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Reading, literature, and psychology in action

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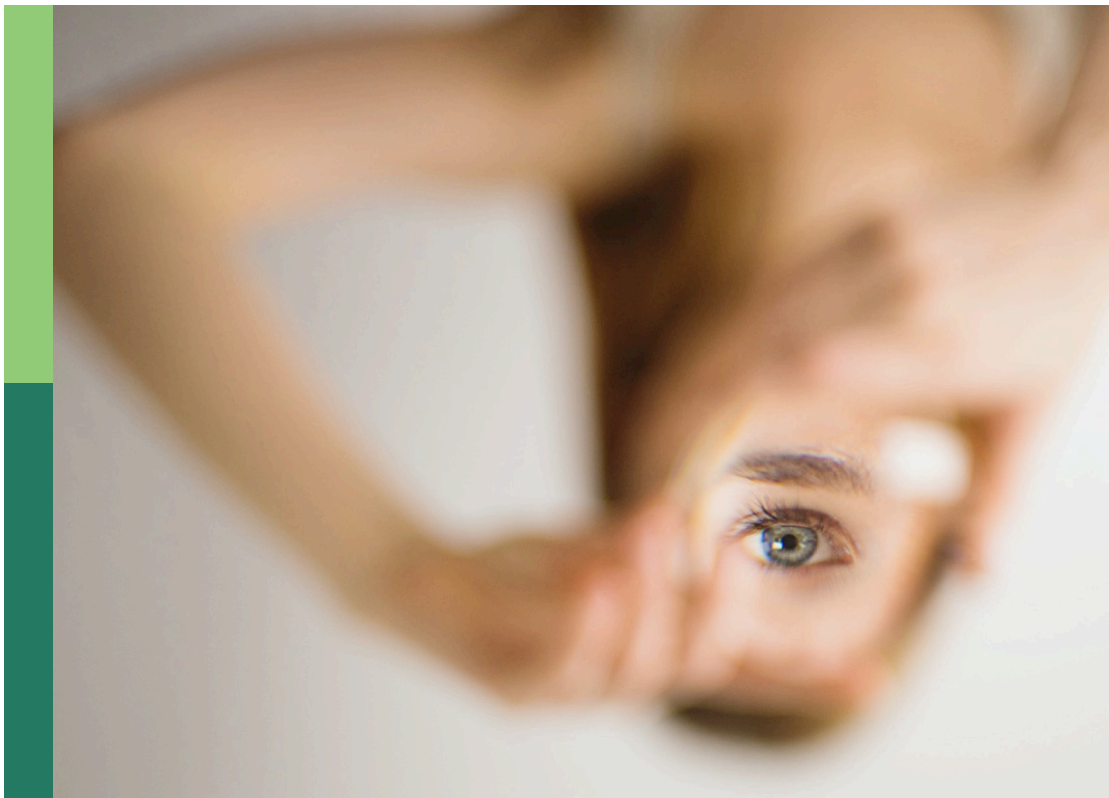

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Reading, literature, and psychology in action

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Editorial: Reading, literature, and psychology in action

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Editorial on the Research Topic
Reading, literature, and psychology in action

Introduction

In asserting that the reading of literature is psychology in action we mean many things: from seeing individuals and groups work through complex social scenarios as they consider and contemplate feelings, memories and problems, and weigh up options and alternatives within the comfort of their own minds; to watching the benefit that mastering "hard" texts brings to those who previously believed they could not do so. The gaining of what we might easily call "confidence," the movement from passivity to mental action, has the power to catalyze change beyond the literary, into the taking of life opportunities. Thus, we propose that the practice of shared reading in groups where there is opportunity to learn about other minds, to assess and contrast your thoughts and feelings to those of others provides a live and explicit demonstration of minds interacting amid a shared mission and with a combined purpose. A real showcasing of the skill that psychologists call "Theory of Mind," first introduced by Premack and Woodruff (1978). In shared reading settings there is both the opportunity to represent several other's cognitive and emotional states and to judge your responses against those of others with a view to appraising or re-appraising them. With several authors now interested in the role that reading fiction can play in honing socio-cognitive and empathic skills (e.g., Mar et al., 2006; Kidd and Castano, 2013), the door to the use of fiction as an option for those whose theory of mind skills are argued to be compromised is open.

In an interview conducted in 2016 for the Washington Post, Keith Oatley described books as "life simulators" (Kaplan, 2016). For us, this term reaches into the heart of what literature can do. By providing the opportunity to experience the world with others in simulatory or "as if" mode we can consider life's experiences from a less directly problem-oriented, more metaphorical stance. In so doing, we engage a less well-used type of information processing, perhaps a more creative form of thinking that triggers more than common or garden problem solving, allowing freer rein to consider looser, novel, more dispersed connections and possibilities (Bottini et al., 1994; Diaz and Eppes, 2018).

Further, the nature of literary fiction simulates a life that many readers may never themselves have the opportunity to experience directly. Other worlds are uncovered with new thoughts and feelings released by them, encouraging mental flexibility and a more open emotional consideration of life events, yours and others, generally. This has been one finding of the research conducted by the Center for Reading Literature and Society, a collaboration of English literature specialists, psychologists, and medical academics and practitioners at the University of Liverpool, researching the effects on the human psyche of reading serious literature. In the Centre's studies with its practice partner, The Reader, which delivers over 600 reading groups in community, clinical and secure settings in the UK and beyond, this release of new thoughts and the broadening of emotional responses to life's experiences as well the invaluable opportunity to reason analogously (in "as if" mode) have been witnessed time and again in action during reading groups involving people with common mental health, substance use issues, chronic pain and dementia for example (https://www.thereader.org.uk/about-us/our-research/).

But for now, let us more fully illustrate the power of literary reading amid the context of adversity and trouble. Adverse Childhood Experiences (ACEs) are much more common than we like to acknowledge and their toll on wellbeing, mental and physical health underpins some of the enduring inequities of health, life expectancy and healthy life expectancy (Bellis et al., 2013). This is because, being rooted in childhood, they are experiences set, like landmarks and follies, within our information processing system, governing how we see the world and how we navigate our way through it across the life course. As intensely emotional experiences, they have the power to bias memory and executive functioning systems (Ibrahim et al., 2022) and, in so doing, set a course to life that aims to protect the self by establishing a way of tackling the world to avoid further adversities.

In this context of ACES and their cognitive and emotional legacy, we employ "safety behaviors," as psychologists call them—avoidant strategies that serve us well in the short term by side-stepping further trauma. While these behaviors and strategies work well to keep us out of harm's way in the short term, they generally steer us poorly into and through adult life (McManus et al., 2008). The default decision-making style is one that is founded on the anticipation of unhappy outcomes and our behaviors, guided by this style, ramp up the manner and extent to which we keep ourselves safe, at least for the time being. This channeling of permitted experience almost inevitably leads to isolation and to lives less than well-lived—a predetermined route whose course is set by initial adversity and the automatic prediction of further danger. Things become set and, as a result, we become stuck in a particular way of understanding and dealing with the world.

In illustrating the power of literature to mitigate adversity, specific case-histories provide the most vital initial evidence. Someone, who we'll call Hattie, described her experience of ACES and how reading helped her in a piece of writing sent to one of us:

> *In my room again, trying not to listen too carefully to their argument. Angry, loud words—"immature," "leaving," "the children" and then, the slamming door—work as arrows to pierce my flimsy shield. These words do break my bones. But I manage to stay alive, scathed but still here… to overhear another bout. Maybe later today… or tomorrow. Most likely though I'll be tip-toeing amongst the tense silent wreckage of this discorded house, resting there for some unknowable time to come. She goes to her bed, he to his bottle.*

Happily, Hattie's adult life has been, on the face of it at least, a successful one. Something protected her beyond her own safety behaviors. Here, she tells us what that is:

> *It was these times when I read. We had loads of faded orange and white Penguin classics on bookshelves here and there about the house. Both parents read when they weren't themselves starring in "Who's Afraid of Virginia Woolf?".*
>
> *I was lucky that way—not just finding mental escape but making some alternative sense of things within the house from which I was escaping. I was too scared to escape by actually leaving—in case things got better, or in case I missed even the yellings which I thought were somehow my fault and my responsibility.*
>
> *Thomas Hardy's landscapes played their part in the rescue of me, and D.H. Lawrence provided my nourishment. The finding that words could be used like that; not just to break bones but to soothe and to open-up. Making me ready to be vulnerable… in another place. Coming to understand that lives were supposed to be hard, amongst the love and the land. Drifting away to join Hardy's Tess and Lawrence's Gypsy. These folk filled a void where familial comfort should have been.*

But at university Hattie studied psychology rather than literature, for being more ostensibly relevant to the situation in which she had grown up. Indeed she later became a psychologist. She was like many young people pulled into the study of psychology because of the things that have happened to them. But she now says, *"While psychology promises that, it too often fails to deliver."*

From her own traumatic background, Jeanette Winterson studied literature at Oxford, a reader who then became a writer. In her autobiography, *Why Be Happy When You Could Be Normal?* (Winterson, 2011) she advocates the power of fiction rather than fact, though her adopted mother had banned novels because those were the dangerous books "there was trouble in" (p. 37):

> *Reading things that are relevant to the facts of your life is of limited value. The facts are, after all, only the facts, and the yearning passionate part of you will not be met there. That is why reading ourselves as a fiction as well as fact is so liberating. The wider we read the freer we become. (p. 117)*
>
> *I had no one to help me, but the T. S. Eliot helped me.*
>
> *So when people say that poetry is a luxury, or an option, or for the educated middle classes, or that it shouldn't be read at school because it is irrelevant, or any of the strange stupid things that are said about poetry and its place in our lives, I suspect that the people doing the saying have had things pretty easy. A tough life needs a tough language—and that is what poetry is. That is what literature offers—a language powerful enough to say how it is. It isn't a hiding place. It is a finding place. (p. 40)*

Poetry wasn't merely a soft flowery language offering escapism: the language was as powerful—in triggering emotions and memories, and in stimulating responsive mental faculties—as the obstacles and pains the young woman suffered. "Turn your fear into a safeguard," an

equivalent young woman is urged in George Eliot's *Daniel Deronda* (Eliot, 1876/1998): "We are not always in a state of strong emotion, and when we are calm we can use our memories and gradually change the bias of our fear, as we do our tastes. Take your fear as a safeguard. It is like quickness of hearing. It may make consequences passionately present to you. Try to take hold of your sensibility, and use it as if it were a faculty, like vision" (chapter 36).

