, save any like awkward silences.’

Although this initial reduction of social awkwardness stemmed from the book serving as common ground, the narrative additionally provided a shared social setting to operate within during discussion sessions: hence discussion was not just ‘about’ but ‘around’ and ‘within’ the book. Through participant discussions, characters were further *brought to life* as complex, social beings in a developing relationship. The involvement of the readers within this shared immersive experience created more in-depth personal and social discussions, with the perceived safety of the simulated social setting affording more risk taking:

(P7N) [S5] ‘I think it was a good introduction because it allowed you to go into other topics, ‘cos kind of just asking somebody off the bat “how would you feel in this situation?” ... people would be a bit more defensive. But I think it was a good introduction of “how would you act in the situation of that character?” And then a conversation expanded from that into the more mundane aspects of your life’

(Pair 4) [S1] P18A: ‘I dislike George condescending [to] Lennie...however, it does frustrate me that Lennie doesn’t know his own strength. I like and dislike them both in different ways.’

P10N: ‘I’d agree with this, Lennie has good intentions but it results in bad consequences’

Where social difficulties arose, both participants within the dyads showed an ability to sensitively overcome these difficulties by bringing the focus back to the novel in order to move discussions on. Difficulties included times when discussions became circular in nature, where long periods of unintentional silence occurred, and where participants expressed uncertainty about how to move discussions forward. Primarily and at least initially, non-autistic participants had wider concerns about dominating conversations, while autistic participants desired more social guidance. This resulted in participants instinctively implementing a planned structure, drawing on the structure of book chapters and diary questions to alleviate their mutual concerns and difficulties:

(P18A) [S1] ‘the other participant gave me cues to speak and to guide me on which parts we should talk about next. I felt this was especially helpful as it maximised my potential in being able to contribute to the conversation as effectively as possible’

(P10N) [S5] ‘we almost set out a plan. We knew we had four sessions, “we’ve got this many chapters, these many activities, we’re going to kind of split it up like that.” ...so, we kind of knew from the off what the plan was...what I personally didn’t want to do was lead every single question, and then he feels like he had to kind of give an answer that was similar to mine. So, we took it in turns’

As a result of the shared social setting afforded by the book and the creative overcoming that resulted from times of social difficulty, autistic participants reported feeling valued within discussions. Importantly, they reported that even when their

views differed from their partner's, they felt their views were considered and valued, rather than socially ill-fitting:

(P20A) [S4] '[session discussions] made me realise that my interpretations of themes throughout the book are just as valid as other interpretations, and therefore my perspective is not necessarily wrong.'

(P18A) [S5] 'what I found more interesting, was he found them to be acceptable, he found my reasons to be valid, just as much as I thought that his reasons were also valid.'

Contemplation of the book and diary reflections resulted in an openness within pairs. This openness enabled the pairs to explore their nuanced *differences* of reasoning within the context of their shared experience, wider similarities and shared conclusions as readers. In this way, the literature brought their attention to their more subtly and freely found understandings of the text. This moved participants away from thinking about their categorical neurotype differences, towards a focus on their individuality within the experience of shared reading:

(P7N) [S5] 'we had mutual agreement on a lot of things and what we reflected on was quite similar... an ice breaker to go "you know what, we're not actually that different because we haven't looked at this and gone miles apart. Our reflection on this piece of literature was similar."'

(P20A) [S5] 'I realised "oh, there are some similarities between us because we've written different things but in similar ways."'

3.5.2.2. *From a world of difference to a world of affinity*

With the shared experience and perspectives thus afforded by the literature giving participants a unifying structure within which to explore their differences, the sessions provided room for participants to explore the bidirectional nature of their differing world views:

(Pair 1) [S2] P7N: 'Why were you so focused on the dog being shot [in the narrative] as an upsetting event?'

P1A: 'I do have a liking for dogs, and I wish he'd just simply given the puppies away.'

P7N: 'I can understand them being shot, in these circumstances, the dogs would have died painfully.'

[Researcher: P1A doesn't reply but appears to be at ease about the narrative events after this]

P7N: 'Have you ever had rabbits?'

P1A: 'No, I've only ever had a hamster.'

P7N: 'I've had rabbits, they bred a lot and so I had to drown them. I also used to shoot rabbits, hunting them was a hobby. We'd eat them afterwards, they were tasty, but we had to stop hunting because a local illness wiped the rabbits out.'

[Researcher: P1A doesn't reply but looks visibly uncomfortable]

Where wider differences and associated social discomfort such as these had arisen, participants had to work harder to find common ground outside of the shared narrative experience. Participants identified these additional common grounds by re-visiting their shared opinions within the novel, and looking to real-world situations where these opinions translated into a contemporary situation. For example, participants 1A and 7N assimilated their dislike of the aggressive behaviour observed from the character *Curley* to that which they mutually disliked seeing displayed by others in their local areas. Their experiences of such aggressive behaviour being directed onto them in real life then served as new common ground to return to when wider differences of opinion presented. These explorations of common ground still served to move participants away from focusing on the anticipated differences based on neurotype. Therefore, participants were further moved towards understanding each other as sharing these specific human experiences. For the non-autistic individuals, a reframing of their understandings of autistic people emerged that moved away from a focus on basic difference, towards a focus on the emergent recognition of essential similarity:

(P7N) [S5] 'it's not a case of "us and them" it's more of a "hang on we agree on a lot of things we're just slightly different." As opposed to "they're miles apart" I think that's probably changed.'

This focus on essential partner similarities within pairs provided the scaffold to enable the deeper exploration of the nuanced differences that existed between them: 'slightly' rather than 'miles apart'. All dyads reported that the differences that existed between themselves and their partner were actually subtle and contextual:

(P11A) [S5] ‘I think as people we probably had a fair amount in common...I think our backgrounds are quite different, so she’s obviously a lot younger, a lot more widely travelled, she seems to have lived a very straightforward life.’ Here, ‘more widely travelled’ but ‘very straightforward’ seems itself to be a subtle account of a particular form of ease that P11A lacked.

(P10N) [S5] ‘what it probably showed me was that there’s probably a lot more similarities than differences, and the differences tend to be a little more subtle than I probably would have expected them to be.’

Through (1) establishment of common ground, followed by (2) explorations of the finer differences, participants (3) moved away from constricting over-simple assumptions based on neurotype. Instead, participants started to view each other as suitably complex individuals:

(Pair 4) [S4] P10N: ‘Our focus on society in the sessions has showed that we have more similarities than differences. It felt no different to socialising with my friends, and if I’d not known you were autistic, I’d have just thought we were different people individually’...

P18A: ‘I don’t feel we are different from each other by much now, despite our neurological differences’

(P11A) [S5] ‘I was surprised how similar our perspectives were...I didn’t really see it as a neurotypical and an autistic way of thinking.’

What P11A articulates above is a sense of surprise, relief and pleasure in the fellowship that emerged.

3.5.2.3. *Emotional intelligence: From thinking about to feeling with*

A key factor in non-autistic participants developing a more sensitive understanding of their autistic partners was the lived experience accounts that remained at the forefront of discussions throughout the study. Rather than starting from a deficit view and seeking to identify difference, these accounts, which were often proffered in the context of humane discussion of the literary events, enabled non-autistic participants to learn from their partner’s explanations and experiences of what it means to be autistic:

(P7N) [S5] ‘The lived experience is different from the dictionary definition. So, I kind of feel if we went into it with a dictionary definition, we may just start to categorise people from the offset “well he said that, that roughly

correlates to this, so oh yeah that's definitely autistic." I suppose going into it from a bit more of a personal opinion kind of thing, to be quite frank more of a position of ignorance, helped to inform me better, 'cos I think if I went in knowing loads of stuff about autism on paper I would have just went "yeah, his reaction to this means he's got this trait.""

(P10N) [S5] 'anyone can read a definition of something and kind of spout it out. But I think the best thing if you want to actually understand somebody is to actually go and find out for yourself really, and actually speak to somebody'

The literature is what took these participants beyond literal, dictionary definitions into a more imaginative and emotional pooling of experience. While the lived-experience nature of the sessions encouraged the development of emotional intelligence towards autistic participants, it was the literature which brought autistic and non-autistic participants to feel with one another. The emotionally provocative events within the narrative encouraged participants to share their own emotional experiences of reading the text:

(P20A) [S4] 'I cried a lot, the shortness had a bigger impact, due to there being so much to process in so little time then having to move on.'

(Pair 3) [S3] P9N: 'I felt too sad during this chapter, with the bad events for the characters.'

P11A: 'It was sad, it felt like a slow-motion car crash, you knew what was coming so everything felt slower'

Through these shared exchanges, participants began to process their own and the other's emotional reactions to the text, exploring the depth behind their emergent feelings. Specifically, the discussions brought their earlier emotional reactions forward into the session in reactivated memory, allowing them to feel through the experience again. This resulted in explorations of what contextual factors had elicited their complex reactions. Through this individual processing of text reactions within discussions, participants were then able to comparatively explore their different understandings, feeling through their emotions together. This was often through exchanges of one participant offering complex insight that evoked surprised silence from their partner, as they processed the depth of the emotions brought forward through the narrative:

(Pair 4) [S3] P11A: 'I found it peacefully surreal (the death of Curley's wife and looming death of Lennie), during distress there are brief moments where you forget and have moments of peacefulness.'

[Researcher: P9N seems surprised by this.]

Stigma in particular was a recurring point of discussion between pairs, reflecting the experiences of narrative characters. The book acted as a key social catalyst in this way, with complex examples of stigma towards multiple minority groups, resulting in in-group stigma amongst marginalised characters. In particular, participants tended to feel empathy *with* the character Lennie, together. Lennie is a character who was discriminated against by other book characters for his unnamed neurocognitive disability. These empathic responses also resulted in shared frustrations towards characters who mistreated Lennie:

(Pair 4) [S2] P18A: 'the dream [of character's getting their own farm] feels more real now and it makes me worry for Lennie because I empathise with how he's bullied and how Lennie wants to avoid trouble but George is giving him opposing advice.'

(Pair 3) [S2] P11A: 'I couldn't understand Curley and why he'd hit Lennie if he [Lennie] wouldn't hit back' ...[S3] P9N: [talking about why Lennie responded to the death of Curley's wife the same as he did a mouse] 'I think Lennie was scared of George, he relies on him and didn't want to disrupt harmony.'

This evocation of empathising with Lennie resulted in the dyads engaging in further complex, emotional discussions of the text. For P20A and P8N this resulted in questioning the surface assumption that Lennie needs George to survive, by imaginatively and sensitively going further to consider the mutuality of this dependence:

(Pair 2) [S1] P20A: 'I wonder if George would survive without Lennie and if Lennie would be better off without George?'

P8N: 'I think Lennie would find someone else...'

[S3] P20A: 'George doesn't help himself by hiding it' [Lennie's disability] ...

P8N: 'I don't think George wanted him to be seen or treated as different, but maybe that's why he keeps getting in trouble.'

P20A: 'I think it shows how much Lennie and George need each other.'

Here, the use of 'I wonder' and 'I think' shows signs of individual, imaginative risk taking from P20A.

Similarly, all pairs expressed a feeling of mutually shared empathy *with* the character Crooks, who experienced both racial and physical-disability related discrimination. In comparison to Lennie, these feelings were more conflicted, holding in mind a frustration with how Crooks stigmatised Lennie for his disability and at the same time feeling through the difficult emotions that resulted in Crooks behaving this way. This tended to lead to further evaluation of what role Crooks served as a literary device. Below is a short passage showing the interaction between Crooks and Lennie, followed by participant responses:

(A passage from Of Mice and Men of Crooks and Lennie meeting; Steinbeck, 1937)

Noiselessly Lennie appeared in the open doorway and stood there looking in, his big shoulders nearly filling the opening. For a moment Crooks did not see him, but on raising his eyes he stiffened and a scowl came on his face. His hand came out from under his shirt.

Lennie smiled helplessly in an attempt to make friends.

Crooks said sharply, "You got no right to come in my room. This here's my room. Nobody got any right in here but me."

Lennie gulped and his smile grew more fawning. "I ain't doing nothing," he said. "Just come to look at my puppy. And I seen your light," he explained. "Well, I got a right to have a light. You go on get outa my room. I ain't wanted in the bunkhouse, and you ain't wanted in my room."

"Why ain't you wanted?" Lennie asked.

"'Cause I'm black. They play cards in there, but I can't play because I'm black. They say I stink. Well, I tell you, you all of you stink to me."

(Pair 2) [S3] P8N: 'I found Crooks the most interesting, it's interesting that he gets his own chapter.'

P20A: 'Why did he?'

P8N: 'There's a lot about race, and sometimes it's sympathetic but also Crooks can be horrible. You start disliking Crooks, then feel sorry for him because he's got the worst life.'

P20A: ‘It shows there is depth to these people, which is why the author took time to speak about him’

(Pair 3) [S2] P9N: ‘I felt sad for Crooks due to the racism he endures... he’s denied simple pleasures such as living with others or being involved in games. I think the racism was deep rooted, with him seeing Lennie as intruding and being fearful of others and losing his job, despite the fact that Lennie was too naïve to consider this. I think Crooks is safety-focused.’...

P11A: ‘Crooks would have known the risks and likelihood of being blamed, resulting in avoidance and constant terror. He could have had a nice friendship with Lennie, as Lennie would have had no prejudice against Crooks.’

By bringing the realities of complex emotions forward into discussions, the literature encouraged participants to process their own lived experiences of similar events, such as stigma and grief. These experiences were shared within pairs, drawing parallels to narrative events. While participants had already begun to mutually feel with one another, these discussions of stigma tended to be unfamiliar for non-autistic participants. However, with the prior evocation of empathic responses elicited by similar events within the literature, non-autistic participants were moved from feeling for to feeling with their partners, although unfamiliar experiences were being disclosed. Conversely, where both participants had a shared, personal experience, disclosure from one resulted in empathic disclosure from the other:

(Pair 1) [S4; after discussing the racism towards Crooks in the book] P1A: ‘When I was in a choir, as a child, I experienced racism’...

P7N [shocked]: ‘Who would be racist to a child?’

P1A: ‘Multiple teachers disliked me and I’m unsure now if it was due to being autistic or if they were being racist.’

(Pair 3) [S1; after discussing their empathy towards Candy for having his dog put down in the book] P11A: ‘I had to put my dog down and that results in complex emotions’

P9N: ‘I had to put my cat down, it is difficult when you know your pet is suffering.’

3.5.2.4. From overwhelming to overcoming

Individuals generally had to overcome over-simple or stereotype-based concerns or barriers that presented between themselves and their partner. For autistic participants, their concerns towards non-autistic people in general were centred upon past experiences of being stereotyped and stigmatised. These concerns were factors that contributed to social concerns *before* participants had met with their non-autistic partners:

(P1A) [S5] ‘they have a stereotype in their mind, whether it’s due to you know the odd film or what they’ve seen briefly in real life and they don’t fully grasp and understand. They think a lot of the traits are tied to all autistic people whereas obviously it varies’

In contrast, the non-autistic group had to overcome previously held general concerns of difference in relation to autistic people:

(P10N) [S5] ‘maybe I overestimated the impacts that it [being autistic] would have on what I would deem to be like a normal life... At the end of the day, whether you’re diagnosed with something it’s kind of, it doesn’t really matter, everyone’s different, everyone’s going to take different things from it... you’re going to have to take everyone on their individual face-to-face I suppose. So, I suppose it’s not being quick to kind of type-cast somebody’

Part of this difficulty was that non-autistic people were viewed generally by autistic participants as not having to face and overcome social difficulties in their day-to-day lives because they belong to the majority neurotype. However, the literature dismantled this over-simple generalisation within pairs by introducing social overcoming. As a result, *both* autistic *and* non-autistic participants showed evidence of having to overcome social challenges, drawing on the felt affinities between the literary characters and themselves to do so:

(P8N) [S5] ‘I thought it was interesting when the participant (20) was saying that they felt more of an affiliation with Lennie, ‘cos I guess if I was thinking about it, I probably would feel more of an affinity with George overall.’... [SI] ‘George’s stubborn and resentful attitude makes him harder to like.’

(Pair 4) [S3] P18A: ‘I don’t know why George done that to his so-called friend, but I feel he regretted it...’

P10N: ‘I felt George had no choice...’

P18A: ‘I might have done the same if I was George’

The complex reflective statement from P8N indicates that the affinity with George was not one of liking and, in the vein of overcoming, its relation to the participant's own rather critical self-judgment was clear. Similarly, for P18A the shifts and modifications and overall mobility are evidence again of a more complex to-and-fro interaction.

During the first couple of sessions, social difficulties sometimes occurred as participants worked to overcome their differences. While these difficulties tended to centre on minor social discomfort and general awkwardness around continuing to-and-fro conversations, for participants 1A and 7N, there were incidents in the second session of conflicting emotional opinions. This conflict felt overwhelming for P1A, as we have seen. These events stemmed from P1A sharing feelings of unease towards the event in the book which he later felt was not responded to empathically by his partner:

(P1A) [S5 – recalling events from S2] ‘I kept referring to my distaste for a certain character for drowning puppies, he in real life brought up in an almost gleeful manner that he'd drowned rabbits...that was kind of disturbing.’

These isolated incidents of social discomfort between participants seemed to mirror the idea that non-autistics were not experienced in adjusting communication to take account of others. By contrast, autistic participants reported having to regularly adjust their communication in day-to-day life so as to overcome social difficulties that present during communication with non-autistic people. As a result of a so-called ‘deficiency’, autistic participants have to develop an advanced capacity to consider and hold in mind complex, alternative ways of being and perspectives:

(P1A) [S0] ‘a lot of traits they (‘neurotypicals’) have I either don't relate to or can't stand. Examples, small talk, can be two-faced. Whereas I envy not being able to cope better with sensory issues so there are positives too...though a favourite has to be bluntness which neurotypicals can lack.’

It was a perceived lack of honesty, disguised through social skills, which P1A struggled with. The result as here is often a more complex mental syntax in response (‘whereas. . . though’).

For non-autistic participants, social overcoming exemplified within the text seemed to result in a wider acceptance of differing perspectives in participants working together patiently in real time outside it:

(P10N) [S5] ‘it kind of made me re-evaluate that people can pick up different things and neither one is wrong...it’s just made me think about if something seems odd to me...then by taking a little bit of time to kind of chat to somebody and just kind of figure out their process, actually it makes it easier for me to understand how they’ve got to that point. I mean that works for autistic or non-autistic’

As the discussion of lived experience contributed to the move from feeling overwhelmed by difference to the emergence of a will to overcome difference, supported by acknowledged similarities, so, taking time over the four sessions resulted in built rapport:

(P7N) [S5] ‘I personally feel having that same person you got to build that relationship and you got to understand what our differences are better. I know it wouldn’t be a representative sample...but it allowed you to build a relationship in which you felt comfortable to talk about certain things. And I think by the time we got to session three, when we were on some of the shall we say more divisive aspects of the book; the racism, the murder, the sexism and discrimination with disability, you wouldn’t be able to necessarily discuss that with somebody you’d just met.’

What emerged was genuinely ‘built’ social connection within pairs and a positive desire to work on a social bond rather than concentrating on neurotype identities:

(P10N) [S5] ‘I looked forward to seeing the participant, and kind of seeing what his take was...it almost got to the point where I didn’t think it was an autism study’

This quote from P10N is testimony to the depth of connection achieved.

3.5.3. Participant feedback

Participants 10N, 1A, 11A and 20A decided to provide feedback on the overall findings from the study. Participant 1A reported reflecting on the study to consider how his partner viewed him as an autistic adult and how this might translate to the way non-autistic people view autistic people in wider society. However, participant 1A did not find any improvements in communication with non-autistic individuals outside of the research. Participant 11A reported continued reflections on the shared

reading sessions and a resultant improvement in making her own intentions clearer for mutual understandings:

(P11A) ‘Now, I try to think about how other people might view me and what I put across. I also try to explain my thinking/feeling a little more, although this can be difficult at times.’

Similarly, participant 20A reported that the feeling of being valued in having a different perspective translated into her everyday life, making her feel more open herself towards differing perspectives:

(P20A) ‘I have realised that my own interpretations of things are not necessarily wrong and there are different perspectives that you can respect. I have tried to be more open listening to what others have to say even if I do not agree.’

Participant 10N reported the biggest changes in his everyday life as a result of taking part in the research. Importantly, the participant reported slower, more careful thinking in assessing the perspectives of others. As a result, the participant felt a sense of improved communication when interacting with others who had a different perspective from his own:

(P10N) ‘When I meet someone with an opinion different from my own, I take a moment and think. My instinct is less likely to be that their thoughts are wrong and more that they are different and that I may be able to find the common ground in-between.’

3.6. Discussion

3.6.1. Summary of findings

This study aimed to explore (1) changes in understanding between autistic and non-autistic participants and (2) double empathy exchanges around empathising and perspective-taking, through the shared contemplation of serious literature. Relative findings are discussed in sections 3.6.1.1. to 3.6.1.3. in relation to previous research and theory.

3.6.1.1. Literature as risk permitting

Data supported the argument that serious literature forces readers to ‘bite off more than they can chew’, promoting complex, open assessments of what was being read (Davis, 2020; Davis & Magee, 2020). This prevented participants from

narrowing their understandings down into simplistic, stereotyped explanations of complex human experience (Davis & Magee, 2020; O’Sullivan et al., 2015). Although the non-autistic participants included in the study did not exhibit explicit stigma towards autistic people in general or within their research pairs, all described having come to the study with some level of stereotyped views of autistic people that were subsequently challenged. This indicates a potential usefulness of literature in challenging these stereotyped views and possible associated stigma that exists towards autistic people (Cage et al., 2018; Pearson & Rose, 2021). While the lived experience of the autistic participants was reported as a key catalyst for these changes, it was the literature itself that prompted imaginative feeling within pairs, in present time. Similarly, although the shared experience of having both read the book was important in uniting pairs, the emotional atmosphere was deepened by the complex literary language within the book: the literary language, through its engagement with raw human emotions, turned the story into an emotionally complex, immersive environment for participants to operate within. In this way, participants went beyond simple discussions around disability and stigma prompted by the book, to operating more thoroughly within the text in a way that enabled them to feel together with the characters. This sharing in raw emotions resulted in an overcoming of the double empathy problem (Milton, 2012), enabling participants to feel for one another in the same way. Overall, this supports the idea that literature may be particularly provocative of empathic responses and subsequent perspective-taking (Davis & Magee, 2020; Koopman & Hakemulder, 2015).

Furthermore, the literature afforded a sense of safety for social explorations through individual risk taking. This resulted in disclosures of difficult past experiences as well as direct emotional text responses within pairs. This indicates that the current methodology may afford at least some of the benefits observed in shared reading groups (Longden et al., 2015), while also taking into account and ameliorating concerns autistic people may have about live shared readings (Chapple et al., 2021). Additionally, the autistic participants in this study reported concerns around being stereotyped, and consequently stigmatised, that led to some generalised social reluctance. However, the shared warmth and security afforded by the literature resulted in explorations of social difference within pairs. As a result, participants incorporated the duality of their interactions, rather than attributing blame for difficulties that occurred. This contrasts with everyday inter-neurotype

communications, where stereotyping and social heuristics result in assumptions of autistic social deficits (Chown, 2014; Milton et al., 2018). This shared appreciation resulted in reports of autistic participants feeling that their differing views were validated by their partners. This further highlights the double empathy problem within everyday inter-neurotype interactions, where autistic people are often encouraged towards an assumed ideal of neuronormativity (Mueller, 2020). Furthermore, this demonstrates the value of shared reading in promoting a multiplicitous thinking style (Ida, 2020) that frames autistic people as having different and valued perspectives.

3.6.1.2. Literature as an advantageous double empathy methodology

Importantly, the inherent social nature of fiction that mirrors the complexity of real socio-emotional human experience (Mumper & Gerrig, 2019; Zunshine, 2011) resulted in pairs focusing on their shared, essential experience of human emotion, regardless of their categorical neurotype group. This indicates that literature may be advantageous in tackling the double empathy problem, by challenging problematic social assumptions stemming from *us and them* conceptualisations (Cage et al., 2018; Goffman, 1990; Pearson & Rose, 2021). This move from thinking in terms of categorical neurotype differences, towards thinking as readers and, on a wider scale, human beings shows that shared reading can achieve the dismissal of groupness argued necessary for maximal double empathy understandings (Ida, 2020). In this way, the double empathy problem was resolved amongst participants by transcending these norms and expectations to produce shared and effective communication. This supports Ida's (2020) argument that in order to achieve double empathy and promote neurodiversity, there is a need for open, individualised assessments without binary conceptual framings.

Crucially for this study, the complexity of emotive understanding and response that is required by literature provided live evidence against assumptions that autistic people lack the emotional and social intelligence that is at the core of human experiences. Furthermore, responses to the disadvantaged Lennie fed off these powerful basic human feelings. This prompted participants to start feeling together with Lennie, who was felt as another human presence in the discussions. As a result, participants shared discussions about these core human experiences, adding to the socio-emotional complexity of the thinking. For example, engagement with the

literature and characters resulted in conversations about various forms of stigma in wider society. This aligns with discussions that are regularly prompted through shared reading methodologies (Longden, et al., 2015), again demonstrating that the current methodology may prompt parallel outcomes in a more comfortable way for autistic participants. Furthermore, it is these explorations of core human situations which are not readily experienced in general, everyday conversations. This rawness in exploring human experience, within a safe setting, encouraged slower assessments of social context, as opposed to the more (neuro)typical reliance on quick attributions. This renewed patience for careful social and individual exploration meant that participants reported intent to sensitively explore differing perspectives in the future, indicating that shared reading may prompt longer-term re-framings away from stereotyped understandings. This supports the important arguments of Ida (2020) and McCreadie and Milton (2020), that open and creative methodologies are needed to effectively overcome the double empathy problem.

3.6.1.3. Creative overcoming contesting deficit models

Participants demonstrated contrasting thoughts and feelings towards characters which were experienced in their complexity rather than being ‘resolved’ into simplified conclusions. Given that all autistic participants demonstrated this overcoming, these findings challenge dominant theoretical framings of autism as being inherently associated with a reduced capacity for empathy and perspective-taking (Baron-Cohen, 1997, 2002, 2009). Furthermore, fictional contemplation, it is argued, requires higher-order empathy (Zunshine, 2011) that is furthered by shared communication around reading (Longden et al., 2015). The autistic participants here went beyond the ability to process the complex socio-emotional aspects of the text, but also added deeper levels of their own socio-emotional insight. This demonstration clearly conflicts with arguments that autistic individuals have inherent social and emotional impairments (Baron-Cohen, 2009; Bodner et al., 2015; Lombardo & Baron-Cohen, 2011; Rigby et al., 2018).

Where this overcoming was implemented during times of social difficulty within pairs, there resulted a sensitive understanding and move towards mutual resolution. Specifically, within all pairs, socio-communicative difficulties occurred due to autistic participants desiring structure, and non-autistic participants not wanting to over-dominate. As a result, these social difficulties did not lead to

communication breakdowns, and subsequent blame attribution that is often associated with inter-neurotype communicative difficulties (Chown, 2014; Milton 2012). Instead, participants took time and care to consider the problem, working together in building a social structure that worked for both. This transference of the slow and careful processing that the literature encouraged supports the view that the salience of literature results in contextual behavioural change (Mumper & Gerrig, 2019). Furthermore, this movement away from quick attributions of blame amidst communicative ambiguity implies a wider move away from deficit framings based on assumed general norms. This, together with feedback provided by participants after the study, further supports the idea that changes resulting from literary contemplations may result in wider changes in an individual's social norms (Mumper & Gerrig, 2019).

3.6.2. Limitations and future research

The willingness of the non-autistic participants to take part in research that was seeking to explore interactions with autistic participants indicates a pre-existing willingness to co-operatively engage with autistic people. Therefore, conclusions on how much the literature brought about a change in understandings are limited to this sample. Additionally, the participants in this study were willing to read and discuss literature, and so may have been more readily willing to engage with reflexive thinking than most. For people with pre-existing stigmatising views about autism and autistic people, it remains a question as to whether the shared reading paradigm used here would be ethically and socially appropriate. Future research should seek to explore whether literature that has a neurodiversity focus would bring about double empathy understandings for non-autistic people while reading alone. This is important in order to explore how reading can be used as a double empathy intervention tool for individuals who hold particularly stigmatising views towards autistic people.

Additionally, the methodology implemented in this research lacks the text liveness that is important in other shared reading designs, such as reading aloud groups (Davis, 2020; Longden et al., 2015). Therefore, more research is needed to explore text liveness within shared readings between autistic and non-autistic people in a way that remains comfortable. For example, expansion of the current methodological design could seek to explore the added value of having participants

select and read aloud passages which move them. It is also important to identify how larger-scale or longer-term shared reading paradigms might be designed and implemented, given concerns that book club style groups may result in limited demographic inclusion (Davis & Magee, 2020). While this study indicated that the shared experience specific to literature promoted deeper discussions, future research should seek to compare shared reading with discussions of other shared experiences.

The sample used here is also limited because autistic adults were only included if they did not have an additional disability that would affect their reading and writing skills. Similarly, all autistic participants in this study communicated verbally, resulting in limited representation of the autistic community. As a result, more research is needed to assess the utility of shared reading as a means to overcome the double empathy problem where individuals have additional support needs.

3.6.3. Conclusions

In conclusion, the findings of this study show the potential utility of serious literature for overcoming the double empathy problem (Milton, 2012). Importantly, the literature resulted in a focus on overarching, essential human similarities, even through felt differences. This moved participants away from binary group assessments that often result in stereotyping and subsequent stigma within general society (Cage et al., 2018; Pearson & Rose, 2021). Therefore, findings imply that shared reading promotes multiplicity (Ida, 2020), moving participants towards a shared identity with sensitive considerations of difference. Importantly, findings contest dominant deficit-based theories of autism (Baron-Cohen, 1997, 2002, 2009), showing that autistic people do empathically respond to the perspectives of others. Similarly, these findings of autistic people engaging emotionally with serious literature contest over-simplistic framings of autistic individuals as inherently lacking in social and emotional understanding (Baron-Cohen, 2009; Lombardo & Baron-Cohen, 2011). In this study, all participants showed the higher-order levels of empathising and perspective-taking necessary for fictional contemplation (Zunshine, 2011). Overall, the findings here support arguments that open, creative research methodologies, fostering a broader shared understanding, are useful for achieving effective double empathy understandings (McCreadie & Milton, 2020; Mueller, 2020). As Steinbeck (1952, p.444) himself wrote:

“You can only understand people if you feel them in yourself.”

3.7. Chapter summary

This Chapter contributed to the first aim of the thesis by demonstrating how a shared reading experience between autistic and non-autistic readers can overcome stereotyping and stigma towards autistic people. Over the course of the four weeks the participants spent engaging in shared reading together, a feeling of essential human similarity had resulted which cut across coarse group boundaries that might otherwise result in Othering and stigma. The Chapter also addressed the second research aim through the implementation of an adapted shared reading design which drew on suggestions from Chapter 2. The findings in this Chapter demonstrated the ability of the adapted methodology to evoke socio-emotional advantages which were comparable to the benefits of standard shared reading methodologies.

This Chapter addressed the second research question of thesis by demonstrating that reading holds the capacity to enable autistic and non-autistic people to build mutuality and overcome the double empathy problem. The findings from this Chapter partially addressed the third research question in showing that autistic adults can benefit socially from the consideration of serious literature in essentially the same way as non-autistic adults have been found to. However, further research is needed to address the third research question by exploring whether other text types may hold different advantages and in exploring specific text qualities that might enhance the personal and social benefits of reading.

3.8. References

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Chapter 4

Challenging empathic deficit models of autism through responses to serious literature

4.1. Foreword

This Chapter explores the diary reflections of participants reading *Of Mice and Men* (Steinbeck, 1937) which were used to facilitate discussions within Chapter 3, with the inclusion of additional participants for data saturation. This Chapter sought to explore and contribute to the first aim of the thesis by assessing the different ways that autistic and non-autistic adults engaged with the serious literary text and the complex social and emotional content contained within it. This Chapter also aimed to challenge deficit-focused views of autism by exploring how reading reflections might offer a more ecologically valid way to compare the socio-emotional experiences of autistic and non-autistic adults.

This Chapter addresses the first research question by exploring the similarities and differences that exist when autistic and non-autistic adults read the same piece of fictional literature. The Chapter also aimed to expand on the second research question by introducing autistic and non-autistic participants to multiple fictional minds contained within the literature. *Of Mice and Men* (Steinbeck, 1937) was chosen due to its exploration of stigma towards and between different marginalised individuals, including a main character with an unnamed cognitive disability. The Chapter then also builds upon Chapter 3 to further explore the third research question. Chapter 3 demonstrated that literature can evoke similar interpersonal benefits between autistic and non-autistic adult readers when reflecting together. This Chapter then sought to explore whether the same piece of serious literature would evoke similar personal benefits for autistic and non-autistic adults while they read alone.

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The format of the content has been adjusted to match the style of the current thesis. The author roles for this study were: Melissa Chapple designed the study collaboratively with Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis. Melissa Chapple recruited the study participants through advertisements to autistic and non-autistic communities and through social media. Melissa Chapple conducted the initial analysis and wrote the first draft of the manuscript. Sophie Williams joined the study as an expert by experience and worked with Melissa Chapple to recruit participants and analysed a section of the data to inform the final analysis. Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis all assisted with the final stages of the data analysis and provided feedback on the prepared manuscript. All authors reviewed and agreed on the final manuscript before submission to the journal. Melissa Chapple was responsible for the peer-review revisions to the manuscript with guidance from Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis.

4.2. Abstract

Dominant theoretical models of autism and resultant research enquiries have long centred upon an assumed autism-specific empathy deficit. Associated empirical research has largely relied upon cognitive tests that lack ecological validity and associate empathic skill with heuristic-based judgments from limited snapshots of social information. This artificial separation of thought and feeling fails to replicate the complexity of real-world empathy, and places socially tentative individuals at a relative disadvantage. The present study aimed to qualitatively explore how serious literary fiction, through its ability to simulate real-world empathic response, could therefore enable more ecologically valid insights into the comparative empathic experiences of autistic and non-autistic individuals. Eight autistic and seven non-autistic participants read *Of Mice and Men* for six days while completing a semi-structured reflective diary. On finishing the book, participants were asked to engage in three creative writing tasks that encouraged reflective thinking across the novel. Thematic and literary analysis of the diary reflections and writing tasks revealed three main themes (1) Distance from the Novel; (2) Mobility of Response; (3) Re-

Creating Literature. Findings demonstrated the usefulness of serious literature as a research tool for comparing the empathic experiences of autistic and non-autistic individuals. Specifically, autistic individuals often showed enhanced socio-empathic understandings of the literature with no empathy deficits when compared to non-autistic participants.

4.3. Introduction

There is currently no agreed consensus for defining 'autism' as a concept. However, the term generally refers to a form of human neurocognition that is developmental in nature and which results in divergent socio-cognitive processing styles (Fletcher-Watson & Happé, 2019; Milton, 2020). While there is an increasing move toward understanding autistic people through explorations of their nuanced human experiences (Wright, Wright, Diener & Eaton, 2014), the medical model of disability continues to largely dominate how society thinks about autism and autistic people (Chapple & Worsley, 2021; Kapp, 2020; Waltz, 2013). Although medical categorisations of autism are consistently evolving, the model typically focuses on socio-communicative difficulties, repetitive behavioural patterns and restricted interests (American Psychiatric Association, 2013; Kapp, 2020; Murray, Lesser & Lawson, 2005). While medical diagnoses offer a route for self-discovery and access to formal support (Leedham, Thompson, Smith & Freeth, 2020; Mogensen & Mason, 2015), the treatment of human neurocognitive diversity in much the same way as physiological disease risks overlooking individualised human experiences (Kinderman, Read, Moncrieff & Bentall, 2013). As a result of dominant medical framings, autism research has long over-focused on what autistic people lack (Murray, 2020). In this way, autistic people are positioned as being in need of 'fixing' in order to align their behaviours with those typically expected within mainstream cultures (Milton, 2012; Waltz, 2013). As a consequence of these views, the autistic community have been denied agency in shaping their own narratives and influencing how they are viewed within society (Fletcher-Watson & Bird, 2020; Milton, 2012; Yergeau, 2013). Instead, dominant theoretical models and subsequent empirical enquiries often employ and further develop societal understandings of autism that reduce and stereotype the nature of autistic experiences (Chapple & Worsley, 2021).