If the reading of literature has the power to alter minds and change lives in the way Hattie the psychologist and Jeanette the novelist describe, then how it does so becomes a question in which the discipline of psychology ought to be interested. However, sensitively to address and develop this question, the standardized understandings of psychology need to mingle with a deep knowledge of literature and the practice of reading. Transdisciplinary scholarship and practice can produce better informed, grounded models and theories that improve our understanding of humanity at its best even while struggling amidst its worst.

Within their own realms, we allege that both Psychology and English literature have become closed in and rigidified by their own brands, methods and approaches. Both need opening up to enjoy the fresh air of cross-talk. Graduates of both disciplines deserve the chance to see reading and psychology in action. In both, as also in students of philosophy, the will to make sense of things (Dennett, 1998) is or should be the prompt and center of study. In advocating an academic seesaw, we see the interaction between literature and psychology as a site for practice informing, challenging and revising theory as much as theory informing, challenging and revising practice.

This Research Topic concentrates on the benefits to psychology, both as a formal discipline (with a capital P) and as the arena of all human need. Here we claim that the interaction between psychology and literature demonstrated in these pages is for the benefit of Psychology itself by the challenge of its often simplified orthodoxies, its insufficiently tested pillars, its imprisoning boxes and arrows—and the temptation of its too ready acceptance of the efficient information-processing mission. In their papers, both Chapple et al.[1] and Andersen, in relation to autistic people and people suffering from cancer, respectively, challenge the model of "efficiency": that idea of information-processing and data-reduction, in the economy of summary and paraphrase and labeling, which must once have offered human beings an advantage in their evolution. But now the defaults and the literalisms threaten our understanding of complexity, our emotional intelligence and a true educational development. Through literature however, as an unsettling model of felt human experience in action, we can learn or relearn the full complexity of individual differences; reversing the trend to diminish experience into spectacularly un-interesting, but easily explainable, dogma. In part, we can think of this as un-sciencing psychology to permit again an engagement with its full richness.

The research of the Center for Reading, Literature and Society—often conducted, as Harsh explains, in knowledge exchange with outreach program The Reader (https://www.thereader.org.uk)—has been pursuing these transdisciplinary working practices for over a dozen years. Some of the papers collected in this Research Topic reflect this work, while others come from colleagues further afield whose interests are aligned. Collectively these authors pursue answers to what the reading of literature does, can do, and how it does it. It has a particular focus on the debunking of rigid, normative ideas. Besides Winterson's own target (that poetry being arty and elitist is only a pastime "*for the educated middle classes*"), these include other assumptions and biases:

- That mental distress involves wrong thinking coming from a somehow inherently compromised brain;
- That poor understanding and expression of emotion, and restricted feeling for and with others are emblematic of some "neurodevelopmental conditions" or "personality disorders";
- That the engagement of the emotions is automatically irrational, meaning that a top-down approach to life is obviously to be preferred over a bottom-up one, even as we know that information-processing has to be a balanced flow of both.

In this issue, Devereux explores the uses of uncertainty in the interaction between her study of neuropsychology and the writing of her own fiction. Green considers the relation of reading literature to the experience of loss and grief. Chapple et al. (see text footnote 1) investigates emotional and imaginative intelligence amongst autistic readers customarily stereotyped and stigmatized as lacking in empathy. The papers examine reading and the human situation across a wide range of contexts:

- In different settings, with Tangeras in a care home for adults living with dementia, Watkins et al. in a high secure hospital, and Andersen among cancer patients onsite and on-line,
- At different ages, starting from the work on childhood reading in Kuzmičová et al. in Czechia, and Zheng et al. in a Chinese rural setting; through to diverse community reading groups of different ages; and to care homes for the aged,
- Through varied methods, including Kuzmičová et al. on Q methodology, Davis et al. on eye-tracking, and Tschense and Wallot using Confirmatory Factor Analysis, and a range of literary and linguistic analyses,
- Across different disciplines, with Whistler on the relation of reading to thinking in the field of philosophy, and Harsh on belief, religion and theology with particular relation to the shared reading of the novels of Marilynne Robinson.

But what, firstly and finally, we wish to establish in this introduction is a sense of the "liveness" of reading, as a dynamic testing-ground for thinking about human existence *in situ*, without knowing-in-advance, and thus what we mean by this constituting psychology in action.

The safe space of literature

When human vulnerability meets a cherished character or vital situation in a book, it discovers a safety to explore without the threat of "real" life, though as close as possible to it. Fiction including poetry

1 Chapple, M., Davis, P., Billington, J., and Corcoran, R. (under review). Exploring the different cognitive, emotional and imaginative experiences of autistic and non-autistic adult readers when contemplating serious literature as compared to non-fiction.

allows us to explore the "what might happen." In literature we have the safe space to skilfully hold and work through, by reading, the several possibilities and their likely implications in parallel (Snell and Grainger, 2019). You can regard, consider and come to value the uncertainties of life, secure on the other side of the page, while walking, hand-in-hand with real humanity (Carleton et al., 2012). Literature becomes a model of real life where we can find fully formed friends and enemies and anomalous individuals of whom we can ask questions, and to whom put questions. We meet others who deal with things in so many different ways and we get to see the consequences of their actions. The not knowing what will happen, how someone will react, what may come in sideways to disrupt a situation: these are all real. This is what happens in life. Good literature packs a whole lifetime of feeling, of experience, of uncertainties into a few undisturbed hours: hence the necessary power, invention and mobility of its responsive language, as distinct from a static language of names and labels and boxes; hence the literary compression's explosive effect on readers. This is not the same as the dramas and melodramas of much television that lay things out in order to reach and often condescend to the many (as in mass media). Instead, it is the discovery, at times the rescuing, of the self by the self, mentored by a great figure who is not a teacher, nor a parent or grandparent. Neither a boss nor a therapist. Nor a psychologist. Instead, an author, who does not tell us what to think, nor even how to think; but through the novel, short story or poem, presents episodes and situations for us individually to consider, triggering our own autobiographical experience, implicitly or explicitly, as a vital part of the immersed, contemplative experience of reading.

A starting place for rich learning

Developmental psychologists tell us that we learn best from those we consider "like me" (Perner et al., 1994). So, perhaps literature does its best work initially when we recognize a little of ourselves in the literary figure and can "get into" the work that way. This is a starting place, where being involuntarily touched and moved by the circumstances and reactions of another whom we see as "like us" in some if not most ways, can trigger the opening up of alternative or reclaimed ways of doing, seeing and understanding beyond that which is already established, engrained, habitualized or repressed. In this place, we feel first and then we reflect. By contrast day-to-day life experiences can become plodding, too slow, too anticipated, too finished before they have started, too convenient. We react within it in a safe way that minimizes the inner resources we have to allocate to it, discouraging too much emotional challenge, over-protective of resources and security. In experiencing life like this we rest on determined agendas, defaults, ruminative generalizations and opinions set in advance. "Convenience! Convenience!" writes D. H. Lawrence indignantly in an essay "The Novel and the Feelings" (Lawrence, 1925/1988): "There are convenient emotions and inconvenient ones. The inconvenient ones we chain up, or put a ring through their nose. The convenient ones are our pets." The reading of literature involves far more feeling and thought of what is untamed, inconvenient and dynamic.

Keeping novelty

There are occasions in life, such as bereavement or falling in love that act upon us as literature does. In fact, during these circumstances, we can feel we are a character in an uncompleted and not fully legible book—almost watching and reading our own lives, or trying to do so. These are the rare, seldom-had events for which we have no ready script and so, for which, our higher order processing brain is ill-equipped (Norman and Shallice, 1986). Here feeling and emotion must step in to guide us through the disrupted, un-navigated landscape that we find ourselves amid. Amongst these are the glory days, the days we don't forget; the days our memory does its work on, cataloging and networking within our information-processing system for later use. With a script, psychologists say, we can guide ourselves more rationally, directly and efficiently though the next time. But as we reduce down into efficient processing systems, we lose the beauty of the un-understandable, the un-knowable, the feelings we have no ready words to describe, the embodied experiences, the topsy-turviness of where our mixed emotions throw us. In its special places, when things land on us unexpectedly, literature gives this back to us but in a kind and leveling way. In a way that ensures we don't become over-whelmed—just "whelmed." The literary script—no programme but always a fresh endeavor—is a repository through which we can experience or re-think life's rare, neglected or repressed events and our reactions to them.