In particular, dominant theories of autism including the weak central coherence (WCC) (Happé, 1999), mindblindness (Baron-Cohen, 1997) and empathising-systemising (E-S) (Baron-Cohen, 2002, 2009) theories have broadly sought to identify key autism deficits. Specifically, the WCC theory assumes a global processing deficit amongst autistic individuals, believed to result in increased attention to fine detail alongside resultant difficulties around integrating information within a wider context (Happé, 1999; Hill, 2004). In relation to social processing, autistic cognition is then positioned as problematic against an assumed need within everyday social situations to quickly integrate facets of social information into a coherent whole (Baron-Cohen, 2009; Happé, 1999). By contrast, the mindblindness theory (Baron-Cohen, 1997) proposes that autistic individuals experience profound difficulties in representing and attributing mental states to others, otherwise known as theory of mind (ToM) (Premack & Woodruff, 1978; Reniers, Corcoran, Drake, Shryane & Völlm, 2011). While these two theories focus on different aspects of autistic cognition, the E-S theory largely combines the underlying ideas of the two approaches (Baron-Cohen, 2009). Specifically, the original E-S theory positioned autistic individuals as broadly less empathic than their non-autistic peers (Baron-Cohen, 2009). Instead, autistic people are argued to process information in a more systematic way, exploring regularities to extract predictable rules (Baron-Cohen, 2009). This systematic approach to learning is argued to be too rote-based to be applicable to the spontaneity of everyday socio-emotional contexts, resulting in broad empathic difficulties (Baron-Cohen, 2009). As a result, autistic individuals have been argued to implement extreme egocentrism, attributing their own mental states to others regardless of contextual information or similarities to self (Bodner, Engelhardt, Minshew & Williams, 2015; Lombardo & Baron-Cohen, 2011; Ripley, 2015). It is these assumptions of reduced empathic capacity in particular that risk undermining the core human experiences of autistic people (Fletcher-Watson & Bird, 2020; Yergeau, 2013).

Furthermore, these deficit-based assumptions have left a lasting impact, with a resultant, long-standing focus on researching autism-specific empathy deficits (Peterson, Wellman & Liu, 2005; Song, Nie, Shi, Zhao & Yang, 2019; White, Hill, Happé & Frith, 2009). While empathy as a term is often used inter-changeably across differing concepts, it can broadly be defined as the ability to recognise, share and respond to the feelings of others (Fletcher-Watson & Bird, 2020; Shamay-

Tsoory, Aharon-Peretz & Perry, 2009). However, definitions such as these are argued to be specific to affective empathy (Shamay-Tsoory et al., 2009; Smith, 2009), with ToM or 'cognitive empathy' believed to exist as a separate construct (Reniers et al., 2011; Shamay-Tsoory et al., 2009). Here, affective empathy then refers to the related ability to vicariously experience the emotional states of others (Reniers et al., 2011). With particular influence from the mindblindness theory (Baron-Cohen, 1997), research into assumed empathy deficits amongst autistic individuals has largely focused on cognitive empathy (Shamay-Tsoory et al., 2009; Smith, 2009). Research into cognitive empathy deficits has concluded that autistic people are impaired in the recognition of complex but not simple emotional states (Icht, Zukerman, Ben-Itzhak & Ben-David, 2021); are less accurate at inferring emotion from both static and dynamic faces (Rigby, Stoesz & Jakobson, 2018); and perform significantly worse than non-autistic individuals on multiple ToM tests (Dziobek et al., 2006). However, these studies often implement standardised ToM tests which rely on fast-paced assumptions to infer in-depth human feelings from limited snapshots of information (Baron-Cohen, Wheelwright, Hill, Raste & Plumb, 2001a; Dziobek et al., 2006). As a result, careful and complex evaluations of mental states would result in unfavourable scoring on such tests. It is these complex considerations that are more reflective of real-world empathy, where affective and cognitive empathic responses cannot be separated so easily into unrelated concepts and instead co-occur in real time (Fletcher-Watson & Bird, 2020).

Additionally, these deficit-based approaches overlook the bi-directional nature of social communication within any given social pair (Milton, Heasman & Sheppard, 2018). Instead, deficit models place an assumption of blame onto autistic individuals when social difficulties arise (Chown, 2014; Milton, 2012). One theory that seeks to address the two-way nature of socio-communicative difficulties is Milton's (2012) double empathy problem. The double empathy problem reframes ToM deficits as an issue of reciprocity and mutuality between individuals within a given socio-communicative exchange (Milton, 2012; Milton et al., 2018). While a lack of mutuality can arise for any two individuals, Milton (2012) suggests that the differing social realities of autistic and non-autistic individuals make breakdowns in communication more likely. Therefore, it is proposed that non-autistic individuals are at least equally likely to misjudge the mental states and feelings of autistic individuals (Chown, 2014; Milton, 2012), an assumption well-supported by

empirical research (Brewer et al., 2016; Crompton et al., 2020b; Edey et al., 2016; Heasman & Gillespie, 2019; Sheppard, Pillai, Wong, Ropar & Mitchell, 2016). Furthermore, Milton (2012) opposes the view that autistic individuals fail to incorporate context, highlighting that context is created within a particular exchange. This assumption is supported by findings that when interacting together, autistic individuals experience increased mutuality, resulting in increased social comfort (Crompton, Hallett, Ropar, Flynn & Fletcher-Watson, 2020a; Morrison et al., 2020); better communicative understandings (Crompton et al., 2020a; Heasman & Gillespie, 2018); and an increased willingness to overcome initial negative impressions (DeBrabander et al., 2019). However, with non-autistic individuals being the majority group, their increased likelihood for experiencing mutuality during social exchanges results in assumptions of pre-determined norms amongst peers (Milton, 2012). It is these assumptions of pre-set social etiquette and understandings that position different Others, such as autistic individuals, as being defective in some way (Chown, 2014; Milton, 2012).

Furthermore, while the double empathy problem is well-supported by research, the related assumption that autistic individuals may have a better understanding of society than non-autistic individuals (Chown, 2014; Milton, 2012) has largely been overlooked. Specifically, it is suggested that autistic individuals are more likely to take time in developing common ground and understanding different Others as a result of being more experienced in navigating a lack of mutuality (Chown, 2014; Milton, 2012, 2020). In this way, autistic individuals may be more likely to work to sensitively and empathically overcome socio-communicative breakdowns rather than drawing quick conclusions based upon assumed pre-existing mutuality (Chapple et al., 2021a; Chown, 2014; DeBrabander et al., 2019; Milton, 2012;). Autistic writer Joanne Limburg (2021) expands upon this assumption by arguing that dehumanised individuals, such as those who are autistic, are forced to think about the ways in which modern society is constructed, giving them deeper understandings of the social world. Therefore, autistic individuals may avoid assumptions of pre-existing social norms to consider the feelings and perspectives of different Others in ways that remain open to the complexity of individual experiences (Lesser & Murray, 2020). This is supported by research findings that autistic individuals are more socially tentative, requiring more time and care at the expense of fast-paced judgements that rely on immediate contextual cues alone (Capps, Yirmiya &

Sigman, 1992). Therefore, what has previously been framed as difficulties with contextual consideration becomes re-framed as a potential advantage in remaining open to emergent social information (Lesser & Murray, 2020). As a result, autistic people may go beyond what is known immediately to tailor their social and affective responses to each individual social encounter empathically (Lesser & Murray, 2020). These assumptions are further expanded upon by the theory of monotropism (Murray et al., 2005), which seeks to expand upon the WCC through a less pathologised approach (Murray, 2020). Specifically, monotropism suggests that autistic individuals have narrow interest systems that direct and sustain attention toward nuanced topics of interest (Murray et al., 2005). While largely similar to the WCC, monotropism does not assume a broader resultant deficit in the integration of information at the detriment of social experience. Instead, the theory draws attention to the depth of feeling experienced by autistic individuals as a result of highly-focused interest systems (Murray, 2020). However, the theory still positions these advantages as existing at the expense of understanding social breadth, or the 'modelling of other minds' (Lesser & Murray, 2020; Murray, 2020).

While these open and complex empathic understandings are difficult to research with standardised experimental tests (Fletcher-Watson & Bird, 2020), the exploration of reflection in response to fictional texts offers a unique way to explore empathic understandings within an ecologically valid context (Chapple et al., 2021a). Specifically, fiction is argued to simulate the real social world (Mar & Oatley, 2008; Oatley, 2016; Waytz, Hershfield & Tamir, 2015), where readers can embody character perspectives and feelings to achieve felt empathy (Mumper & Gerrig, 2019). While the use of personal thought and feeling to understand, appreciate and experience a text could be criticised as egocentric (Lombardo & Baron-Cohen, 2011), fiction encourages an overcoming of social pressures and conformity in a way that moves readers away from default or rigid ways of thinking (Davis, 2020; Davis & Magee, 2020; O'Sullivan, Davis, Billington, Gonzalez-Diaz & Corcoran, 2015). Furthermore, fiction is argued to take readers beyond the process of imposing their own thoughts and feelings onto others, instead encouraging a mutual feeling together with the text and the minds within it (Mumper & Gerrig, 2019). Not only does fiction evoke feeling within a text in this way, but also requires co-occurring perspective-taking with the minds that are being represented (Zunshine, 2011). Specifically, readers are required to access the minds of characters through

the mind of the author, with those minds ultimately being processed through a reader's own personal perspective (Zunshine, 2011). As a result, the distinction between affective and cognitive empathy becomes artificial while reading, with both thought and feeling working fluidly together in a way that reflects real-world empathy (Fletcher-Watson & Bird, 2020; Koopman, 2016). Therefore, it is argued that fiction acts like a flight simulator, providing the opportunity to engage with multiple minds across social experiences (Mar & Oatley, 2008; Mumper & Gerrig, 2019). This has been supported by research findings which indicate that engagement with fiction may enhance ToM performance and wider empathic capacity (Bal & Veltkamp, 2013; Kidd & Castano, 2013; Mar, Oatley & Peterson, 2009). Additionally, empathic feeling can be enhanced while reading, due to the ability to feel with different Others without negative social or personal consequence (Koopman, 2016; Koopman & Hakemulder, 2015). Therefore, fiction is thought to be of social benefit to its readers, enhancing a reader's empathic capacity for different Others by providing opportunities for embodied reflection through a pluralism of simulated social experience (Bal & Veltkamp, 2013; Oatley, 2002, 2016).

Furthermore, it is thought that serious literary fiction is particularly advantageous in promoting this empathic embodiment of different Others within a text (Davis, 2020; Davis & Magee, 2020; Koopman & Hakemulder, 2015; Mar & Oatley, 2008). Here, serious literature specifically refers to texts that engage with significant human situations, subsequently enabling its readers to do the same (Davis & Magee, 2020; Koopman & Hakemulder, 2015). While it has been argued that different Others are essentially unknown and unknowable (Levinas, 1969), the mirroring of real human situations within literature is argued to result in imaginative feelings with the characters, situations and feelings within it (Davis, 2020). Therefore, it is argued that serious literature enables readers to form more in-depth understandings of human existence through imaginative feeling with other minds (Davis, 2020; Koopman, 2016). This imaginative capacity to treat literary characters as real and employ their point of view is believed to be true across narrative settings, regardless of realism (Anderson, Felski & Moi, 2019). Specifically, it is argued that it is the words which hold the potential of powerful and active beings in themselves (Erdman, 1978). In this way, the powerful language within serious literature encourages readers away from processing in easy, heuristically-driven, automatic

ways that avoid ambiguity in order to reach quick conclusions (Davis, 2020; Djikic, Oatley & Moldoveanu, 2013; O'Sullivan et al., 2015). Instead, literature encourages readers to hold onto what feels like emotionally salient moments of a text, also known as close reading, as opposed to information-scanning (Davis, 2013; Wolf, 2018). In this way, the close reading encouraged by serious literature allows for slower reflections to explore the embedded complexities of social realities (Koopman, 2016; Koopman & Hakemulder, 2015; Mar & Oatley, 2008; O'Sullivan et al., 2015). Furthermore, this holding of ambiguity and feeling within literature reflects a suspended judgment in which empathic feelings are enhanced, because the ambiguity of a text means readers cannot rely on schematic inferences (Koopman & Hakemulder, 2015). Instead, readers are moved toward new ways of thinking that are receptive and flexible, enabling sudden re-considerations in real time, in direct response to emergent information (Davis, 2020; Davis & Magee, 2020). These movements evoked by a text are argued to be more powerful when experienced through adversity (Davis, 2020; Strick & Van Soolingen, 2018). It is therefore assumed that texts dealing with adversity may be more moving, prompting new, more careful ways of thinking about different minds (Davis, 2020; Strick & Van Soolingen, 2018).

While some readers may remain on the surface of serious literature, struggling to get within it, those who experience what Limburg (2021) calls undifferentiation show the true advantages of literary reading (Barnes, 2018; Davis, 2020; Davis & Magee, 2020). During this process, it is argued that moving parts of a passage become part of the reader, while simultaneously remaining part of the text and the author who wrote it, all at the same time (Barnes, 2018). In this way, it becomes necessary for readers to re-write serious literature in the act of reading (Barthes, 1969, as cited in Muldoon, 2021). This is to say that readers of serious literature are not simply reading, rather they are mentally 'doing' the literature in the process of reading (Barthes, 1969, as cited in Muldoon, 2021). Therefore, the careful, slower processing of thought and feeling that is commonly observed amongst autistic individuals (Capps et al., 1992; Lesser & Murray, 2020) could make them more 'literary' readers. In particular, those who deal with adversity in their daily lives, such as autistic individuals, may be more powerfully moved by serious literature (Davis, 2020; Strick & Van Soolingen, 2018) and prompted to further reconstruct their views on societal construction (Limburg, 2021). This means that the utilisation

of serious literature within autism research offers a way to more accurately compare the empathic experiences of autistic and non-autistic individuals. Furthermore, as serious literature prevents fast-paced assumptions based on schematic inference (Koopman, 2016; Koopman & Hakemulder, 2015; Mar & Oatley, 2008; O'Sullivan et al., 2015) it might then prompt non-autistic readers to think more empathically about minds different from their own. Therefore, reading may serve to overcome the positioning of different minds as defective (Chapple et al., 2021a).

However, as research enquiry into the value of fiction for autistic readers has largely been restricted by deficit-based assumptions, it has been assumed that autistic individuals lack the socio-cognitive capacity to contemplate and enjoy fiction (Baron-Cohen, 1997, 2009). Instead, it has been assumed that autistic individuals would prefer the systematic nature of factual non-fiction (Barnes, 2012; Baron-Cohen, 2009). However, recent findings have contradicted dominant assumptions, showing instead that autistic individuals across age groups do engage with fiction and literary non-fiction (Armstrong, Paynter & Westerveld, 2019; Barnes, 2012; Chapple, Williams, Billington, Davis & Corcoran, 2021; Davidson & Ellis Weismer, 2018). Additionally, findings show that when asked about their experiences of reading, autistic participants report examples of felt empathy for fictional characters and book authors themselves (Chapple et al., 2021b). However, little is known about the way in which autistic individuals would engage with serious literature, and how this might compare to non-autistic individuals. Further research is also needed to examine assumptions of in-depth processing amongst autistic individuals at the expense of modelling other minds (Happé, 1999; Murray et al., 2005). While this in-depth local processing may enhance autistic readers' ability to hold in mind moving passages, monotropism assumptions indicate that their wider considerations of social construction may be limited.

To address this evidence gap, the current study qualitatively explores how autistic adults engage with serious literature in comparison to non-autistic adults. Specifically, participants read *Of Mice and Men* (Steinbeck, 1937) while completing a semi-structured diary that prompted daily reflections on the novel and its characters, with some creative writing tasks upon completion of the novel. The novel was chosen primarily due to its complex exploration of stigma and Othering toward and within groups of disabled characters with inter-sectional marginalised identities (Chapple et al., 2021a). Additionally, the novel was chosen due to the relative ease

of initial access to the minds within realistic texts for inexperienced readers. This was advantageous for the current project, where the literary exposure of the participants was unknown, and due to a current lack of research into textual factors that enhance empathic feeling amongst autistic participants and within a double empathy paradigm. Furthermore, the representation of disability within the novel encourages readers to embody feelings of adversity, allowing for the exploration of movement in autistic compared to non-autistic readers (Davis, 2020; Strick & Van Soolingen, 2018). The current study was part of a wider research project, where participants later went on to discuss the novel to explore resultant double empathy understandings between autistic and non-autistic readers (Chapple et al., 2021a). For the present study, the aim was to address two research questions: ‘can reflections on a piece of serious literature offer direct evidence that autistic adults engage empathically with complex characters and social content?’ and ‘is there evidence that autistic adults read in a more ‘literary’ way than non-autistic readers?’ Based on suggestions that autistic individuals are more socially tentative (Capps et al., 1992; Chown, 2014; Lesser & Murray, 2020; Milton, 2012, 2020; Murray et al., 2005), it was predicted that the autistic participants would engage empathically with the novel and read in a more literary way.

4.4. Methods

4.4.1. Participants

Participants were recruited through social media and University advertisements. A total of 27 participants took part in the initial screening process for inclusion in the study. 8 autistic and 8 non-autistic participants were invited to take part in the research. However, 1 non-autistic participant dropped out of the study and was not replaced due to having achieved data saturation within the material collected from the remaining 7 non-autistic participants. Of the remaining 11 participants who were screened, 2 (1 autistic) dropped out of the study early on in the recruitment process. Contact details of the remaining 9 participants were kept on file for another research project. Inclusion criteria included being 18 or over, having proficient English language skills, and scoring an estimated Wechsler Adult Intelligence Scale (WAIS) IQ score of 90 or above as assessed by the Quick Test (QT) (Ammons and Ammons, 1962). For autistic adults who did not have an official diagnosis (e.g., referred for

assessment or self-identified), there was an exclusion criterion of scoring below 32 (the suggested cut off for autism) on the autism quotient (AQ) (Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001b). Undiagnosed autistic participants were included to take account of accurate gender representation due to the longstanding underdiagnosis of women (Cooper, Smith & Russell, 2018; Fletcher-Watson & Happé, 2019). Non-autistic participants had an additional exclusion criterion of scoring over 32 on the AQ.

Overall, fifteen participants provided data for this research study (see Tables 4.1 and 4.2 for demographics). Eight were autistic (male N=4; female N=4) aged 19–48 ($M=30.75$, $SD=9.22$) and seven were non-autistic (male N=3; female N=4) aged 23–56 ($M=38.57$, $SD=13.10$). The study was approved by the University of Liverpool Research Ethics Committee.

Table 4.1 Participant AQ and IQ Scores [mean(\pm SD)]

	AQ ^a	Estimated IQ ^b (WAIS Equivalent)
Autistic	40.50(6.57)	100.00(5.13)
Non-Autistic	11.71(4.92)	101.14(6.09)

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

Table 4.2 Participant Demographics

Participant No.	Age	Gender	AQ ^a	IQ ^b (WAIS Equivalent)	Level of Education Completed	Neurotype
1	29	Male	42	96	GCSE	Autistic: Diagnosed
6	46	Male	17	90	A Level	Non-Autistic
7	23	Male	10	100	Masters	Non-Autistic
8	26	Female	12	102	Bachelors	Non-Autistic
9	33	Female	12	100	Doctoral Training	Non-Autistic
10	33	Male	13	108	Foundation or Diploma	Non-Autistic
11	48	Female	44	108	Doctoral Training	Autistic: Diagnosed
14	53	Female	16	100	Masters	Non-Autistic
17	56	Female	2	108	Bachelors	Non-Autistic
18	25	Male	44	98	Masters	Autistic: Diagnosed
20	19	Female	30	92	A Level	Autistic: Diagnosed
21	28	Female	48	104	Masters	Autistic: Self-Diagnosed
23	33	Female	46	104	Bachelors	Autistic: Diagnosed
25	39	Male	38	100	Masters	Autistic: Diagnosed
27	24	Male	32	98	Bachelors	Autistic: Diagnosed

AQ: Autism quotient; QT: Quick test; WAIS: Wechsler Adult Intelligence Scale

^aAQ scores

^bIQ assessed by the QT

4.4.2. Screening measures

A demographics questionnaire asked for participants' age, gender, and highest completed qualification. Eligibility questions were asked at this stage.

The Autism Quotient (AQ) (Baron-Cohen et al., 2001)

The AQ is a 50-item questionnaire that uses statements to elicit a score that reflects autistic traits in clinical and non-clinical samples. The AQ was used to assess the number of self-reported autistic traits in both samples.

The Quick Test (QT) (Ammons & Ammons, 1962)

A single 50-item version of the QT was used. The test involves participants looking at 4 pictures and deciding which picture each word goes best with. Given the age of the QT, the raw test score is converted to a WAIS, not WAIS-R, equivalent IQ. Although not ideal and rather dated, this was considered an adequate method for obtaining a rough estimate of reading comprehension ability for this study where its brevity was an asset and where IQ data were not going to be subjected to further analysis.

4.4.3. Diary and interview measures

A structured diary was designed for participants to record their thoughts while reading *Of Mice and Men* (Steinbeck, 1937). The diary was completed for 7 days, the first 6 coincided with reading the book at a rate of one chapter per day. For each chapter, participants were asked 5 questions, questions 1 to 3 were designed to prompt general reflections about narrative events and characters: (1) *What thoughts or feelings did chapter X prompt?* (2) *Do you think the characters in chapter X were realistic?* (3) *Did you like or dislike the characters in chapter X?* Questions 4 and 5 were added based on previous findings that autistic readers think more about author intent (Chapple et al., 2021b) (4) *Did you think about the author when reading chapter X?* (5) *What did you think the author was trying to achieve in chapter X?* On day 7, participants completed 3 writing tasks: (1) writing a letter to a character of choice as either (a) themselves, (b) another character, or (c) the author (2) writing a letter to the author as either (a) themselves, or (b) another character and (3) re-writing the ending as they would have preferred it to have ended. These tasks were included to promote reflection on the overall novel and subsequent perspective-taking. Tasks 1 and 2 were based on Green's (2020) letter writing methodology for reflective reading, with task 3 included to explore how participants dealt with the novel's emotionally difficult ending.

4.4.4. Procedure

Potential participants completed a screening process via Qualtrics that included the informed consent procedure, a demographic questionnaire, the QT and the AQ. Participants who screened out or did not leave an email address for contact had their data removed. Informed consent was obtained at two points (1) before screening and

(2) before commencement of the diary task. At each stage, participants were provided with both a university standard information sheet as well as an easy-read version that avoided complicated explanations and used clear photographs and text segmentation. Both information sheets encouraged participants to contact the first or fifth author for more information at each stage of the process. The informed consent procedure included the disclosure of participant demographics for data processing.

Upon obtaining informed consent, all participants were provided with either a physical or digital copy of *Of Mice and Men* (Steinbeck, 1937) and a copy of the diary template. The diary template contained a page of clear instructions with warnings about the sensitive content in the novel. Participants were asked to read one chapter per day for 6 days and to complete the writing tasks on the 7th day and, as far as possible, to stick to the 7-day schedule laid out in the instructions. Upon return of the completed diary, participants were reimbursed £10 for their time in the form of either a £10 Amazon voucher or as cash.

4.4.5. Analysis

Thematic analysis was chosen to analyse the data deductively, exploring surface-level psychological themes (Clarke & Braun, 2014). A form of literary close reading analysis (Billington et al., 2019) was implemented alongside thematic analysis to inductively explore the data for evidence of deeper psychological shifts within participants as a result of reading. This analysis relies on participant language as 'the main point of access to moments of subtle mental change' that gives access to the 'imprints' of reading (Kaszynska, 2015). These qualitative analyses combined to ensure a deep and rich exploration of the data. Analysis stages were as follows:

- 1) The first author read all participant diaries to achieve data immersion.
- 2) The first and fourth authors separately coded all of the autistic participant diaries using thematic analysis. All authors then met regularly to deliberate on initial themes until agreement was met. The first author then coded the non-autistic participants, organising codes into the same themes agreed for the autistic participant diaries. The fourth author read over the resultant codes and agreed on the interpretation of the non-autistic diaries.
- 3) The first author highlighted moments of literary interest in 8 diaries (6 autistic) and sent the diaries to the second and third authors who are trained in close literary reading analysis. The second author read all 8 diaries for

immersion and highlighted additional important moments of psychological change. The third author read 4 of the diaries (3 autistic), providing additional commentary on areas of interest.

- 4) The second author decided on key literary themes within the 8 diaries that were analysed. The first and second author then worked together to re-interpret the data until themes from stage 2 and 3 were successfully integrated. These themes were then sent back to the third and fourth authors who agreed with the re-integration.
- 5) The first author then re-analysed the remaining 7 diaries (2 autistic) and follow-up data using the integrated approach of thematic analysis with close literary reading that had been agreed on in stages 3 and 4.
- 6) Resulting themes were deliberated by the rest of the team, with theme names and framings adjusted to capture the main elements of significance within the themes.

The first author is an autistic researcher. The fourth author is an autistic adult who took the role of expert by experience. Therefore, all data were analysed from both autistic and non-autistic perspectives.

4.5. Results

All participants experienced times of being invested within the literature as well as times of struggling to become or remain invested in the literature. The final analysis (see Table 4.3) comprised three themes: (1) distance from the novel (2) mobility of response and (3) re-creating literature. Participant quotes are split by neurotype group (A: autistic, N: non-autistic). Within the participant quotes, words that depict emergent thinking are highlighted in bold.

Table 4.3 Final Analysis Themes and Subthemes

Distance From the Novel	Difficulties with Understanding and Immersion Emotional Distancing Socio-Political and Historical Representation
Mobility of Response	Active Responding Thinking Aloud and Thinking Along Involuntary Feeling For More Than One Thing at a Time Involvement in a Character
Re-Creating Literature	Emotional Depth Responsive Language Changes

4.5.1. Distance from the novel

4.5.1.1. Difficulties with understanding and immersion

All participants experienced moments while reading the novel when they struggled to 'get inside' the text, instead evaluating the novel's characters and events from a distance. This distance was largely created as a result of participants' difficulties, across both groups, in understanding the culture and metaphors embedded in the novel, often as a result of what seemed an unfamiliar language:

(P21A) [in response to "s'pose Curley jumps a big guy an' licks him"] 'I'm assuming Curley doesn't actually lick people and it's an expression, but there was an awful lot of them that went over my head.'

(P14N) 'Early in this chapter the expression 'rushing stars' made me question whether this was dialect and why the author has chosen this phrase.'

Difficulties in becoming immersed centred upon feeling that the novel was unrealistic or through an inability to develop mental imagery.

4.5.1.2. Emotional distancing

Where these difficulties arose, participants made surface-level appraisals about the novel within their diary entries. These appraisals included summaries of narrative

events or attending to the stereotypes represented by the novel's characters and events:

(P25A) 'Lennie- seems like a stereotype of someone with a learning difficulty, like something out of an old film or tv show.'

(P6N) 'some were one-dimensional i.e., the woman, Curley came across like a pantomime villain.'

Surface-level thinking about the novel meant that participants remained within normative thinking processes, rather than exploring deeper meanings behind human emotions and social constructs. During these times, participants seemed to grow impatient with characters, showing frustration or annoyance toward difficult character behaviours that had culminated in emotionally difficult events within the novel. Rather than seeking to further explore these events and behaviours, participants tended to close down further opportunities to get inside the character's perspective as a defence mechanism:

(P1A) 'Annoyance at Curley's wife for not leaving Lennie be. She confided in Lennie that she had big aspirations and hated her husband, so she should have just divorced him and all of this could have been easily avoided.'

(P6N) 'It made me angry because Curley's wife was racist, abusive and rude but got away with it because she was in a position of power.'

For some participants their impatience toward characters continued into their writing, especially where participants were asked to write to a character:

(P21A) [letter 2 self to Candy] 'Candy— You're never going to see those rabbits, just because Lennie is dead. George will find a way to do it without you, but use all your money and possibly shoot you in the head.'

(P6N) [letter 2 self to Curley's wife] 'making fun of a person because [of] race and disability is disgusting, it makes you a bully and a vile person, change the way you are and how you treat people or there could be consequences.'

Here, 'you're never going to see those rabbits' from P21A and 'there could be consequences' from P6N pose threats to the futures of the characters that they are writing to. In this way, the participants' impatience for these characters had resulted in them simply 'writing these characters off' in a way that closed down further empathic consideration.

4.5.1.3. Socio-political and historical representation

When participants deliberately attempted to overcome their sense of disengagement, their efforts were often expressed through a socio-political and historical lens in place of in-depth feelings of personal involvement with the characters. This type of relatedness often resulted from general concerns across both groups with the racism, sexism, and classism within the novel. However, the autistic participants were additionally concerned with disability representation within the novel and surrounding concerns about ableism:

(P27A) 'And also, honestly, I wondered if the author just hates people with mental disabilities, or saw such a person like Lennie as some sort of literary device worth fetishizing rather than something that needed to be handled carefully in the literature.'

(P8N) 'the continual negative descriptions of Curley's wife are noticeable. The only women described so far are her and talk about a brothel.'

When operating from outside the text, participants often summarised these issues as easily recognised problems of the distant past, rather than as issues that are complexly bound into past and present human culture. This distance served as a way for some participants across both groups to emotionally remove themselves from the challenges of the content:

(P27A) 'In a modern context, maybe Lennie could have received the proper help and treatment, but in the 1930s, not so much.'

(P6N) 'The old man was racist but it was a sign of the times and the south unfortunately'

4.5.2. Mobility of response

4.5.2.1. Active responding

One of the signs of immersion as compared to distance lay in participants' ability to move across the distances of the text itself, recreating the work's internal connections:

(P27A) '[Lennie's death] It calls back to Candy's dog and Candy wishing he would've shot the dog himself because the dog was his responsibility; it's a harsher death for the dog to die at the hands of a stranger.'

(P8N) 'A lot of this final chapter mirrors the rest of the book (repeating the dream, the shooting of Candy's dog, Lennie killing a small animal and

grabbing a woman to feel the softness of their outfit). All of this was clearly deliberate.'

As well as thinking across time and space, some participants additionally thought across multiple perspectives to gain deeper understandings. This was more common for the autistic participants:

(P27A) 'George felt responsible for Lennie and as much as I hate the author equating a handicapped man to a dog, I can see that same thought process going through George's head.'

Here, P27A has overcome socio-political concerns by moving from the inferred perspective of the author into how the thought feels within the embodied perspective of the character George. Incidences of perspective mobility were especially prominent during the character letter task and, in one instance, the author letter task. Furthermore, perspective mobility was more prominent for autistic participants, who embodied character minds in a way that resulted in felt realism. Although non-autistic participants took character perspectives within their writing, the result was often more simplistic or hard to differentiate from the participants' own perspectives and tones:

(P1A) [writing as Slim to George about him, Curley and Lennie] 'I know that ain't none of your concern or fault as Curley showed you and Lennie no kindness and I don't blame you for getting the hell out of dodge but I was wondering if you'd have me over at your place. I worry that you or Lennie feel you could have stopped it but knowing Curley and how hot headed he was and the way his wife behaved...it was only a matter of time before something bad happened. But I'll do my part at your place, I think I can make a bit of business for us both by selling puppies to strangers and I know Lennie would be happy with a few around.'

(P14N) [letter 2 George to author] 'At times I was mean to him, too, which I feel bad about because he didn't understand.'

In P1A's character letter, he writes from Slim's perspective, aligning his writing with something of Slim's very tone and language, while also considering the perspectives of both George and Lennie. While P1A was the only autistic participant who chose to write from the perspective of another character, other autistic participants still addressed multiple character perspectives in their letters.

4.5.2.2. *Thinking aloud and thinking along*

Participants who got inside the novel thought beyond the information that was overtly available to them. As a result, they remained open to alternative explanations of the same character:

(P21A) 'So I think the author was trying to make us see that Lennie is hopeless and George is So Good to Him but honestly I think there's something else going on that we haven't been told.'

(P10N) 'I had mixed feelings about Carlson – was he being kind in putting an old dog out of its suffering? Or selfish as he didn't like the dog being in the bunkhouse?'

As a result of this openness to alternative possibilities, sometimes expressed through questions, participants were then able to rethink their position as new information became available. This rethinking meant that participants engaged in live thinking within the ongoing processes of the novel, with the events of the story acting as a present reality to be continuously reassessed in real time:

(P27A) 'Seeing George somewhat portrayed as an unreliable narrator - so to speak - makes me wonder what else he could be lying about, specifically to Lennie, and if I need to rethink what his true intentions for and promises to Lennie could actually be. Something to keep an eye on.'

(P6N) 'At first I thought the author was racist but the way he wrote about Crooks I have totally back tracked.'

The use of 'something to keep an eye on' here by P27A highlights the provisionality of thinking while reading, informed by the prior feelings of George being an 'unreliable narrator.' By contrast, the 'back tracking' from P6N goes beyond a change of mind, instead going back through the narrative to re-assess thoughts and feelings. While instances such as these occurred across both groups, autistic participants seemed more often to remain open to reassessments by thinking beyond the immediately available information.

4.5.2.3. *Involuntary feeling for*

The more that participants had been able to successfully get into the novel, the more there were reports within participants' diaries of involuntary feelings for the novel and its characters. These involuntary feelings of creative discovery contrast to the earlier mentioned socio-political assessments that failed to get participants

emotionally into the novel. In particular, the final two chapters of the novel often resulted in reports of overwhelming, involuntary sadness amongst participants:

(P23A) 'Sadness, resignation, fear of what would **happen** to the characters. I have a **sudden feeling** of terrible sadness about their dream of the farm, which I know – **and I think they know** – is too good to ever be true.'

(P10N) 'Sadness – when dreaming about their future life – as it was far removed from their current situation'

Here, P23A's 'too good to ever be true' shows an emergent and involuntary saddened knowledge, rather than a cynical closing down of difficult feeling. Similarly, P10N's contrast between the dreams of the future to the present situation results in a wider and deeper understanding of the character's circumstances than they themselves have realised. Rather than this difference in understanding creating a distance between the reader and the characters, a painful knowledge results for the reader.

Where participants experienced these instances of painful knowledge, their emotions were not made any easier despite participant reports of knowing what was to come:

(P11A) 'Chapter 5 was a little bit like a car crash in slow motion, from the first couple of lines it's obvious what is going to happen'

(P17N) 'The characters were eerily realistic'

The obviousness described here by P11A is not a distanced knowingness but rather something that is felt painfully and sympathetically across the distance between P11A as the reader and the characters within the novel. P11A's metaphoric description of 'a car crash in slow motion' shows this depth of empathy, felt across the gap between P11A's knowingness of what is to come and what the characters have yet to realise. These involuntary feelings were experienced by both autistic and non-autistic participants, but generally there was a sense that they appeared to be felt with greater depth by autistic participants.

4.5.2.4. More than one thing at a time

Where participants had begun to successfully feel within the novel, there was a tendency to feel a greater complexity and register more than one thing at a time:

(P27A) 'Beyond that, this was a chapter I really felt like the characters were shades of grey.'

This meant that participants also held in mind conflicting feelings toward characters, and non-conclusive views that further enhanced their willingness to actively rethink while reading in real time:

(P1A) 'George was harsh, more than once but I can **also** understand his frustrations with Lennie as **he** is **solely** looking after him and **they** seem to have run into trouble on more than one occasion due to Lennie's actions.'