A community of reading

If we believe, as we do, that reading literature has an important relation to mental health, it is no good simply prescribing books to people who for various reasons will probably not read them. In the effort to attract and reach people who would not otherwise read novels or poetry, imagine, not reading literature alone, but reading literature live together in a group, conducted with the help of an experienced literary reader. How many formerly separate lives align across and within the novel just as within the group? How many similarities, differences, affordances, and developments become possible as our physiology and our mental responsiveness align with those who, in the process, may become "our" others? Community is created at deep personal levels when literature is read "live" together, creating a "we-ness" in and through literature (Gallotti and Frith, 2013). In this setting the novel or poem becomes the focus, the point and voice of human similarity, the shared interest from which other felt interests can organically spring. In live group reading we peer not only into characters' lives, but also into those of our fellow readers. These folk can become fellow-encouragers, valuing our attempts to make sense by acknowledging feelings and memories, and finding a way of talking and thinking about them. Live reading groups can build a eudaimonia that is often only now

experienced in life through meaningful work and career, not enjoyed by many.

In this issue, we draw attention to matters that are not just one discipline's concerns and to a practice that is not just one carry-out idea. Education through praxis is the sole thing that will enable people to get used to this way of thinking and being, where being a reader is to be a seeker for meaning. As if instead of suffering passively we can use what we have had and what we have not had, to be the novelists or poets or therapists of ourselves, as Winterson put it.

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PD and RC wrote the first draft of the manuscript. JB and AF read and commented upon the manuscript. All authors have read and approved the final version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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A study into shared reading groups, with specific relation to religious reading

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This paper examines a live shared-reading group conducted through The Reader Organization, with the approval of the University of Liverpool's ethics committee. It is a revised excerpt from a successful inter-disciplinary Ph.D. thesis undertaken within the School of Psychology.[1] The intention in forming the group was to explore the reading of Marilynne Robinson's *Home* by a wide variety of modern readers of different backgrounds and persuasions, in the light of religious writing in an age of diminished religious tradition. The main research question was to test what literature can do in carrying meaning which can be seen as religious, or was previously deemed religious, among readers who may not think of themselves in such terms. The second was to see how a shared community-group setting can enable collaborative engagement with the challenge to develop different ways of thinking, beyond the individual default of either religious dogma or anti-religious prejudice. The method employed overall in the wider Ph.D. study was Grounded Theory: essentially, empirical analysis rather than top-down conceptualization. Grounded Theory, in refusing to begin from rigidly preassembled categories, is appropriate to a literature-inflected study and, in particular, a literary study that is concerned with religious meaning in situations of humanitarian crisis. It allows the possibility of empirical work and careful detailed analysis, amid a complex of overlapping psychological, spiritual, and family concerns entangled within the experience of modern life. In this particular case study, which may be described as a form of Action Research, the researcher, also acting as the reader leader of the group, brought developed tools taken from psychologist Wilfred Bion, introduced to the reading group itself during the sessions as a means of measurement and navigation through the novel. If the aim was simply to undertake a study of the text, then this paper would be more narrowly literary, but the concern was with wider real-world effects in relation to individuals within the group work. Through close examination of the week-by-week transcripts of the reading group, this study highlights the search for moments of development, or what might have stood in the way of development. The researcher used a consensus group of three supervisors to check the selection of the best moments (failing or succeeding in coming closer to what will be called below, after Bion, "0") recorded in the written transcripts of the sessions.

1 https://livrepository.liverpool.ac.uk/3121029/

One of the most powerful findings in this study is what will be called a mini-tradition developed by the group members in praxis, in terms of practices which they find, use, and come back to during their work with more difficult and painful passages in the text.

KEYWORDS

shared reading, religious feeling, translation in religion, Marilynne Robinson, literature and religion

The group-reading of *Home*

The following was research carried out during my Ph.D. study, combined with practical work with The Reader. Since the completion of the Ph.D., I now work as a practitioner at The Reader and a member of the Teaching and Learning Team. The research praxis undertaken with the shared reading group was conducted through The Reader Organization, where I took the place of the group leader, with the approval of the University of Liverpool's ethics committee. The Reader is an award-winning charitable social enterprise working to connect people with great literature and with each other. Its mission is to build a reading revolution and create environments where personal responses to books are freely shared in reading communities within many different outreach settings. Beginning life as a small outreach unit at the University of Liverpool in 1997, this national charity (established in 2008) pioneered the weekly "read aloud" model at the heart of its Get into Reading project, now also known as Shared Reading. The Reader currently has over 1,000 volunteers and partners, bringing over 2,500 people together each month to share and discuss great novels, plays, and poems in all four corners of the UK. Sessions take place in a variety of locations, including hospitals, prisons, corporate boardrooms, schools, GP surgeries, libraries, community centers, care homes, and supermarkets.

The stimulating, friendly, and non-pressured environments provide stability, support, and enjoyment for people who attend, establishing shared meaning and connections across social, educational, religious, and cultural boundaries. Previous evaluations have shown how The Reader's work is helping to improve wellbeing and reduce isolation, through using live literature as a vehicle for the search for meaning.[2]

Through both the writing and reading of literature, the finding of specifics, particular situations, strong emotions, and anomalies, both evoke and challenge a reader's customary frameworks and defaults. Here, that is what the act of reading is, a challenge that unfolds week after week. This study is also about weekly movements which are not simply progressive or straightforward, but erratic and part of the general unpredictability of the experiment.

In relation to this complexity, there are two (in my argument, necessarily) blurred territories in this action research. The first is the blurring between myself as a research analyst and leader/facilitator of the group, which made explicit to the group from the outset, for example, in discussing the use of Bion and the idea of "0" as first practiced in relation to psychoanalytic sessions. The second lies between the role of group facilitator (in the most neutral sense, simply, for example not allowing people to interrupt each other) and something more active as an enabler and guider. Again, I shared this with the group as part of the concerns in The Reader in general: to create a safe space but also to find legitimate means to help lead and encourage people to places of linguistic and psychological exploration beyond habitual norms or paraphrase. These two sets of concerns are held in tension, but that is part of the experiment involved in this case study and in need of further research.

I chose an area that is potentially volatile in relation to religion, where what I was most emphatically *not* interested in was the reinforcements of belief or non-belief: that is to say (as in any act of reading), people merely staying with their opinions and their defaults in a static manner. Nor had I any interest in replicating my own beliefs. My role was to ensure that the group remained concentrated on what they chose as key moments in the text: as safeguards (1), the use of Bion's "0" served as a means of pointing to key moments without recourse to a dogmatic or controversial vocabulary; while (2) the use of my consensus group of supervisors, in relation to transcripts, enabled scrutiny of the status of those moments and the possibility of unintended bias. This case history is offered even so as an experiment in risk and venture in a messily powerful area of human concern.

Feeling "0"

I should say something more about why I used a navigational tool throughout this experiment from the psychology of Wilfred Bion.[3] When vocabulary can be loaded with too many inherited implications, Bion wanted to try to use notations, letters, and

2 The Reader, 2022.

3 Bion (1970). See also Bion (1965).

algebraic indicators, instead of premature nouns and categories, to navigate feeling. As a psychoanalyst, he sought to give intensity a blind point, without giving it a name that begins to impose interpretation. This helps steer a humane agnostic pathway (religious or not) between a silenced first language and its possible recreation in a second form in common life: that is, it implicitly asks "Am I nearer or further away from the really real, when this happens or that is said?" Reading with Bion's dumb pointing tools within the experimental model of human existence called literature, and moving this way and that within its complexity, helps *find a language* for the densely mixed-up considerations and entangling circumstances within which the group must function. As with Bion and his patients, I think we can tell from the transcripts, as from the novel itself, when people are using certain elements of themselves that are routine or defensive, and when some other elements are coming in that are more spontaneous or unconscious and disruptive of defaults. I subsequently shared some of these thoughts about Bion with the group, in terms of providing a tool for pointing toward powerful places. Even though (as Bion says) the sense of total reality or truth can never be fully available to us, I told them, his "it" or "0" of the really real marks the significant moments in human beings—even if they're terrible, no matter: they are holding places for the primary secrets of existence in birth, family, marriage, crisis, aging, and dying. I was interested to see how the tool might help the group itself to be able to point initially to unbearable areas in a painfully intense novel rather than explain them secondarily. Hence, Bion was an agnostic guide in relation to a religious text, and as an indicator of moving nearer to or further from a moment of emergence of sudden new or powerful thought and feeling in the group. Some of the members of the group reported its usefulness at times, as a means of initial blind pointing, in place of having to find an explanatory language.

The shared reading group in this study consisted of seven women aged 45–85 years from around the Liverpool community, who responded to the advertisement of the group being formed as part of an experiment through the University and The Reader, and took place over 16 weeks.[4] Of the seven women, as I discovered only indirectly and through the course of the actual discussion, four were to any degree what they would call "religious". Four were familiar with the practice of shared reading, while the others experienced it for the first time. I offer below crucial moments and thematic concerns, from three separate shared reading sessions mainly in chronological order of development.

4 Participants all signed consent forms and were informed that they had the right to cease their participation in the experiment at any time. The names of all participants have been anonymized.

Secondary motions

The continual initial challenge I encountered with the group was a recurrent inability to get anything primary or personal out of the text at points when we would pause from reading. The novel *Home* goes into emotional areas that often felt too hard to handle, and the participants at times explicitly indicating that these were places that were uncomfortable to speak about. Contrary to my initial hypothesis, it was not the religious element that seemed to be inhibiting my readers, but rather that the religious setting so far from comforting or curing the pain was allowing if not requiring its full force in the Broughton family. Where passages would come close to "0", the group would move the discussion away from it. The group would most often default into speaking more about the characters, often externally and judgmentally, or offer a commentary *on* the story rather than feeling, thinking, and imagining *within it*.

Here is a particularly telling example from one of the painful passages of the novel. It comes near the end of the session at week 9 when largely the work was getting better: however, because it failed so badly in relation to a vital passage, it stands as a regression back to and a summary of what had been going not-so-well in the first month. In the novel *Home* set in a mid-twentieth century small town in Iowa, the old father and minister Boughton is at home being looked after by his kindly daughter Glory. Jack, the wandering lost child or black sheep of the family, has finally returned home after years of absence and profligacy, to visit the dying father who has despaired of him. The context is of a family, but a religious family.

Week 9

> The old man said "You take your time. But I want you to give me your hand now." And he took Jack's hand and moved it gently toward himself, so he could study the face Jack would have hidden from him. "Yes," he said, "here you are." He laid the hand against his chest. "You feel that heart in there? My life became your life, like lighting one candle from another. Isn't that a mystery? I've thought about it many times. And yet you always did the opposite of what I hoped for, the exact opposite. So I tried not to hope for anything at all, except that we wouldn't lose you. So of course we did. That was the one hope I couldn't put aside" (*Home,* p. 121).

Kate: The father is apologizing and then the big turn against his son. It changed.
Lily: It is difficult because I almost feel for the father.
Kate: I did, before the *end*.
Lily: Yes that is true, and also the father is doing what he said Jack did. The opposite, the exact opposite of what was hoped for and needed. He cannot blame his son, he says, when he is still judging him so much that he cannot let anything go.

Margaret: But as the father says, he has known all of Jack's life that his son hasn't felt joy or happiness. And that would be hard to know that and carry that as the father.
Elizabeth: But if you really cared or loved your son, you would express concern, but you would do anything you possibly could to hold back your own feelings, or how it might have impacted yourself. He could have just left it there.

Lily starts in the right area with "difficult" and "almost" because she is recognizing that more than one feeling is happening, more than one family point of view or one easy direction being followed here with the father feeling real pain. However, it gets cut off by Kate, and then Lily joins her in commenting *on* the father, rather than trying to be *with* the father, or at least imagining what the father might be going through. Margaret makes a good attempt to get into the moment with the father, "that would be hard [i.e. painful] to know", and in going on to a further deeper level of imagining in "hard to know and ***carry*** that as the father" – not only to know it but to have it, bear it, and feel it. The syntax and emphases show her getting closer to "0" here. But it is not to be sustained: the secondary idea of a parent holding back feelings itself holds Elizabeth back: "He could have just left it there". But this book is never about "just leaving it there". Nor is it about making blame for the father a way of avoiding the worst; it seeks the primary "0".

The character of the father and even Glory are also frequently assessed through this secondary feeling (the supposed norm of "But if you really cared or loved your son...") instead of the painfully real primary. The group itself will read about the movement from secondary to primary movements, and as a leader, I may point them out, but in their discussion, they will mainly stay within the secondary—which literature itself is meant to overcome. They will speak about the excusable complexities of being Jack with such a father, using a sort of humane compassion, but not more sympathetically imagining what it would be like to feel the damnation Jack is experiencing.

My initial conclusion at this first difficult stage of the group trying to "get into" the book was this: The pressure to seek recourse to the secondary is often naturally too strong, especially in the first month or so. When left to their own devices, the group will characteristically end up in that mode, especially when *Home* is felt as almost unbearable. The reader leader could remain a mere facilitator. But often The Reader urges a leader to step in and take part, to model a braver response and do more justice to the text; doing everything possible at least to point to the places and explore traces of the real, and not just their paraphraseable aftermath; to point to the inside and not just the external. In a wider sense, getting out of the secondary mode is the first thing that has to be done emotionally in reading; nothing of value can take place otherwise.

Crucially, this novel in particular is not designed to be satisfied with commentary, explaining away every human suffering. It cannot seem to settle for any understanding achieved by retreat or by means of a safety barrier between reader and text.

Form: "Double listening"

One of the significant transformations is when a reader is not just commenting upon what is *in* the text, but working out a thought that springs from the text and is bigger than its immediate occasion.

In week 6, the group has just read how Jack has been helping Glory in the garden all day. He got a splinter from using the gardening tool, and the reverend made a big fuss to make sure he helped Jack with the small wound. Now they are sitting at dinner where Father Boughton is carefully avoiding any possible questions that could be uncomfortable for Jack. Glory watches the situation, the avoidance of "0", and the attempted use of secondary politeness's within the text itself:

Week 6

> Through supper Jack was patiently restless, hearing out his father's attempts at conversation.... Jack watched him with the expression of mild impassivity he wore now that the embarrassments of his arrival were more or less behind him. She felt sorry for her father, happy as he was. It was hard work talking to Jack. So little in his childhood and youth could be mentioned without discomfort, his 20-year silence was his to speak about if he chose to, but they were prepared to appreciate his discretion if any account of it might have caused more discomfort still. Then, there was the question "Why are you here?" which they would never ask. Glory thought, Why am I here? How cruel it would be to ask me that (*Home,* pp. 65–6).

Jackie: So uncomfortable. Why are they always so uncomfortable around one another?
Group Leader: Yes, very uncomfortable. Which parts do you think are the most uncomfortable?
Jackie: You wonder if they will ever be at ease with each other. Before dinner the father acts as if he is really worried when Jack gets a splinter, he wants to be the one to help it, but it feels awkward…his concern feels awkward. He has been trying Jack's whole life to build bridges, and it's never natural! Why do they keep *trying*? It feels so uncomfortable the more they try. It feels like underneath all these attempts it just always makes things more uncomfortable for everybody.
Group Leader: I think this unspoken underneath is important. What area of the text did you feel it the most?
Jackie: It's just that on top of this feeling they seem to be only acting out the parts of a family relationship, you know? Only on top. "So little in his childhood and youth could be mentioned without *discomfort*" then later "*more discomfort still*"

Audrey: Hmm, more discomfort …but I think Jack is more *sincere* in his trying! He may feel uncomfortable, but he is also showing the respect by listening. And earlier that day it said that he 'rolled up his sleeves' and helped with the gardening. I think he is listening sincerely, even if it is uncomfortable.
Kate: Ah, I know, it looks like Jack is just surviving the moment.
Group Leader: Hmm yes, "restless".
Kate: Yes, and "mild impassivity" But I wonder if there is more going on underneath Jack that we just can't get to…or we just can't know about. [She pauses] See here: "Jack was patiently restless, *hearing out* his father's attempt at conversation" I wonder if Jack is not only trying to get through it, but actually underneath it all, I wonder if he might be listening to them…I mean listening maybe about what it would *be like* for them—Glory and especially the reverend—to see him and talk to him. Maybe he knows he is bringing back a difficult situation in himself.
Group Leader: Wow, that is interesting Kate, to be able to imagine how the people around you are listening to you, and what it is like for them on the receiving end.
Michelle: That's like double listening.
Group Leader: Yes! Like more than one thought happening at once, in different directions too.
Kate: It is, and I don't know how to always exist in that, or if that is what's happening here, but I wonder what that would be like for Jack if it was happening.

The group is now making something together, adding layers to each other's sentences, and getting momentum from each other's thoughts. Certain group members fall into instinctively performing certain functions: Jackie's questioning, Audrey looking to pull out anything sincere in the midst of awkwardness, Kate doing the digging in, the working out of something implicit, and Michelle bringing everything together to try to seal the exciting thought. Those functions are not permanent: though temperamentally or intellectually one person may be more suited to one particular function than another, the functions can move around from person to person in the light of a particular context and occasion. It is, at any rate, the most imaginative move in developing thought that has come about in this group. They begin to imagine not only what is *not* said but, *via* Kate, what it is like to imagine how others have to deal with one's presence and silence. Michelle's powerful "That's like double listening" clinches it. For Jack is both the subject and object here. Jack #1 as the subject has his own feelings, but as Jack #2, especially on his return home, he imagines the others' feelings about him as (so to speak, grammatical) object, and then has to take 2 back into 1, subject and object at once, with a rebounding effect on his own feelings, as Jack #3. He listens to them in pain, and in more pain, he imagines how they listen to him and what they hear inside their own heads in response. In that position, he has to bear that double consciousness of being a creature in the world who is both an "I" and a "you",[5] being alone and consciously feeling that loneliness, even amidst others, with the added guilt of a new realization of his long-continued effect upon them. It is a terrible complex overload to "carry", to use a favored term of the group members.