(P8N) 'George takes the role of a carer, who is exasperated and resentful at the difficulties in looking after Lennie, **but** obviously cares for him. I felt irritation at points, when he was being resentful toward Lennie, **but also** sympathy toward him, as it clear that Lennie's behaviour created patterns of difficulty across their lives.'

Through P1A's move from 'he' to 'they' he expands upon his first thought of George being harsh by incorporating the realisation that George alone is responsible for what both he and Lennie go through together.

Through this willingness to hold in mind competing and even ambivalent views toward characters, participants were also able to feel for more than one character at a time. These instances remarkably included times where behaviour of one character was itself not empathic toward the other characters in the novel, such that the reader even paradoxically tolerated intolerance:

(P27A) 'Even though neither Candy or Crooks showed her sympathy and even though she was expressing antagonism rather than vulnerability to match Crooks and Candy's antagonism, I was willing to sympathise with Curley's wife.'

(P14N) '4 individuals can be so isolated, lonely and dependent even though they've been thrown together; that the differences between them (colour, age, gender, 'intelligence') can divide them despite them having so much in common; that they've all developed damaging self-protection mechanisms'

For P23A, this feeling for more than one thing or person at a time led to her sense of feeling together with other readers:

(P23A) 'I was really sad that Lennie hurt the puppy. I knew he would. We all knew he would. He didn't mean to do it, but he did.'

Here, the call from 'I knew' to 'we all knew' acts as a form of human understanding – a sense of true we-ness in human solidarity - holding together the difficulty of

knowing that Lennie would hurt the puppy and feeling the painfulness of this for Lennie's sake too.

By thinking and feeling for more than one thing at a time, participants were then able to see deeper subtexts between characters. These assessments of subtext seemed more common and more in-depth amongst autistic readers:

(P23A) 'Lennie was killed at the time when he was gleefully recalling their dreams, their plans – the house, the rabbits, the alfalfa. With the shot to Lennie's head, George is also 'killing' those dreams. He's killing that possible future, and I can't imagine he would want that same dream **without** Lennie there. The dream was **for the two of them, not for just one** –or for him and another.'

(P17N) 'Lennie, **innocent but with** a power he couldn't control. Curley's wife craving attention **but unaware** of the dangers that flirting with Lennie could do'

Through the breadth of understanding P23A is able to understand that George was also killing his own dreams in the death of Lennie.

4.5.2.5. Involvement in a character

While these thoughts and feelings for more than one thing at a time led to a breadth of understanding, participants who got within the novel were also able to feel for the depth of a character by feeling with one character at a time in the midst of an interaction with another. Together with the breadth of feeling, this enabled the participants to further explore the subtext of the novel, particularly where characters had behaved in an unfavourable way:

(P27A) 'Even if he never truly expressed his love for Lennie beyond berating him every step of the way, there was a love there and there was a love in his final act of shooting Lennie.'

(P7N) 'I felt sorry for Crooks as it is apparent he is isolated from everyone, **not just** the men on the ranch **but almost all** of Soledad'

The metaphorical use of 'killing' by P23A above in the 'More Than One Thing at a Time' subtheme shows P23A taking on the novel's vocabulary to re-create the novel imaginatively. Comparatively, through deep understanding with George, P27A is able to see the love in the act of killing, an act that participants regularly believed had saved Lennie from an unkind death at the hands of another character. It feels

more paradoxical and more hard-won than a surface description of 'mercy-killing.' This contrasts to the effortful implementation of socio-political empathy, where participants often centred their concerns around Lennie's death being painted as a mercy.

For autistic participants, but not non-autistic participants, this depth of understanding also applied to the character Lennie. Lennie has an unnamed disability, and his perspective comes primarily through the point of view of his non-disabled friend George and that of the other characters. However, autistic participants were able to use subtle cues in the text to infer for themselves Lennie's thoughts and feelings. While one non-autistic participant also briefly discussed Lennie's feelings, this was in contrast to what Lennie was *not* able to think and feel:

(P14N) 'Lennie's childlike happiness in hearing his favourite story...especially as a distraction from the fact that George should have been mad at him'

(P20A) 'Lennie only feels shame, which shows that he does care about what he is doing'

(P23A) 'I had great empathy for the ways in which Lennie was mentally beating himself up – saying cruel things to himself through imaginary people.'

While autistic participants were familiar with considering different Others, it was the depth of feeling for the novel and its characters that prompted non-autistic participants to begin feeling for different Others outside of the text. In this way, the participants were more like a revised version of George. Specifically, it forced them to think about why Lennie was treated as an outcast by the other characters and ultimately unable to be accommodated:

(P14N) 'It challenges the reader to consider whether George had actually done the right thing and ultimately to ask why society was unable to accommodate Lennie.'

(P10N) [letter 2 self to author] 'You have skilfully held up a mirror to society, which **many, including myself** found uncomfortable when looking at its reflection. It made me reassess the world in which we live and what we as a society should be striving for. I **also loved** how there were so many characters who through no fault of their own were born or found themselves an outsider in an intolerant world (race, disability, poor) and yet many of these **outcasts** were **the warmest, kindest most decent** human beings within the book'

These feelings, together with the in-depth feelings for Lennie from the autistic participants, contrast with the more generalised socio-political empathy relating to representations of disability. Those well-meaning general attitudes lacked this source-emotion to keep them fresh and authentic. Here, participants were able to feel for the ways in which human culture continues to make people unhappily Othered, whilst starting to unpick what creates this Othering.

4.5.3. Re-creating literature

4.5.3.1. Emotional depth

Where participants were asked to re-write the ending of the book, the autistic participants in particular were able to draw on their thoughts and feelings as experienced from within the novel to re-create the literature in their own writing. Some of this 'readerly imagination', infused with the language and feel of the book, has already been seen above in relation to subtexts in the 'Mobility of Response' theme. For non-autistic participants, this creation of a literary depth was only evident in creating emotional depth for George:

(P1A) 'A smile turns into unease, George tells himself "That son of a bitch and that harlot wife had it coming to them, to hell with them. I made it work Lennie, and I wasn't letting nobody stop me from living out our dream." The sun sets, everybody heads in, life continues as normal.'

(P17N) [From Lennie's death]: 'George felt something run across his leg. He looked down to see a pair of small, dark piercing eyes staring up at him. He stared back at the shapeless little face and stroked its back. "Come with me," he whispered.'

While P1A chose to undo the killing of Lennie, the result is not a mere escape from pain: the subtleties in his writing, starting with 'a smile turns to unease', shows an understanding of how any ending would have led to emotional difficulty for the novel's characters. While P17N chose to leave the ending with the death of Lennie, the addition of George taking a rabbit with him shows a use of the novel's own materials in the partial compensation for the loss of companionship George felt in the death of Lennie, the rabbit standing in memory of Lennie.

Again, but now in their writing, autistic participants were equally drawn to Lennie's perspective in addition to that of George:

(P23A) 'He'd do it. He'd run away into the cave, and live there, no ketchup, just like he'd said.'

(P20A) "'Listen Lennie, we ain't safe'" "What you mean we ain't safe? We never safe George"

P20A's narrative is still shared between Lennie and George, as were her earlier considerations of character perspectives, adding a now shared knowledge for the precarious nature of their safety. P23A is able to re-use the novel's own language ('no ketchup') to sustain Lennie's new but vulnerable independence.

Autistic participants were also able to use the differing perspectives of George and Lennie to build tension for their assumed readers. This again demonstrated mobility of perspectives for autistic participants—the perspective of two characters as perceived through the perspective of their audience:

(P1A) 'George walks up to him, staring him in the eyes without blinking
"Lennie, what did you do? You tell me now"

(P20A) "'Yeah Lennie, you right, you right -ere'", George says as his voice begins to quieten down, into a soft whisper. "Why you whisperin'? I can't -ere you" Lennie says in normal volume.'

The urgency created by P1A through George toward Lennie creates an elongated moment of tension where George does not yet know what Lennie has done wrong. In this way, the reader, who knows the events of the narrative, is left in suspense through various imaginative alternatives. Similarly, P20A, who previously demonstrated a depth of understanding for Lennie's perspective, here uses Lennie's lack of knowledge for the subtleties of the situation to build tension. In this exchange, readers are able to understand that George's whispering indicates the imminent threat to their safety, building tension around Lennie's lack of ability to understand this particular situation and respond appropriately with the same quiet urgency as George. P1A works through pace and timing; P20A through tone and volume. By such intuitively adapted techniques, autistic participants additionally incorporated the subtleties of human life that are often missed in everyday encounters, building upon the felt realism of the literature:

(P23A) 'He barely noticed breaking skin on his legs as he slipped on his way up over the rocks'

(P11A) ‘Despite being tired, the glimpse of their new home gave the men a renewed sense of energy, and had anyone been watching they might have said they moved a little faster and stood a little straighter.’

4.5.3.2. Responsive language changes

Autistic participants further responded empathically by demonstrating responsive language changes, re-embodying the original novel tone through their own language choices:

(P1A) ‘He heads over to Lennie, “What's got you all worked up now? You best not hurt that puppy none!”...“I done a bad thing George, but not that. I told her to stop screaming, but she wouldn't listen”.’

(P20A) ‘George held onto him tight and pulled Lennie in tighter, “Listen -ere, you gotta come with me right now Lennie, I ain't playin no games, none. We gonna be killed if we don't get outta here”

Lennie points to George's hand, “but you got that George, we safe”

“We ain't safe, I ain't even s'posed to have this thing -ere, it ain't mine, so we gotta go”.

“Well, who's is it?” Lennie asks George, as if George was going to reply.

“Who's is it?”

“It ain't mine!”

In the movement of readers into writers through reading, a remarkable sustained empathy is created.

4.6. Discussion

4.6.1. Summary of findings

The current study aimed to explore (1) the value of serious literature as a methodology for the exploration and comparison of autistic and non-autistic adult empathy and (2) whether adult autistic readers read in a more advantageous and empathic, ‘literary’ way than non-autistic adult readers. Resultant findings are discussed below in relation to previous theoretical assumptions and associated findings.

4.6.1.1. Reading as an advantageous methodology for empathy research

Findings from the current study demonstrated the previously documented ability of serious literature to mirror the real social world (Mar & Oatley, 2008; Oatley, 2016; Waytz et al., 2015). While everyday socio-emotional encounters often require fast-paced assertions to achieve empathy, findings of improved empathic capacity after reading fiction (Bal & Veltkamp, 2013; Kidd & Castano, 2013; Mar et al., 2009) highlight the ability of literature to simulate everyday social cognition. Furthermore, participants in the present study demonstrated a felt realism for the literature with resulting experiences of embodied perspective and empathic engagement. These findings therefore support prior theoretical suggestions that literature promotes realistic feeling between the mind of the reader and the minds within the text in a way that results in character embodiment (Barnes, 2018; Limburg, 2021; Mumper & Gerrig, 2019; Zunshine, 2011). Additionally, these experiences of empathic embodiment created complex layers of thought together with feeling in a way that replicated the combination of affective and cognitive empathy as it is experienced within the everyday social world (Fletcher-Watson & Bird, 2020). In this way, the present study further demonstrates the advantages of serious literature as an ecologically valid tool within empathy research (Chapple et al., 2021a; Djikic et al., 2013; O'Sullivan et al., 2015). These advantages contrast to standardised ToM tests which instead seek to separate thought from feeling in an attempt to gain experimental control (Fletcher-Watson & Bird, 2020). Not only do such tests lack ecological validity, but they additionally favour simplistic, heuristic-based empathic assertions that prevent deeper empathic explorations (Fletcher-Watson & Bird, 2020; O'Sullivan et al., 2015). Given suggestions and findings that autistic individuals may be more socially tentative in their assertions (Capps et al., 1992; Chown, 2014; Lesser & Murray, 2020; Murray et al., 2005; Milton, 2012, 2020), standardised ToM tests therefore risk underscoring and subsequently underestimating the empathic abilities of autistic individuals. By contrast, the present study was able to demonstrate the complexity of the empathic responses experienced by autistic participants, who at no time demonstrated any specific empathy deficits when compared to non-autistic participants. As a result, the use of literature within empathy research poses an advantage in its ability to explore autistic experiences in a way that rehumanises understandings of autistic empathy by moving the focus away from what autistic people lack (Murray, 2020).

4.6.1.2. Addressing theoretical assumptions of autistic deficits

Overall, the multi-faceted empathic responses by autistic participants in the current study contest assumptions of an autism-specific empathy deficit (Baron-Cohen, 1997, 2002, 2009). Instead, autistic participants demonstrated reflexive thought alongside depth of feeling in a way that was empathic rather than systematic in nature, contrasting to the assumptions of the E-S theory (Baron-Cohen, 2002, 2009). Additionally, where perspective-taking and empathic feeling conflicted with autistic participants' own thoughts and feelings, they were able to draw from the novel's subtext to overcome their own concerns. Therefore, findings challenge arguments that autistic individuals egocentrically impose their own thoughts onto the perspectives of others without regard to social context (Baron-Cohen, 1997; Lombardo & Baron-Cohen, 2011). These previous assumptions are instead likely to reflect the double empathy problem within research (Milton, 2012, 2020) alongside the overuse of restrictive cognitive ToM measures that prevent in-depth explorations of empathic experience.

Furthermore, autistic participants were able to think reflexively across the novel in a way that challenges the WCC theory's assumption of a resultant global processing deficit amongst autistic individuals (Happé, 1999). Similarly, autistic participants were more likely than non-autistic participants to think across perspectives within the novel. In this way, autistic participants demonstrated an ability to model minds, contesting the monotropism view that depth of feeling comes at the expense of perspective breadth (Lesser & Murray, 2020; Murray, 2020). However, the assumptions of the WCC and monotropism theories that autistic individuals have narrow interest systems which promote a depth of feeling and focus on detail were supported by the current research findings. Specifically, autistic participants demonstrated in-depth, involuntary feelings as well as a focus on subtle socio-emotional cues within the text which enabled them to uncover hard to reach perspectives. Therefore, findings suggest that an autistic neurocognitive advantage around depth of feeling may not result in deficits around breadth of understandings.

4.6.1.3. Double empathy implications

The ability amongst autistic participants to draw upon empathic depth alongside breadth often led to them demonstrating deeper feelings and understandings toward the literature than non-autistic participants. Specifically, autistic participants

demonstrated more provisional thinking that enhanced their ability to hold in mind more than one conflicting mind or situation at a time. As a result, autistic participants were often more literary thinkers, able to 'bite off more than they could chew', as required by the literature (Davis, 2020; Davis & Magee, 2020; Djikic et al., 2013; O'Sullivan et al., 2015). For example, where non-autistic participants were only able to use their creative writing to create emotional depth for the main character, George, autistic participants were able to model multiple minds, including harder to reach perspectives such as that of Lennie. Furthermore, autistic participants demonstrated abilities in embodying the language of the novel and drawing upon their literary reflections to re-create the literature in a way that captured the socio-emotional subtleties of character perspective and human feeling. The inclusion of these narrative features by autistic participants expands upon arguments that readers of serious literature 'do' the literature in their reading (Barthes, 1969, as cited in Muldoon, 2021; Limburg, 2021) to suggest that autistic readers may engage more with literary thinking in this way. Overall, these findings support the double empathy problem assumption that autistic individuals may have more advantageous socio-empathic understandings than non-autistic individuals (Chown, 2014; Milton, 2012). Specifically, findings support the notion that, through their experience of navigating a lack of mutuality (Chown, 2014; Limburg, 2021; Milton, 2012, 2020), autistic individuals are more careful and provisional in their thinking and emotional responses (Capps et al., 1992; Lesser & Murray, 2020).

While the serious literature in the current study positioned autistic empathy as a social advantage, it further encouraged such tentative and provisional assertions amongst all participants. Early in the reading process, participants across groups tended to implement fast-paced, conclusive attributions of perspective that resulted in a failure to empathically get inside the literature. However, through literature requiring its readers to take on more than one thought and/or feeling at a time (Davis, 2020; Davis & Magee, 2020; O'Sullivan et al., 2015) participants were then required to go beyond heuristic-based assertions. While autistic participants were largely advantaged in this way of thinking, non-autistic participants began to think and feel for different Others throughout the novel. Furthermore, non-autistic participants began to re-think human culture by unpicking what creates Othering. These findings support previous findings that serious literature moves its readers away from rigid, stereotyped ways of thinking (Djikic et al., 2013; O'Sullivan et al.,

2015). Additionally, the process of unpicking societal constructs indicates a potential for literature to give non-autistic individuals insight into the workings of wider society. In this way, literature may therefore be able to move non-autistic participants away from assumptions of pre-set mutuality and social norms (Chown, 2014; Milton, 2012) toward understanding the processes behind the Othering of neurodivergent individuals. Therefore, present findings indicate a potential for literature to promote double empathy understandings between autistic and non-autistic individuals, as shown in Chapple et al. (2021a), through a move away from assumptions of mutuality and pre-set social norms.

4.6.2. Limitations and future research

The current sample consisted of participants who had all completed GCSE level education or above, with the majority of participants having completed degree-level education. This may have resulted from an increased willingness amongst individuals with higher education backgrounds to engage with serious literature. Furthermore, autistic participants were only included if they did not have additional disabilities that would affect their reading or writing skills. As a result, conclusions on the value of serious literature as a tool for exploring and comparing empathic experience are limited to the current sample and are not representative of the wider autistic community. Given the under-representation of autistic individuals with higher support needs within autism research, future research should seek to explore the value of reading and reflective writing in exploring the empathic experiences of autistic individuals from less educated backgrounds and with higher support needs.

Conclusions around autistic neurocognitive advantages in the contemplation of serious literature are also limited to the current sample. Although there was a spread of reader investment across neurotype groups, no data were collected on the wider reading habits of participants in the current sample. As a result, it could be that the autistic participants in the present sample were more experienced readers of serious literature compared to autistic individuals in the wider population of interest. Furthermore, that these participants were willing to engage in the reading of serious literature and subsequent reflections may have reflected an increased ability and willingness for reflexive and tentative thinking amongst these participants. Additionally, while *Of Mice and Men* (Steinbeck, 1937) was chosen due to its representation of adversity and ableism, this increased relevance for autistic

participants may have shaped their responses in a different way than the non-autistic participants within the sample. As a result, conclusions around deeper empathic understandings amongst autistic individuals are limited to both the current sample and the piece of serious literature. Therefore, future research should seek to compare the reading experiences and reflections of autistic compared to non-autistic adults in response to various text types with different content relevance. Additionally, further enquiry is needed to explore specific textual factors, such as genre and realism, that enhance double empathy understandings and the ability of autistic readers to get emotionally inside a text.

4.6.3. Conclusions

In conclusion, the findings of the present study demonstrate the utility of serious literature as a research tool for exploring empathic experiences between autistic and non-autistic individuals. Furthermore, the implementation of serious literature in the current study was able to demonstrate the complex empathic experiences of the autistic readers within the study. Importantly, these findings contest previous assumptions of an empathy deficit amongst autistic individuals (Baron-Cohen, 1997, 2002, 2009) as well as assumptions of an autistic deficit in the modelling of other minds (Baron-Cohen, 1997; Happé, 1999; Murray, 2020). Instead, findings supported previous suggestions that autistic individuals are more socially tentative (Capps et al., 1992), feeling with others with advanced depth (Lesser & Murray, 2020; Murray et al., 2005; Murray, 2020) and with provisional assertions. As a result, the present findings support the notion that, possibly through their experience in navigating a lack of mutuality, autistic individuals have enhanced socio-emotional understandings that can prevent socio-communicative breakdowns (Chown, 2014; Milton, 2012, 2020). However, findings from the current study indicate that serious literature may encourage similar provisional assessments and socio-empathic understandings amongst non-autistic readers. Therefore, these findings demonstrate the full potential of serious literature to promote double empathy understandings amongst autistic and non-autistic individuals, to break down barriers and to advance a more nuanced scientific study of autistic psychology.

4.7. Chapter summary

This Chapter contributed to the first aim of the thesis by demonstrating the essentially similar ways autistic and non-autistic readers engaged with the social complexities within the same work of literature. Findings here indicated that the autistic participants more often thought and felt across the different minds in the novel when compared to the non-autistic participants. Therefore, the Chapter demonstrates that reading is a valuable methodology in overcoming stigmatised, deficit-focused views of autism within autism research. In this way, this Chapter expanded on Chapter 3 by showing that reading reflections could potentially overcome stigmatised views of autism and autistic people within research as well as within interpersonal discussions.

This Chapter addressed the first research question by showing the essentially similar ways that the autistic and non-autistic participants approached the literature in the process of reading. However, the autistic participants often more readily held onto the complex literary language and resulting ambiguity within the literature. This appeared to result from a tendency across the autistic participants to better hold onto complex feelings, supporting previous ideas that autistic people may experience a tendency to hold onto detail. In exploring the second research question, findings indicated that the autistic participants were already skilled in thinking and feeling across different minds. However, through the process of reading the literature and being encouraged to hold onto complex feelings, the non-autistic participants became better able to think and feel across these differences. Through the process of becoming immersed in their reading, both autistic and non-autistic participant groups were required to overcoming their standard ways of thinking about social information. This Chapter also builds upon the third research question together with Chapter 3 in demonstrating that the previously documented advantages of serious literature can apply to both autistic and non-autistic adults. However, further research is needed to explore whether other text types might offer different advantages.

4.8. References

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Chapter 5

Exploring the different cognitive, emotional and imaginative experiences of autistic and non-autistic adult readers when contemplating serious literature as compared to non-fiction

5.1. Foreword

This Chapter aimed to contribute to the first aim of the thesis by building on the findings from Chapters 2 and 4 to explore the different ways that autistic and non-autistic adults engaged with serious literature as compared to non-fiction. The Chapter also sought to build upon Chapters 2 and 3 by addressing the second thesis aim through the introduction of an adapted reading aloud methodology. This Chapter implemented the use of pre-recorded audio files of an experienced reader reading the texts aloud, which participants listened to while reading alone. This Chapter also sought to explore the second aim in seeking to identify particular text types and features that might be best implemented within future shared reading designs with autistic and non-autistic adult readers.

This Chapter aimed to further explore the first research question by exploring the differences and similarities between autistic and non-autistic adults while reading literary and non-fiction texts. In addressing the second research question, the Chapter built upon Chapter 2 to compare literary and non-fiction texts that explored breakdowns in mutuality and autistic experiences and texts which explored broader human experiences. This exploration sought to specifically explore whether reading about different minds through literature and about autism within the non-fiction texts could encourage an overcoming of and pre-existing stereotyping and stigma amongst the non-autistic participants. This exploration also built upon findings from Chapter 2 in addressing the third research question by exploring whether the relatability of a mind or situation within a text would better enable autistic participants in particular to get more out of their reading experience. Similarly, the advantages of literature as shown in Chapters 3 to 5 were compared to non-fiction texts due to findings in Chapter 2 which indicated that autistic adults may also benefit socially from non-fiction.

Chapter 5 was submitted as an original research manuscript to *Frontiers in Psychology* on 23.07.2022 (Manuscript ID: 1001268) and is awaiting reviewer feedback.

The format of the content has been adjusted to match the style of the current thesis. The author roles for this study were: Melissa Chapple designed the study collaboratively with Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis. Melissa Chapple recruited the study participants through advertisements to autistic and non-autistic communities and through social media. Melissa Chapple conducted the initial analysis and wrote the first draft of the manuscript. Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis all assisted with the final stages of the data analysis and provided feedback on the prepared manuscript. All authors reviewed and agreed on the final manuscript before submission to the journal. Melissa Chapple will be responsible for any peer-review revisions to the manuscript with guidance from Professor Rhiannon Corcoran, Professor Josie Billington and Professor Philip Davis.

5.2. Abstract

Recent research has demonstrated how reflections on serious literature can challenge dominant social-deficit views of autism. This method enables autistic readers to explore social realities more slowly and carefully, encouraging detail-focused considerations. Previous research has also shown that autistic and non-autistic readers reflecting on serious literature together are able to achieve mutuality in a way that enables them to overcome the double empathy problem. However, the advantages of reading aloud designs have yet to be explored with autistic and non-autistic readers due to previous concerns amongst autistic people on the issue of being read aloud to. The present study aimed to explore how an adapted shared reading design that compared serious literature and non-fiction would enable autistic and non-autistic readers to imaginatively engage in the reading experience. Specifically, seven autistic and six non-autistic participants read 8 short text extracts alone while listening to pre-recorded audio of an experienced reader reading each text aloud. Participants completed a reflective questionnaire for each text and a follow-up interview where moving parts of the text were then re-read aloud before discussion. Half of these texts were serious literature, while the other half were non-

fiction. Similarly, half of the texts explored fictional social realities that depicted a lack of mutuality, or non-fiction accounts of autism; while the other half explored broader emotional experiences. Thematic and literary analysis of participant reflections and follow-up interviews revealed three main themes: (1) From Surface Reading to Intuitive Engagement, (2) Imaginative Feeling and (3) Going Forward from the Reading Experience. The findings showed that autistic readers were better able to hold onto the detailed complexity of serious literature, while non-autistic readers tended to reduce information down to key ideas and understandings for later generalisation. Findings are discussed in relation to future shared reading designs.

5.3. Introduction

Autism broadly refers to developmental differences that influence how a person might think, feel and interact with the world around them (Fletcher-Watson & Happé, 2019). However, beyond these broad categories of difference, it is hard to refine the definition of autism in a way that does not over-simplify the complex experiences of autistic people (Botha, 2021; Fletcher-Watson & Happé, 2019). While there have been many attempts to understand common socio-cognitive processing differences amongst autistic people, one key hurdle is the over-dominance of the medical model of autism (Waltz, 2013). This model positions autism as a deficiency of human development, treating human difference in the same way as physiological disease (Kinderman, Read, Moncrieff & Bentall, 2013; Waltz, 2013). Current diagnostic definitions of autism centre upon assumed key deficits in social communication, repetitive behaviour and restricted interests (American Psychiatric Association, 2013; Murray, Lesser & Lawson, 2005). What has resulted is a dominant narrative of disorder that has further led to harmful pursuits towards the prevention and cure of autism (Milton, Ridout, Martin, Mills & Murray, 2020; Waltz, 2013). In wider society, pathological, deficit-focused views of autistic people have resulted in stigma and subsequent discrimination (Green, Davis, Karshmer, Marsh & Straight, 2005; Pearson & Rose, 2021).

In particular, theoretical models of autism have often been underpinned by deficit views, in a way that subsequently reinforces pathologised understandings of autistic people (for example: Baron-Cohen, 1997, 2002, 2009; Happé, 1999). Specifically, the weak central coherence (WCC) theory (Happé, 1999) argues that autistic people attend more to detail, at the expense of integrating information into

broader contexts (Happé, 1999; Hill, 2004). For social situations, this would mean resultant difficulties in understanding overall interactions, generalising social learning across situations and may be linked to a tendency to feel overwhelmed (Happé, 1999; Hill, 2004). While the theory has been criticised for failing to specify the level at which integration difficulties may occur (Baron-Cohen, 2008), the idea that autistic people attend more to detail has remained influential (Lesser & Murray, 2020; Murray et al., 2005). The theory of monotropism (Murray et al., 2005) furthers the idea that autistic people have a tendency to attend to detail. This theory positions autistic people as being able to integrate information into wider contexts, but it does still suggest that autistic people might find it more difficult to process multiple streams of information (Murray, 2020). Therefore, both monotropism and WCC position autistic people as struggling with social breadth, or the ability to model other minds (Happé, 1999; Lesser & Murray, 2020). The theories then suggest that typically developing people would tend to better understand social breadth at the expense of depth (Lesser & Murray, 2020).

Similar claims have been made by the mindblindness theory of autism (Baron-Cohen, 1997), which argues that autistic people struggle to imaginatively represent the minds of others, known as theory of mind. The theory argues that autistic people are extremely egocentric, applying their own mental states to others regardless of similarity to self or context (Bodner, Engelhardt, Minschew & Williams, 2015; Lombardo & Baron-Cohen, 2011). Despite the pervasive influence of this theory, findings have contradicted these assumptions. Specifically, autistic people have instead been found to view themselves through an imagined third-person perspective (Arnaud, 2022; Burrows, Usher, Mundy & Henderson, 2017). This contrasts to a general bias for prioritising first-person self-assessments that is often observed within non-autistic, Western samples (Arnaud, 2022; Burrows et al., 2017). The reason for this difference appears to result from a sense that autistic people are less likely to trust their own perspectives for self-evaluations, feeling instead that others know them better than they do themselves (Schriber, Robins & Solomon, 2014). These findings counter the mindblindness theory by showing a complex mobility of perspective while also raising concerns around whether deficit-based views of autism lead to reduced confidence in self and ability amongst autistic people. Early versions of the empathising-systemising (E-S) theory furthered these deficit views by claiming that autistic people are broadly less empathic than their non-autistic

peers (Baron-Cohen, 2002, 2009). Instead, autistic people are argued to possess a processing style that is more systematic in nature (Baron-Cohen, 2002, 2008, 2009). Here, systemising refers to the ability to extract regularities when observing a process in order to establish rules that govern it and make predictions about future events and consequences (Baron-Cohen, 2008). This approach to understanding socio-emotional information is then seen as too rigid and mechanical to successfully infer and predict the feelings and behaviours of others (Baron-Cohen, 2008).

As a result of these empathic deficit views, there has been a long-standing research focus examining the ways in which autistic people might differently empathise with others (Dinishak & Akhtar, 2013; Hume & Burgess, 2021). However, the term empathy, much like the term autism, can be difficult to define in a way that does not narrowly reduce the concept down into too-easily-understood, restrictive criteria that fail to capture the complexity of feelings being referenced (Fletcher-Watson & Bird, 2020). Broadly, the term is often taken to refer to the inter-related abilities to recognise, predict, feel through, and respond to the feelings of others (Fletcher-Watson & Bird, 2020; Harmsen, 2019). Research on autistic experiences of empathy have generally concluded that autistic people struggle to take the perspective of others (Smith, 2009; Song, Nie, Shi, Zhao & Yang, 2019) and recognise the emotions of others (Gaigg, 2012; Rigby, Stoesz & Jakobson, 2018). However, research is often based on cognitive tests that favour fast-paced and conclusive assumptions made on the basis of limited sets of information (Fletcher-Watson & Bird, 2020). Findings then lack ecological validity as a result of the research failing to mirror everyday socio-emotional experiences which often allow for and benefit from more careful, complex considerations (Fletcher-Watson & Bird, 2020). These slower and more careful empathic assessments may be more common amongst autistic people (Chapple et al., 2022), putting them at a disadvantage when tested with the standardised cognitive tests available (Fletcher-Watson & Bird, 2020).

Furthermore, social deficit accounts of autism fail to account for the bi-directional nature of social interactions (Milton, Heasman & Sheppard, 2018). Milton's (2012) double empathy problem highlights a need to understand that mutuality and context are developed within a given interaction. Therefore, social skills are not something to be objectively learnt and generalised as they are so often described (Milton, 2012). Rather, the difficulties often observed when autistic and

non-autistic people interact are positioned as stemming from mutual difficulties in understanding one another's perspective, which has been observed across research (Crompton, Ropar, Evans-Williams, Flynn & Fletcher-Watson, 2020b; Edey et al., 2016; Heasman & Gillespie, 2019; Milton, 2012; Sheppard, Pillai, Wong, Ropar & Mitchell, 2016). The differing experiences, norms and methods of communication between autistic and non-autistic people make this failure to find mutuality more likely than when each interacts with someone who shares their neurotype (Milton, 2012; Morrison et al., 2020). For the typically developing population, these mixed-neurotype encounters are rare due to the much greater likelihood of them encountering people who share their neurotype in everyday life (Chown, 2014; Milton, 2012). The result is that autistic individuals are then typically blamed by non-autistic people for socio-communicative difficulties resulting from the struggle to build mutuality and achieve reciprocity (Chown, 2014; Milton, 2012). Conversely, autistic people are more likely to have to navigate a lack of mutuality in their daily lives as a result of belonging to a neurominority (Botha, 2021; Chown, 2014; Milton, 2012). As a result, autistic people may be less likely to assume pre-set norms, taking more time to identify common ground and to develop shared social understandings (Chapple et al., 2021a; Chapple et al., 2022; Chown, 2014; DeBrabander et al., 2019; Milton, 2012). Research has supported this, showing that autistic people interacting together can achieve mutuality (Crompton, Hallett, Ropar, Flynn & Fletcher-Watson, 2020a; Crompton et al., 2020c; Heasman & Gillespie, 2018; Milton, 2012; Morrison et al., 2020) even after initial negative impressions (DeBrabander et al., 2019).

To move understandings of autistic people away from deficit-focused views, research methods that involve more open, empathic thinking about autistic people are needed (Chapple et al., 2021a; Ida, 2020). One ecologically valid method that can offer this type of exploration is the contemplation of fiction (Chapple et al., 2021a; Chapple et al., 2022). This is because fiction provides social simulations that mirror the real social world, making the experience feel like a live reality (Mar & Oatley, 2008; Mumper & Gerrig, 2019). Specifically, fiction encourages complex movements between a readers' own perspective, character perspectives and the inferred perspective of the author (Mar & Oatley, 2008; Waytz, Hershfield & Tamir, 2015; Zunshine, 2011). This perspective mobility activates past, personal memories that enable readers to respond empathically with the minds in the text (Mumper &

Gerrig, 2019). Rather than these assimilations encouraging readers to egocentrically impose their own perspective, moving parts of a text become part of the reader, allowing them to feel together with the minds held by the text (Limburg, 2021; Zunshine, 2011). Serious literature is thought to be particularly evocative of these experiences, encouraging readers to mentally ‘do’ the literature rather than passively read it (Barnes, 2018; Davis, 2020). Serious literature is here used to refer to fiction that engages readers with significant human situations through the use of powerful, moving language (Davis, 2020; Davis & Magee, 2020). This powerful language encourages readers to hold onto feelings of being moved (Davis, 2020; O’Sullivan, Davis, Billington, Gonzalez-Diaz & Corcoran, 2015). The result is that readers explore the uncertainties and complexities of imagined social realities more carefully, holding onto ambiguity in a way that makes room for deeper empathic feelings (Chapple et al., 2022; O’Sullivan et al., 2015). Although serious literature does not necessarily refer to classic texts, older literature can be particularly powerful due to its ability to ‘regenerate’ modern contexts through representations of core human feelings that transcend time (Farrington, Davis & Billington, 2019).

Through this movement, the reading experience prevents overly-conclusive judgements that are implemented when generalising from learnt social scripts (Djikic, Oatley & Moldovenau, 2013; O’Sullivan et al., 2015). Instead, serious literature encourages readers to find value in the intangible, staying with moments of movement from intangible feelings before turning them into something more easily recognisable (Farrington et al., 2019). Therefore, serious literature creates social realities for readers that are arguably more emotionally complex than everyday experiences (Farrington et al., 2019). This is because reading can help readers overcome satiation with default, normative ways of thinking that can prevent us from holding onto and feeling with emergent live thoughts (Davis & Magee, 2020; Farrington et al., 2019). Shared reading in particular can bring readers from different walks of life together in ways that encourage an overcoming of any pre-conceived prejudice towards different minds (Chapple et al., 2021a; Longden et al., 2015). Where readers are moved to feel with one another through shared thinking together, openness and empathic feeling is supported (Chapple et al., 2021a; Longden et al., 2015). Specifically, reading allows social risk taking in a way that encourages feeling with different Others, regardless of any perceived personal or social risks from mutual identification and feeling (Koopman & Hakemulder, 2015). Longden et

al. (2015) report that the liveness of being read aloud to in a shared reading group is particularly important in surprising readers out of default thinking and into holding in mind live thoughts and feelings.