And this twist and turn of shape, this shift of centers, applies to the novelist as well as to her character, as she uses something like human geometry to mark the turns: "I think of Fiction of having dimensionality: you don't make a simple statement, you rotate an idea and look at it from various sides."[6] Double listening for Jack is like that rotation of ideas, another instance of form taking the place of simple narrative, of linear straightforwardness. If one point of view is a formal place from which to start, then double listening is that form altering in the midst of itself. The moment the form has changed and densened in that way, the novel is closer through Jack to imagining "0", listening to what George Eliot called "the roar on the other side of silence".[7]

Backward to primary

One of the most exciting discoveries in this project came about just when the group seemed blocked toward primary feeling. We have already seen in week 9 an especially moving yet painful passage managed by the readers' default of blaming Jack's father. Time was short and we did not have the opportunity at that point in the session to revisit and dig deeper, so in week 10, instead of moving forward despite the disappointment, I chose to go back and try again to find another way forward to a feeling that would reach the center of the pain felt in *Home*. Going forward linearly would have felt like going away from and completely ignoring the failed feeling; turning backward felt like the only hope to move forward:

Week 10

From the group leader's weekly write-up diary:

As the group members came in, each mentioned something about last week's reading. Since the group didn't have a lot of time to get into the passage the week before, I thought it would be important to go back to it.

Group Leader: Before we start this next section this week, I wanted to ask if there has been any more thinking from last week? I know we ended on that really painful moment with Jack and the father. We didn't have very much time to get into it. Any more feelings from it?

5 Buber, 1958.
6 Hope University, 2015.
7 Eliot, 1871.

(silence for about 20 seconds)

Kate: I was thinking about how Jack laughs earlier in the passage. He laughs. Why does he laugh? I've been wondering.

Michelle: It's like a nervous laugh he has isn't it? He doesn't mean to laugh, but he does.

Group Leader: Yes, why does he laugh?

Michelle: It's like when…when something awful happens you just…

Audrey: He puts his hand over his face.

Lily: Yes, throughout it keeps saying "and Jack laughed", and it is usually during very serious times. But I don't think he is genuinely laughing, do you?

Kate: It's just a way of deflecting it, don't you think?

Group Leader: Ah, deflecting it. Deflecting it…what is it that he is deflecting, do you think?

Kate: Well it's…it's becomes too much for him.

Audrey: Can we read that bit again?

"And why am I talking to you about this? But it was always a mystery to me. Be strict! People would say that to me. Lay down the law! Do it for his sake! But I always felt it was a sadness I was dealing with, a sort of heavyheartedness. In a child! And how could I be angry at that? I should have known how to help you with it."

"You helped me. I mean, there are worse lives than mine. Mine could be worse." He laughed and put his hand to his face.

"Oh yes. I'm sure of that, Jack. I see how kind you are now. Very polite. I notice that."

"These last years I've been all right. Almost 10 years."

"Well, that is wonderful. Now, do you forgive me for speaking to you this way?"

"Yes, sir. Of course I do. I will. If you give me a little time."

The old man said "You take your time. But I want you to give me your hand now." And he took Jack's hand and moved it gently toward himself, so he could study the face Jack would have hidden from him. "Yes," he said, "here you are." He laid the hand against his chest. 'You feel that heart in there? My life became your life, like lighting one candle from another. Isn't that a mystery? I've thought about it many times. And yet you always did the opposite of what I hoped for, the exact opposite. So I tried not to hope for anything at all, except that we wouldn't lose you. So of course we did. That was the one hope I couldn't put aside.'

Jack withdrew his hand from his father's and put it to his face again. "This is very difficult," he said. "What can I do–I mean, is there something I can do now?" (*Home,* pp.120-1).

Michelle: You know, something else from last week…I was thinking about the father actually. I think, I think the father is really being sincere. At the end there, the father was just baring his own soul. I don't think he is wanting to harm Jack with his words.

Audrey: Well I took it home and re-read it as you know, and it sounded to me exactly like that. You know, he was apologizing to his son for not giving him what he probably needed, or not investing in what he needed. In reading again, I think there is a different way to look at the father and what he is feeling in this moment.

Lily: Yes, I think I am usually pretty hard on the father because I cannot believe how he is sometimes, *but* that last part of the paragraph there, I have a hard time working it out.

Group Leader: That is interesting Lily. Yes I think it would be the easier thing to do to just say Jack is somehow good and the reverend is actually bad, but that doesn't seem to get to the right feeling here. As you say Michelle, the father is being very sincere in what he shares. It feels like he knows it might hurt ("you'll have to forgive me for this, Jack"), but he knows he needs to say it! It's been 20 years. I also think what you've said Lily is really interesting too about the last part of the paragraph. Shall we look at it again?

"So I tried not to hope for anything at all, except that we wouldn't lose you. So of course we did. That was the one hope I couldn't put aside."

Michelle: Yes, I don't think you can really give up on the father from this.

Lily: But I just can't get around this! The last three parts: "except that we wouldn't lose you. So of course we did. That was the one hope I couldn't put aside": I really struggle with it. It doesn't make sense to me, I feel like it is contradicting.

Group Leader: Yes, trying to count the thoughts, the three clauses, is another good way of trying to follow the thinking.

Margaret: He's saying he can accept anything from him, "but don't leave". He has been carrying grief with hope all along. And the more hope he has had, the more grief comes back to him. But he can't stop having hope for his son. It's really sad. The father is trapped. The father is trying to tell the son that he is trapped because of his love for him.

Kate: You almost want to take out "so of course we did" so that it would read "except that we wouldn't lose you. That was the one hope I couldn't put aside" It looks less complex that way.

Group Leader: Ah, that would feel more straightforward, wouldn't it? What do you think that middle bit means—"so of course we did"?

Elizabeth: Well it is the most hurtful thing of all that they lost Jack, isn't it. And so if he set aside everything, except that hope…it would almost be like "so of course it would be that one thing that would be taken from me, wouldn't it?" It's a bit cynical. I hear men say this sometimes, but really there is pain behind it. Yes...

Audrey: Yes, I think there is a lot of pain behind these statements.

Margaret: And at the end there, you need to understand, it might have taken a lot out of him. To be able to say he is sorry, and he would've forgiven his son for anything, so why leave? Why leave? He would have forgiven him for anything! Like "you could have done anything, but I would have still wanted you to stay". That's why he turns away from Jack. He is tired and embarrassed I think.

Group Leader: Ah, thanks for that Elizabeth and Margaret. I think it really does change things to step into what it might be like to feel these hard and painful things as Father Boughton. And that last bit of the paragraph is really something to try to work out. It is interesting that it is placed right there in the middle, as if we have to *go though it* in order to get to the end of the sentence. I think the word "except" sets it up to make "of course" and "couldn't put aside" even more painful to have to get through.

Michelle: Yes, I go to think one thing, and then another thing, and then even another big thing again. That's how I feel when we read this story. Sometimes the sentences in each paragraph just keep adding one thing on top of another, until it almost feels too much.

Audrey: Yes.

Group Leader: Yes! Too much! More than you can carry. I think in this moment the father is someone I cannot have ill feelings toward, because I feel too much of his own pain. We've spoken about the father almost passing on this grief and pain to his son, but as we read it, it feels like it is passing on to us as well! It can feel unbearable.

Lily: That is exactly it. *Unbearable.* But it is hard enough to carry what Jack is feeling.

Kate: Yes, that's it, a complete loss of words, or not knowing how to carry it all himself:

'Jack withdrew his hand from his father's and put it to his face again. "This is very difficult," he said. "What can I do–I mean, is there something I can do now?"

Michelle: It's like, before we could feel more what Jack is feeling, but now we are feeling more what the father is really feeling.

Group Leader: Yes, but to be the person that all these unbearable feeling are attached to, on top of the heavy reality you already feel on your own.

Audrey: And those words from Jack. Ooh it's like he still wants to help or make amends. What in his father's religion might be called repentance, forgiveness, even peace and grace. Needed from somewhere, somehow.

Group Leader: Yes, instead of going away, Jack is wanting to do something, or anything: "is there something I can do now?" to try to make it better, or to take this pain away that he's caused. But we are at the limits of what can be done to repair things.

Michelle: This is what I mean. It is all too much in different ways. For both of them at the same time.

(she laughs)

It is more than you usually handle in one story, isn't it?

Now that we had come back to the text closer to 0, it was important to hold this open as long as possible for anything to break through. The most important moment comes in Michelle's discovery: "Sometimes the sentences in each paragraph just keep adding one thing on top of another until it almost *feels too much*." That is the closest the group has ever come to "0", especially in terms of the use of sentences. It is a moment of real reading, going with the currents of "too much" even through the sentence syntax. Then, Lily speaks in a tone closer to "0" in "That is exactly it. *Unbearable*". There are no longer simply separate people, or single thoughts or separate feelings, from the moment Lilly spoke of the father "carrying grief with hope all along", and then counting the way three thoughts combined and morphed.

This feeling of passing on but carrying the weight of what is passed feels like the last thing anyone wants in the story. It is as if the novel and group must express the pain of not only carrying the pain but also the other pain of Jack's question "What can I do—I mean, is there something I can do now?" This is about trying to convert or translate the weight into action. It is a point where, in a religious novel, the help that is something like grace feels most needed, and it is nowhere to be found in and around this passage: this marks the exact point where it needs to be, but the father's pain cannot give it, Glory is not in the position to give it, and the readers in the group have to bear both pains, father's and son's, through the daughter's.

This, I conclude, is about transmission, but a painful kind of transmission as compared with the laying on of hands in a family. "My life became your life" would be the form of primal transmission. But what is passed on here is a more fallen tradition of family heartache and unresolved troubles, with layers and echoes attached. Within that, even so, there is the feeling of what is needed but missing.

Later, I circulated to the group, in the consolidation of their own efforts, what Marilynne Robinson herself wrote outside her novels:

> From the human point of view, I think that when you participate in grace, you're elevated above worldly considerations— grudges, fears, resentments—all those things that you accumulate in the clutter of self-protectiveness that arises as you develop in life. The moments of grace are the moments in which your vision of reality is, for the moment, actually free. You are out of the trenches. And I think that is something that people very often feel they have experienced, that experientially it is true. I often talk to people who have no theological vocabulary, but the minute the concept of grace becomes available to them, they recognize it. They love it. It could so easily be the core of any sort of reconstruction of our religious sensibilities.[8]

For Robinson, what matters is a need that religion responds to because human psychology both requires and recognizes it. As with William James in *The Varieties of Religious Experience*, to which she considers herself indebted, it is less important to her whether religion is seen as a form of human psychology or

8 Robinson (2016); hereafter cited as *Grace in Shakespeare*.

psychology as an approach to lost religion: the meeting point lies in the living feeling of the human dilemma.

Conclusion on reading methods

This comes out of the way the group regressed into fixed attitudes at the end of session 9 but refound their way by the middle of session 10: an epitome of what is at stake across the sessions as a whole. The best moments in the group feel like the nucleus for reviving and developing a reading tradition, in the past often associated with biblical exegesis, but here a sort of mini-tradition of deploying reading tools developed in the sessions themselves by this group. Tools are being spontaneously found here that will be needed in the future to navigate through secondary responses:

- **Getting away from defaults:** A movement from simple defaults and assumptions to get into real reading – specifics that may not conform to what participants may have previously wanted but whose force, when attended to, takes readers into a new situation. This is related to Marilynne Robinson's (theologically inflected) sense of the revelatory newness of occasions.
- **Pointing to places that matter emotionally:** This included a sense of when things were lovely as well as painful. Pointing is about instinctively locating specific places, as a primary action before any secondary articulation or explanation.
- **Feeling "0":** This goes with pointing as a form of mute orientation. Without having formal language and without trying to avoid an encounter, one can just point to "it", the place of most reality. In *Home*, it may be a place that is terrible, but also accepted as somewhere worth going to, often through following a difficult syntax. It can mark a development from "this is too painful" to something more like "the truth, at all costs".
- **Form in place of a story or single character analysis:** This involves thinking of *more* than one thing at a time, of more than one character or one scene at a time but relationships. It is related to connecting backward and seeing how the novel is getting made again in the act of reading it.
- **Connecting:** About having more than one thought or point of view, and making links between two things (places, persons, ideas). This is most powerful when the links are made backward, in sudden excited retrospect. It is a higher development of pointing which is to do with the mobility of mind, and the capacity to remake the thinking of the novel by recreative memory.
- **Group becoming one mind:** The group members begin to form a sort of relay between each other, handing on thoughts to take them further. The group is working and picking up on each other's points, almost as though one cooperative mind. Just as the characters are not separate in the novel, so the members are not separate in the group.
- **Memory claims a creative role here:** Turning back in week 10 rather than going on sequentially: at the beginning of the session, readers remembered and reclaimed what had been too quickly or automatically in the previous week. Memory then looks to be more forward-pointing than backward, as it goes back to make a forward motion in search of a future for itself. Instead of losing their way, the group and the group leader tried to get closer to 0 again, feeling its loss, through which a renewed sense of development can find meaning and a future for itself.

All of these tools were used and re-used over the course of the shared reading group experience, becoming trusted practice. But some of them the group leader would need to bring back into the group, reminding the readers of their being useful ideas that had arisen out of practice and, converted into tools, could further inform it (e.g., "double listening" and "linking backwards"). It is important that good moments of praxis are not just left in time, as one-offs, but become mini-traditions of the practice of shared reading, consolidating confidence, and aiding creative development. I am interested to hold open the possibility of the group being able to recreate a means of attention that, as with Marilynne Robinson's own novel-work, salvages meaning from the breaking of religious tradition in the home of this novel, the novel and the group working together.

Tradition renewed through shared reading

After the shared reading group experiment, I interviewed the founder of The Reader, Jane Davis, on shared reading and her own experience of reading *Home* which she considers her book of the century. Jane also hosted Marilynne Robinson at The Reader Organization's headquarters in Liverpool in 2011 where she did an informal session on *Home*. I showed her a draft of the findings reported earlier, to test them against her reaction. I asked Jane to appraise the concluding idea of a mini-tradition of reading and renewed through the shared reading groups. She agreed on these grounds:

1. The group leader is the passer-on of the readerly tradition, partly through "doing it", modeling the act, but also recognizing and encouraging its emergence.
2. The aim is that, ideally, everyone in the group should become a reader in some deep traditional version of that term, as a seeker for meaning through its signs, seeing the spirit through the letters.
3. But between 1 and 2, it is not possible simply to pass on the tradition of being a reader: it has to be rediscovered and reinvented in living and spontaneous practice by a group

carrying out live collaborative work, without guarantees of its success or lastingness.

The deepest readerly traditions have been established in relation to religious texts, such as the Bible. Here, Jane Davis argued, such attentive seriousness is redeployed in relation to non-sacred texts that take concerns that might have been deemed religious into areas of personal psychology and familiar relations. In the realm of psychology, stimulated by works as powerful as *Home*, readers whether religious, formally religious, or consciously non-religious do group work together in a shared feeling of meaning.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by University of Liverpool. The patients/participants provided their written informed consent to participate in this study.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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The experience of reading philosophy

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Reading is not a peripheral philosophical pastime; it constitutes most of what we do when we do philosophy. And the experience of reading philosophy is much more than just a series of interpretative acts: the philosopher-reader is subject to, among other things, sensations, passions, emendations, and transformations. In this essay, I argue that a full account of philosophical reading should outline some of the sociological structures that determine how different communities of philosophers (within and outside the academy) construct such experiences, as well as describe in detail the ways in which philosophers encounter (or fail to encounter) truths while reading. It should, that is, describe ways in which philosophy acts upon readers and the various effects that result.

KEYWORDS

epistemic breakthrough, lay readers, philosophy as a way of life, passion, Martha Nussbaum, Immanuel Kant

Introduction

The phrase "experience of reading" used throughout this essay is informed by three distinct, if cognate contexts. First, it refers back to Hans Robert Jauss' (1982: 153) excavation of the affects of reading, those "primary levels" of readerly enjoyment which include "astonishment, admiration, being shaken or touched, sympathetic tears and laughter, or estrangement." I am particularly interested in Jauss' insistence that pleasure and interpretation cannot be pulled apart in the reading process, i.e., in a process composed of "a completely sensuous and a highly intellectual affect" (1982: 23).[1] Secondly, this notion of "the experience of reading" draws on Philip Davis' *The Experience of Reading* (as well as much of his later work) which is, among other things, an attempt to perform in front of his reader the kinds of thinking that takes place as we read—what I will go on to call, "thinking-in-reading." Davis (1991: 4) is interested in the eventhood of reading, in the fact that "something real goes on in the act of reading." That is, he is interested in describing as

1 In what follows, I make considerable use of (sometimes relatively old) sources from literary theory and criticism, because, I argue, philosophy's relation to reading constitutes a *missed opportunity* (in a way that of the study of literature does not). Philosophers too should pay attention, in Roland Barthes' (1977: 148) words, to "the birth of the reader." See §2 below on the risk of this (apparent) making-literary of philosophy.

precisely as possible the idea that "thought is something that occurs to a reader as if it were an event" (1991: xvi). In so doing, Davis takes up a notion of experience with roots in William James' *The Varieties of Religious Experience* which itself describes the nuances of mood, intricacies of epiphany and relatively indeterminate ebbs and flows of consciousness involved in the constitution of (religious) meaning (James, 2008). Thirdly, the phrase "experience of reading" is taken from a passage in Martha Nussbaum's essay, "Perceptive Equilibrium," in which she compares "the experience of reading" Derrida's book on Nietzsche, *Spurs* (Derrida, 1979), with that of reading Nietzsche himself. This experience of reading Derrida is, she writes (Nussbaum, 1992: 171), shot through with "an empty longing," "a hunger" for some of the "difficulty," "risk," and "urgency" that can be found within Nietzsche's own texts. "After reading Derrida," Nussbaum concludes, "I feel a certain hunger for blood" (1992: 171).[2]

Overall, what these three different contexts are meant to start "getting at," in a cumulative fashion, is a richer, even "thicker" account of reading philosophy than those accounts professional philosophers usually tell themselves and each other. What interests me in this essay are the features of this reading experience and their implications.