Texts that engage readers with human adversity are thought to be particularly moving (Davis, 2020; Strick & Van Soolingen, 2018). Importantly, research has demonstrated that when autistic and non-autistic people reflected on a text addressing human adversity, there resulted an overcoming of stigma and the double empathy problem (Chapple et al., 2021a). Current findings indicate that while reading alone, autistic people hold onto complexity, meaning they read in more literary ways that enable them to benefit from both the emotional depth and social breadth of literature (Chapple et al., 2022). However, earlier findings that autistic people might feel uncomfortable with the idea of reading together with others or being read to (Chapple, Williams, Billington, Davis & Corcoran, 2021) mean that explorations have so far been designed around autistic people reading alone (Chapple et al., 2021a; Chapple et al., 2022). Therefore, the previously demonstrated value of live reading (Longden et al., 2015) has yet to be applied to shared reading between autistic and non-autistic readers. However, it is first important to explore how autistic people engage with and benefit from reading aloud designs in more comfortable settings, such as while being able to read alone.

Considerations of text type should also be given for autistic readers (Chapple et al., 2021b). Specifically, autistic adults have highlighted a need for social experiences within texts to be relatable in order to achieve immersed feeling (Chapple et al., 2021b). Similarly, it has been suggested that autistic people may prefer non-fiction (Barnes, 2012; Baron-Cohen, 2008). Although research has demonstrated that autistic people do enjoy and engage with fiction (Armstrong, Paynter & Westerveld, 2019; Barnes, 2012; Chapple et al., 2021b; Davidson & Ellis Weismer, 2018), qualitative research has highlighted that autistic people can find emotional value in reading biographical non-fiction and factual non-fiction that relates to specialised interests (Chapple et al., 2021b). Arguably, serious literature contains autobiographical elements within it, due to the author's own personal involvement in the fictional narrative (McCartney, 2021; Zunshine, 2011). However, it is important to explore how autistic and non-autistic readers would engage with more informal autobiographical works in order to explore how these accounts would compare to fictional representations of human difference and adversity.

The current study aimed to address these considerations by exploring how autistic and non-autistic readers would engage with various text types through a distanced reading-aloud design. Specifically, the study aimed to answer two questions: (1) how do autistic adult readers engage with serious literature compared to non-fiction and how does this compare to non-autistic adult readers? And (2) could texts depicting the double empathy problem or autistic experiences provide benefits for autistic and/or non-autistic readers compared to texts exploring broader human experiences? To explore these questions, participants read 8 short text extracts alone while listening to pre-recorded audio files of an experienced reader reading each text aloud. The texts were varied by whether they represented autistic experiences or boarder human experiences and also by genre (see section 5.4.3.).

5.4. Methods

5.4.1. Participants

Initially, participants were invited from a database of individuals who had previously been involved in reading research at the University of Liverpool and had given their consent to be contacted about future research. Further participants were then recruited through social media and local advertisements. Initially, 40 individuals participated in the screening process, of which 15 were not enrolled into the wider study due to not meeting the inclusion criteria. A total of 25 participants were invited to take part in the study, with 12 dropping out of the study without reason, resulting in the removal of their data. Participants were invited into the study until the research team agreed that data saturation had been reached within each group (autistic, non-autistic). Inclusion criteria included being 18 or over, having proficient English language skills and scoring an estimated Wechsler Adult Intelligence Scale (WAIS) IQ score of 90 or above as assessed by the Quick Test (QT) (Ammons & Ammons, 1962). For autistic adults who did not have an official diagnosis (i.e., who self-identified as autistic), there was an exclusion criterion of scoring below 32 (the suggested cut off for autism) on the autism quotient (AQ) (Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001). Undiagnosed autistic participants were included to take account of accurate gender representation due to the longstanding underdiagnosis of women and genders outside binary norms (Fletcher-Watson & Happé, 2019). Non-autistic participants had an additional exclusion criterion of scoring over 32 on the AQ.

Overall, thirteen participants took part in this research study (see Table 5.1 for demographics). Seven were autistic (male N=3; female N=2; gender outside binary norms N=2) aged 22-48 ($M=34.57$, $SD=9.31$) and six were non-autistic (male N=3, female N=3) aged 24-34 ($M=28.33$, $SD=4.23$). All participants were invited to take part in a follow-up interview about their text responses, with only one participant (autistic) choosing not to take part. Six (4 autistic) participants had previously taken part in reading research led by the team. This study was approved by the University of Liverpool Research Ethics Committee.

Table 5.1 Participant Demographics

Participant No.	Age	Gender	AQ	IQ (WAIS Equivalent)	Level of Education Completed	Neurotype
4	41-50	Female	38	116	Doctoral Training	Autistic: Diagnosed
7	31-40	Gender Non-Conforming	36	102	PGCE	Autistic: Diagnosed
8	31-40	Female	34	116	Doctoral Training	Autistic: Ongoing Assessment
10	21-30	Gender Non-Conforming	43	108	Bachelors	Autistic: Diagnosed
11	21-30	Male	40	96	GCSE	Autistic: Diagnosed
12	41-50	Male	45	98	A Level	Autistic: Diagnosed
19	21-30	Male	48	135	Masters	Autistic: Diagnosed

25	21-30	Male	9	104	Foundation Degree/Diploma	Non-Autistic
26	31-40	Female	22	104	Doctoral Training	Non-Autistic
28	31-40	Female	7	104	Masters	Non-Autistic
30	21-30	Female	15	100	Masters	Non-Autistic
38	21-30	Male	6	110	Bachelors	Non-Autistic
40	31-40	Male	6	120	Foundation Degree/Diploma	Non-Autistic

5.4.2. Screening measures

A demographics questionnaire asked for participants' age, gender and highest completed qualification. Eligibility questions were also asked at this stage.

The Autism Quotient (AQ) (Baron-Cohen et al., 2001)

The AQ is a 50-item questionnaire that uses statements to elicit a score designed to reflect autistic traits in clinical and non-clinical samples. The AQ was used to assess the number of self-reported autistic traits in both samples.

The Quick Test (QT) (Ammons & Ammons, 1962)

A single 50-item version of the QT was used to assess participants' comprehension abilities. The test involves participants looking at 4 pictures and deciding which picture each word goes best with. Given the age of the QT, the raw test score is converted to a WAIS, not WAIS-R, equivalent IQ. This was considered an adequate method for obtaining a rough estimate of reading comprehension ability for this study where its brevity was an asset and where IQ data were not going to be subjected to further analysis.

5.4.3. Study materials

Participants read 8, three-page long text extracts which were split into two groups: (A) texts exploring human disadvantage in a way that was judged by the research team as demonstrating the double empathy problem (Milton, 2012) or autistic experiences and (B) texts exploring wider human disadvantage and related

emotion in everyday situations. The texts in group A were judged as representative by the first author, who is autistic, and by an autistic research assistant who left the project due to time constraints. All texts were chosen with guidance from the 2nd and 3rd authors, who are experienced English literary scholars and come from The Reader Organisation's recommended texts for shared reading (Macmillan, 2010). Extracts that depicted abuse were avoided due to fear of triggering memories of abuse and post-traumatic stress disorder (PTSD) which has higher prevalence amongst autistic people (Rumball, Brook, Happé & Karl, 2021). All final extracts stated the text from which the extract was taken and gave a brief background to the text to create immersion and alert readers to anything that they may not want to read for personal reasons. Within each of the two groups, there were 4 types of text: (1) classic literature, (2) modern literature, (3) scientific non-fiction and (4) informal autobiographical non-fiction. The final included extracts were selected from the following texts:

Group A:

- 1) The Memoirs of Sherlock Holmes (Doyle, 2012)
- 2) Eleanor Oliphant is Completely Fine (Honeyman, 2017)
- 3) Exploring Autism: A Conversation with Uta Frith (Burton, 2013)
- 4) Freedom to be Honest – an article from Your Autism Magazine (Packham, 2017)

Group B:

- 1) Great Expectations (Dickens, 2012)
- 2) Faith and Hope Go Shopping (Harris, 2010)
- 3) How Selfish is Your Search for Happiness? – an article from The Psychologist magazine (Smith, 2018)
- 4) Expert Interview with Gretchen Rubin on Finding Happiness (2018⁴)

5.4.4. Procedure

Prospective participants completed the screening process via Qualtrics. The process included the informed consent procedure, a demographic questionnaire, the QT and the AQ. Participants who screened out or did not choose to enrol in the subsequent

⁴This article was taken from Mint in 2018 and has since been removed from the website. See Appendix 16 for the extract used within the study.

study had their data removed. Informed consent was obtained at three points (1) before the screening process, (2) before the reading tasks and (3) before the follow-up interview. During each stage, participants received both a university standard information sheet and an easy-read version which avoided complicated explanations and used clear photographs and text segmentation.

Following the informed consent procedure, participants were provided with the 8 short text extracts as digital text documents, alongside corresponding audio files of the third author, who is a trained reader, reading the texts aloud. The texts were split into part A and B, with the texts numbered from 1 to 4 within each folder, in the numerical order shown in section 5.4.3. Participants were asked to complete the texts in order, starting with part A. Eight participants read Group A texts first, with five starting with Group B texts. The reading order was alternated in this way to try and control for any order-specific reading outcomes. Participants were instructed to listen to the corresponding audio file while reading each text in full for the first time. For each of the 8 extracts, participants were asked to complete a short questionnaire which asked them to: 1) point to the most literary (higher quality) part of the text, 2) highlight the part of each paragraph that felt most important, 3) explain what they felt they had got from reading the text, 4) identify a part that baffled them and explain why, 5) identify a part that caused them to feel something and explain why, 6) add in any additional, overall thoughts and 7) note how many times the text had been read and listened to.

Once parts A and B had been returned, participants were then invited to a follow-up interview with the first author. During interview, the researcher chose a highlight from question 2 for each of the 8 extracts, which was then read aloud to the participant for re-immersion. Participants were then asked to further expand on what stood out about this part of the text. Participants were then asked to pick a second highlight for each text that they would most like to discuss. Additionally, participants were asked some questions about their wider experience of the study methods and specific texts used. Upon return of the reading data, participants were reimbursed with a £10 Amazon voucher for their time. Participants who took part in the follow-up interview were reimbursed with a further £10 Amazon voucher. Two autistic participants were interviewed in person, in a quiet university interview room. All other participants were interviewed through Skype or Microsoft Teams, with two (both non-autistic) electing to take part using audio only and the remaining eight

taking part via video call. Interview audio was recorded using dictaphones and later transcribed for further analysis.

The first author is trained to Master's level on semi-structured interviewing and conducted all of the final interviews with no other researchers present. All autistic participants were made aware that the interviewer would be an autistic adult. The researcher was acquainted with two of the autistic interviewees and had previously interviewed an additional two autistic and two non-autistic participants from previous, related research projects.

5.4.5. Analysis

SPSS was used to organise quantitative demographic data and to calculate descriptive statistics.

Interviews were transcribed using edited transcription, with the omission of irrelevant false starts, filler sections and areas of repetition, unless used to convey importance or significance. All transcription was completed by the first author, who has prior experience of interview transcription. Resultant transcripts were not sent back to participants as there were no areas in need of further clarification.

A form of literary close reading analysis (Billington et al., 2019) was chosen as the primary analytical approach in order to inductively explore psychological shifts within participants as a result of their reading. This analysis relies upon the language of readers as a 'main point of access to moments of subtle mental change', giving researchers access to the 'imprints' of reading (Kaszynska, 2015). Reflexive thematic analysis (Clarke & Braun, 2014) was additionally used to deductively analyse data relating to the study method and texts used. Analytical stages were as follows:

- 1) The first author transcribed all interviews to achieve data immersion, marking areas of initial literary interest. The second, third and fourth authors reviewed data from 5 participants for immersion, marking further areas of literary interest. Of these 5, 4 autistic participants were chosen due to the autistic data being richer than the non-autistic data.
- 2) The first and second author agreed on initial themes and discussed these with the wider team until the themes had been agreed.

- 3) The first author applied a line-by-line analysis to all data, re-adjusting themes from stage 2. Findings were sent to the wider team with data examples to illustrate the themes and subthemes.
- 4) The second author reviewed the findings from stage 3, re-analysing any areas of uncertainty.
- 5) Resulting themes were then deliberated by the team, with theme names and framings adjusted to capture the main elements of significance within the themes.

5.5. Results

5.5.1. Summary of findings about the reading aloud design

Overall, 6 participants (3 autistic) liked having the pre-recorded reading aloud files, while 4 (2 autistic) disliked their inclusion and 3 (2 autistic) felt there were both positives and negatives of having them available. Regardless of participants' opinions on the reading aloud files, there was a sense across all participants that listening to the reading aloud files while reading the texts themselves slowed them down. Most readers preferred to read at their own pace without audio, but where readers found themselves struggling to immerse in a text, they often felt the audio helped by slowing them in a way that prevented attentional difficulties. By contrast, most readers across the two groups found it difficult to listen to the texts that they otherwise did feel immersed in, due to feeling that this created distraction.

5.5.2. Qualitative analysis results

The final analysis (see Table 5.2) comprised 3 themes: (1) From Surface Reading to Intuitive Engagement, (2) Imaginative Feeling and (3) Going Forward from the Reading Experience. Quotes are spilt by neurotype (A: autistic, N: non-autistic) and the text that participants read. Where quotes came from the later interviews, a note is made of this. Within participant quotes, words that highlight important thinking in relation to the subtheme are highlighted in bold.

Table 5.2 Themes and Subthemes

From Surface Reading to Intuitive Engagement	External Reading Getting into the Text Uncovering Deeper Contexts
Imaginative Feeling	Feeling For the Text Feeling From the Text More Than One
Going Forward from the Reading Experience	Unaware of Own Abilities Resulting Salience

5.5.2.1. From surface reading to intuitive engagement

5.5.2.1.1. External reading:

Each reader experienced times where they remained on the outside of some of the texts, struggling to get into a text and to feel within it. During these times, readers tended to summarise the text based on surface-level appraisals. This often resulted from a sense that the text had not provided room for imaginative feeling:

(P12A: Gretchen Rubin) ‘the author is **telling us** that life is what we make it’

(P40N: Gretchen Rubin) ‘practical **advice** on how to take control of your own happiness’

This was a common issue across readers for the non-fiction texts. As highlighted in participant 12’s quote, these texts tended to ‘tell’ the readers about something, *giving* them key information to take away rather than encouraging them to emotionally discover it for themselves. While the fictional texts did provide this room for imaginative feeling, readers did still experience times of struggling to get inside the fictional texts:

(P19A: Sherlock Holmes) ‘not entirely sure what exactly I **could** have gotten out of it because I was more committed to **trying to understand** the text’

(P30N: Great Expectations) ‘**Shows** that Pip is a commoner and Estella looks down on him.’

Here, participants 19 and 30 experienced difficulty getting into the texts as a result of their own concern with objectivity. For participant 19, there was a self-conscious focus on wanting to *understand* what *should* be taken from the text, rather than exploring the text intuitively and gaining from it through his own feelings. Similarly, for participant 30, the focus is on summarising the interaction between Estella and Pip, in a way that reduces the feeling down into something more objectified, less complex and less felt. Across readers, surface reading was a more common barrier for the classic literary texts as compared to the modern literary texts. This appeared to be due to concerns amongst readers about having ‘correctly’ understood the content of the classic literature.

5.5.2.1.2. Getting into the text:

Readers often tried to get on the same wavelength of a text by constructing visualisations of the scene, enabling them to feel a sense of actively being inside the text. While this demonstrated an intentional desire to immerse within a text, it was sudden moments of unexpected feeling that surprised readers into a live reality to immerse in:

(P4A: Sherlock Holmes: Interview) “‘I’d come to believe that he was an orphan with no relatives living. And one day he began to talk about his brother.’ It **strikes me** that they weren’t particularly good friends if they did not ask that’

(P28N: Eleanor Oliphant) ‘**I** think something that **struck** me is her interaction at the bar – as a reader **we** cringe’

For participant 4, this shock from the text comes not from reading it in the original moment, but by reciting a quote to bring the text alive once again, recreating the sense of shock. This enables the participant to go deeper inside the mind of the text, thinking beyond the basic context provided to further infer something about the relationship between Holmes and Watson. For participant 28, the experience of shock while reading resulted in an emotional opening up to feel with the minds in the extract, which in the shift from ‘I’ to ‘we’ further resulted in a move to consider the minds of other imagined readers too.

Once readers had successfully got inside a text, they began to trust their own instincts while reading, rather than focusing on concerns about what they should be taking from the text. Readers initially showed this by pointing to subtleties in the language itself that provided a window into deeper implied subtexts:

(P12A: Eleanor Oliphant) ‘A structure of sentence that wouldn’t be perceived as normal to most ears.’

(P38N: Eleanor Oliphant: Interview) ‘I wouldn’t really use full sentences when ordering a drink.’

During these moments, readers were not yet doing something with the language to uncover deeper meanings, but were identifying significant moments where something deeper might be going on. This led readers to start thinking through the complexity of the texts in a way that uncovered some of the subtext beneath the immediate language:

(P8A: Eleanor Oliphant) ‘I **don’t feel** baffled by any of it, **but** I am rather intrigued about how Eleanor has ended up in this situation **given that** she **seems not to want** to be there.’

(P40N: Eleanor Oliphant) ‘why has she never been to a pub before and why does she use such formal language in an informal environment? ...[added during interview] What’s happened **before**?’

Participant 8 had started to engage with live thinking about the text in a way that starts to explore how Eleanor might have been feeling. Similarly, participant 40 questions the immediate subtext, starting to think about an imagined past for Eleanor in a way that makes her a more real mind to understand through live thinking.

From these explorations, readers themselves started to identify the importance of having room to infer and feel things for themselves:

(P8A: Eleanor Oliphant) ‘the use of words here seem very carefully chosen to allow the reader to **infer** a lot about the inner life of the narrator, **without doing anything so heavy-handed as telling** the reader what the narrator is like’

(P38N: Faith and Hope) ‘Describing how it is to experience old age and the diminishing of dreams well **without stating** this exactly’

It was the being *allowed* to think about inner lives that participant 8 points to which enabled readers to more readily immerse in the fictional texts. This contrasted to

being *told* things directly in the non-fiction texts. Where the fiction texts had started to become a live reality to feel inside, the readers were left wanting to read more.

5.5.2.1.3. Uncovering deeper contexts:

Once a reader had got inside a particular text, they were then able to get into a rhythm of using their own intuition more fluently to unpick deeper subtext. In interacting with a text in this way, readers were better able to unpick the contextual depths held within it by thinking about its contrasts:

(P10A: Faith and Hope) “‘unsuitable, it may be,’ because I like the **reframing** of the term “unsuitable” from something that causes Faith anxiety to something Faith regards as **the label of another**’

(P40N: Sherlock Holmes: Interview) ‘he was **kind of** lacking **something** in a kind of social...**yet, in other ways**, he excelled...it was the fact that **whilst** he was kind of like, we say preeminent and like quite an impressive person, if you like, he still had kind of flaws of his own really’

Readers were then able not only to point to important parts of the fictional literature, but to explore the bigger feelings and meanings that were held within small literary moments:

(P8A: Great Expectations: Interview) ‘if that paragraph had stopped right there, at the thought of being ashamed of my hands before, it **contains within it** the meaning of itself, which is I haven’t been ashamed before...now he is ashamed’

(P30N: Faith and Hope: Interview) ‘It was only a small sentence of just saying “you’re wrong”, like that would make all the difference. Just that **one small sentence can like make a big difference**’

By starting to explore this complexity which was contained within the ostensibly simple, readers were then able to intuitively explore the complexity of feelings for characters within a text:

(P8A: Sherlock Holmes: Interview) ‘when he says strange, **he means** something that’s had a very big effect on him. So, I think **it suggests** that there’s a big backstory there that **he is hinting at**, with this very general statement that he doesn’t want to talk about **just yet**’

(P40N: Faith and Hope) ‘**even though** she could not afford the shoes, the act of kindness with the rose gave Faith a **moment** that she **continues** to cherish’

In the above examples, Sherlock and Faith have become real minds for the readers. They are able to feel with and think through these human minds in a way that results in these complex considerations of deeper meaning for the characters, beyond what is immediately available in the text.

These in-depth explorations were specific to the fictional texts and occurred for both the classic and modern literature. For the non-fiction texts, there was more of a deconstruction of the texts by the readers as opposed to emotionally getting inside them. This deconstruction came from a sense that there was something missing, or a deeper intention within the text that was hidden by the surface information available to the readers:

(P19A: Gretchen Rubin) ‘One thing **I felt that was lacking** was that the author did not elaborate on how her successful improvement in happiness helped her in life’

(P30N: Uta Frith) ‘it might be **a bit reductionist**, feel like there is more to autism than just lacking this innate ability’

5.5.2.2. *Imaginative feeling*

5.5.2.2.1. Feeling for the text:

Immersion in a text also allowed readers to feel through it to varying levels. While readers were not always able to feel *with* the minds contained within a text, they were often able to feel *for* them:

(P8A: Chris Packham: Interview) ‘**poor Chris**, he can’t just learn a set of rules and figure out how to follow them because the rules aren’t written down anywhere’

(P40N: Great Expectations) ‘finally when left alone the impact of this torment and how Estella had made him despise himself all came to the surface. It **made me feel sad for** Pip’

This experience of feeling sorry or sad *for* someone within a text was experienced across readers but more commonly by non-autistic readers. This was because autistic readers more often felt *with* the people inside a text as opposed to feeling *for* them. A surface feeling for minds held within a text tended to result when readers related to an experience on its surface:

(P12A: Chris Packham) ‘**I can relate to** this, I work with people all day because I have to.’

(P38N: Great Expectations) ‘Pip was described as crying from what I perceived as an unnecessary feeling of shame brought out by Estella's bullying. This **can be related to** my personal experience of being put down and invokes empathy’

This surface relating to something created a sense of familiarity, where feeling for a person in a similar situation was easy. The lack of surprise at being able to feel for these experiences prevented deeper feelings of engagement with the minds in the texts.

This ability to feel for a text, its situations and characters, was found across fiction and non-fiction extracts, but tended to apply more to the fictional texts. Where feeling was evoked by non-fiction, this was more for the autobiographical texts than the explanatory, third-person extracts. Where the non-fiction texts addressed human feeling, there was often an attempt by readers to prescriptively apply empathy, rather than a feeling emerging organically towards the people in the texts:

(P12A: The Psychologist) ‘empathy helps us understand one another and potentially treat each other better, which in turn helps us to get along and feel better about our place in the world.’

(P26N: Chris Packham) ‘Autistic people speaking out about their experiences is needed to help other people understand what it is like to be autistic. This may then lead to positive behavioural changes in the wider community that will help people with autism.’

Here the participants were trying to *apply* empathy due to a sense that they ought to do so within the context of the texts. This came from a sense, as described by participant 12, that empathy is a helpful instrument to deploy. The difficulty with this attempt to empathise with texts was that there was no sense of the readers having been moved into feeling for another person within the text. Therefore, this more systematic approach to feeling meant that empathy was seen as something that can and should be deployed, rather than something that needs to spring and grow organically from spontaneous feeling. As demonstrated by participant 26, this led to difficulties for non-autistic readers in trying to feel for autistic people represented within the non-fiction texts. For participant 26 there resulted a shift in blame and responsibility for behavioural change from autistic people onto non-autistic people. The result is then that the reader maintained the artificial binary categorical

differences between autistic and non-autistic people, rather than experiencing a collapse of these differences to feel with the imagined minds of autistic people as similar Others.

The initial move from feeling for to feeling something closer to an authentic empathic experience came from readers feeling difficult feelings for a character. All fictional extracts dealt with human disadvantage in a way that prompted readers to feel for character experiences. However, *Eleanor Oliphant is Completely Fine* (Honeyman, 2017) in particular led to difficult feelings for the characters within the extract, due to the consistent lack of mutuality during social interactions between characters within the extract:

(P12A: Eleanor Oliphant) ‘I find the directness of the sentence **makes me uncomfortable**, in that it **could almost be confrontational** but also find that the language used **doesn’t sit well** with me. I think it does this because I can understand using these words in this manner and actually, it’s **my own experiences** in the world that have shown me that I can’t structure sentences like this without antagonising people’

(P28N: Eleanor Oliphant: Interview) ‘as a reader, you’re just thinking ‘no!’
...She’s done so well, but then sort of it just **makes you cringe a little bit**’

The sudden ‘no!’ from participant 28 highlights the involuntary feeling with Eleanor that had started to come out of feeling for her by cringing at the social encounter. These were commonly occurring feelings towards Eleanor for non-autistic readers. By comparison, autistic readers, such as participant 12, did feel uncomfortable for Eleanor, but did so from the perspective of having experienced similar situations themselves. Therefore, for the autistic readers the feeling was less about surprised compassion and more about feeling with Eleanor through the evoked difficult and personal memories that were then re-experienced and re-interpreted with the text in mind.

5.5.2.2.2. Feeling from the text:

As readers became more immersed, they started feeling *from* the texts they were reading as well as feeling *for* them. This came from spontaneous feelings being unexpectedly evoked through the reading process. For autistic readers, there sometimes emerged a shared feeling between the text and themselves, enabling them to feel together *with* the fictional characters:

(P4A: Eleanor Oliphant: Interview) ‘**I struggled a bit** with this one, I had to read it more than once. And I think **it was kind of that she struggled** with it’

(P10A: Great Expectations: Interview) ‘I think **I felt similarly to Pip** in that one in that I didn’t really...I don’t think I understand fully the implications of everything that was going on’

While these examples show some sense of difficulty with the text, the participants have been able to hold onto these difficult shared feelings to remain emotionally immersed, rather than reverting to surface appraisals. What results is a powerful sense that the readers have not only developed a sense of empathy towards the text, but found empathy for themselves within it.

Part of what moved autistic and non-autistic readers to feel *from* the text was a move from basic relation to a text to a more surprising, felt relation to the emotional experiences within it. This took readers beyond easily relating to something, instead being moved by how strongly and unexpectedly they had found something that felt true to themselves within the extract:

(P7A: Eleanor Oliphant: Interview) ‘I’ve kind of done this before...maybe in social situations where I’ve been a bit “no, I’m going to do it like this. Don’t question me”...And I just read it and I was like “**oh God, that’s you.** You’ve done that before. **Oh no**” It was like that actually really, peculiarly affected me’

(P25N: Gretchen Rubin) “‘I wasn’t depressed, and I wasn’t having a midlife crisis, but I was suffering an adulthood malaise – a recurrent sense of discontent, and almost a feeling of disbelief.” This part **made me feel like it was me talking**, there have been times in my life when I have felt **exactly** like this’

For autistic readers, these moments of felt relation were often painful, as shown through participant 7’s sudden revelation of “*Oh God, that’s you*”. This moved autistic readers to relive memories of their own, using their new perspective as readers of the evocative text to reassess themselves through the recollection of relevant memories:

(P4A: Gretchen Rubin: Interview) ‘**I enjoy things retrospectively.** So, with my anxiety, sometimes I don’t actually enjoy what I do. But then **when I think back to it, I enjoyed it** in retrospect...**the memory of it**’

(P10A: Gretchen Rubin) “when life was taking its ordinary course, it was hard to remember what really mattered; if I wanted a happiness project, I’d have to make the time,”...**I don’t think I experience it quite the same as others.**

Often, for me, the “ordinary course” or life **brings happiness in itself, in its mundanity**’

Having felt from the text as well as for it, readers were then better able to imagine how the minds within the text might be feeling during emotional situations. The to-and-fro of feeling between readers and the texts led to more complex assessments of feeling amongst fictional characters in particular:

(P10A: Great Expectations) ‘**He is unsure** what to say and what to do, and when he does attempt to say and do things he is met with **reactions that assure him that they were the wrong things** to say and do; he is then **so overwhelmed by it all that he breaks down a little bit**. This was how many of my attempted social interactions went when I was younger, and how things still go sometimes today.’

(P30N: Eleanor Oliphant) ‘**she didn’t realise** why she was being rude, **she thought** she was just asking a question. **But to the barman** those questions would have seemed rude and sarcastic’

For non-autistic readers, the complexity of perspective that came from this imaginative feeling led to the readers starting to think about multiple competing perspectives, as participant 30 is doing between Eleanor and the barman. While autistic readers were similarly able to feel for competing perspectives, they also engaged with self-reflection through these complex feelings in a way that enabled them to continue feeling in company with the text. In this way, autistic readers were not only moving between the inner perspective of a main character to the outer perspective of a secondary character, but also started to shift from their own feelings that had come from a text to how an imagined, outer perspective might think or feel about this:

(P4A: Eleanor Oliphant) ‘there probably weren’t aspects in her that I recognised in myself, although, probably externally, **other people would say I’m very similar...I wouldn’t say I felt that connection**’

(P8A: Great Expectations) “I had never thought of being ashamed of my hands before” This made me think of **occasions when I’ve viewed myself**

“**through someone else’s eyes**” and suddenly been ashamed of something about myself’

By being able to move between the inner feelings of the characters, their own inner feelings and the imagined perspectives of someone viewing them in the midst of these feelings, autistic readers showed a stronger sense of resonance with the texts:

(P7A: Eleanor Oliphant) ‘I felt quite **in tune with** Eleanor, so I guess the extract as a whole just affected me, as it made me remember situations in which I’ve acted in the same or similar ways’

(P10A: Faith and Hope) ‘I felt the knowledge **clang deep** in my insides, like something falling down a well.” – This **rang particularly true** to me, as it’s something I’ve felt often (in moments of rejection, or simply when things don’t happen like I expect them to).’

This musical language, such as ‘*in tune*’, ‘*clang deep*’ and ‘*rang true*’, was very common amongst autistic readers but was not used by the non-autistic readers. The language represented a sense of readers feeling a sense of ‘attunement’ between their own feelings and the feelings of the text. In this way, autistic readers often achieved a strong synchrony of feeling between themselves and the texts, enhancing their immersion and what might too easily be called ‘empathy’ towards and from the texts.

5.5.2.2.3. More than one:

From the complex consideration of inner and outer character perspectives, readers moved towards feeling for multiple characters at the same time. For two autistic readers and one non-autistic reader, this led to a rethinking of the text, moving from their initial impressions through the mind of the main character, to incorporating feelings for more perspectives:

(P10A: Eleanor Oliphant) “I simply could not fathom why he was making such a fuss about it,”...I agreed **at first, then** thought that **perhaps** Raymond felt the same way as Eleanor about unfamiliar situations’

(P40N: Great Expectations: interview) ‘the thing that stuck with me on this was, and I’ve kind of thought about this a little bit more actually, so I’ve kind of made out previously...that like Miss Havisham was like the bad guy and that, actually. Estella and Pip are obviously the victims, even though Estella’s being mean to Pip. But actually, I could probably **take it a step back** and say

that...Miss Havisham probably isn't a bad person either, **actually**...I put this little thing about she's doing all this manipulation for her own kind of wicked kind of self-gratification, which is probably true. **But** she's obviously been harmed in some way, hasn't she, previously? **Although** the way that she's kind of dealing with this is not healthy, and it's impacting on other people, I think that they're probably all victims in some sense, and it's almost like it's kind of self-destructive for all of them, in a sense...some people got more say in it than others'

Participant 10 has been able to rethink an initial alignment with Eleanor's own thoughts, to further feel with Raymond as well by carefully contemplating how he might be feeling in the same situation. For participant 40, there was a move beyond summarising Miss Havisham as *the bad guy*, towards feeling with her through an imagined past whilst also accepting that her intentions could still be *wicked* and feeling for her regardless of the difficulty her intentions add. This immersed thinking and feeling inside a text also led readers to hold multiple emotions within themselves from the texts:

(P7A: Faith and Hope) 'I feel are **uplifting, but at the same time tinged with sadness** as you know that Faith and Hope have had a wonderful adventure but must now go back to their 'real life''

(P28N: Eleanor Oliphant) '**So many** emotions – **firstly**, you're hopeful Eleanor will reach out to her colleague on an emotional level. **Then you start to cringe** and feel disappointed for her colleague. **You also feel** that Eleanor is trying to connect and be reasonable by saying it can wait. And then the **final** "extravagant" – as a reader it made me laugh, **but also** wince a little bit'

5.5.2.3. *Going forward from the reading experience*

5.5.3.2.1. Unaware of own abilities:

While autistic and non-autistic readers engaged with reading in similar ways, what the readers took from the reading experience varied between the groups. For autistic readers, there was a sense that they were previously unaware of and thus surprised by their abilities as readers and more generally as empathisers. For example, participant 12, when reflecting on his differences as an autistic person tended to make statements that overlooked the socio-emotional skills he had exhibited through his reading:

(P12A: Uta Frith): ‘So much of my life has been based on what is basically pre-prepared scripts, being **caught out by something I’m not prepared for** is like having the ground open up under my feet...I really can’t comprehend multi-tasking thoughts.’

The overall difficulty for this participant was an abiding sense of his self-described ‘difficulties’, rather than looking at what was achieved through the struggles that occurred. Where the participant saw himself as struggling with the unexpected and feeling the strain of multi-tasking, his reading showed that he engaged more emotionally with a text, as well as being able then to hold onto more than one complex thought or feeling. These difficulties for participant 12 in understating his abilities seemed to stem from a prior sense of inferiority, including the feeling that he could not often be his *true* self in the normal social world:

(P12A: Chris Packham) ‘I much prefer my own company and used to walk off into the hills of Kintyre when I was a teenager, miles of countryside **without another person to be seen, I felt at peace there**. There are still **very few people I can be 100% myself with**.’

What had been achieved through his reading was a closer sense of this *true* self he described. In this way, the texts were able to act as a social simulation for the reader, creating a social environment that was more enabling.

Similarly, participant 19 was often focused on his struggles while reading, highlighting what he had found difficult:

(P19A: Great Expectations: Interview): ‘in terms of **attaching the emotion** to it, it's **not easy for me** to think of an emotion to attach to it...but in terms of, if you want me to do that now, it's **hard for me to think about that**, because I feel that, obviously, you know, you're been criticised **right from the offset**, and I feel that that's something which is something I don't think that anyone likes really.’

However, even in thinking more about his difficulty here in naming or labelling an emotion, the participant becomes more comfortable in holding onto the intangible feelings he does have. From here, he is able to start to think about the feelings as part of a situation, beyond a single and nameable emotion. Importantly, this is what the literature is requiring of the readers, for them to stay with the host of intangible feelings as Pip had done within the text. When the participant managed to overcome

these concerns to get inside a text, what resulted was a depth of understanding towards the text that came out of the participant's own intuition:

(P19A: Faith and Hope) 'This caused me to **feel something** because I could appreciate that **Faith's disappointment** in not being able to get the shoes that she wanted has been **restored somewhat** in the generosity of the store assistant trying to do something to give Faith **something to remember** the day by.'

For participant 19, his lack of confidence in his abilities appeared to stem from a sense that his struggles to fit into society had resulted in felt disability through not having been accommodated by others. This itself was something that he was able to start exploring through his reading experience:

(P19A: Great Expectations) 'This part of the text **made me feel something** because having also had a **difficult upbringing** in not knowing from the beginning that I was autistic and **not having the adjustments** that were made to me in a neurotypical world made me relate to Pip's story.'

As a result, participant 19 started to see the value in literature, through its ability to enable a reader to feel human realities, through a simulation of the world, in a way that more formal disciplines and programmes could not:

(P19A: Interview) 'I don't relate very good to reading fiction, which I mean, even growing up, I only ever read non-fiction books...but what it's taught me is that there are things that you can relate to, when reading fictional literature. And there are certain situations that they talk about that, you know, the **only other way** you experience that is in say, everyday life.'

5.5.3.2.2. Resulting salience:

Across autistic readers, there was a holding onto characters and situations within the texts as imagined real human beings and experiences to refer back to, and not just explicate. This became a helpful way for these readers to express themselves, particularly when the readers struggled to think of an easily-recognised adjective to describe their own feelings while reading:

(P7A: Great Expectations: Interview) '**I felt an emotion** with that, that I didn't feel in the rest of the text. And **I felt that Pip there** was really kind of **battling with his emotions**. But he didn't... it was like an **inner turmoil** and he

couldn't kind of deal with **he couldn't identify his emotions and deal with it himself. And I kind of identified with that.**'

(P19A: Eleanor Oliphant: Interview) 'In terms of how that made me feel, though, yeah, it wasn't really...it's **hard to put a feeling on it**. But I would say that I just felt, again, like I could empathise with **somebody** like that...So, it just made me feel something in a sense that, yeah, we've been there before at times...reading this now makes me think, 'oh, I can relate to that **situation**.'

Where autistic readers tended to think about detailed mentalities, non-autistic readers tended to reduce their reading experience down into messages, ideas or feelings as opposed to taking away a sense of a complex person to think about and feel back through. For example, participant 28 had been a very immersed reader throughout, but tended to rest on 'key' ideas about how she felt she should or should not think about autistic people:

(P28N: Eleanor Oliphant: Interview) 'it's never explicitly said anywhere [that she's autistic], but just as a reader, you automatically just start kind of making those connections. But should we?...is that kind of not unfair, that we just sort of stereotype people in that way?'

(P28N: Chris Packham) 'as a society, we need to look at maybe the positives of things like autism. You know, I think it's so easy, like I said, to come up with the lazy stereotypes of kind of, I don't know, Rain Man, or someone who's great at computers or something. And I think you might say we kind of lean towards those lazy stereotypes.'

Through her considerations of whether it was right to automatically stereotype Eleanor and how people might stereotype people like Chris, there is a resultant consideration about how to think about autistic people in everyday life. In storing these key thoughts for wider application, the holding of Eleanor and Chris as complex minds to continue thinking and feeling through becomes something helpful to day-to-day socialisation. While these applications might prove beneficial, what was lost for non-autistic readers was the ability to continue holding onto complexity, as they had in their reading, for further use in day-to-day social interactions. Where autistic readers were often comfortable in holding onto uncertainty and intangible but relatable feelings, non-autistic readers appeared to prefer clarity, drawing conclusions in order to reduce the information being held as much as possible.

5.6. Discussion

5.6.1. Summary of findings

The study aimed to (1) examine differences between text types within a reading aloud design involving autistic and non-autistic readers, with a specific focus on comparing serious literature with non-fiction and (2) investigate whether texts aligning with autistic experiences could enhance the reading experience for autistic readers, and whether there would be any resultant understanding for non-autistic readers. Findings are discussed in sections 5.6.1.1. and 5.6.1.3. in relation to previous theoretical assumptions and research.

5.6.1.1. Challenging theoretical assumptions of an autistic empathy deficit

The complex, felt responses towards the texts in this study amongst all readers challenges the E-S theory view that autistic people experience a broad empathy deficit when compared with their non-autistic peers (Baron-Cohen, 2002, 2008). Instead, the autistic readers in this study were more likely to share the emotions held within a text. Although it could be argued that this reflects egocentrism (Bodner et al., 2017; Lombardo & Baron-Cohen, 2011), the shared feeling came from a sense of attunement between readers and the minds within a text. Therefore, the perspective-taking involved and resultant feelings felt more two-way, with readers accounting for difference as well as similarities between their own perspectives and the imagined minds within the texts. This supports the idea that moving parts of a text extend beyond an author and the resulting text, to become part of a reader (Barnes, 2018; Limburg, 2021). In this way, the fiction is able to hold empathy for its readers, making the shared feeling a complex two-way sharing (Limburg, 2021). The ability amongst autistic readers to more readily feel with a text tended to result from the ability to not only move into literary perspectives, but to also imagine themselves in the midst of embodying the mind of a character from an imagined outside perspective. This complex mobility of perspective further challenges the idea that autistic people possess a deficit in their ability to take perspective or embody other minds (Baron-Cohen, 1997, 2008; Lombardo & Baron-Cohen, 2011). The complex depth of feeling for fictional minds that has been demonstrated here by autistic readers instead supports the idea that autistic people may experience a greater depth of feeling as a result of attending more to detail (Happé, 1999; Hill, 2004; Murray et al., 2005; Murray, 2020). However, the mobility of perspective showed here

challenges the view that this depth of feeling comes at the expense of understanding social breadth (Happé, 1999; Murray et al., 2005).

Additionally, results here support earlier findings in showing that autistic people are more likely to evaluate themselves through an imagined third-person perspective (Arnaud, 2022; Burrows et al., 2017; Schriber et al., 2014). The clarity that this study adds is that this third-person view of self is not simply a systematic attempt to gain objectivity, but rather a more felt and complex insight into themselves. Current findings also support the idea that the tendency for third-person perspectives may result from self-consciousness amongst autistic people in relation to their own abilities (Schriber et al., 2014). The autistic readers in this study underestimated their abilities as readers and more generally as empathisers in a way that contradicted their demonstrated abilities. This self-consciousness appeared to have been learnt through a lack of accommodation within wider society, highlighting a further need to challenge stigmatising views of autistic people (Green et al., 2005; Pearson & Rose, 2021). In line with this, there is an additional need to review education across society in terms of what it means to have ‘emotional intelligence’, so that the socio-emotional abilities of autistic people are not reduced down and viewed as deficient in comparison to what is assumed to be typical socio-emotional processing. Findings here further emphasise the value of reflective reading as a more open method to understand autistic social experiences in a way that moves away from deficit views (Chapple et al., 2021a; Chapple et al., 2022). In this study, the serious literary texts enabled autistic readers to engage as a truer, less self-conscious, version of themselves once they were fully immersed. This further highlights the value of literature in unlocking the potential of a reader’s inner self (Davis & Magee, 2020; Farrington et al., 2019) and shows the personal value for autistic readers.

5.6.1.2. Exploring social differences between autistic and non-autistic readers

In the current study, both autistic and non-autistic readers were able to read in similar literary ways that engaged them in imaginative ways with the depth of feelings held within the texts. What did differ between them was how they cognitively stored the social data from the texts for later potential use. In line with suggestions from the WCC and monotropism theories (Happé, 1999; Murray et al., 2005; Murray, 2020), autistic readers were more likely to attend to and hold on to the detail of a text. Therefore, autistic readers, enabled by the literature, tended to

hold onto the intangible, literary moments beyond the reading experience. This further emphasises the ability of serious literature to encourage a holding onto the intangible (Farrington et al., 2019), while building on previous findings (Chapple et al., 2022) to show that autistic readers may continue to be more literary-influenced in ways that go beyond the immediate reading experience. Importantly, the reading experience enabled autistic readers to hold onto complex detail in a way that did not result in them feeling overwhelmed or having difficulties understanding broader contexts (Happé, 1999; Hill, 2004). This was achieved through maintained representations of characters as felt people who could hold complex thoughts and feelings. In this way, autistic readers could then re-ignite literary complexities by drawing on the character.

By contrast, non-autistic readers did not tend to hold onto characters as real people to think about and feel back through. Rather, non-autistic people tended to extract core ideas or feelings for later use or reflection, by a form of data reduction. This further highlights the double empathy problem (Milton, 2012) in suggesting that autistic and non-autistic people may have differing social norms. Specifically, non-autistic people appear to extract core information that reduces complexity down, meaning it can be easily accessed and generalised later (Lombardo & Baron-Cohen, 2011). This ready competence for data reduction contrasts with autistic people, who appear to instead favour holding complexity in a way that would encourage slower, more careful considerations of new social situations without pre-emptively applying ‘core’ knowledge (Chapple et al., 2021a; Chapple et al., 2022; Chown, 2014; Milton, 2012). Ironically, this means that non-autistic people take what the E-S theory would call a more systematic approach to social learning (Baron-Cohen, 2002, 2009). This both challenges the argument that systemising is not conducive to empathy and the view that it is autistic people who are more robotically systematic (Baron-Cohen, 2002, 2009). Each approach by the two groups offered different advantages: the systematic approach offering brevity and the more complex approach offering complex understandings that were more natural and synchronous. However, the contrast in these approaches would likely result in difficulties establishing mutuality for social reciprocity, as suggested by the double empathy problem (Milton, 2012). What this means is that reading alone is unlikely to aid an overcoming of the double empathy problem, even when contemplating serious literature or material explicitly exploring neurodivergent experiences. Specifically, when non-autistic people were

reading the texts that depicted autistic experiences or the double empathy problem, there was often an attempt to deploy empathy in a systematic way that failed to get them immersively inside the text. This contrasts to previous findings, where non-autistic readers reading together with autistic readers were better able to hold onto complexity with their autistic reading partners, in a way that overcame the double empathy problem (Chapple et al., 2021a). However, it remains unseen whether non-autistic readers from this study would be able to recall their reading alone experiences to re-activate the complexity of the texts they had read.

5.6.1.3. Inclusive shared reading designs

The use of audio files of texts being read aloud overcame concerns with being read to amongst autistic readers (Chapple et al., 2021b). However, the use of pre-recorded readings did not result in the sense of liveness that is important in creating openness and a sense of connection for readers (Longden et al., 2015). Although the method used here was unable to capture the full value of reading aloud designs, readers did still engage with and benefit from the serious literature in particular. Texts were particularly beneficial and more readily immersed in where the social reality inside the text created uncomfortable or surprised feeling within a reader, often also registered by increased syntactic complexity and a more powerful vocabulary for the emotions. This supported the idea that texts dealing with human adversity, and promoting difficult feelings as a result, may result in a greater sense for readers of having been creatively moved (Davis, 2020; Strick & Van Soolingen, 2018). That such surprised relatability was moving to the readers contradicts earlier findings that autistic people's expectations were that texts would need to be directly relatable to their lived experiences to achieve maximum immersion (Chapple et al., 2021b). Rather, easily recognised experiences that evoked unsurprisingly familiar feelings failed to shift readers out of default ways of thinking in the way that serious literature can (Davis, 2020; Farrington et al., 2019; O'Sullivan et al., 2015). While the age of classic literature can provide this needed sense of surprised relation to a core human feeling (Farrington et al., 2019), the classic literature used in this study tended to promote self-conscious concern with correctly understanding meanings. Therefore, modern literature may offer an initial alternative way to get less confident readers used to trusting their own intuition, before working up to older works that may represent less easily understood norms and ideas. However, all readers showed

an increased immersion while reading serious literature compared to the non-fiction texts. While readers engaged more with the autobiographical non-fiction, these texts still prompted a sense that any socio-emotional subtext was unobtainable due to a lack of room for imaginative feeling. These findings support the idea that directly autobiographical writing fails to capture the harder-won but more deeply felt autobiographical elements that indirect and even fictional works can hold (McCartney, 2021). Although earlier findings have shown that autistic people can find emotional value in reading non-fiction (Chapple et al., 2021b), current findings demonstrate that serious literature offers the most advantage for both autistic and non-autistic readers in encouraging deeper self-other reflections.

5.6.2. Limitations and future research

Findings from the current study are limited in their generalisability to autistic and non-autistic people in wider society. Firstly, all participants were educated to GCSE level or above. This was likely a result of the self-selecting nature of the recruitment method, where participants had to be willing to read multiple short texts including serious literature. Additionally, the fact that participants were willing to reflectively read the texts indicates that they may have been more willing to think reflexively about serious literature (Chapple et al., 2021b). Together with the inclusion criteria requiring participants to not have a reading-based disability, this means that the current autistic sample had relatively low support needs during engagement with the study. For people with higher support needs in relation to reading, the inclusion of texts being read aloud may pose different benefits and drawbacks. In particular, less experienced readers in this study tended to find the audio helpful for difficult texts, indicating a benefit where readers might broadly struggle with reading. Therefore, there is a need for future research to explore the reading experiences of autistic people from a wider range of backgrounds. In particular, there is a need to understand how autistic people who communicate through alternative, non-verbal means of communication would benefit personally from reading serious literature and in subsequently reflecting with other readers. This is because autistic people who use augmented and alternative communication methods are currently underrepresented in research and are likely to have different experiences of developing mutuality in everyday socio-communication.

Furthermore, readers in the current study read alone, meaning that further research would be needed to understand how autistic and non-autistic readers may comparatively apply their experiences in broader situations. Therefore, conclusions around autistic and non-autistic social processing differences are limited to the reading experiences outlined in this study. Future research would then benefit from longitudinal explorations of autistic and non-autistic reading experiences and any resultant real-world changes. Current findings that pre-recorded readings did not elicit the benefits of live reading together with previous findings that autistic people are uncomfortable with in-person live readings (Chapple et al., 2021b) indicate that further exploration is required before designing reading aloud groups for use with autistic and non-autistic readers. Future research should then explore how a live, distanced online design could overcome concerns and whether such a design would facilitate the benefits of live reading aloud groups.

5.6.3. Conclusions

In conclusion, the findings presented in this study challenge long-held social deficit views of autism (for example: Baron-Cohen, 1997, 2008; Happé, 1999), by showing that both the autistic and non-autistic readers were able to engage with the social breadth and depth of fictional social realities and meaningfully share their responses. Additionally, current findings further support earlier research in showing that autistic people may be more literary readers who, when moved, were especially capable of working with the experience of uncertainty and not-knowing, where non-autistic readers had readier recourse to assured competence (Chapple et al., 2022). The serious literature in the current study was able to encourage autistic readers to start to see the value in struggling and holding onto the intangible or not easily nameable. In this study, the social processing differences between autistic and non-autistic participants came at the storing and recall stage of the reading experience. Specifically, autistic readers better held onto the complex detail and resonance of the inter-personal experience of the literature, while non-autistic readers seemed more likely to extract core ideas and meanings for generalisation across situations by means of data reduction. Further research is needed to understand the specific advantages and disadvantages that may then result in drawing on the reading experience for real-world social processing. Together with previous research looking at shared reading reflections between autistic and non-autistic readers (Chapple et

al., 2021a), it appears that inter-neurotype discussions around the literature are needed to promote mutuality for double empathy (Milton, 2012). In considering how reading aloud designs could enhance these shared reading methodologies aiming to promote double empathy, the current study highlights that further exploration is needed. Specifically, the current study demonstrates that pre-recorded readings did not bring about the benefits of live shared reading (Longden et al., 2015). Overall, the findings here further highlight the ability of serious literature in particular to challenge dominant thinking about autism, moving towards more inclusive understandings of social processing differences.

5.7. Chapter summary

This Chapter contributed to the first overall thesis aim and built upon Chapters 2 to 4 in challenging deficit-focused thinking about autistic socio-cognitive differences. In this Chapter, the autistic and non-autistic participants approached the socio-emotional content within texts in largely similar ways. However, the findings in this Chapter highlighted that the autistic participants were more often self-conscious about their socio-emotional abilities, tending to focus on their struggles in a way that overlooked their resulting abilities. The Chapter contributed to the second thesis aim in showing that the implementation of pre-recorded audio files failed to replicate the benefit of live reading aloud that is often reported within shared reading groups. These findings then indicate that further research is needed to explore how liveness might be brought into the adapted shared reading design which was implemented in Chapter 3.

This Chapter addressed the first research question by showing that the autistic and non-autistic participants in the study read in largely similar ways. Within this Chapter, the participants differed most in how they concluded from their reading experiences. Specifically, findings built upon Chapter 4 in showing that the autistic participants were again more often detail-focused and able to better hold onto complexity. This time, the autistic participants maintained this complexity beyond their original reading experience by recalling particular minds and experiences. By comparison, the non-autistic participants appeared to more often systematically reduced their reading experiences down into key ideas and understandings to be stored within their social schemas for later generalisation. The Chapter also contributed to the second research question by building upon Chapter 4 to show that

the autistic and non-autistic participants were able to think and feel across different minds and situations while reading. In considering both the second and third research question, this ability to immersively think and feel for different minds and situations was evoked most by the literary texts. The non-fiction texts tended to lack the necessary room for imaginative feeling that was important for participants in becoming immersed within a text. Findings also built upon Chapter 2 in addressing the second and third research question to show that feelings of familiar relation towards a text failed to move participants beyond their default ways of thinking about social content. This resulted in surface appraisals of a text rather than the text feeling like a live reality to immerse within. The latter was best facilitated by surprised feelings for unfamiliar perspectives and situations. Additionally, the findings in this Chapter also addressed the third research question in suggesting that readers who are inexperienced in trusting their own instincts in the process of reading may initially benefit more from modern literature than classic literature. Specifically, autistic and non-autistic participants tended to show more self-conscious concern about understanding the unfamiliar language and contexts within the classic literary extracts, but were better able to readily immerse within the modern literary texts.

5.8. References

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Chapter 6

General discussion

6.1. Foreword

The wider thesis had two, inter-related aims. The first and primary aim of the thesis was to explore how reading might be useful in overcoming stigmatising and deficit-focused views towards and within autistic people. The three components to this broader aim centred on (1) interpersonal exchanges between autistic and non-autistic adults reading together, (2) the impact on any internalised-stigma within autistic adult readers and (3) how the method, analysis and findings used within this body of work might then inform less stigmatised understandings of autistic people within research. The secondary aim of the thesis was to inform future shared reading group designs for inclusive use with autistic and non-autistic adult readers for the purpose of overcoming stigma and promoting double empathy understandings (see: Milton, 2012). In pursuit of this second aim, the wider thesis aimed to explore which features of shared reading designs require adaptation in order to remain inclusive of autistic adult readers and to begin thinking about what these adaptations might look like. The final thesis consisted of four empirical studies which sought to address three specific research questions that broadly centred on uncovering the value of reading in overcoming stigma between and within autistic and non-autistic adult readers:

- (1) What are the differences and similarities between autistic and non-autistic adult readers and what can this tell us about what it means to be autistic?
- (2) Can reading with and about diverse individuals and different minds overcome stereotypical views and promote double empathy understandings for autistic and non-autistic adult readers?
- (3) What kinds of texts and text features enable autistic and non-autistic adult readers to get the most out of their reading experiences?

For the first research question, Chapter 2 explored the general everyday reading habits and preferences of autistic and non-autistic adults through retrospective interviews. Chapter 4 then explored how autistic and non-autistic adults might similarly and differently engage with serious literature by exploring structured reading reflections from a group of autistic adults in comparison to non-autistic participants who had read the same short literary novel. Chapter 5 built upon this by exploring the different ways autistic and non-autistic adults might engage

with serious literature in comparison to non-fiction, due to the autistic participants in Chapter 2 reporting social benefits from both fiction and non-fiction.

For the second research question, Chapter 3 explored whether autistic and non-autistic adults reading together could achieve mutuality in order to overcome the double empathy problem and any surrounding stereotyping or stigma. Chapters 4 and 5 then introduced autistic and non-autistic participants to various characters, exploring their emergent responses to them and examining whether this experience subsequently challenged stigmatised views the readers had towards others or themselves. Chapter 4 explored responses to the text *Of Mice and Men* (Steinbeck, 1937), due to the complex exploration of Othering and stigma within this text that occurred towards and within multiple minority groups. The texts included in Chapter 5 were split into (a) texts that directly depicted Othering towards fictional minds that might be considered neurodivergent and non-fiction texts about autism and (b) texts about broad human emotions and experiences that by nature included commentary on human suffering and Othering which did not relate to being neurodivergent.

To explore question 3, Chapter 2 explored what kinds of texts and text features autistic and non-autistic participants felt had been the most beneficial to them in their day-to-day reading. Chapters 3 and 4 then explored the potential personal and social benefits of serious literature for autistic compared to non-autistic participants. Chapter 5 focused on building on the previous Chapters by delineating the benefits of different literary texts as compared to non-fiction texts. Chapter 5 additionally drew on findings from Chapter 2 to explore whether more familiar situations, such as breakdowns in mutuality or non-fiction discussions of autism, would be of benefit to autistic participants in particular.

This final Chapter discusses findings from across the four main studies reported in Chapters 2 to 5 in relation to each research question, while also considering the implications of the findings and making recommendations for advancing understandings of autistic people and in designing future shared reading groups for them. There will be consideration of the strengths and limitations of the thesis as well as future directions for research. The thesis conclusions will emphasise the overall, core findings of the studies and explore how the overall thesis has improved understandings of what it means to be autistic and about overcoming stigmatising views of autistic people.

6.2. Research findings

6.2.1. *What are the differences and similarities between autistic and non-autistic adult readers and what can this tell us about what it means to be autistic?*

In seeking to address this research question, it was important to explore first the dominant assumption that autistic people typically prefer fact over fiction (Barnes, 2012; Baron-Cohen, Wheelwright, Skinner, Martin & Clubley, 2001). This first step was important in examining whether autistic people can find the same social benefits from narrative fiction that have been reported for readers in general (for example: Mar & Oatley, 2008; Mumper & Gerrig, 2019; Waytz, Hershfield & Tamir, 2015), or whether they may alternatively gain more benefit from different kinds of texts, such as non-fiction. To address this need, Chapter 2 focused on exploring what kinds of texts autistic compared to non-autistic adult participants read in their everyday lives and whether any benefits resulted from their reading experiences. Overall, findings supported earlier research (Armstrong, Paynter & Westerveld, 2019; Barnes, 2012; Davidson & Ellis Weismer, 2018) in contesting the assumption that fictional avoidance is a distinct autistic trait (see: Baron-Cohen et al., 2001). More specifically, the autistic participants in Chapter 2 were not only reading and enjoying fiction, but many had already been engaging with it for the purpose of social learning. On the surface, findings did support Barnes (2012) in showing that there was an overall fiction preference in the non-autistic group, but not in the autistic group, who most often favoured fiction and non-fiction equally. Although these findings could indicate a greater propensity for non-fiction enjoyment amongst autistic readers, the findings presented in Chapter 2 are based on group summaries that did not significantly differ, with too few participants included in the small-scale qualitative study to draw any reliable conclusions about wider group preferences. However, the findings from Chapter 2 together with Barnes' (2012) earlier findings do demonstrate that autistic people do not simply cast fiction out, with findings across Chapters 3 to 5 additionally demonstrating that autistic people engage with fiction in broadly the same ways as non-autistic people. The findings in Chapter 2 also developed Barnes' (2012) findings by showing that even when autistic readers do report some non-fiction preference, this does not necessarily result in a reduced interest towards narrative texts or social content within either fiction or non-fiction. These findings caution against generalised assumptions about autistic preferences,

which overlook the heterogeneity of autistic experiences by reducing understandings of autism into reductionist stereotypes.

Importantly, some of the autistic participants in Chapter 2 reported real-world social outcomes from reading fiction, reporting that reading offered an accessible method for social learning. This was because reading provided time to consider subtexts which would often be unavailable in everyday social encounters. Although the non-autistic participants in Chapter 2 reported similar experiences when reading fiction, they reported that their social learning came predominantly from real-world experiences. These findings support and develop earlier suggestions that the social learning benefits of reading narrative fiction (Corcoran & Oatley, 2019; Mar & Oatley, 2008; Oatley 2016; Waytz et al., 2015) not only apply to autistic readers, but may hold greater importance for them in being able to comfortably simulate multiple social encounters without the social and sensory stressors of everyday life. While the empathising-systemising (E-S) theory (Baron-Cohen, 2009) predicts that autistic people are likely to observe social situations in order to extract social rules in a systematic attempt to gain social skills, the findings around social learning described in Chapter 2 are more intricate than this. While participants from both groups reported reading in order to feel moved, non-autistic participants tended to report regular reading for escapism as a means to switch off and engage with a form of reading that did not require live involvement. By contrast, the autistic participants tended to use escapism to refer to a deeper desire to regularly immerse into a complex fictional simulation that could be experienced as if it were a real, live encounter. This suggests that the autistic participants were not simply reading for rote-based social learning, as dominant theories may have suggested (for example: Baron-Cohen, 2009), but rather were seeking to be moved by the content in a deeply immersive, imaginative social simulation that could broaden their social and emotional understandings via feeling together with other minds. Additionally, across the autistic and non-autistic groups in Chapter 2, some participants were already seeking out serious literature and poetry with the aim of analysing and being moved by the core human issues represented within the complex language of the literature. The findings also implied that autistic readers often felt a need to break from the real world as a result of real social situations often feeling harder to get into. In this way, there was often a sense amongst the autistic participants in Chapter 2 that fictional simulations could, at times, feel more alive and less socially disabling than the real

social world. Therefore, the social simulations represented in fiction (Mar & Oatley, 2008; Waytz et al., 2015) appear to offer a way for autistic adults to engage with social realities in a way that can overcome the double empathy problem (Milton, 2012) while also holding the potential to generate feelings of social connection (Merga, 2017).

When seeking to immerse in a text to achieve these experiences of feeling moved, the autistic and non-autistic participants in Chapter 2 placed importance on internal representations of a text, such as visualisations and auditory representations of characters and situations. Autistic participants in particular reported struggling to imaginatively depict social aspects of a text, such as what a person might look like, as well as struggling to disconnect from their sensory environments in order to maintain these representations. On the surface, these findings appear to support earlier findings that autistic people may experience imaginative difficulties for social information such as human faces (Ten Eycke & Müller, 2015). However, findings from Chapter 5 developed these findings further to show that these imaginative depictions were a means of participants trying to effortfully gain access to a text. Importantly, the collective findings from Chapters 4 and 5 supported earlier suggestion (Davis, 2020; O’Sullivan, Davis, Billington, Gonzalez-Diaz & Corcoran, 2015) in indicating that it was instead involuntary, surprised feelings that emerged out of a text which moved readers towards deep immersion in a text. Therefore, findings indicate that the social imaginative ability to feel within imagined minds and situations was not only unimpaired amongst autistic participants but was more important than representative social imagination for building social understandings. The analyses presented in Chapters 4 and 5 indicate that it was the experience of difficult feelings in response to characters which moved the participants from more effortful attempts at immersion to something closer to the spontaneous feeling reflective of deep immersion.

Additionally, findings indicated that participants needed to begin trusting their own instincts in order to enable thought and feeling to work fluently together in a way that could imaginatively transport participants into a text. Within Chapter 5 especially, both autistic and non-autistic participants had initial difficulties trusting their instincts. However, feelings of being spontaneously moved to feel for unexpected, resonating moments in a text prompted participants to begin to point to moments of salience within the text’s language. This pointing unveiled moments

where some deeper, larger human feeling occurred within the smaller nuanced moments of the literary language. Chapters 4 and 5 demonstrated that once participants developed a trust of their own instincts, they began actively responding to texts as simulated versions of reality. In this mode, participants began to consider provisionally, rethinking their initial appraisals in response to emergent information. Once this rhythm of immersed reading was achieved, findings supported earlier research (Longden et al., 2015; O’Sullivan et al., 2015) in showing that participants were then able to hold in mind more than one consideration at a time, such as multiple perspectives, as well as being able to feel for the depth of a given mind. The findings here indicated that the autistic participants more often demonstrated an ability to hold onto representations of more minds at once, and to show in their descriptions an ability to feel with greater depth than the non-autistic participants had typically demonstrated when describing the individual minds represented. Specifically, autistic participants in Chapter 4 were better able to use the dynamics between characters and their differing perspectives to create tension and uncertainty when writing creatively about a serious literary text. Chapter 5 also demonstrated that autistic participants engaged in self-reflection during and after the reading process, imagining an additional third-person perspective that compared the reader’s own mind to those of the fictional characters which they were embodying. Several autistic participants did this more convincingly than the non-autistic participants. These findings support previous research showing that autistic people may engage in more perspective mobility, moving between their inner perspectives and outer, third-person perspectives in order to achieve deeper understandings of how they might be viewed socially in a given situation (Arnaud, 2022; Burrows, Usher, Mundy & Henderson, 2017; Lind & Bowler, 2010; Schriber, Robins & Solomon, 2014).

As the autistic participants engaged in the studies of Chapters 4 and 5 were able to skilfully hold onto and move between perspectives, they showed a well-developed capacity to hold onto complex, intangible feelings within the literature. In line with previous findings and case examples (Davis, 2020; Farrington, Davis & Billington, 2019; O’Sullivan et al., 2015), moments of intangible feeling created space for empathic feelings to emerge before the feeling was turned into something more familiar. Chapters 4 and 5 indicated that autistic participants had an enhanced propensity to keep open intangible feelings in this way by using a text’s own language to maintain the complexity of a feeling rather than translating it into a more

familiar emotional descriptor. In Chapter 5, this remained after the reading experience had ended, with autistic participants continuing to imaginatively hold onto fictional minds or situations (e.g., feeling like Pip rather than something more easily labelled and overly simplified as ‘frustrated’ for example). This holding of emotional complexity meant that feelings were able to become live again through the participant’s reflections, enabling them to rethink their thoughts and feelings towards a given mind or situation, as a result of personal care for the literature’s human content. By contrast, it was felt that non-autistic participants tended to want to extract key information, ideas and feelings from the texts in a data reduction mode to fit into familiar, established social understandings which could then be generalised, and perhaps shared, in real-world social situations.

6.2.2. Can reading with and about diverse individuals and different minds overcome stereotypical views and promote double empathy understandings for autistic and non-autistic readers?

Prior findings have indicated that serious literature facilitates the overcoming of differences between readers and that it can encourage marginalised readers, more than other forms of narrative fiction can, to find empathy for themselves (Billington et al., 2019; Farrington et al., 2019; Koopman & Hakemulder, 2015; Longden et al., 2015; Mar & Oatley, 2008; Oatley, 2016). This was of particular importance to the broader aims of the thesis. This process of bringing readers together seems to be achieved by moving individual readers out of their pre-existing default ways of thinking (Djikic, Oatley & Moldoveanu, 2013; O’Sullivan et al., 2015). Therefore, through analysis of the studies reported in Chapters 2 to 5 it was important to identify the different default standpoints of autistic and non-autistic participants. Findings reported in Chapters 4 and 5 suggest that the non-autistic participants were less experienced than the autistic participants in thinking and feeling across social differences to establish feelings of broader affinity. While the autistic participants in Chapter 2 reported finding it easier to feel for familiar experiences, the autistic participants in Chapters 4 and 5 demonstrated that they could also embody unfamiliar minds and feel through unfamiliar experiences. By contrast, the non-autistic participants in Chapters 4 and 5 showed an initial tendency to start from default social scripts and schemas that assumed knowledge about a particular social encounter. In line with previous assumptions (Chown, 2014; Lesser & Murray, 2020;

Milton, 2012), the autistic participants in Chapters 4 and 5 appeared less likely to rely on social scripts that assumed pre-existing knowledge about complex social phenomena. Instead, the autistic participants tended to be more open in their reading, avoiding assumptions from pre-existing knowledge that might prevent due consideration of the material. As, it is argued, literature requires readers to go along without a ready social script (Davis, 2020; Davis & Magee, 2020), autistic participants seemed better able to hold onto the unfolding ambiguous complexity of the narrative. In this way, they may be described as ‘better’ literary readers. However, the autistic participants did also have default ways of thinking that they needed to overcome while reading. Specifically, in Chapter 3, the autistic participants had pre-existing assumptions that non-autistic people led simpler social lives. This idea appeared to stem from assumptions that non-autistic people seem typically to encounter fewer breakdowns in mutuality, in line with the double empathy problem (Milton, 2012). Additionally, the autistic participants represented in Chapter 3, and to some extent in Chapters 4 and 5 as well, reported concerns about being stereotyped by non-autistic people in their everyday lives based on previous encounters. These assumptions that non-autistic people possess a particular social ease, together with concerns around being stereotyped led to an initial reluctance for social interaction amongst the autistic participants. Furthermore, these assumptions also meant that across Chapters 3 to 5, autistic participants often struggled to see their own abilities due to feelings of inferiority that had come from experiences of exclusion in their everyday lives and from embodied stereotypes about autism. These feelings often resulted in an embodied view that their social differences were deficiencies in need of overcoming.

The analyses in Chapters 4 and 5 revealed that despite their different default frameworks of understanding, both autistic and non-autistic participants had to overcome pre-existing agendas and ways of approaching social content to fully immerse in a text and subsequently to benefit from it. In these Chapters, both groups of participants experienced times where they struggled to get inside a text, making surface assessments of the text’s socio-emotional information rather than successfully feeling within it. In Chapter 4 in particular, it was evident that these difficulties at times stemmed from agendas that influenced their thinking about representations of their minority identities. For example, the autistic participants in Chapter 4 often started out with concerns about how disability was being depicted

through the character of Lennie, which then led to concerns later on about whether his death was being depicted as a mercy due to his unnamed disability. Similarly, female participants across the autistic and non-autistic groups often had concerns about the depiction of Curley's wife as lacking a name and through the ways in which the author described her appearance and behaviours. Therefore, despite autistic and non-autistic readers having different default ways of thinking to overcome, they shared the same experience while reading of needing to overcome pre-existing concerns stemming from their everyday social experiences that barred them from imaginatively engaging with the literature.

Once participants were immersed while reading alone in Chapters 4 and 5, the literary language encouraged openness in thinking and feeling across difference, in line with previous findings (Ellis, McCann & Dalsgård, 2019; Longden et al., 2015). For non-autistic participants who initially struggled to feel in this respect, findings indicated that they had started to feel for difference by holding onto more than one perspective and comparing them while reading. When non-autistic participants experienced immersed feeling with these different minds, this seemed to prompt them to think beyond the book to reflect on how normativity results in the construction of difference within broader human culture. These findings supported Ida (2020) in demonstrating that creative reflections about social difference can encourage greater openness and move people to think about how human difference is constructed. Importantly, the non-autistic participants then began to embody Othered fictional minds in a way that enabled them to start feeling what it might be like to be an Othered individual in a given situation. It was this feeling for different minds as an extension of themselves which enabled non-autistic participants to begin thinking beyond their social scripts and schemas. However, findings from Chapter 5 indicated that when non-autistic participants were reading or reflecting on autism in particular, rather than on broader struggles relating to disability or other broad human differences, they reverted to default ways of thinking about difference. Specifically, where non-autistic participants in Chapter 5 changed their views on autism through reading directly about it, what resulted was a reframing of difference that maintained the binary of neurotype groupness. This demonstrates how ingrained stereotypes of autism have become and how incorrigible they are.

Findings from Chapter 3 indicate that it was the combination of the serious literature together with the sharing of lived experience disclosures evoked by the

literature which best moved both autistic and non-autistic participants out of their default ways of thinking about one another. The shared reading described in Chapter 3 meant that participants moved from having felt with a particular character or situation, towards re-feeling through that experience out of shared discussions with their reading partner. These shared discussions then made it easier for participants to feel with one another when personal disclosures were made that related to similar experiences outside the text. Therefore, the previously unfamiliar social experiences that had been simulated in the process of reading gave participants a way to feel for one another's different life experiences. As a result of the participant pairs in Chapter 3 feeling for one another via the text, there was a resultant overcoming of default ways of thinking about their differences, towards seeing each other as complex individuals who were essentially similar with nuanced differences. For non-autistic participants, this meant that discussions directly about autism in Chapter 3 started from feelings of essential similarity and led to more open thinking and understandings about autistic differences, which were then contextualised as slight rather than polarising. Both autistic and non-autistic participants in Chapter 3 also started to open up feelings for different fictional minds that they had previously closed down while reading the book alone, as shown through findings presented within Chapter 4. Specifically, where autistic participants in Chapter 4 often felt for Lennie, none of the non-autistic participants had demonstrated an ability to embody Lennie's hard to reach perspective or to feel through the events of the book with him. However, in Chapter 3, analysis indicated that all of the participants had felt for Lennie out of their shared discussions that had brought him to life as a real mind to think and feel through together. Similarly, autistic participants who contributed data to both Chapters 3 and 4 had sometimes closed particular fictional minds down in Chapter 4 whilst reading alone, but had then re-opened feeling towards those minds by feeling for them through a renewed perspective that resulted out of discussions with their reading partner.