An "off-duty" reading of the *Critique of Pure Reason*

I imagine (a far-flung idea!) that one weekend, at a moment of leisure free from all other obligations including any thoughts of research or teaching, I pick up Kant's *Critique of Pure Reason* to read a few pages. This is not my first time reading it[3], but it is a book that has no immediate relation to any of my current research projects or classes, and so I will not be mining it for selective arguments, concepts or contexts, but just turning its pages because I hope I will enjoy doing so. I could of course have chosen some fiction or popular non-fiction, but I actually like (or remember liking) philosophy—even Kant! As far as is possible, my professional "reading self" is muted—I am "off duty"[4]—and, instead, I desire to read a few pages of the *Critique of Pure Reason* "daring to behave like a deliberate amateur" (Davis, 1991: 22).

What might I (re)discover in the *Critique of Pure Reason*?[5] I might—to take some obvious examples—simply mouth "wow!" at my initial thrill before the grandeur and scope of Kant's proposed project in the B-edition Preface (e.g., Kant, 1998: Bxii–xvii); I might turn to the opening of the Transcendental Aesthetic (Kant, 1998: A19-21/B33-6) to experience a familiar sense of alienation at his insistence on redefining the basic terms of the philosophical tradition in jarring, often counterintuitive ways; or I might choose a much later, less forbidding entry-point, such as the first page of the section on "the ground of the distinction of all objects in general into phenomena and noumena" with its extended allegory of "the land of truth" and stormy sea of error (1998: A235-6/B294-5) and find myself smiling at the drama of it all, as well as remembering how much I loved such drama as an undergraduate.

Others' "off-duty" reactions to the *Critique of Pure Reason* are not difficult to unearth either. At one end of the spectrum are those who encounter Kant's text, like Robert Musil's (2016: 505) General Stumm, having experienced its "*rigor mortis*," its "geometric plague," and conclude that they "do not want to go on reading," or those who, like Joseph Joubert (1938: 297; translated in Nancy, 2008: 138), are put off by the first *Critique*'s "painful language"—as "painful for [Kant] to construct" as "it is painful to understand." At the other end of the spectrum, though, are those whose personal experience of reading the *Critique of Pure Reason* is passionate, enthusiastic, even inspired by a sense of adventure—such as de Quincey's (2003, 62) "opium-eater" who "read Kant again, and again understood him, or fancied that I did… [and] my feelings of pleasure expanded themselves to all around me," or such as Ernst Horneffer who confesses,

> I am unable to read the *Critique of Pure Reason* without feeling the most violent agitation. Every word in it, it seems to me, is incandescent, shot through with the frisson of the most profound, the truest, the most elementary feeling. No other poem seeking to communicate or the immediacy of feeling, except perhaps *Faust*, is able to produce an affective impression equal to the one I receive from this work, apparently glacial, of pure thought. As strange as it may seem, the *Critique of Pure Reason* is for me one of the most passionate, indeed the most passionate, of world literature. (1920: 67; translated in Nancy, 2008: 61–62)

At stake in all these experiences of the *Critique of Pure Reason* is something Horneffer makes very explicit: the readerly passions ineluctably felt when doing philosophy. That is, doing philosophy typically requires doing some reading (even if the amount and type

2 I return to this passage in §2 below.

3 There are of course significant differences between the experience of reading a philosophy text for the first time and the experience of repeated readings that I leave aside for a future occasion.

4 I take these ideas of competing readerly selves and "off-duty" readings from Pearce (1997: 3).

5 I could equally, of course, have chosen some contemporary work of philosophy with similar results. It is also worth emphasizing from the beginning that I have chosen Kant's *Critique of Pure Reason*, rather than any text more closely situated to the borderline between philosophy and literature (e.g., Nietzsche, Camus), precisely because of Kant's attempts to avoid both popularity and conscious writerly effects. Even a book as seemingly abstract and scholastic as the *Critique of Pure Reason* can provoke howls of passion. More than many other philosophers, there is a visible disjunct between Kant's (apparent) cultivation of passionless neutrality and the affect-laden responses of his readers. For one thing, this hopefully suggests from the beginning that to talk about various passionate experiences of reading philosophy is *not* to necessarily talk about the *writing of philosophy*. The philosopher-reader is a figure of interest independently of the philosopher-writer.

of reading varies) and this reading process can be exciting, frustrating, surprising, boring, exhilarating, galling, gripping, dispiriting, even fun. It can also be transformative and informed by a sense of discovery: it can seduce us, resonate with us, alienate us, reprimand us and make us care about many new things (including the text in front of us). Nevertheless, professional philosophers tend to be fairly incurious about both analyzing these effects of reading on ourselves and on others and also incorporating them into academic reconstructions of acts of interpretation. This seems a shame: not only (as I've begun to suggest) are affective and transformative experiences common when reading philosophy, but they are also not obviously irrelevant to the project of truth-seeking, even in its most scholastic forms. Excitement, seduction and rapture often emerge entwined with those "aha-moments" (i.e., epistemic breakthroughs)[6] which philosophers covet; and, correspondingly, frustration, alienation and the urge to quit signal a failure to "get it" that is, I'm going to contend, equally philosophically significant. All of them frequently take the form of what Daston and Park (1998) call `cognitive passions' and what Morton (2010) calls `epistemic emotions'. In sum, the above experiences of reading philosophy matter when doing philosophy, even if most modern philosophers have tended to presume they do not.

Pathologies of the philosopher-reader

There are, I want to postulate, at least three reasons why modern philosophers have tended to be so incurious about these sorts of experiences reading philosophy.[7]

The "becoming-literature" of philosophy

Horneffer's reaction to the *Critique of Pure Reason* is exemplary of the way reading philosophy can be a form of self-discovery. He speaks of a violence experienced on reading the first *Critique*, an emotional upheaval that stands in tension with Kant's own will-to-abstraction. And this very personal experience in turn generates a personal set of critical categories by which Horneffer (1920: 67) tries to articulate this passionate revolution—terms such as "incandescence," "frisson," "affective impression." And yet, within this passage such personal vocabulary comes at a price: the "reduction" of Kant's book to a piece of "world-literature" which stands alongside Goethe's *Faust* and other "poems." Horneffer can only communicate his passionate experience of Kant's text by treating it as literature; it is only outside philosophy that such passion finds a voice.

This is a common way by which philosophers immunize themselves against these kinds of experiences reading philosophy—by "othering" them into the domain of literature. Nussbaum's account of her experience reading Derrida mentioned above (Nussbaum, 1992: 170-171) operates in a similar fashion. It forms part of an argument intended to demonstrate that a "sense of practical importance… is absent from the writings of many of our leading literary theorists," To this end, Nussbaum writes, "One can have no clearer single measure of this absence than to have the experience of reading Jacques Derrida's *Éperons* after reading Nietzsche… After reading Derrida, and not Derrida alone, I feel a certain hunger for blood; for, that is, writing about literature that talks of human lives and choices as if they matter to us all" (Nussbaum, 1992: 171). Again, Nussbaum's experience is one of a personal, passionate reaction to Derrida's text framed in the language of longing, hunger, risk and urgency. But, once again, this occurs at the expense of consigning Derrida to literary theory and Nietzsche to "literature."[8] To experience philosophy in this way is ultimately, it is claimed, to experience literature.

The heroic philosopher as a non-reader

When, in 1887, Friedrich Nietzsche (1968: 47) identified "the reader" alongside "the historian," "the critic" and "the collector" as a "*reactive* talent," he was articulating a long-held suspicion among philosophers about the figure of the reader—as too passive, too dependent. Hence, in a parallel fashion, two centuries earlier René Descartes inaugurated the image of the modern philosopher by *throwing out books*: according to Descartes (1988: 26), the philosopher achieves maturity by substituting her dependence on "the sciences contained in books" with "the simple reasonings [of] a man of good sense, using his natural powers." As such, in Descartes' *Meditations on First Philosophy*, proper thinking (i.e., meditation) only occurs once the words themselves have fallen silent, once the writer "pauses" at the end of an argument and asks the reader to "contemplate" free from the text (Descartes, 1988: 98).

6 This language is taken from Sophie Grace Chappell—see §4 below.

7 I speak of "modern" philosophy in particular, since the pre-modern relationship between philosophy and eloquence seems to give rise to a closer connection between doing philosophy and "moving" an audience. There are obviously exceptions to these generalisations, such as, in the twentieth century, Ferdinand Alquié (1979, 2005), for whom the encounter with past philosophical texts requires an engagement from "affective consciousness".

8 Generally, within the essays collected in *Love's Knowledge* Nussbaum establishes an opposition between, on the one hand, the philosophical *reading of literature*, which can be passionate, open, "finely aware and richly responsible" (quoting Henry James; see Nussbaum, 1992: 140), and, on the other hand, the philosophical *reading of philosophy* which remains "retentive and unloving" (1992: 282). The philosopher-reader learns from literature how to be "keenly alive in thought and feeling to every nuance of the situation, actively seeing and caring" (1992: 143), to be "humble, open, active, yet porous" (1992: 282). But this learning remains constrained to literary material. Whenever we encounter a straightforwardly philosophical text, "we aren't very loving creatures" (1992: 282). That is, Nussbaum to some extent denies philosopher-readers an enriched experience of *philosophical* texts.