The outcomes of the shared reading experience in Chapter 3 also appeared to result in specific benefits for the participants that had not resulted from the reading alone that took place in Chapters 4 and 5. While reading alone, autistic participants had often failed to recognise their own abilities, pointing instead to their difficulties in engaging with complex socio-emotional information, without seeing the strengths that came out of these struggles while reading. For example, autistic participants in

Chapters 4 and 5 often pointed to their difficulties reducing their feelings down into a singular label as an example of where they had not done well in their reading and where they had often wished they could do better. However, not labelling their feelings in this way meant that they held onto the intangible nature of feelings, as is argued to be necessary to maximally benefit from serious literature (Davis, 2020; Farrington et al., 2019). However, it was in the process of reflecting on their reading, rather than in the initial reading itself, where autistic participants had often appeared to be taken back to their default assumptions, where their difficulties were seen as inferior differences, rather than experiences from which strengths had grown. However, the autistic participants in Chapter 3 had started to realise their abilities as readers because of feedback from their reading partners. Specifically, the autistic participants in Chapter 3 reported feeling that their reading partners had valued their different approaches to thinking and feeling through the text. As a result, the autistic participants had started to see the value in their differences, rather than framing them as problematic.

Similarly, findings from Chapter 5 indicated that the non-autistic participants had data-reduced their reading experiences into their pre-existing social scripts for later use. By contrast, findings from Chapter 3 indicated that the shared reading reflections had led the non-autistic participants to hold open the complexities of the literature beyond their initial reading experience through discussions with their autistic reading partners. Therefore, the non-autistic participants in Chapter 3 were able to recall characters and situations as complex minds and experiences to think back through in the same way that the autistic participants had in Chapters 4 and 5. This shared holding of complexity not only appeared to benefit the non-autistic participants but also created mutual understandings between the autistic and non-autistic participants during their reflective discussions. Additionally, while Chapter 3 indicated the importance of autistic lived experience accounts in creating a sense of shared human feeling, Chapter 5 indicated that reading about these accounts through informal non-fiction was not enough on its own to evoke the same overcoming of 'groupness'. For Chapter 5, an informal piece of non-fiction advocacy writing by autistic author and presenter Chris Packham had been chosen, where Chris shared personal experiences of feeling Othered as a result of being autistic which were similar to disclosures made by the autistic participants in Chapter 3. However, where the non-autistic participants in Chapter 3 were moved to feel with these disclosures,

the non-autistic participants in Chapter 5 maintained their sense of groupness and struggled to feel with the unfamiliar experiences that Chris was describing. The difference here appeared to stem from the fact that the non-autistic participants in Chapter 3 had witnessed complex emotional understandings from their autistic reading partners, which drew their attention to their core human similarities. Overall, the findings from Chapters 3 to 5 when taken together indicate that the shared reading of and subsequent shared imaginative feelings for serious literature is more beneficial in overcoming stigma and stereotyping between autistic and non-autistic adults than reading alone due to the forced or facilitated dismissal of neuronormativity that resulted.

6.2.3. What kinds of texts and text features enable autistic and non-autistic readers to get the most out of their reading experiences?

In line with earlier assumptions and empirical findings (Billington et al., 2019; Davis, 2020; Davis & Magee, 2020; Koopman & Hakemulder, 2015; O’Sullivan et al., 2015), the findings from Chapters 4 and 5 indicate that it was the complex language within literary works of fiction which was most beneficial to participants. In particular, complex moments of nuanced meaning within the literary language appeared to enable participants to hold onto feelings of being moved for longer, in line with previous findings (O’Sullivan et al., 2015). This subsequently enabled room for greater depths of feeling alongside imaginative explorations of potential subtexts beneath the surface meaning of a particular word, phrase or structure. In this way, the findings here support earlier suggestion that literary language encourages readers to hold onto ambiguous meaning in a way that enables them to think and feel through multiple considerations that are embedded within the literary writing (Koopman & Hakemulder, 2015; O’Sullivan et al., 2015; Zunshine, 2011). Therefore, findings align with Barnes (2018), in demonstrating that complex literary language required the participants to actively *do* the literature, rather than passively engaging with it. The passive engagement while reading was often invoked by the non-fiction texts used within Chapter 5, which were seen by the participants as *telling* them about something, rather than allowing them to explore it for themselves. There was therefore a sense that these texts did not provide enough room for participants to uncover and infer the same level of depth that had resulted from reading the literature. Although the participants tended to try and deconstruct the

non-fiction texts in order to uncover subtextual author agendas, this did not enable the participants to immerse within the texts as live realities in the way that they had been able to while reading the serious literary texts. This builds upon previous suggestions that non-literary fiction stories typically fail to move readers beyond default understandings and so risk reinforcing more stereotypical and rigid ways of thinking about complex social information (Mar & Oatley, 2008; Oatley, 2016). Although it was non-fiction used here and not non-literary fiction, the agendas put across by the authors similarly encouraged participants to remain comfortably within their default frameworks of understanding. However, these findings cannot be generalised to all non-fiction texts, as Chapter 5 only included informal autobiographical texts and texts that were aiming to disseminate scientific understandings about psychological concepts to public audiences. It is therefore important to note that non-fiction texts, such as some memoirs, can contain complex language that enables readers to imaginatively immerse within it in a way that can be seen as literary, perhaps through a creative blurring of fact and fiction. Based on previous findings together with the current findings, what appears to be most important is the complexity of the literary language within a text, rather than whether or not it is a work of fiction or what particular genre the text falls within (Anderson, Felski & Moi, 2019; Davis, 2020; Koopman & Hakemulder, 2015; O’Sullivan et al., 2015).

Although the complex language of the serious literary texts used across Chapters 4 and 5 was advantageous for participants, participants across Chapters 2 to 5 did report self-conscious concern around their understandings of this language. This was reported in Chapter 2 by both autistic and non-autistic participants as a reason why they had some reluctance towards reading classic literature at times. Chapters 4 and 5 then demonstrated that participant difficulties with the complex literary language sometimes prevented them from gaining access to the literature as an immersive social simulation. However, findings from Chapter 5 indicate that these difficulties were specific to the unfamiliar language within classic literature, with participants showing no sign of difficulty with the complex but more familiar language used within the modern literary texts. These findings might seem to conflict with findings from shared reading groups which suggest that the complex, unfamiliar language of classic literature holds core human feeling within it, which can move readers to rethink their feelings through the unfamiliar language that

regenerates feelings to be re-thought and re-felt through (Farrington et al., 2019). However, the analyses from Chapters 4 and 5 indicate that the difficulties occurred because participants were concerned with inferring the ‘correct’ meaning from the classic literary texts in particular. This appeared to relate to the close association between classic literary texts and their use in education. While shared reading groups can break this association by taking literature outside of an academic setting and so rehumanising it (Corcoran & Oatley, 2019), the studies described in Chapters 4 and 5 may have been less able to do so due to the nature of the research being academic and following a research protocol. However, the ease of immersion within the modern literature in Chapter 5 appeared to stem from the sample being mostly made up of readers who described themselves as inexperienced readers and who were more confident trusting their instincts when engaging with a more familiar language and social setting.

While this broader societal familiarity with the social setting of a text was enabling for the participants in Chapter 5, personal familiarity with a particular situation as represented within a text often prevented immersion for the participants in Chapter 5. In Chapter 2, the autistic participants had reported feeling that they were better able to immerse into familiar settings and situations while reading, finding it easier to empathise and embody other minds as a result. However, the findings from Chapter 5 indicate that this ease of relation is actually preventative of deeper immersion within a text. Where a situation or mind within a text was felt to be familiar, participants tended to remain on the surface of a text, which enabled them to too-easily apply their pre-existing understandings about a given social situation. By contrast, when a situation or mind felt different, participants were often surprised out of their default understandings by their unexpected ability to relate to this difference. For example, the extract from *Faith and Hope Go Shopping* (Harris, 2010) tended to evoke surprised feeling for most of the participants in Chapter 5, due to the majority of participants being younger than the implied age of the characters and so being largely unfamiliar with the imagined perspectives and experiences of the characters. However, all participants were able to draw from their own struggles to imagine how it may have felt to be Faith and Hope in the context of the text. This ability surprised participants to more deeply immerse in the text in a way that better enabled them to embody the character perspectives. However, where familiarity was in some way surprising in Chapter 5, participants were still able to gain from it in a

way that moved them to rethink their shared experience with the text. For example, autistic participants reading the extract from *Eleanor Oliphant is Completely Fine* (Honeyman, 2017) often related to the situation where Eleanor and the barman had failed to establish mutual understandings during their encounter. However, the relation was not one of simple recognition of a shared experience, but one where the autistic participants were shocked to feel that Eleanor was a sort of reflection of themselves, in how they may have come across to others during past social encounters. As a result, the participants rethought their experiences in a way that moved them to engage in deeper self-other reflections.

Depictions of human struggles and adversity were particular text features that enabled participants across Chapters 2 to 5 to feel a sense of surprised resonance rather than distanced relation. The autistic participants in Chapter 2 had reported that they were able to draw on their experiences to feel across differences for broader character struggles that they had not experienced in their everyday lives. This was then evidenced in Chapters 4 and 5, where character adversity within a text often evoked the most feeling for participants, moving them to feel for a given mind or situation. For autistic participants, the analyses in Chapters 4 and 5 suggested that they had done more exploring of the complexities and depth behind adversity within the fictional texts than the non-autistic participants typically had. This appeared to be a result of the autistic participants having faced more adversity in their own lives because of belonging to a marginalised group and having experienced stigma as a result. For non-autistic participants, adversity often moved them to feel for different Others, who they may not have otherwise felt with. In Chapter 3, it was explorations of adversity and feelings with it which often moved autistic and non-autistic participants to feel together across their differences, in a way that resulted in resonating feelings that they were essentially similar. These findings therefore support prior suggestion that texts depicting adversity may hold the most literary advantages for readers (Strick & Van Soolingen, 2018) and that individuals who have faced adversity in their lives may do better with these kinds of texts as a result of having spent more time unpicking the complexity of these experiences (Davis, 2020; Strick & Van Soolingen, 2018).

6.3. Implications and recommendations for research and practise

6.3.1. *Implications for understanding autism*

6.3.1.1. Implications for theories of autistic social differences

Overall, the findings presented across this body of research indicate a need to dismiss theoretical models of autism founded on some sort of assumed and simplified social or emotional deficit. These findings demonstrated multiple complex socio-emotional responses from autistic participants while reading, which were at least as equally complex as the non-autistic participants included within the research and often times more complex in nature. The findings presented here particularly challenge the reductive assumptions of the E-S theory which position autistic people as experiencing some sort of empathy deficit and instead approaching all information, including complex social and emotional material, in a systematic way (Baron-Cohen, 2008, 2009). Across Chapters 3 to 5, there were no instances of autistic participants taking a systematic approach to engaging with and reflecting on the texts included across these Chapters. In fact, it could be argued that, Chapter 5's findings in particular highlighted that it was the non-autistic participants who often prioritised the extraction of key information from a text in order to slot information into pre-existing social schemas in a systemising manner. This suggestion directly challenges the notion that autistic people show a pronounced cognitive systemising bias when processing information (Baron-Cohen, 2008, 2009). Chapters 4 and 5 highlighted that both autistic and non-autistic participants engaged with texts throughout their reflections in similarly complex and empathic ways. Therefore, there was no evidence to suggest that systemising and empathising exist as opposing cognitive approaches to processing information. Additionally, findings challenged the idea that people have inherent socio-cognitive processing styles which then differ between neurotypes (Baron-Cohen, 2008, 2009). Instead, Chapter 3 indicated that when autistic and non-autistic participants read together, the non-autistic participants similarly held onto complexity after the reading experience rather than systematically extracting and slotting information. While it could be that the non-autistic participants in Chapter 3 had a more complex, detail-focused and open processing style, Chapter 4 data from the participants who also took part in Chapter 3 highlighted changes after the shared discussions about the book. Therefore, it is suggested that findings here indicate that processing differences centre primarily on how much an individual tries to maintain the complexities of information, compared to how much they try and reduce data down into established schemas for later ease of use. Therefore, the E-S theory of autism appears to be too reductionist to capture

the complexities of either autistic differences in social processing or broader approaches to empathising across people in general.

Similarly, findings here also indicate that the mindblindness theory (Baron-Cohen, 1997) of autism is too over-simplified in its assumptions about socio-cognitive processing differences to be useful in explaining any autistic socio-emotional differences. The findings across Chapters 2 to 5 did not support the core mindblindness assumption that autistic people would experience some degree of perspective-taking deficit when compared to non-autistic people (Baron-Cohen, 1997). Specifically, the autistic participants in Chapter 2 expressed a desire to embody different minds, followed by multiple examples across Chapters 3 to 5 of autistic people being able to imaginatively feel with multiple different fictional perspectives. Importantly, it can be argued that the process of imaginatively embodying complex fictional minds, as depicted in serious literature, is indiscriminate from the process of perspective-taking with real human minds (Zunshine, 2011). Together with findings from Chapter 3 which demonstrate autistic and non-autistic participants feeling for one another's different imagined perspectives, findings here then indicate that autistic people can feel and think across different minds in largely the same ways as non-autistic people. Additionally, the more careful, open approach that autistic participants took towards considering social information often resulted in them feeling more in tune with different minds, feeling along with them rather than feeling for them at an empathic distance. This builds upon previous suggestion by Fletcher-Watson and Bird (2020) to suggest that autistic people may engage with more complex perspective-taking than standardised testing is able to capture as a result of prioritising more fast-paced, conclusive judgements. Additionally, the findings from Chapter 5 in particular supported earlier research (Arnaud, 2022; Burrows et al., 2017; Lind & Bowler, 2010; Schriber et al., 2014) in demonstrating that autistic people may engage with more perspective mobility, imagining themselves through a third-person perspective. The cause of this increased mobility cannot be accurately inferred from this research. However, together with current understandings about autistic masking (see: Cage, Di Monaco & Newell, 2018; Cage & Troxell-Whitman, 2019; Pearson & Rose, 2021; Perry, Mandy, Hull & Cage, 2022), there is some indication that these greater self-other reflections may result from a continued monitoring of self that enables autistic people to bring their behaviour in line with what they perceive as being expected and

acceptable within everyday social encounters. Therefore, not only is there a lack of evidence to support the idea of an autism-specific perspective-taking deficit, but there is indication that autistic people may be more often trying to embody the perspectives of non-autistic people.

This research built upon earlier findings and theoretical suggestions from the double empathy problem (Milton, 2012) in suggesting that non-autistic people may be less familiar at navigating communication breakdowns and so may be less readily able to embody the perspectives of autistic people (Chown, 2014; Edey et al., 2016; Heasman & Gillespie, 2018; Sheppard, Pillai, Wong, Ropar & Mitchell, 2016). Therefore, it can be argued that the E-S (Baron-Cohen, 2009) and mindblindness (Baron-Cohen, 1997) theories not only fail to account for the two-way nature of social communicative breakdowns (Milton, 2012; Milton, Heasman & Sheppard, 2018) but also embody the double empathy problem by placing blame onto autistic people for these breakdowns. Therefore, these theories risk worsening stigma towards autistic people and the related double empathy problem (Milton, 2012) within individual encounters by driving forward a narrative of autistic people as defective (Waltz, 2013). While the current findings did not indicate blatant stigma amongst the non-autistic people involved throughout the research, there was an indication that the autistic participants had embodied these deficit views through the process of internalising stigma. The relative benefit of the double empathy problem (Milton, 2012) in explaining social differences between autistic and non-autistic people rests in the positioning of socio-emotional difficulties as arising from social dynamics, rather than existing within a given individual. The current findings indicated that autistic and non-autistic participants tended to demonstrate different ways of drawing conclusions from social information after reading, but did not differ by much during their active engagements with a text. Together with prior research findings (Crompton, Ropar, Evans-Williams, Flynn & Fletcher-Watson, 2020; Crompton et al., 2020b; Williams, Wharton & Jagoe, 2021), there was indication within this research that it is these different approaches which might then create difficulties establishing mutual social understandings to operate within during everyday encounters.

Furthermore, findings also supported the assumption from the double empathy problem that autistic people may have better understandings of society as a result of being more experienced in navigating a lack of mutuality in their everyday lives

(Chown, 2014; Milton, 2012). Within this research, autistic participants often appeared to be more experienced in establishing feelings of essential human similarity to think and feel across differences in a way that was more open to complex consideration. Non-autistic participants comparatively showed an initial tendency towards assuming essentially shared social knowledge across all imagined human minds in order to enable more fast-paced assessments from limited social information. It was the more open approach to thinking about complex social information that avoided assumptions of shared social norms which was necessary in forming double empathy understandings across the autistic and non-autistic participants in Chapter 3. The shared reading discussions between participants in Chapter 3 encouraged this two-way openness which then enabled participants to hold in mind one another's different ways of thinking as part of an essential human similarity. Findings here then support previous suggestions (Ida, 2020; McCreddie & Milton, 2020; Mueller, 2020) that double empathy understandings can be achieved between autistic and non-autistic people through the use of creative methodologies which take them beyond their default ways of thinking about their differences. However, the findings here only demonstrated an overcoming of the double empathy problem (Milton, 2012) for non-autistic people through shared reading, indicating that reading alone may not be enough to encourage double empathy understandings towards autistic people. Although the reading alone in Chapters 4 and 5 showed that both autistic and non-autistic participants were moved to engage in more open and provisional thinking, it was not clear whether this would change approaches to real-world social understanding without autistic and non-autistic participants having reflected on a text together. There is therefore a need for future research to explore how individual reading practises might enhance an overcoming of assumed shared social norms and understandings for non-autistic people as a precursor for building double empathy within interactions.

6.3.1.2. Implications for theories of attention

The findings of unimpaired empathy and perspective-taking across the autistic participants included in this research did not support the assumptions of the weak central coherence (WCC) (Frith, 1989, as cited in Happé, 1999) and monotropism (Murray, Lesser & Lawson, 2005) theories that autistic people may be more likely to experience difficulties with understanding social breadth and in modelling other

minds. In assessing the WCC theory of autism (Frith, 1989, as cited in Happé, 1999) in particular, the assumption that autistic people might experience increased difficulties generalising knowledge was not supported. Instead, both the autistic and non-autistic participants across these four studies showed an ability to draw from their similar personal experiences and related feelings in order to imaginatively generalise how they might then think and feel in similar but unfamiliar social experiences. Both autistic and non-autistic participants in Chapter 4 were also able to think across the literature in order to draw contrasts which then enabled deeper explorations of subtext. The findings across Chapters 3 to 5 indicated that it was specifically overly-conclusive judgements and pre-existing knowledge which autistic people avoided generalising while reading. While the WCC (Frith, 1989, as cited in Happé, 1999) theory might position this avoidance as a processing difficulty, the more tentative approach that resulted amongst the autistic participants was advantageous in the context of the serious literature.

Similarly, findings did not support the executive dysfunction (ED) (Ozonoff, 1995, as cited in Hill, 2004; Ozonoff & Jensen, 1999) and monotropism (Murray et al., 2005) theory assumptions that autistic people may have difficulty holding onto multiple streams of information at once for the purpose of multitasking. Instead, the current findings show that autistic participants were often better able to hold onto more than one thought, feeling or perspective at a time than the non-autistic participants. This holding of multiple things at once in the process of reading did not result in difficulties that closed the immersive feeling and thinking down. Instead, through being encouraged by serious literature to ‘bite off more than they could chew’ (Davis, 2020), the autistic participants were able to hold onto multiple things at once in a way that did not overwhelm or ‘overload’ them. However, it is important to note that these conflicting findings do not necessarily challenge the assumption that autistic people would struggle more with multitasking in everyday life. Given that autistic people are known to commonly experience social and sensory overload (Baron-Cohen, 2008; Fletcher-Watson & Happé, 2019; National Autistic Society, 2022), the findings here might instead indicate an ability of serious literature to enable autistic people to hold onto multiple things at once without becoming overloaded by the experience. Therefore, serious literature may be able to act as a valuable social simulation tool for autistic people, through its ability to encourage engagement with multiple streams of information without discomfort. While further

research is needed to explore this possible value of literature, it might then be that these stimulatory experiences can offer a route for autistic people to practise engaging with multiple streams of emergent information in a way which could potentially encourage a better holding of more than one thing at a time in their everyday lives. Importantly, the use of serious literature in this way could encourage autistic people to build upon and harness this skill, rather than encouraging them to mask any overload-based difficulties in the pursuit of behavioural change.

Additionally, although the present findings conflict with some assumptions from the WCC (Frith, 1989, as cited in Happé, 1999) and monotropism (Murray et al., 2005) theories, the findings did support the assumption from these theories that autistic people may experience a propensity for attending to detail. The autistic participants across the research, particularly in Chapters 3 to 5, showed a greater capacity for attending to detail and subsequently unpicking and imaginatively building upon the subtext within these details. This tendency meant that in the process of reading, the autistic participants were better able to feel *with* characters in depth, rather than feeling *for* them, as was more common amongst the non-autistic participants. This supported the monotropism assumption (Lesser & Murray, 2020; Murray et al., 2005) that autistic people experience a greater depth of feeling, however this tendency towards detail did not prevent participants from thinking across social breadth (Lesser & Murray, 2020; Murray et al., 2005). However, from this body of work conclusions cannot be drawn about whether this tendency towards detail amongst autistic participants is an inherent feature of being autistic. In line with earlier theoretical suggestions (Chown, 2014; Milton, 2012), the autistic participants more often reported experiences outside of the research in navigating a lack of communicative mutuality and so were more adept at thinking and feeling across differences. In the context of the current research, it could not be discerned how much the observed tendency towards detail amongst the autistic participants related to these social experiences or how much it may have related to an inherently different processing style. While all autistic participants across this research did show this tendency for detail, some non-autistic participants also showed times where they could similarly hold onto and explore detail within or outside the text. Therefore, findings caution against assuming cognitive processing styles on the basis of neurotype. Instead, it is likely that these processing styles vary largely across individuals, reflecting the heterogeneity of autism and overlap with non-autistic

processing experiences. Additionally, it appeared that these processing styles were to some extent influenced by experience. Specifically, in addition to the processing changes observed in Chapter 3, the non-autistic participants who were better able to hold onto detail in Chapters 4 and 5 tended to be more experienced readers who were more comfortable trusting their instincts while reading. Importantly, where non-autistic participants showed a tendency to attend to detail, they appeared to benefit socially and emotionally from this approach through the openness and provisional thinking that resulted. Overall, the findings here indicate that the WCC (Frith, 1989, as cited in Happé, 1999) and particularly the theory of monotropism (Murray et al., 2005) are able to explain some nuanced autistic differences in cognitive processing. However, these processing styles appear to be more flexible across situations than these theoretical models account for. It is suggested that a concerted research drive is needed to explore the benefits of detail-focused processing and how this reflects autistic and non-autistic experience in everyday social encounters.

6.3.1.3. Moving away from data reduction

One core issue that runs through the E-S (Baron-Cohen, 2009), mindblindness (Baron-Cohen, 1997) and WCC (Frith, 1989, as cited in Happé, 1999) theories in particular is the focus on data reduction as an essential way of thinking about and engaging with complex social and emotional information. This represents a broader issue within psychology, where fast-paced generalisations that draw on social schemas are seen as enabling quicker social responses while also reducing cognitive demand to enhance social ease (Fletcher-Watson & Bird, 2020; Rippon, 2019; Williams, 2021). This focus has been most evident within the study of empathic differences between autistic and non-autistic people. For example, the mindblindness theory (Baron-Cohen, 1997) rests on the assumption that autistic people have a tendency to show extreme egocentrism (Lombardo & Baron-Cohen, 2011), applying their own perspective to all other minds, regardless of perceived similarity. This theoretical consideration then suggests that optimal perspective-taking would involve imposing our own perspectives onto similar minds and drawing on relevant schematic understandings for different minds (Lombardo & Baron-Cohen, 2011). However, for the participants across this research, it was in moments where participants were moved to feel a mind as an extension of themselves which evoked

better perspective embodiment and encouraged participants to hold onto multiple, differing perspectives. While this could be viewed as egocentric (Lombardo & Baron-Cohen, 2011), the process did not result in the participants assuming that the embodied mind would necessarily think and feel in the same ways that they might. Rather, participants more subjectively imagined the multiple, complex possibilities for what another embodied mind might think and feel in a given experience and how imagined past experience could influence this. Similarly, the deployment of schematic understandings encouraged more rigid thinking amongst participants which failed to evoke mind modelling and shared feeling.

Additionally, research implementing standardised tests that score participants based on their ability to draw rapid conclusions from limited data sets have placed people with slower, more careful social considerations at a relative disadvantage (Fletcher-Watson & Bird, 2020). This is because these kinds of tests do not allow for more complex and nuanced considerations of a given perspective or situation (Fletcher-Watson & Bird, 2020). These tests, unlike the reflective reading methods used in Chapters 3 to 5 fail to give participants imaginative room to embody these perspectives as they would real human minds (Fletcher-Watson & Bird, 2020). Instead, these tests often implement isolated snapshots of information, such as eyes (for example: Baron-Cohen, Jolliffe, Mortimore & Robertson, 1997; Baron-Cohen, Wheelwright, Hill, Raste & Plumb, 2001) and scripted social scenes (for example: Dziobek et al., 2006; Golan, Baron-Cohen, Hill & Golan, 2006; McDonald, Flanagan, Rollins & Klinch, 2003) which fail to create any real sense of investment for participants. These tests have also been criticised for artificially separating cognitive and affective empathy in an attempt to systematically compare these two abilities (Fletcher-Watson & Bird, 2020). This approach then fails to capture the nuance of real-world social and emotional abilities, where thought and feeling merge and emerge together spontaneously (Fletcher-Watson & Bird, 2020).

This again reflects a broader issue within psychology, where complex human phenomena are reduced down or separated into more easily labelled and defined constructs. For example, the term ‘empathy’ reduces down many complex inter-related human responses to emotional information in a way that shaves off the complexity of the thought and feeling involved (Fletcher-Watson & Bird, 2020; Harmsen, 2019). This was represented by the participants in Chapter 5, who sometimes treated empathy as something to be deployed in particular circumstances,

rather than something which spontaneously emerges out of natural thoughts and feelings. Therefore, the depth of human responses which are too-easily labelled as empathy are lost through the process of labelling. The advantage of serious literature is in its ability to evoke and regenerate these feelings to be rediscovered through a more complex language which can better hold onto their complexity (Davis, 2020; Farrington et al., 2019), as was shown in the participants' responses across Chapters 3 to 5. The findings here also suggest a need for better understandings within individuals that emotion should not be singly named for easy recognition, but should instead be seen and felt through in action, as can be achieved through literary social simulations (Davis, 2020; Koopman & Hakemulder, 2015; Mar & Oatley, 2008; Mumper & Gerrig, 2019).

Similarly, the focus within psychology on naming *autism* as a singular thing fails to capture the depth of individualised, human experiences across autistic people (Botha, 2021; Chapman, 2020; Fletcher-Watson & Happé, 2019; Kapp, 2020). In this research, it was through feeling with autistic people while embodying other imagined human minds and situations which brought back the human complexity for non-autistic people in thinking about their differences. Although the autistic participants across this research approached social information in similarly tentative ways, the heterogeneity that existed across them meant that there was no distinguished line between autistic and non-autistic ways of thinking and feeling. While the non-autistic participants showed a tendency towards a default processing style of data reduction, there were some non-autistic participants whose approach to reading was more similar to the autistic participants. Furthermore, regardless of this, in the process of reading in Chapters 4 and 5, the autistic and non-autistic participants were largely similar in how they engaged with the human social complexities within a text.

6.3.2. Recommendations for autism research

6.3.2.1. Focusing on quality of life

Chapter 3 in particular highlighted the essential need to breakdown assumptions of groupness when thinking about what autism might mean in order to overcome the stigma faced by autistic people. This supports the previous call for a need to embrace the heterogeneity across autistic people as a way to maintain complexity when thinking about what it means to be autistic (Botha, 2021; Chapman, 2020; Fletcher-

Watson & Happé, 2019; Milton, 2017; Milton & Bracher, 2013). In line with earlier suggestions (Fletcher-Watson & Happé, 2019; Sinclair, 1993, as cited in Autistic Self Advocacy Network, 2012), autism might then best be thought of in a similar way to how we think about different human cultures. Commonly shared traits and experiences across autistic people could be re-framed as shared cultural experiences, alongside an understanding that essential human similarity will remain in that some of these same traits and experiences may also be shared by non-autistic people. Although there still needs to be an acknowledgment of disability to meet the support needs of autistic people, the high heterogeneity across the group indicates that this is best tailored to each particular individual. The current dominance of the medical model in defining autism risks perpetuating the idea that autistic people are in some way inherently different and inferior, which subsequently risks further stereotypes and reinforced stigma. However, medical diagnoses are currently the main way in which autistic people can gain formal recognition of their related disabilities in order to access support within society (Leedham, Thompson, Smith & Freeth, 2020; Mogensen & Mason, 2015). The work presented in this thesis supports the call for a shift to better integration of the medical model of disability and the social model focus in considering how differences between autistic and non-autistic people have been constructed through human culture and how this might create subsequent disability for autistic people (Chapman, 2020; Grant & Kara, 2021; Kapp, 2020; Kapp, Gillespie-Lynch, Sherman & Hutman, 2013; Williams, 2021). Specifically, both models should focus on enhancing quality of life for autistic people by reducing the impacts of any inherent or socially constructed disabilities.

6.3.2.2. Inter-disciplinary research

While co-production and qualitative methodologies can play an important role in driving less stigmatised understandings of autism forward (Fletcher-Watson et al., 2019; Kourti, 2021; Milton & Bracher, 2013; Wright, Wright, Diener & Eaton, 2014), there is a need for a wide-spread shift within psychology that can move thinking beyond assumptions of one neuronormative way of cognitive processing. Additionally, the pursuit of psychology towards positivist objectivity lacks the necessary complexity for representing human phenomena and in encouraging felt understandings across differences (Botha, 2021; Chapman, 2020; Glynee-Owen, 2010). There appears therefore to be a need for more inter-disciplinary work in

furthering understandings of autism and overcoming stigma (Ida, 2020; McCreadie & Milton, 2020; Mueller, 2020). For example, the double empathy problem (Milton, 2012) has drawn on understandings from across sociology and psychology to reposition understandings of autistic social difficulty as arising out of two-way interactions (Milton, 2012; Milton et al., 2018) rather than as existing inherently within autistic people. Within this body of work the inter-disciplinary research combined psychological ideas with the ability of serious literature to model raw human states in action without reducing them down (Davis, 2020; Davis & Magee, 2020; Ellis et al., 2019; O'Sullivan et al., 2015). It was this combination which was necessary to start shifting thinking about social differences within and between participants beyond their default ways of thinking. In bringing together the autistic and non-autistic participants in Chapter 3, the shared reading acted as a form of emotional education, where readers were not encouraged towards default understandings and behaviours (Davis, 2020; Davis & Magee, 2020; Ellis et al., 2019; O'Sullivan et al., 2015). Specifically, the layered social-emotional understanding required by serious literature meant that non-autistic participants witnessed in real time the ability of their autistic reading partners to empathically engage with complex social information. For the autistic participants, this meant that they witnessed in real time their non-autistic partners struggle with the complex social information, in a way that overcame previously-held assumptions about wider social ease amongst non-autistic adults.

Additionally, the method of close literary analysis which was introduced from Chapter 3 (Billington et al., 2019) together with the literary response data similarly took all involved researchers beyond default ways of thinking about psychological data, guided by the two researchers that had previously been trained in the method of literary analysis. This approach overcame the typical difficulties with psychological research by preventing the imposition of pre-existing understandings onto the data. The literary analysis in particular encouraged the thesis author, who was the lead researcher across the four studies, to treat items of data as literature in itself, pointing to and being moved by salient moments in the data before unpicking the complex human psychology that was represented through participants' own words and phrases. Together with the reflexive thematic analysis (Clarke & Braun, 2014) that was implemented from Chapter 3, an interpretivist approach was achieved, which

overcame objectivity concerns and enabled knowledge production to be led by the data.

This approach to data analysis also enabled all of the analysing researchers to be moved together by the data, which acted as the expert in knowledge production in a similar way to how the texts within shared reading act as an expert within the group (Ellis et al., 2019). Therefore, the autistic and non-autistic researchers involved in the analysis were able to achieve mutuality by thinking and feeling through the data together, rather than systematically integrating their pre-existing different agendas and perspectives. What resulted was a complete overcoming of the usual power dynamics observed within research which can risk preventing meaningful co-production between autistic and non-autistic people in research seeking to further understandings of autism (Fletcher-Watson et al., 2018; Winter, 2012). Therefore, the increased openness for holding onto complexity that can be brought in through inter-disciplinary creative methods (Ida, 2020) may also hold significant advantages for co-production methods within autism research. Overall, the findings here call for a collaborative effort between autistic and non-autistic people to move understandings forward, as opposed to autistic people continuing to be talked about and having decisions made on their behalf (Kourti, 2021; Winter, 2012). Although the non-autistic researchers involved in this research did not hold stereotypical or stigmatising views of autistic people, the work here indicates that co-production with non-autistic researchers could possibly result in a lasting overcoming of reductive approaches to thinking about autism.

6.3.3. Recommendations for future shared reading interventions

6.3.3.1. A case for shared reading

The findings from Chapters 2 to 5 demonstrate that autistic adults can benefit from reading serious literature in largely the same ways that have been previously observed in general populations of adult readers (Koopman & Hakemulder, 2015; Mar & Oatley, 2008; Mumper & Gerrig, 2019; O’Sullivan et al., 2015). Importantly, Chapter 3 demonstrated that the previously noted ability of shared reading to bring together readers with different social identities (Billington et al., 2019; Ellis et al., 2019; Fearnley & Farrington, 2019) can also extend to autistic and non-autistic adults. These findings not only build upon prior research to emphasise the human value of shared reading and more specifically of serious literature (Koopman &

Hakemulder, 2015; O’Sullivan et al., 2015), but they also have important implications for autism interventions. The findings presented in Chapter 3 in particular show that humanised social interventions between autistic and non-autistic adults are possible, where autistic people are valued as equal human beings rather than as defective individuals in need of behavioural modification. Although the reflective shared reading design used within Chapter 3 was used with a small number of participant pairs, the impact on the participants appeared to be profound. Specifically, the shared reading resulted in a resounding sense of shared feeling for one another as companions, moving them entirely out of their default ways of thinking about their perceived differences. As a result, there was a true overcoming of the double empathy problem (Milton, 2012) between these paired participants.

While the work in this thesis has focused on small, qualitative samples, it does still highlight the potential of future shared reading designs in being able to encourage shared feeling between autistic and non-autistic readers in a way that can subsequently reduce implicit stereotyping and stigma. The time limitations of the thesis together with the lack of pre-existing background research on this specific area meant that the experimental work presented across Chapters 2 to 5 largely focused on uncovering factors which require consideration in designing future shared reading interventions for use with autistic and non-autistic adults. Sections 6.3.3.2. to 6.3.3.5. draw on the findings of Chapters 2 to 5 to extract key features and considerations that may be subsequently important in designing future shared reading groups.

6.3.3.2. Text choice

The findings outlined in section 6.2.3. demonstrate that both autistic and non-autistic participants were able to enjoy and engage with serious literature and the complex language used within it. Therefore, the current shared reading model where readers typically read short extracts of serious literary texts and poetry is likely to remain beneficial in designing shared reading groups with the specific purpose of overcoming the double empathy problem between autistic and non-autistic adult readers. Although shared reading groups regularly include poetry readings (Ellis et al., 2019), poetry was not explored in the current body of work due to time constraints. Further research enquiry is therefore needed before specific recommendations about the use of poetry in shared reading groups with autistic and non-autistic adults can be made. However, the findings presented in Chapter 5

indicate that engagement with more metaphorical and unfamiliar prose requires readers to more readily trust their instincts in pointing to salient moments in the language and later imaginatively unpicking the depth behind it. In looking comparatively at the outcomes from Chapters 4 and 5, participants appeared to struggle most with the *Great Expectations* extract (Dickens, 2012) as a result of the particular poetic prose that Dickens had used within the text which led to more concerns for the participants in unpicking the possible metaphorical meanings.

The findings from this body of work indicate that more self-conscious, inexperienced readers might benefit from a programme of texts that gradually build in literary complexity, leaving more unfamiliar and metaphorical language until the readers have established a rhythm of pointing to and freely exploring moments of salience without self-conscious concern. This implication is particularly important for designing social reading interventions for autistic and non-autistic readers, due to the findings presented here which indicate that autistic participants particularly struggle with recognising and valuing their abilities while reading. Specifically, considering findings from Chapters 4 and 5, inexperienced literary readers may benefit most from starting with extracts taken from modern literary texts, where the more familiar language and social contexts can prevent initial concern within readers around their perceived ability to understand and engage with the literature. Within this sort of graded model, poetry would most likely be best introduced once readers had established an ability to engage with complex literary prose without self-conscious concerns substantially preventing immersed engagement.

The reason for this suggestion relates to the nature of poetry, in requiring readers to point to moments of personal salience in the language and to then imaginatively infer the deeper meaning that may connect the various moments of salience throughout the poem (Davis, 2020; Davis & Magee, 2020). The requirement of readers to rebuild the subjective inner workings of a poem in this way means that self-conscious concern with understanding objective surface meanings would prevent readers from getting inside the poem. Findings from Chapter 2 that explored the everyday reading habits of autistic and non-autistic adults indicate that autistic adults can and do engage with poetry in this way. However, for less experienced readers of literature and poetry, findings from Chapter 5 in particular indicate that starting at this level of complexity could lead to readers closing down feeling and staying safely on the surface of the text. Given that shared feeling together within a

text enables readers to overcome any stereotypical thinking about their differences (Billington et al., 2019; Ellis et al., 2019), it is especially important for future shared reading designs to start with texts that can more easily be immersed in by both autistic and non-autistic readers. Particularly in reading pairs, if only one reader were to experience substantial difficulty immersing into a complex text, this could potentially risk creating or reinforcing stereotypes about the struggling readers as someone who is more broadly socially inexperienced, which subsequently risks reinforcing internalised stigma amongst struggling readers.

The findings across Chapters 3 to 5 together with earlier suggestions (Davis, 2020; Strick & Van Soolingen, 2018) indicate that texts exploring broader human struggles and adversity may best facilitate developing relationships between autistic and non-autistic readers. While all literature provides the advantage of showing psychology in action in a way that dispels stereotypes of autistic social deficits, moments of adversity and human struggling within *Of Mice and Men* (Steinbeck, 1937) appeared to best move the participants in Chapter 3 to feel a sense of essential similarity. This appeared to result from the fact that discussions of adversity and struggling required more risk taking in discussing the text together, which subsequently led to more disclosures of text responses and difficult personal experiences.

6.3.3.3. Implementing feedback

Findings from Chapters 3 to 5 additionally indicate a need for future shared reading groups to implement feedback in order to encourage readers to recognise their abilities. The findings here indicate that this was essential for autistic readers, who as a result of broader stigma experiences and stereotyping, were more likely to view themselves as lacking social understanding. Specifically, in Chapters 4 and 5 autistic participants often pointed to their struggles, without seeing the resulting value that came from them in exploring the depth of a text. In Chapters 4 and 5 autistic participants had often overcome these concerns in the midst of reading, but could not see past them when reflecting on their reading. While the participants in Chapters 4 and 5 did not receive feedback on their reading, the autistic participants in Chapter 3 received feedback from their non-autistic reading partners through their informal discussions. The result of this feedback was that all autistic participants in Chapter 3 reported feeling valued by their reading partner, which had led them to rethink their

difficulties as something that could result in a different, complex perspective rather than as defective in comparison normative ways of thinking.

It was this sense of feeling valued within the shared reading that took place in Chapter 3 and so finding value in themselves which was important in starting to overcome internalised stigma amongst the autistic participants. Therefore, future shared reading designs should implement feedback that draws attention to the growth that comes out of reader struggles in order to encourage readers to rethink their differences as something to be gained from. The particular benefit of the feedback in Chapter 3 was that it came organically out of the non-autistic readers being surprisingly moved by their autistic reading partner's different thoughts about the text. Current shared reading models are best positioned to implement feedback that is more felt and less prescriptive, due to the inclusion of the reader leader as an additional reader who is also socially and emotionally immersing within a text (Ellis et al., 2019), rather than as a traditional social group leader who holds some sort of power in guiding group understandings. Further exploration is needed to explore how autistic readers might be encouraged to reflect and find value in their own reading reflections over time. However, at least initially, there is a need for reader leaders to guide other readers in the group towards this recognition.

6.3.3.4. Group dynamics

Findings from Chapter 2 indicate that autistic adults may struggle to engage in shared reading groups containing more than two to three readers, due to broader difficulties engaging socially in groups larger than this size. Chapter 3 demonstrates that pairs of autistic and non-autistic participants are able to benefit from shared reading together, without the need for a larger group of readers. The potential benefit of larger groups is that they could possibly result in a greater overcoming of stigma and stereotyping, due to the shared feeling within shared reading groups resulting in a smaller model of society where norms are redefined to break down traditional social group boundaries and norms (Billington et al., 2019). However, at least initially, findings suggest that it is important for shared reading designs to continue focusing on pairs of readers in order to ensure that any intervention design is inclusive to autistic readers. Chapter 3 particularly highlighted that the use of pairs led to participants building a social relationship together, within which there was a sense of trust, shared feeling and enjoyment of one another's company. While this

outcome may result within slightly larger group sizes, building comfort for autistic readers through the use of pairs is likely to be an important first step in designing shared reading groups. This is a particularly important consideration in seeking to overcome the difficulties observed across autistic participants in feeling that their different views may be socially wrong. However, the involvement of reader leaders as an additional reader in the room means that further research is required to explore whether any changes result when autistic and non-autistic readers are reading together with a reader leader as an additional mind to think and feel with.

Importantly, further consideration is needed around whether autistic or non-autistic reader leaders would have a particular impact on the outcomes of these paired readings. While shared reading enables a dismissal of groupness (Billington et al., 2019; Ellis et al., 2019) in a way where this may not impact the outcome of a group, the initial social discomfort and self-consciousness observed amongst autistic participants across Chapters 2 to 5 may be reduced when the reader leader is autistic themselves. The involvement of autistic reader leaders could act as live evidence for autistic and non-autistic readers in showing the complex socio-emotional abilities of autistic adults as equal to non-autistic adults, helping to challenge the stigmatising views towards and within autistic people. The shared reading model means that participating readers are often moved to voluntarily read aloud for the group and that group members often later volunteer to lead their own groups (Davis, 2020; Ellis et al., 2019). If shared reading groups for autistic and non-autistic readers were regularly implemented, autistic readers who had discovered value in themselves over time as readers may then be able to facilitate the same process for other readers. The advantage here is that shared reading then holds the ability to continue to place autistic people at the forefront of driving social change around how autism is thought of and what support is developed.

6.3.3.5. Liveness

The autistic participants in Chapter 2 indicated that they would struggle with being read aloud to, which particularly stemmed from negative associations with being read aloud to in school and so was seen as creating an uncomfortable power dynamic. In order to accommodate this difficulty, an experienced reader pre-recorded themselves reading the texts aloud for Chapter 5, due to Chapter 2 findings that autistic participants did feel comfortable with audiobooks and the idea of using

audio files of a text being read. The findings in Chapter 5 indicate that there was no substantial benefit for the autistic or non-autistic participants in the study as a result of engaging with these pre-recorded reading aloud files. Specifically, participants across the autistic and non-autistic groups described these files as facilitating concentration when a text was difficult, but otherwise slowing them down in a way that led to distraction and feelings of frustration when a text was otherwise easy to immerse in. Therefore, the implementation of these files failed to capture the liveness that facilitates text immersion within shared reading groups in a way that brings the text and minds within it to life, enabling readers to operate within it (Longden et al., 2015). The reason for this failure appeared to relate to the participants seeing the files as a methodological tool, rather than seeing the reader as another mind to think through and feel with. Within shared reading groups, reading aloud by the reader leader or other readers in the group often leads to the readers in the group feeling moved to more readily think through and feel with the person reading aloud. As this liveness is important in encouraging readers to read and feel together (Longden et al., 2015), it is important to consider how this might then be brought into future shared reading designs in a way that would remain comfortable to any readers who struggle with the idea of being read aloud to.

One particular reason why reading aloud was a concern for the participants in Chapter 2 stemmed from a preference to read a given text alone, ahead of shared discussions to reduce feelings of self-consciousness and social pressure. This was facilitated in Chapter 3 by enabling the participants to read the text first in their own time, in full, and to then come together with their diaries of reading reflections as prompts to discuss particular parts of the literature. Findings from Chapter 3 demonstrated that this method did largely elicit the previously observed outcomes of shared reading (Billington et al., 2019; Ellis et al., 2019; Longden et al., 2015), in that participants were moved to feel together as similar readers with nuanced differences. While the participants were not reading the original material together, the process of reading their reflections to facilitate discussions reignited the literature in a way that encouraged the participants to rethink the literature, subsequently operating within it together as a shared social reality. This method of reading a text ahead of time before coming together to discuss it in a shared reading setting may therefore be advantageous in designing future groups. Specifically, this method was able to overcome participant concerns with being read aloud to, due to the reading

alone segment and reflective diaries replacing the reading aloud. However, further investigation is needed to explore whether this method could be expanded to include more liveness and how this might benefit autistic and non-autistic readers compared to designs that do not include any reading aloud. As bonds of trust grew between pairs in Chapter 3 allowing more risk taking, readers tended to begin reading aloud parts of their own diaries voluntarily to facilitate discussion. Therefore, the first step in enhancing liveness in this design could include asking readers to incorporate in their diaries quotes from a given chapter that particularly moved them, where readers can then be encouraged to share these quotes with their reading partner.

Furthermore, the participants in Chapter 3 were comfortable with the presence of the lead researcher within the reading sessions. Therefore, the inclusion of reader leaders as an additional reader who reads the text ahead of time and brings into the session salient quotes to read aloud and discuss could potentially increase the comfort amongst participants with the reading aloud methodology.

6.4. Strengths and knowledge contributions

The work presented in this thesis contains multiple strengths, particularly in overcoming the traditional positivist approaches and related default, restrictive ways of thinking about difference that are often encouraged within psychology. Instead, the work here focused on shifting default ways of thinking, not just within the participants themselves, but also more broadly in how autism is typically thought of and discussed within research. Through the use of reading reflections as a creative methodology together with the qualitative nature of the work, the thesis centres knowledge production on the lived experiences of the participants within it. This means that the conclusions throughout the thesis about what it might mean to be autistic are based on the direct lived experience data of autistic adults themselves. Specifically, Chapter 2 explored how participants read in their everyday lives and what autistic participants thought about shared reading designs. As a result, Chapters 3 to 5 were designed with the findings from the autistic participants in Chapter 2 in mind. Specifically, Chapter 2 highlighted the importance of one-to-one shared reading reflections as opposed to larger groups, reading a text alone before reflecting together, and in adapting designs to overcome concerns amongst autistic participants in being read aloud to. As a result, the methods within Chapters 3 to 5 used these

initial findings, ensuring that designs were based upon what was most likely to make autistic adults feel comfortable and able to engage.

The strengths of the methods and analyses used across the thesis were also of benefit in facilitating the co-production between the autistic and non-autistic researchers within each study. Three autistic research assistants who acted as experts by experience were brought in to work on the studies within Chapters 2 to 4. Due to the time and funding constraints of the project, an expert by experience was not brought in for the study within Chapter 5. However, the lead researcher of the studies and author of the thesis is an autistic adult. This meant that data were still analysed and understood through an autistic perspective together with later analysis from the non-autistic supervisors of the thesis, who were co-authors for all four studies. The focus on reading reflections together with the close literary analysis that was implemented from Chapter 3 meant that the researchers were not simply applying their different perspectives to fit the data, but were instead being moved by the data. This process of being moved by the data is arguably necessary for research into the values of serious literature (Billington et al., 2019). This approach meant that the data were treated in the same way that participants treated the literary texts. That is to say that the analysing researchers were suddenly moved by surprised feeling for the moments within the data where participants had themselves been moved by a text. In this way, data were not being acted upon and reduced down, but were instead acting upon the researchers to move them out of their own default ways of thinking. This was most apparent in Chapters 4 and 5, due to the nature of the data meaning that the texts were coming through the participants in a way that meant multiple minds were embedded within it to feel through, much like fiction itself (Zunshine, 2011). The strengths of this approach were in the ability of the researchers to hold onto the complexity of the data and for the thesis author in then being able to disseminate these results throughout the Chapters in a way that avoided reducing the findings down into normative psychological understandings. Together with the emphasis on co-production between autistic and non-autistic researchers, this approach was able to overcome the traditional power dynamics which have long prevented autistic people from being able to lead knowledge production on what it means to be autistic.

6.5. Limitations and outstanding issues for future research

This section focuses on exploring the limitations of the four studies within Chapters 2 to 5 as a collective body of work. The specific limitations of each individual study are discussed within each of the relevant Chapters.

Firstly, each study included a small sample due to the funding and time limitations of the overall project together with the interpretivist approach of the thesis. This approach placed greater focus on individual experiences over larger-scale findings which are seen as more generalisable. As a result of this approach, the focus within the thesis has been on demonstrating what is possible within and between individual autistic and non-autistic readers. However, broader discussions around the similarities and differences between autistic and non-autistic readers are then limited to the samples across the four studies presented in the current thesis. Given these limitations, the overall findings of this work can be taken to show the value of exploring complex, individual experiences and how doing so can prevent stereotypical generalisations about group identity. However, in seeking to challenge societal stereotypes about autistic people and deficit-based theoretical assumptions, future research might then benefit from larger samples. Specifically, the long-standing focus on positivist approaches that place value on larger samples which are seen as offering more generalisable data means that, at least initially, future research may need to employ larger scale, quantitative approaches to bring about wider changes in how autistic people are thought about in research and wider society. However, the current thesis demonstrates the important role of inter-disciplinary, qualitative work that takes an interpretivist approach in driving the move away from deficit understandings of autism. Therefore, there is a need for a wider scale mixed-method approach, and for research teams leading quantitative enquiry to implement creative methodological designs and analytical approaches that continue to place shared human feeling and individual complexity at the forefront of knowledge production.

A related limitation of the thesis was that the samples between the four studies overlapped. Specifically, the inter-connected nature of Chapters 3 and 4 meant that all 8 readers from Chapter 3 also made-up part of the sample in Chapter 4. Of these readers, 3 of the autistic and 2 of the non-autistic participants then took part in Chapter 5 out of a desire to continue with the wider project. An additional participant from Chapter 2 also later took part in Chapter 5. As a result, the wider thesis included an overall sample of 33 autistic and 32 non-autistic participants. The

decision was made to allow overlap between the samples due to the difficulties that were faced in Chapter 2 when recruiting autistic participants alongside the importance of taking time to build trust and rapport with autistic participants in a two-way relationship that overcomes traditional power dynamics (Fletcher-Watson et al., 2019). Other participants from Chapter 2 were invited to the subsequent studies, but did not choose to participate, with the most common reason given being due to changing personal circumstances and related time constraints. The related nature of Chapters 3 and 4 meant that the influence of the method in Chapter 4 on the outcomes of Chapter 3 was an integral part of the wider method in Chapter 3 and so was accounted for in the analysis and write up of the study. However, for Chapter 5, the overlapping sample means that it is hard to discern whether findings from the 4 autistic and 2 non-autistic returning participants were influenced by having previously taken part in earlier research studies or as a direct result of the method implemented in Chapter 5. In order to reduce the impact of this overlap in Chapter 5, the lead researcher and author of the thesis incorporated the earlier findings for these participants into the analysis of their individual responses to assist with delineating findings that might have been a result of their continued involvement.

One significant issue of the small, overlapping sample that were involved in this body of work was the resultant limited diversity across the autistic participants. In seeking to challenge deficit-focused and pathologised views of autistic people, the current thesis avoids making assumptions of broader ‘functioning’ amongst the autistic participants who took part in the research. However, the autistic samples within Chapters 2-5 were predominantly highly educated individuals. Similarly, all participants communicated verbally and additionally did not have any disabilities which significantly impacted upon their reading comprehension, due to these being exclusion criteria across the studies. Exclusion criteria for reading-related disabilities were included in the research design due to ethical requirements that all autistic participants be perceived as ‘high-functioning’ within ethical definitions, in that they could provide informed consent. Additionally, the exploration of how individuals with comprehension difficulties might benefit from serious literature and shared reading would require a targeted approach to sampling and methodological design in order to remain inclusive of specific disability considerations. However, given that the current samples were for the most part highly educated, communicated verbally and lacked specific disabilities relating to reading means that the overall findings of

the thesis are not representative of autistic individuals with specific support needs around facilitated communication and reading. Importantly, the excluded groups are perhaps more likely to be stereotyped and stigmatised due to the long-standing focus on educational productivity (Evans, 2014; Waltz, 2013) and neuronormative functioning (De Hooge, 2019; Kapp & Ne'eman, 2020; Sequenzia, 2012; Waltz, 2013) within society. There is therefore a need for future research to explore how autistic participants with specific reading-based disabilities and difficulties engage with and benefit from reading, including an exploration of what factors might enable this group to get the most out of their reading. Similarly, there is a need to explore how participants who communicate non-verbally, such as via augmentative and alternative communication (AAC), can comfortably engage in shared reading and whether shared reading can reduce stigma towards this group from non-autistic readers and subsequently build mutuality. Additionally, while Chapter 3 included 3 autistic participants who were additionally from racialised minority groups, there was a lack of direct focus on intersectionality across the studies. While all studies sought to include gender balanced samples, including participants who did not identify with gender binaries, these participants were harder to reach through recruitment calls and tended to drop out of contact with the research team more often than participants from gender majorities. While the research in Chapter 3 demonstrates that the values of literature and shared reading can also apply to intersectioning identities, there is a need for further research to explore how research and shared reading designs can be adapted to most comfortably include these participants and encourage repeat engagement.

Additionally, the non-autistic participants included in this body of work did not report overt stigmatising or dehumanising views about autistic people. While the participants in Chapter 3 reported a sense of shock in later realising the implicit stigma they had held about autistic people and subsequently overcame, there were no instances of explicit stigmatised views about autism. Additionally in Chapter 5 when reading about autism and later discussing it at interview, the non-autistic participants in the sample generally did not hold overt stigma towards autistic people and instead often reported a desire to feel with or for autistic people. While Chapter 3 was then able to demonstrate the value of shared reading in overcoming implicit stigma, there is the outstanding issue of whether reading about or with autistic people would overcome stigma amongst individuals with particularly damaging overt stigmatising

and dehumanising views about autism. While such individuals would arguably seek to benefit most from feeling with autistic minds and broadly with different Others, it is not yet clear how reading could ethically be used to overcome such views while also ensuring no social or emotional harm comes to autistic readers. While Chapter 3 discussed the idea of having such individuals read about autistic minds to begin with, rather than with them in live discussion, Chapter 5 indicates that engagement with informal autistic autobiographical writing and texts talking about autistic people may reinforce restrictive categorical thinking about autistic differences. Therefore, more research is needed to explore whether personal reading can begin to move non-autistic readers, especially those who hold overt stigmatising views, into feeling with autistic minds and whether this would encourage motivation to read together with autistic people in a shared reading intervention. Specifically, more research is needed to explore whether reading about different fictional minds that are not explicitly labelled as disabled or neurodivergent (e.g., Eleanor in *Eleanor Oliphant is Completely Fine* or Lennie in *Of Mice and Men*) can open a reader up to considering difference, even when considering autism and broader neurodivergence is not the focus of the reading experience. Additionally, the limitations of the thesis, as a result of time restrictions and related scope of the project, meant that there were no explorations of how literature authored by autistic people, rather than informal autobiographical narratives, might move non-autistics reading alone to feel with autistic minds. In particular, literary life narratives (e.g., *Wintering* by Katherine May, 2020) or literary fiction (e.g., *Exciting Times* by Naoise Dolan, 2020) that are authored by autistic writers and so inherently contain embedded neurodivergent perspectives may offer a way to encourage feeling across differences without labelling group identities which risk reinforcing stereotypical, rigid thinking about differences.

6.6. Future directions

Throughout the thesis, there has been discussion for each of the four studies around how the presented findings might inform future directions. Within this Chapter in sections 6.2. to 6.5., there has also been reference to areas of the current research which may benefit from further exploration. This section therefore focuses on developing two areas in particular that could be explored as an extension of this body of research and which have not been fully considered throughout the thesis.

This body of research has demonstrated the ways in which an interpretivist, interdisciplinary approach can overcome deficit views about autistic people by focusing on the individual depths of human experience that cut across over-simplified categorisations based on neurotype. However, despite this significant contribution, there is still a long way to go both within autism research and broader society in moving away from stereotypical and stigmatising views of autism. In particular, there is a need for targeted double empathy interventions that seek to repair relationships between the autistic community and groups of individuals who have traditionally been seen as having stereotyped and stigmatised views of autistic people. For example, there is often a disparity between how autistic people and professionals working within autism research or practise think and talk about what it means to be autistic (Crane et al., 2018; Kenny et al., 2015). Therefore, future research should seek to explore whether serious literature can be used to overcome stigma towards autistic people amongst medical practitioners and autism researchers themselves who hold particularly pathological deficit-based understandings of what it means to be autistic. As discussed in the limitations of the thesis, there is a preceding need for exploration into what the pre-conditions might be for bringing together autistic people and people who hold particularly stigmatising views, such as those who view autism through a pathological lens. However, given that researchers and medical practitioners studying autism have some particular interest in what it means to be autistic (Crane et al., 2018), it is possible that these groups would have a greater willingness to come together with autistic readers within a shared reading design. What needs to be considered is what might make autistic participants most comfortable to engage in this kind of two-way intervention for overcoming stereotyping and communicative breakdowns. If such an intervention were possible, there is a potential for shared reading to significantly move societal understandings of autism away from emphasising over-simplified difference in harmful ways towards understanding the complex experiences of autistic individuals who are seen first and foremost as human beings to be felt with.

One potential use of shared reading that was not explored within this body of work is in bringing autistic readers together. Given previous findings that autistic people experience more rapport and resulting social comfort when interacting together (Crompton et al., 2020a; Crompton et al., 2020b; Heasman & Gillespie, 2019; Russell et al., 2019), it may be that autistic people engaging in shared reading

together could experience different socio-emotional benefits as a result of the experience. Additionally, an exploration of same-neurotype pairs in comparison to shared reading between mixed-neurotype pairs of autistic and non-autistic readers could offer further insights into the nuanced differences in how autistic and non-autistic people might approach and draw from complex socio-emotional content. For autistic people in particular, the current research highlights a need to explore methods which can overcome internalised stigma amongst autistic people. Although the shared reading with non-autistic adults in Chapter 3 appeared to overcome this internalised stigma, further research is needed to explore how long-lasting this effect might be and whether there are any resulting differences when autistic people read together. It could be that by seeing psychology in action through another autistic person, while feeling with them through shared discussions, that autistic people may find greater empathy for themselves and their own abilities. Furthermore, given that not all autistic people feel positive about their identity or included within the autistic community (Chapman, 2020; Kapp et al., 2013), shared reading could increase felt connections between autistic people who have largely different views and experiences of being autistic. The long-term focus on segregating the autistic community through the identification of subtypes has meant that there have also been concerns within the autistic community about the perception of lower levels of disability as advantageous (De Hooge, 2019; Kapp & Ne'eman, 2020). This means that there may exist stereotyping and stigma between autistic people with different levels of perceived functioning, which could be potentially challenged by encouraging autistic people with different types of disability to read together.

6.7. Conclusions

The current thesis aimed to explore the value of reading fiction in overcoming stigmatising, deficit-focused views towards and within autistic adults, with a view to inform the development of future shared reading interventions for this purpose. The research that is presented across this thesis has contributed to understandings about how autistic and non-autistic readers engage with reading different kinds of texts, with a focus on serious literary fiction. This wider exploration has then highlighted the nuanced social differences that appear to exist between autistic and non-autistic adults within their wider essential human similarity. Through these findings, there has also resulted an understanding of the different default ways in which autistic and

non-autistic people might approach social information. Through these findings, recommendations have then been made as to how future shared reading interventions which seek to overcome stigma and promote double empathy (Milton, 2012) might then be best designed to elicit the best social outcomes for autistic and non-autistic adult readers. Therefore, this body of research makes an important contribution to the broader area of autism psychology.

Overall, the findings contest deficit-focused understandings of autistic people by drawing attention to the equally complex socio-emotional abilities of autistic adults in the process of reading. This work here supported suggestions and findings from Milton's (2012) double empathy problem in highlighting that the autistic participants across the research were often better able to feel across differences by avoiding assumptions of shared social norms and understandings. However, in comparing the reading experiences of autistic and non-autistic participants, the research from Chapters 3 to 5 in particular demonstrated that both the autistic and non-autistic participants had different overarching default ways of thinking about social information that needed to be overcome in order for them to experience immersed involvement within a given text. The findings supported previous research in highlighting the value of serious literature in particular in being able to encourage all participants towards more open and slower thinking about social information. The findings suggest that serious literary texts exploring human adversity may better encourage non-autistic and autistic participants to feel together. However, findings from Chapter 5 indicate that future shared reading designs would benefit from a graded approach, where more familiar and modern literature is introduced first in order to encourage readers to build confidence in trusting their thoughts and feelings about the literature.

Overall, the findings across this thesis provide a significant contribution to and development of the area of autism research. The inter-disciplinary approach used throughout this thesis enabled an overcoming of the wider issue across psychology towards reducing complex human topics, such as empathy and autism, down into easily-labelled and defined concepts. Overall, this approach then moved away from positivist approaches to knowledge production, focusing instead on interpretivist explorations of how the way we think about autism has been problematically influenced by data reduction focuses within psychology. The resulting conclusions have then drawn attention to the value of embracing heterogeneity and in breaking

down the arbitrary barriers that currently differentiate autistic and non-autistic people.

In conclusion, the collective work presented within this thesis has developed understandings of the nuanced differences between autistic and non-autistic adults in approaching, engaging with and concluding from complex socio-emotional information. This research then further develops wider understandings of autism by cutting across the group boundaries between autistic and non-autistic people in order to overcome the inherent Othering that is maintained by current ways of categorising autistic people on the basis of their perceived social differences. In this way, the research also has implications for wider society in challenging the normative value that is currently placed on data reduction through generalised summarising and labelling for quick, efficient and economical processing, as compared to depth of insight, specific examples, careful language, and struggles with detailed complexity. The research has therefore highlighted the values of inter-disciplinary work in rehumanising the study of human differences.

6.8. References

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Appendices

Appendix 1: Approval letter (Study 1)

9 January 2018

Dear Prof Corcoran

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

I am pleased to inform you that your application for research ethics approval has been approved. Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee.

Application Details

Reference: 2727

Project Title:

Principal Investigator/Supervisor: Understanding Reading Habits in Adults on the Autistic Spectrum in Comparison to Neuro-Typical Adults.

Co-Investigator(s): Prof Rhiannon Corcoran, Miss Melissa Chapple, Dr Josie Billington, Prof Philip Davis

Lead Student Investigator: -

Department: Psychological Sciences

Approval Date: 09/01/2018

Approval Expiry Date: Five years from the approval date listed above

The application was **APPROVED** subject to the following conditions: **Conditions of approval**

All serious adverse events must be reported via the Research Integrity and Ethics Team (ethics@liverpool.ac.uk) within 24 hours of their occurrence.

If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.

If you wish to make an amendment to the research, please create and submit an amendment form using the research ethics system. If the named Principal Investigator or Supervisor leaves the employment of the University during the course of this approval, the approval will lapse. Therefore it will be necessary to create and submit an amendment form using the research ethics system.

It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society) iphsec@liverpool.ac.uk

0151 795 5420

Appendix 2: Approval letter (Studies 2 and 3)

1 August 2019

Dear Prof Corcoran

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

I am pleased to inform you that your application for research ethics approval has been approved. Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee.

Application Details

Reference: 3291

Project Title: Classic Fiction Reflections Between Autistic and Neurotypical Adults

Prof Rhiannon Corcoran

Principal Investigator/Supervisor: Co-Investigator(s): Miss Melissa Chapple, Dr Josie Billington, Prof Philip Davis

Lead Student Investigator: -

Department: Psychological Sciences

Approval Date: 01/08/2019

Approval Expiry Date: Five years from the approval date listed above

The application was **APPROVED** subject to the following conditions: **Conditions of approval**

All serious adverse events must be reported to the Committee (ethics@liverpool.ac.uk) in accordance with the procedure for reporting adverse events.

If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.

If you wish to make an amendment to the study, please create and submit an amendment form using the research ethics system.

If the named Principal Investigator or Supervisor changes, or leaves the employment of the University during the course of this approval, the approval will lapse.

Therefore it will be necessary to create and submit an amendment form within the research ethics system.

It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society) iphsec@liverpool.ac.uk

0151 795 5420

Appendix 3: Approval letter (Study 4)

11 July 2018

Dear Prof Corcoran

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

I am pleased to inform you that your application for research ethics approval has been approved. Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee.

Application Details

Reference: 3293

Project Title: Text Extract Preferences in Autistic Adults

Principal Investigator/Supervisor: Co-Investigator(s): Prof Rhiannon Corcoran
Miss Melissa Chapple, Prof Philip Davis, Dr Josie Billington

Lead Student Investigator: -

Department: Psychological Sciences

Approval Date: 11/07/2018

Approval Expiry Date: Five years from the approval date listed above

The application was **APPROVED** subject to the following conditions: **Conditions of approval**

All serious adverse events must be reported to the Committee (ethics@liverpool.ac.uk) in accordance with the procedure for reporting adverse events.

If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.

If you wish to make an amendment to the study, please create and submit an amendment form using the research ethics system.

If the named Principal Investigator or Supervisor leaves the employment of the University during the course of this approval, the approval will lapse. Therefore it will be necessary to create and submit an amendment form within the research ethics system.

It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society) iphsrec@liverpool.ac.uk
0151 795 5420

Appendix 4: Participant information sheet (Study 1)



Committee on Research Ethics

Participant Information Sheet

Understanding Reading Habits in Adults on the Autistic Spectrum in Comparison to Neuro-Typical Adults. Version Number 1.0. 10th November 2017

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives and GP, if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

1. What is the purpose of the study?

The purpose of this study is to investigate the relationship between autism and reading preferences, and to assess how neuro-typical reading styles might differ. Specifically, we aim to explore whether people with autistic spectrum conditions have specific preferences to certain texts, and whether these, as well as the motivators and preventive reading factors differ from a neuro-typical sample. We also want to look at how these reading factors differ between students and non-students within the two groups.

2. Why have I been chosen to take part?

Because you are 18 or over, and either have a high-functioning autism spectrum, or Asperger diagnosis or have been referred for professional assessment; or are a neuro-typical individual without a diagnosis of autism.

3. Do I have to take part?

No - Participation is voluntary and participants are free to withdraw at any time without explanation and without incurring any disadvantage. Any participant who does not want to take part, or who, having started, does not want to continue can withdraw at any time.

4. What will happen if I take part?

You will be asked during stage 1 to fill out three online questionnaires. The first will be a demographic questionnaire, this information will be kept under a participant number not under your name; the second will be a short IQ test; and the third will be the autism quotient (AQ), a questionnaire around personality traits. For stage two of the study, we will be looking for specific criteria, if after the questionnaires you meet these criteria, then you will be contacted within 7 days by one of the researchers asking if you would like to continue with the study; if you would then you will be invited to a focus group at a later date to talk about your reading habits.

Focus groups will be small (6 people or less plus 1 researcher) informal groups. The researcher will meet with your group and ask the group questions about what and why you read, allowing you the opportunity to share any information on reading that you would like to talk about. Before the focus group begins you will be asked to fill in a short questionnaire about your reading habits and preferences, which you will be asked about in detail during the recorded discussion.

5. Are there any risks in taking part?

As we are asking you about your reading preferences, we do not think there are any risks or that you will feel any discomfort or anxiety. However, if you do feel any distress you can withdraw at any time or we can discontinue this session.

6. Are there any benefits in taking part?

This study is part of a wider research project about the potential benefits of texts as an intervention for autistic individuals, so your information will be of use. By taking part you help us understand the potential benefits of this method and may potentially benefit from the texts used in the study.

7. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Professor Rhiannon Corcoran (0151 795 8153, rhiannon.corcoran@liverpool.ac.uk) and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

8. Will my participation be kept confidential?

All participant responses will be treated as confidential. During stage 1 you will be given a participant number, if you do not meet the criteria for the focus groups then we will destroy your data at this stage, likewise if you meet criteria

but do not wish to continue the study, we will destroy the data. If you are eligible to continue and are happy to attend a focus group, then you will be told your participant number in advance of the group to protect your identity during the group discussion. When you arrive, you will be reminded of your number and you will be referred to by that number during the focus group and any written reports will refer to your data by number not name. Your data will be stored under a linked anonymity system, so your consent form with your real name will be stored separately from your data for your protection. Participation is voluntary, you may withdraw from the study at any time without giving a reason. You can also request for your data to be destroyed after completing a task or the experiment as a whole if you change your mind about taking part. Due to the focus group nature of the experiment, if you wish for your data to be destroyed, we will first transcribe all other data from the recording, excluding any information provided by you and will then destroy the audio files and any other data associated with you. If you request for your data to be removed, then it will also be removed from the database and will not be included when analysing and writing up study findings.

9. What will happen to the results of the study?

The results of the study will be written up and/or published without reference to particular individuals. If you would like a copy of the final report then let the researcher know via email or at the end of the focus group.

10. What will happen if I want to stop taking part?

You may withdraw at any time, without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise, you may request that they are destroyed and that no further use is made of your responses/data.

11. Who can I contact if I have further questions?

The Principal Investigator: Professor Rhiannon Corcoran (Number: 0151 795 8153, Email: rhiannon.corcoran@liverpool.ac.uk)

Appendix 5: Participant consent form (Study 1)



Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of Research Project: *Understanding Reading Habits in Adults on the Autistic Spectrum in Comparison to Neuro-Typical Adults: Stage 2 – Focus Groups. (Version 1.0. 10th November 2017)*

Researcher(s): Melissa Chapple, Rhiannon Corcoran, Philip Davis and Josie Billington

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 10th November 2017 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I am happy for the interview to be recorded with audio technology.
5. I agree to take part in the above study.

Participant Name

Date

Signature

Name of Person taking consent

Date

Signature

Appendix 6: Standard participant information sheet (Study 2)



Committee on Research Ethics

Participant Information Sheet

Classic Fiction Reflections Between Autistic and Neurotypical Adults: Interaction Sessions and Review Interview 5.0. 3rd May 2019

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives and GP, if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

1. What is the purpose of the study?

The overall purpose of this study is to explore how autistic adults engage with a short piece of classic literature, including how it influences thoughts and feelings. For this section of the study, we are interested in how autistic and non-autistic adults interact, using reading reflections, and if this improves social understanding between the two groups.

2. Why have I been chosen to take part?

Because you are 18 or over, speak fluent English, and identify as autistic, due to diagnosis, referral or other relevant clinical suggestion without a co-occurring condition that would make it difficult to understand written text. Alternatively, you may have been invited because you are over 18, speak fluent English, and don't identify as autistic or as any other neurological diversity.

3. Do I have to take part?

No - Participation is voluntary and participants are free to withdraw at any time without explanation and without incurring any disadvantage. Any participant who does not want to take part, or who, having started, does not want to continue can withdraw at any time.

4. What will happen if I take part?

You will be asked to take part in four, one-hour long interaction sessions (maximum of one session per week). During these sessions the researcher will pair you up with another participant (a new participant will be paired with you for each session). There will be other pairs in the session with you, but this will be a maximum of three other pairs in an interview room to reduce the amount of noise in the room. This will allow us to familiarise you with other participants who you might be paired up with throughout the sessions. During the sessions we ask that you discuss your reading reflections, but you are also free to discuss anything else within your pair. No recordings of these sessions will be made; however, the researcher might make observation notes, but no personal information will be included in these. You will be asked to complete an evaluation form of your experience before all sessions, and after each session. After the four sessions you will be asked to attend a one-on-one interview online or in person with the researcher to discuss your experience of the overall research process.

5. Are there any risks in taking part?

We do not anticipate any risks or that you will feel any discomfort or anxiety. However, if you do feel any distress you can withdraw at any time or we can discontinue this session. You are allowed to take breaks during all sessions, in the event of any discomfort the researcher will discreetly assist you and help you make a decision on how best to alleviate any discomfort experiences. As you are discussing your reading experiences, with control over what reflections you discuss, we do not anticipate any discomfort from discussions.

6. Are there any benefits in taking part?

You may find that taking part in the study helps to develop your understanding of neurotypes that are different from your own (autistic or neurotypical). Your results will also help us to create future projects that aim to improve social and communication understanding between autistic and neurotypical individuals. You will receive £10 reimbursement for each of the four sessions to cover travel expenses and time spent.

7. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Professor Rhiannon Corcoran (0151 795 5365, rhiannon.corcoran@liverpool.ac.uk) and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

8. Will my participation be kept confidential?

All participant responses will be treated as confidential. During stage 1 you will have been given a participant number, all study data will be stored under your participant number, and stored separately from any demographic data collected during the screening phase and with no other identifiable information. Your data will be stored under a linked anonymity system, so your consent form with your real name will be stored separately from your data for your protection. Participation is voluntary, you may withdraw from the study at any time without giving a reason. You can also request for your data to be destroyed after completing a task or the study as a whole if you change your mind about taking part. If you request for your data to be removed, then it will also be removed from the database and will not be included when analysing and writing up study findings.

9. What will happen to the results of the study?

The results of the study will be written up and/or published without reference to particular individuals. If you would like a copy of the final report, then let the researcher know via email or at the end of the study.

10. What will happen if I want to stop taking part?

You may withdraw at any time, without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise, you may request that they are destroyed and that no further use is made of your responses/data.

11. What will happen to my data?

As a university we use personally-identifiable information to conduct research to improve health, care and services. As a publicly-funded organisation, we have to ensure that it is in the public interest when we use personally-identifiable information from people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use your data in the ways needed to conduct and analyse the research study. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

Health and care research should serve the public interest, which means that we have to demonstrate that our research serves the interests of society as a whole. We do this by following the UK Policy Framework for Health and Social Care Research.

The University of Liverpool takes great care to abide by our legal and moral obligations when handling your personal and healthcare data. Due to changes introduced in the EU General Data Protection Regulation (GDPR), we are writing to provide you with information on the lawful basis on which we are processing your data. The lawful basis for the processing of your personal data

for the research study which you have participated in is a task in the public interest.

The data you have provided for the study ‘Classic Fiction Reflections Between Autistic and Neurotypical Adults’ will be stored for a minimum of 5 years and a maximum of 8 years. You are free to withdraw your consent for your data to be collected, processed, or stored at any time. However, if the data has already been anonymised it will not be possible to withdraw your data.

We will not share your data unless you have provided explicit consent for us to do so. Your anonymised data may be shared with other academic institutions should they request the data for secondary analysis purposes.

The data controller for this study is Rhiannon Corcoran (telephone: 0151 795 8153, email: Rhiannon.corcoran@liverpool.ac.uk) and the University Data Protection Officer, Mrs Victoria Heath, can be contacted on 0151 794 2148.

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling 0303 123 1113.

12. Who can I contact if I have further questions?

The Principal Investigator: Professor Rhiannon Corcoran (Number: 0151 795 5365 Email: rhiannon.corcoran@liverpool.ac.uk)

Appendix 7: Easy-read participant information sheet (Study 2)



Classic Fiction Reflections Between Autistic and Neurotypical Adults: Interaction Sessions and Review Interview Easy Read Information Sheet Version 3.0. 3rd May 2019.

What is this study about?



You are involved in a study that looks at how autistic and non-autistic adults feel and think about classic literature. For this stage of the study, we want to look at how autistic and non-autistic adults interact when discussing their reading experiences. This is part of our wider intention to explore whether reading can improve understanding towards one another between autistic and non-autistic adults.

Why have I been invited to take part?



You were initially invited either because you are an autistic adult, or are a neurotypical adult, with no known difficulties that would prevent you from reading a short text. You have taken part in a diary task and are now being invited to attend four one-hour long sessions where you will discuss the text with another adult (a different person each week) in a naturalistic setting, during which the researcher will be present.

How will it help me?



You might find personal benefits from sharing your reading reflections with others. If you are an autistic adult, you might find that you learn more about neurotypical socialisation, and if you are non-autistic, you might find that you learn more about autistic socialisation. You will also be reimbursed £10 for each of the four sessions. We hope that you will enjoy taking part. We also hope that the results will help us support autistic and non-autistic adults in the future to better understand one another.

What information will I be asked to give?



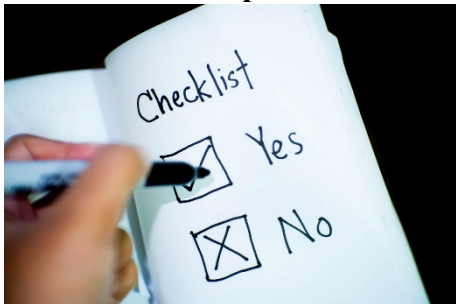
You will be asked to complete a consent form for this section of the study, this will be the final consent form you will be asked to complete. The consent form will ask you if you agree to take part in the research project after reading this information sheet.



If you agree to take part using the consent form, then you will be asked to take part in four sessions and a final interview which will include:

- Talking one-on-one for each of the four sessions with another adult who will change each week
- Being asked to fill out a short evaluation form before all sessions and then after each session
- A final interview (in person or online) with the researcher on your overall experiences during the study

Do I have to take part?



No, it is your decision if you want to take part in this study. It is ok if you do not want to take part. If you decide to take part and later change your mind you can leave the study at any point without having to explain why you chose to leave.

What will I have to do?



After signing the consent form if you are happy to carry on with the study, you will continue with the first session today, followed by a further three sessions (maximum of one session per week) and will then take part in an interview at the end of the study on your thoughts and experiences.

Will you tell anyone if I take part?



Researchers involved with this study will know you have taken part. If the ethics department want to review the study, they might also see your information, but would not tell anybody else that you have taken part. We would never pass on information about you, or use it in other research projects without your permission. Your responses will be stored under a number, separate from any information that could identify who you are, and will be reported in the same way. The consent forms you fill out will be stored in locked cabinets and kept separate from any identifying information. Sessions are not recorded, but the researcher may take observation notes, but these will not include any personal or private information.

How will I find out the results of the study?



When the study has finished and the researchers have analysed the results, they will then write up an academic report on the findings which will be sent to a scientific journal for publication. You can ask the researcher to send you a copy of the final report. We will also be aiming to summarise the research in other, autism-friendly ways, if you ask the researcher to send you the final report, they will also send you any other formats the research report is put in to.

Who is organising this study?



This study is being run by researchers at the University of Liverpool. The study is funded by the Economic and Social Research Council (ESRC).

Can I talk to the researcher before taking part?

Yes, contact the lead student research by **email**:

m.chapple@liv.ac.uk or by **telephone**: 0151 795 5375 with any questions that you have.

Appendix 8: Participant consent form (Study 2)



Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of Research Project: *Classic Fiction Reflections Between Autistic and Neurotypical Adults: Interaction Sessions and Review Interview (Version 4.0. 3rd May 2019)*

Researcher(s): Melissa Chapple, Rhiannon Corcoran, Philip Davis, Josie Billington and Sophie Williams

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 19th April 2019 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.
3. I understand that, under the General Data Protection Regulation, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I agree to take part in the above study.

_____	_____	_____
Participant Name	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature
_____	_____	_____

Signature Researcher Date

Principal Investigator

Name Rhiannon Corcoran
Email rhiannon.corcoran@liv.ac.uk
Work Address Block B
 Waterhouse Building,
 University of Liverpool
 Brownlow Hill
 Liverpool L69 3GJ.
Work Telephone 0151 795 5365

Student Researcher 1:

Name Melissa Chapple
Email m.chapple@liv.ac.uk

Version 4.0 3rd May 2019

Appendix 9: Standard participant information sheet (Study 3)



Committee on Research Ethics

Participant Information Sheet

*Classic Fiction Reflections Between Autistic and Neurotypical Adults: Reading
Dairy Recording
2.0. 3rd May 2019*

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives and GP, if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

1. What is the purpose of the study?

The overall purpose of this study is to explore how autistic adults engage with a short piece of classic literature, including how it influences thoughts and feelings. For this section of the study, we are interested in reading reflections while reading a piece of classic literature (Of Mice and Men) over the course of a week.

2. Why have I been chosen to take part?

Because you are 18 or over, speak fluent English, and identify as autistic, due to diagnosis, referral or other relevant clinical suggestion without a co-occurring condition that would make it difficult to understand written text. Alternatively, you may have been invited because you are over 18, speak fluent English, and don't identify as autistic or as any other neurological diversity.

3. Do I have to take part?

No - Participation is voluntary and participants are free to withdraw at any time without explanation and without incurring any disadvantage. Any participant who does not want to take part, or who, having started, does not want to continue can withdraw at any time.

4. What will happen if I take part?

We will send you a copy of ‘Of Mice and Men,’ either in digital or physical format, depending on your preference, alongside a diary template (which can be sent as a word document or in print format) which will contain specific instructions. We ask that over the course of a week you read ‘Of Mice and Men’ each day for six days and complete the section of the diary that relates to the part of the text you read that day; the 7th day will be post-reflection tasks about the text. At the end of the 7 days, you will be asked to send the diary back to the researcher.

If you continue with the study, part three will require you to attend the University of Liverpool for four sessions (you will be reimbursed £10 per session) and a one-on-one interview. The sessions will involve you discussing your book reflections with another participant of a different neurotype from your own (autistic or neurotypical).

5. Are there any risks in taking part?

We do not think there are any risks or that you will feel any discomfort or anxiety. However, if you do feel any distress you can withdraw at any time or we can discontinue this session. Everybody will receive the same piece of classic literature, Of Mice and Men, and if you feel uncomfortable reading this text before, or during the study you can withdraw at any time.

6. Are there any benefits in taking part?

You may find that taking part in the study helps to develop your understanding people of a different neurotype from your own (autistic or neurotypical). Your results will also help us to create future projects that aim to improve social and communication understanding between autistic and neurotypical individuals. You will receive £10 reimbursement for the diary section and for each of the four sessions to cover travel expenses and time spent, as well as a digital or physical copy of ‘Of Mice and Men’.

7. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Professor Rhiannon Corcoran (0151 795 5365, rhiannon.corcoran@liverpool.ac.uk) and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

8. Will my participation be kept confidential?

All participant responses will be treated as confidential. During stage 1 you will be given a participant number, if you do not meet the criteria for stage 2 then we will destroy your data at this stage, likewise if you meet criteria but do not wish to continue the study, we will destroy the data. Your diary data will be stored under your participant name, separately from any demographic data collected during the screening phase and with no other identifiable information. Your data will be stored under a linked anonymity system, so your consent form with your real name will be stored separately from your data for your protection. Participation is voluntary, you may withdraw from the study at any time without giving a reason. You can also request for your data to be destroyed after completing a task or the study as a whole if you change your mind about taking part. If you request for your data to be removed, then it will also be removed from the database and will not be included when analysing and writing up study findings.

9. What will happen to the results of the study?

The results of the study will be written up and/or published without reference to particular individuals. If you would like a copy of the final report then let the researcher know via email or at the end of the study.

10. What will happen if I want to stop taking part?

You may withdraw at any time, without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise, you may request that they are destroyed and that no further use is made of your responses/data.

11. What will happen to my data?

As a university we use personally-identifiable information to conduct research to improve health, care and services. As a publicly-funded organisation, we have to ensure that it is in the public interest when we use personally-identifiable information from people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use your data in the ways needed to conduct and analyse the research study. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

Health and care research should serve the public interest, which means that we have to demonstrate that our research serves the interests of society as a whole. We do this by following the UK Policy Framework for Health and Social Care Research.

The University of Liverpool takes great care to abide by our legal and moral obligations when handling your personal and healthcare data. Due to changes introduced in the EU General Data Protection Regulation (GDPR), we are

writing to provide you with information on the lawful basis on which we are processing your data. The lawful basis for the processing of your personal data for the research study which you have participated in is a task in the public interest.

The data you have provided for the study ‘Classic Fiction Reflections Between Autistic and Neurotypical Adults’ will be stored for a minimum of 5 years and a maximum of 8 years. You are free to withdraw your consent for your data to be collected, processed, or stored at any time. However, if the data has already been anonymised it will not be possible to withdraw your data.

We will not share your data unless you have provided explicit consent for us to do so. Your anonymised data may be shared with other academic institutions should they request the data for secondary analysis purposes.

The data controller for this study is Rhiannon Corcoran (telephone: 0151 795 8153, email: Rhiannon.corcoran@liverpool.ac.uk) and the University Data Protection Officer, Mrs Victoria Heath, can be contacted on 0151 794 2148.

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling 0303 123 1113.

12. Who can I contact if I have further questions?

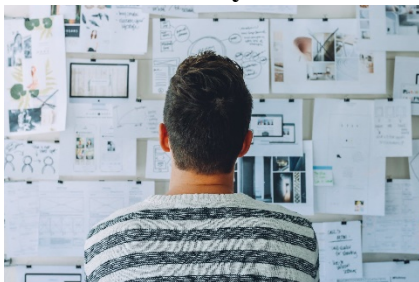
The Principal Investigator: Professor Rhiannon Corcoran (Number: 0151 795 5365 Email: rhiannon.corcoran@liverpool.ac.uk)

Appendix 10: Easy-read participant information sheet (Study 3)



Classic Fiction Reflections Between Autistic and Neurotypical Adults: Reading Diary Reflections Easy Read Information Sheet Version 1.0. 3rd May 2019.

What is this study about?



You have been invited to take part in a research study about how autistic and neurotypical adults feel and think about classic literature. The study will also explore whether sharing these reflections can improve understanding between autistic and neurotypical adults.

Why have I been invited to take part?



We are inviting adults to take part in the research, who are over the age of 18 and speak fluent English. You have been invited either because you are an autistic adult, or are a neurotypical adult, with no known difficulties that would prevent you from reading a short text. You have been invited to read a short classical literary text (*Of Mice and Men*) for 1 week, whilst keeping a reflective diary of your experiences. If you continue with the study, you will later be invited to attend some in-person sessions where you talk about your experiences with another participant and complete an interview. This consent process is for the reflective diary section only.

How will it help me?



For the overall study, you might find personal benefits from sharing your reading reflections with others. You will also be reimbursed £10 for each of the four sessions and the diary task. We hope that you will enjoy taking part. We also hope that the results will help us support autistic and non-autistic adults in the future to better understand one another.

What information will I be asked to give?



For the rest of the study, you will be asked to complete two more consent forms, one will be for this section of the study and another if you continue with the four sessions and interview. This form will ask you if you agree to take part in the reflective diary keeping after reading this information sheet.



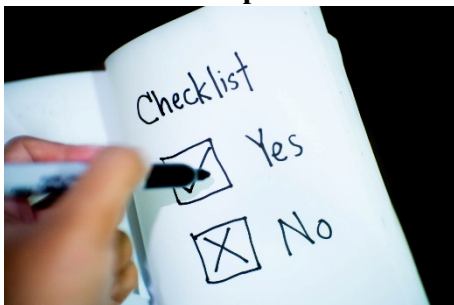
If you agree to take part using the first consent form, you will be asked to complete a reading task which will involve:

- Reading 'Of Mice and Men' at a rate of one chapter per day for six days
- Filling out the diary template you will receive based on the part of the text you read each day
- Completing some reflective tasks in the diary template on day 7 that encourage you to think about the overall text

If you continue to part three you will be invited to four sessions at the University of Liverpool where you will discuss your reflections with the participants of a different neurotype (autistic or neurotypical) one-on-one, and will complete an

interview with the researcher (in person or online) after all of the sessions end.

Do I have to take part?



No, it is your decision if you want to take part in this study. It is ok if you do not want to take part. If you decide to take part and later change your mind you can leave the study at any point without having to explain why you chose to leave.

What will I have to do?



If you want to take part email the researcher (details below) expressing your interest. You can take some time to ask the researcher questions via email or phone (phone number at the end of this sheet) before you progress with the study.

Will you tell anyone if I take part?



Researchers involved with this study will know you have taken part. If the ethics department want to review the study, they might also see your information, but would not tell anybody else that you have taken part. We would never pass on information about you, or use it in other research projects without your permission. Your responses will be stored under a number, separate from any information that could identify who you are, and will be reported in the same way. The consent forms you fill out will be stored in locked cabinets and kept separate from any identifying information.

How will I find out the results of the study?



When the study has finished and the researchers have analysed the results, they will then write up an academic report on the findings which will be sent to a scientific journal for publication. You can ask the researcher to send you a copy of the final report. We will also be aiming to summarise the research in other, autism-friendly ways, if you ask the researcher to send you the final report, they will also send you any other formats the research report is put in to.

Who is organising this study?



This study is being run by researchers at the University of Liverpool. The study is funded by the Economic and Social Research Council (ESRC).



Can I talk to the researcher before taking part?

Yes, contact the lead student research by **email:** m.chapple@liv.ac.uk or by **telephone:** 0151 795 5375 with any questions that you have.

Appendix 11: Participant consent form (Study 3)



PARTICIPANT CONSENT FORM

Title of Research Project: *Classic Fiction Reflections Between Autistic and Neurotypical Adults: Reading Diary Recording (Version 1.0. 3rd May 2019)*

Researcher(s): Melissa Chapple, Rhiannon Corcoran, Philip Davis, Josie Billington

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 3rd May 2019 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.
3. I understand that, under the General Data Protection Regulation, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I agree to take part in the above study.

_____	_____	_____
Participant Name	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature
_____	_____	_____

Signature Researcher Date

Principal Investigator

Name Rhiannon Corcoran
Email rhiannon.corcoran@liv.ac.uk
Work Address Block B
 Waterhouse Building,
 University of Liverpool
 Brownlow Hill
 Liverpool L69 3GJ.
Work Telephone 0151 795 5365

Student Researcher 1:

Name Melissa Chapple
Email m.chapple@liv.ac.uk

Version 1.0. 3rd May 2019

Appendix 12: Standard participant information sheet (Study 4)



Committee on Research Ethics

Participant Information Sheet

A Qualitative Analysis of the Benefits and Drawbacks of Various Text Extracts in Autistic Adults. Version Number 3.1. 27th August 2020.

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives and GP, if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

Thank you for reading this.

1. What is the purpose of the study?

The purpose of this study is to explore the preferences autistic and non-autistic adults have for types of text, exploring which are maximally beneficial for skill development. Specifically, we are interested in whether certain types of texts enhance the development of specific skills.

2. Why have I been chosen to take part?

Because you are 18 or over, speak fluent English, and identify as having high-functioning autism or Asperger Syndrome, due to diagnosis, referral or due to other relevant means. Or because you are 18 or over, fluent in English and do not have a neurodevelopmental condition or identify as autistic.

3. Do I have to take part?

No - Participation is voluntary and participants are free to withdraw at any time without explanation and without incurring any disadvantage. Any participant who does not want to take part, or who, having started, does not want to continue can withdraw at any time.

4. What will happen if I take part?

You will be asked during stage 1 to fill out three online questionnaires. The first will be a demographic questionnaire, this information will be kept under a participant number not under your name; the second will be a short IQ test, and the third will be the autism quotient (AQ), a questionnaire around autistic personality traits. For stage two of the study, we will be looking for specific criteria, if after the questionnaires you meet these criteria, then you will be contacted within 7 days by one of the researchers asking if you would like to continue with the study; if you would, then you will be invited to the next phase of the study where you will listen to and read 8 short texts followed by some questions about each. We will then invite you to a follow-up interview about these texts.

5. Are there any risks in taking part?

As we are asking you about your reading preferences and reactions to text, we do not think there are any risks or that you will feel any discomfort or anxiety. However, if you do feel any distress you can withdraw at any time or we can discontinue this session.

6. Are there any benefits in taking part?

This study is part of a wider research project about the potential benefits of texts as a support-based intervention for autistic individuals who wish to improve their skills, especially around social interaction, so your information will be of use. By taking part you help us understand the potential benefits of this method and may potentially benefit from the texts used in the study.

You will also be reimbursed £10 for your time, per section you take part in (2 in total), to time lost from taking part. When attending an interview, you are still free to withdraw at any point, and will still receive reimbursement for your time/travel expenses should you choose to withdraw after the point of attending an interview.

7. What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Professor Rhiannon Corcoran (0151 795 5365, rhiannon.corcoran@liverpool.ac.uk) and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

8. Will my participation be kept confidential?

All participant responses will be treated as confidential. During stage 1 you will be given a participant number, if you do not meet the criteria for the interview stage then we will destroy your data at this stage, likewise if you

meet criteria but do not wish to continue the study, we will destroy the data. If you are eligible to continue and are happy to attend an interview, then you will be told your participant number in advance of the group to protect your identity during the group discussion. When you arrive, you will be reminded of your number and you will be referred to by that number during the interview, and any written reports will refer to your data by number not name. Your data will be stored under a linked anonymity system, so your consent form with your real name will be stored separately from your data for your protection. Participation is voluntary, you may withdraw from the study at any time without giving a reason. You can also request for your data to be destroyed after completing a task or the study as a whole if you change your mind about taking part. Due to multiple participants being interviewed at a time, if you wish for your data to be destroyed, we will first transcribe all other data from the recording, excluding any information provided by you and will then destroy the audio files and any other data associated with you. If you request for your data to be removed, then it will also be removed from the database and will not be included when analysing and writing up study findings.

9. What will happen to the results of the study?

The results of the study will be written up and/or published without reference to particular individuals. If you would like a copy of the final report then let the researcher know via email or at the end of the interview.

10. What will happen if I want to stop taking part?

You may withdraw at any time, without explanation. Results up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise, you may request that they are destroyed and that no further use is made of your responses/data.

11. Who can I contact if I have further questions?

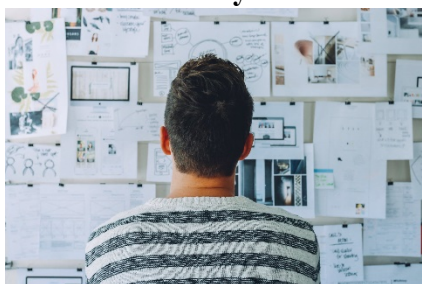
The Principal Investigator: Professor Rhiannon Corcoran (Number: 0151 795 5365 Email: rhiannon.corcoran@liverpool.ac.uk)

Appendix 13: Easy-read participant information sheet (Study 4)



Text Extract Preferences in Autistic and Non-Autistic Adults Easy Read Information Sheet Version 2.1. 27th August 2020

What is this study about?



You have been invited to take part in a research study about autism. In this study, we want to find out which types of text are preferred by autistic and non-autistic adults. We also want to find out if any of the texts have benefits for autistic or non-autistic adults.

Why have I been invited to take part?



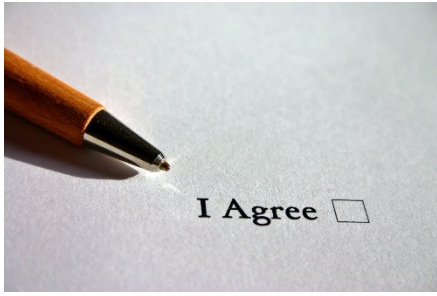
We are inviting autistic and non-autistic adults to take part in the research and listen to eight short audio recordings of texts being read aloud, while reading the text. After this you will be invited to a Skype interview where we will talk to you about these texts and your preferences.

How will it help me?

The study will not help you personally, but we will give you £10 to allow for time lost from taking part per interview (2 sections total with reimbursement). We hope that you will enjoy taking part. We also hope that the results will help us support autistic adults in the future, who want to build on skills, for example socialising or imagination.



What information will I be asked to give?



You will be asked to complete a consent form three times, once before the questionnaires and once during each of the two sections. This form will ask you if you agree to take part in the research project after reading this information sheet and the standardised information sheet provided.



If you agree to take part using the first consent form, you will be asked to complete 3 questionnaires online. The questionnaires will cover:

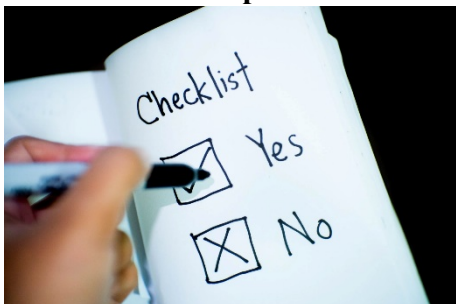
- Information about yourself, like your age and gender (these will be kept separate from your name to protect your identity)
- Autistic personality traits
- A task where you will be asked to pick which of 4 images match each word in a list

If you have been a participant in any of our other research projects you do not need to complete any questionnaires.



If you choose to fill out the questionnaires, we might invite you to do the extract task, followed by an interview using Skype. The interview will be one-on-one with yourself and the researcher. Interviews are informal, in that you are not being assessed, we simply want to find out what your preferences are. You will be sent 8 extracts with audio files of the texts being read aloud. You may request the follow-up interview questions ahead of time.

Do I have to take part?



No, it is your decision if you want to take part in this study. It is ok if you do not want to take part. If you decide to take part and later change your mind you can leave the study at any point without having to explain why you chose to leave.

What will I have to do?



If you want to take part and are using an online link then click next and fill out the consent form, which will then show you the questionnaires, one at a time, complete these and they will be returned to the researcher. Leave your email at the end if you are happy to take part in the interviews, and the researcher will email you with the next set of details. If you are viewing this in-person before the start of an interview then fill out the consent form and hand it to the researcher who will begin the interview.

Will you tell anyone if I take part?



Researchers involved with this study will know you have taken part. If the ethics department want to review the study, they might also see your information, but would not tell anybody else that you have taken part. We would never pass on information about you, or use it in other research projects without your permission. Your responses will be stored under a number, separate from any information that could identify who you are, and will be reported in the same way. The consent forms you fill out will be stored in locked cabinets and kept separate from any identifying information.

How will I find out the results of the study?



When the study has finished and the researchers have analysed the results, they will then write up an academic report on the findings which will be sent to a scientific journal for publication. You can ask the researcher to send you a copy of the final report. We will also be aiming to summarise the research in other, autism-friendly ways, if you ask the researcher to send you the final report, they will also send you any other formats the research report is put in to.

Who is organising this study?



UNIVERSITY OF
LIVERPOOL

This study is being run by researchers at the University of Liverpool. The study is funded by the Economic and Social Research Council (ESRC).



Can I talk to the researcher before taking part?

Yes, contact the lead student research by **email:** m.chapple@liv.ac.uk or by **telephone:** 0151 795 5375 with any questions that you have.

Appendix 14: Participant consent form (Study 4)



Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of Research Project: *A Qualitative Analysis of the Benefits and Drawbacks of Various Text Extracts in Autistic and Non-Autistic Adults: Stage 2. (Version 3.1. 27th August 2020)*

Researcher(s): Melissa Chapple, Rhiannon Corcoran, Philip Davis and Josie Billington

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 27th August 2020 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I am happy for the interview to be recorded with audio technology.
5. I agree to take part in the above study.

Participant Name

Date

Signature

Name of Person taking consent

Date

Signature

Appendix 15: Reading habits questionnaire implemented in Chapter 2

Reading Habits Questionnaire

Version 1.0. November 11th 2017

Adapted from the Reading and Media Habits Questionnaire by Stanovich and West (1989)

Please circle the letter of the answer which is most accurate.

1. I read for pleasure (including books and articles)...

- a. Once or more a day
- b. At least once a week
- c. A couple of times a month
- d. A couple of times a year
- e. Almost never

2. Excluding course textbooks, how many books did you read in the past 12 months?

- a. More than 40
- b. 10-40
- c. 3-10
- d. One or two
- e. None

3. Excluding the University library, which of the following is true?

- a. I have library cards to more than one community library
- b. I have one library card for a community library
- c. I do not have a community library card

4. How many magazines do you yourself (not your family) subscribe to or purchase on a regular basis?

- a. More than 10
- b. 5-10
- c. 2-10
- d. One
- e. None

5. I visit bookstores

- a. Once or more a week
- b. Once or twice a month
- c. Once or twice a year
- d. Never

6. Regarding newspapers (including online news articles), I usually...

- a. Read more than one a day.
- b. Read a newspaper or article every day.
- c. Read a daily newspaper or article occasionally.
- d. Do not have time to read a daily newspaper or article.
- e. Do not care to read a daily newspaper or article even if I have the time.

7. Which of the following do you prefer to read?

- a. Fiction

- b. Non-fiction
- c. Both to an equal extent

8. Which do you read more frequently, regardless of preference?

- a. Fiction
- b. Non-fiction
- c. Both to an equal extent

9. Which of the following fiction genres do you prefer to read (please choose one only)?

- a. Fantasy
- b. Science-fiction
- c. Comedy
- d. Literary or classic
- e. Young adult fiction
- f. Horror or thriller
- g. Crime or mystery
- h. Historical
- i. Action
- j. Romance
- k. Other (state which below)

9. Which of the following non-fiction genres do you prefer to read (please choose one only)?

- a. Biography or autobiography
- b. Journalism
- c. Self-help and lifestyle (e.g. meditation)
- d. Textbooks or academic reading
- e. Encyclopaedias
- f. Skill development (e.g. crafts/coding/languages)
- g. Manuals (e.g. DIY/gaming)
- h. Comedy
- i. other (state which below)

Appendix 16: Chapter 5 text extract: Interview with Gretchen Rubin

Extract from 'Expert Interview with Gretchen Rubin on Finding Happiness for Mint'

Despite the fact that she's spent years studying the concept of happiness and how we can get happy, bestselling author and blogger Gretchen Rubin refuses to ascribe an exact definition to the word.

It's not that she doesn't understand the usefulness of precise definitions - she once spent an entire semester in law school discussing the meaning of a "contract" - and she cites one positive psychology study that identified 15 different academic definitions of happiness. But for her, spending a lot of energy exploring the distinctions among "positive affect," "subjective well-being," "hedonic tone," and myriad of other terms didn't seem necessary.

Instead, she followed the hallowed tradition set by Supreme Court Justice Potter Stewart, who defined obscenity by saying, "I know it when I see it," or Louis Armstrong, who said, "If you have to ask what jazz is, you'll never know."

"Even people who can't agree on what it means to be 'happy' can agree that most people can be 'happier,' according to their own particular definition," she said. "I know when I feel happier. That was good enough for my purposes."

Gretchen, whose book *The Happiness Project* has sold more than 1.5 million copies in North America alone, recently checked in with us to discuss (what else?) happiness. More specifically, ideas for how we can get happy, the biggest roadblocks to our own happiness and reflections on how happiness and money relate to each other. Read on for her take:

Tell us about The Happiness Project...what is it? Why did you start it?

One April day, on a morning just like every other morning, I had a sudden realization: I was in danger of wasting my life. As I stared out the rain-spattered window of a city bus, I saw that the years were slipping by. "What do I want from life, anyway?" I asked myself. "Well...I want to be happy." But I had never thought about what made me happy, or how I might be happier.

I had much to be happy about. I had a great husband and two delightful young daughters; I was a writer, after starting out as a lawyer; I was living in my favourite city, New York; I had close relationships with my parents, sister and in-laws; I had friends; I had my health; I didn't even have to colour my hair. But too often I sniped at my husband or the cable guy. I felt dejected after even a minor professional setback. I drifted out of touch with old friends, I lost my temper easily.

I wasn't depressed, and I wasn't having a midlife crisis, but I was suffering an adulthood malaise - a recurrent sense of discontent, and almost a feeling of disbelief.

But though at times I felt dissatisfied, that something was missing, I also never forgot how fortunate I was. I had everything I could possibly want - yet I was failing to appreciate it. I didn't want to keep taking these days for granted.

"I've got to tackle this," I reflected. "As soon as I have some free time, I should start a happiness project." But I never had any free time. When life was taking its ordinary course, it was hard to remember what really mattered; if I wanted a happiness project, I'd have to make the time.

I grasped two things: I wasn't as happy as I could be, and my life wasn't going to change unless I made it change. In that single moment, with that realization, I decided to dedicate a year to trying to be happier.

Every month, for a year, I tackled one area that would boost my happiness, such as marriage, parenthood, energy, mindfulness, leisure and work.

I gained so much from doing this happiness project that I did a second one, to focus on being happier at home - which I wrote about in a book called, appropriately enough, *Happier at Home*. I realized that for just about everyone, home had a special role to play in a happy life. I dug deep into areas such as possessions, family and neighbourhood.

Why do you think we struggle so much with finding and understanding our own happiness?

Before I started my happiness project, I never spent any time thinking about happiness, or what I could do to be happier - and I think that's very common. It takes a lot of reflection, and sometimes painful self-knowledge, to figure out our own interests, values and nature.

What are some of the biggest complaints, concerns or questions your readers come to you with about happiness?

I noticed that an issue that comes up over and over is habit-formation. When people talk about a big happiness challenge that they struggle with, or a big boost they've managed to make in their happiness, very often they talk about their habits.

That's why my next book, *Better Than Before*, is about how we make and break habits. Whether it's getting more sleep, exercising regularly, turning off a cellphone, finishing a Ph.D. thesis, or meditating, changing a habit allow us to change our lives.

What are the steps the average person needs to take in the journey to happiness?

First, identify your aims. Ask yourself:

- What makes you feel good? What gives you joy, energy, fun?
- What makes you feel bad? What brings you anger, guilt, boredom, dread?
- What makes you feel right? What values do you want your life to reflect?

- How can you build an atmosphere of growth - where you learn, explore, build, teach, help?

Next, make resolutions to build habits that are concrete and manageable. "Play with my dog each morning" is more effective than "Get more fun out of life."

Track your resolutions by finding a way to hold yourself accountable.

Where do you find the fuel for your happiness - are there books you read? Activities you participate in? People who re-energize you?

All these things! I love to read, and I spent a huge amount of time reading any book that touches on my subjects - happiness, and now habits. Whenever I come across an idea that resonates with me, I test it in my own life. And I get a huge amount of energy and ideas from talking to the people around me.

What have you learned about the relationship between happiness and money?

The relationship between money and happiness was one of the most interesting, most complicated and most sensitive questions in my study of happiness.

We often see the argument, "Money can't buy happiness," but it certainly seems that, whatever any economist or social scientist might claim, people appear fairly well convinced that money matters to their happiness.

So, am I arguing that "Money can buy happiness?" The answer: No. That's clear. Money, alone, can't buy happiness.

But can money help buy happiness? The answer: Yes, used wisely, it can. Whether rich or poor, people make choices about how they spend money, and those choices can boost happiness or undermine happiness. You might buy cocaine, or you might buy a dog. You might splurge on a big-screen TV, or you might splurge on a new bike.

Money affects people in different ways. No statistical average can say how a particular individual would be affected by money - depending on that individual's circumstances and temperament. You might live in an expensive big city, or in the country. You might have aging parents and several young children, or you might be single. You might love to travel and ride horses, or you might love to watch movies at home. What matters are our choices and habits.

How do you think the age of social media and constant exposure to other people's personal lives has affected our happiness?

This is a subject of tremendous study right now. It's a fascinating question.

Most people tend to emphasize the downsides of social media - for instance, that people feel bad when they compare their lives to the shiny picture presented of other people's lives.

From my own experience, though, I'd say that the good outweighs the bad. One of the most important elements of a happy life - probably the most important element - is strong relationships with other people.