While these are extreme examples,[9] variations on this principle of the non-simultaneity of reading and thinking (i.e., the principle that thinking properly occurs *after* or *away from* reading) is common in modern Western philosophy. Consequently, it has become relatively rare for reading to become an object of philosophical attention at all.[10] Outside of small pockets of the history of philosophy, philosophers like to think of themselves as active thinkers rather than passive readers, and so those who *merely* read are taken as an abject foil for the figure of the philosopher: as grammarians, philologues, scholars or historians. This aversion to the seeming heteronomous position of the reader (who is hospitable to the words of others) is, in part, an expression of an aversion to dependence on material objects, particularly the contingencies of a physical book.[11] When Kant refuses to "make my head into a parchment and scribble old, half-effaced information from archives on it" (Kant, quoted in White Beck, 1963: vii), he expresses a widespread fear of the archive that seems to be but one more manifestation of a fundamental axiom: the philosopher should not read too much in case she thereby stops thinking.

Reading as interpretation

In those relatively rare instances when philosophical reading does become an object of philosophical attention, it is understood as a purely interpretative act, a series of hermeneutic operations that produce meaning. Philosophers, just like many literary critics "share an implicit assumption that reading is a synonym for interpretation" (Auyoung, 2020: 93), that it is nothing but sense making. Hence, there might be periodic controversies over whether philosophical reading should be practiced as deconstruction, rational reconstruction, hermeneutics, symptomatic reading, and so on; but all of the theories in dispute are ultimately variations on interpretative method. As Nussbaum (1992: 62–63) points out in a slightly different context, this view has "powerful roots in an entire intellectual tradition" according to which "passions and our feelings are unnecessary to the search for truth" and so according to which "a discourse that claims to search for truth and impart knowledge must speak in the language of the intellect." The reduction of reading to interpretative operations rehearses, indeed, a version of Cartesian dualism, in which the psychological and physiological sensations experienced in reading are suppressed in the name of the textual object's status "as a transparent vehicle for the meaning and interpretative acts [that exist] *for* consciousness" (Littau, 2006: 24). Successful reading "lifts the reader from sensation to intellect" (More, quoted in Littau, 2006: 5), such that the text becomes purely "an occasion for interpretation" (Tompkins, 1980: 206). In Wimsatt and Beardsley's terms, the reader is little more than an "explicator of meanings" (Wimsatt and Beardsley, 1949: 48). As with the previous two "pathologies," there is (exempting some specialist practices in the history of philosophy) something of an anxiety toward *textual material* behind this treatment of the act of reading, a loss of "the physicality of reading" (Littau, 2006: 2).[12]

Wimsatt and Beardsley's (1946) rubric of "the affective fallacy" is precisely intended to justify the above reduction of reading to interpretation (in parallel to their rubric of "the intentional fallacy"). Whereas the intentional fallacy stands as a criticism of any reading determined by authorial origins, the affective fallacy is intended to criticize any conclusions drawn from the text's readerly effects. They write, "The Affective Fallacy is a confusion between the poem and its *results* (what it *is* and what it *does*)… It begins by trying to derive the standard of criticism from the psychological effects of the poem and ends in impressionism and relativism" (1949: 31). As this suggests, there is more at stake here

9 Other extreme examples are not hard to dig up—for example, anglophone common sense philosophy. As Hare put it in, "We do not think it a duty to write books; still less do we think it a duty to read more than a few of the books which others write." (Hare, 1960: 113–14) See the discussion in Rée (1993: 11–12).

10 This stands in contrast to the repeated attention paid to philosophical *writing* and the figure of the philosopher-writer. The various 'philosophy as literature' movements (whether post-Danto or post-Derrida) typically consider philosophy in terms of authorial choices concerning the most appropriate textual form for disclosing a thought. What is at stake are the origins of a philosophical text, rather than its effects.

11 Smith (2016: 12) puts this nicely: contemporary philosophers "are not interested in thinking about the way in which we deploy standards of evidence when considering textual sources, or secondary testimony, or other such philological matters. To take an interest in these questions would be to acknowledge that philosophy has a philological component, and therefore cannot be, simply, an unmediated, eternal conversation. [It forms part of] the general refusal to consider the discipline as in part a philological endeavor." Moreover, perhaps the most relevant conclusion to be drawn from Smith's history of the figure of the philosopher in general (Smith, 2016) is that, of the six different images of being a philosopher he describes, none of them spend much time reading.

12 Nevertheless, the readerly materiality that makes philosophy possible does sometimes manifest itself. In the final section of his *Conflict of the Faculties*, Kant (1979: 189) considers the barriers that the physiological constitution of the human might impose on doing philosophy. He is not unduly worried by most of them, since, in general, "mental work can set another kind of heightened vital feeling against the limitations that affect the body alone," even if the fact that philosophers have a body still ultimately requires "a diet with regard to thinking" (1979: 199). However, of those afflictions that cannot be regulated by mental powers but instead "impede thinking," the one with which Kant (1979: 207) concludes the work concerns the manner in which "our eyes are harassed from all sides by the wretched affectations of book printers." That is, philosophy cannot take place without 'the protection of the reader's eyes' from the material appearance of books. Kant (1979: 208) himself describes suffering attacks in which, "when I am reading, a certain brightness suddenly spreads over the page, confusing and mixing up all the letters until they are completely illegible." It is for this reason he sets guidelines for typesetters (1979: 208) to improve the physical condition of books on which his work as a philosopher depends.

than just the validity of emotional responses to texts; for one, it is also a question of the dominance of interpretation in twentieth- and twenty-first-century accounts of reading. As Sontag (1966: 97–99) argued, when rational reconstruction becomes so hegemonic as to turn into pure translation, this is tantamount to "an open aggressiveness" toward—and "overt contempt" for—the text itself. Taken to extremes, "to interpret is to impoverish."

Even more fundamentally, what is at stake in any interrogation of the cogency of "the affective fallacy" for determining how philosophy is read is some sense of the text *doing something*. The reduction of reading to interpretation omits the effects of the philosophical text. As Tompkins (1980: 222, 225) writes, "Once the… work has been defined as an object of knowledge, as meaning not doing, interpretation becomes the supreme critical act… The text remains an object rather than an instrument, an occasion for the elaboration of meaning rather than a force exerted upon the world." For those who insist on the affective fallacy, reading philosophy is solely a task of extracting meaning from an artifact. Nevertheless, this is, Tompkins argues, a contingent, limited perspective: in other traditions and other epochs, texts were treated "as a force acting on the world, rather than a series of signs to be deciphered." (1980: 203).

Some of what I am trying to get at here can be briefly developed by means of Claudine Tiercelin's comments on the development of "the idea" in the pragmatist tradition. For someone like Arthur Lovejoy, according to Tiercelin (2020: 2–3), an idea is less determined by its truth, its consistency or even the subtleties of its meaning than by what an encounter with such an idea *does*—its effects on the reader, on the philosophical community and on the philosophical tradition. What matters is the "practical force of realization" of ideas, "their efficacity and their force, rather than their coherence or internal logic." The perspective that emerges is one in which works of philosophy are not only static artifacts to be deciphered, but also historical processes formed by collisions with readers (2020: 6).

Lay readers and professional readers

This is not to say that professional philosophers never speak of works of philosophy being fun or boring. They do, but only within the strictly confined role of *stimulus*, i.e., as an initial provocation to philosophical reflection that will ultimately be superseded by the demands of rational reconstruction. That is, the philosopher might use an experience of reading as a propaedeutic to doing "proper" philosophy—much like Kant (2011: 86) who needed to keep reading Rousseau so that "the beauty of his expressions no longer disturbed me, and only then could I finally examine him with reason." Such a strategy is most visible in the classroom: that students found a piece of philosophy annoying, fatiguing or (very occasionally) fun serves as an icebreaker that opens up a dialectic intended to propel the participants into more rarefied philosophical regions, i.e., those regions academic philosophers value more highly. At its most extreme, this can become a presumption that the role of a philosophy-education is to train students out of these "improper" experiences of reading through a discipline that aims at forming impassive, "cerebral" philosopher-readers.

Implicit here is a distinction between "professional" and "lay" philosopher-readers, and, consequently, a distinction between "high" and "low" reading practices. Professionals in philosophy departments are counted on to read disinterestedly, because they have, it is assumed, internalized some disciplined habit of reading that abstracts them from the claims of the immediate and the passionate—that is, through the cultivation of a readerly *ataraxia*. Two conclusions follow. First, this professional image of the philosopher-reader reflects the experience of a very specific subject with very specific gender, ethnicity and class commitments. At the very least the values coded into this kind of reading practice constitute a good example of what Genevieve Lloyd (1993) identified as "the historical maleness of reason." Secondly, this professional image of the philosopher-reader is not the only one possible; there are plenty of other types of philosopher-reader out there. When David Conceptión (2019) admits that, as a student, "I did not know how to read philosophy… I did not know how to read as philosophers read," what seems significant is less the implication that his student self was somehow ignorant or wrong than the implication that his younger self read according to other goals, conventions and forms of enjoyment than the professional ones. As Auyoung (2020: 93) puts it in the context of literary criticism, "We [as professionals] have sought to establish a radical yet largely tacit discontinuity between our reading practices and those of non-specialists, including members of other academic disciplines, who may think they are reading but cannot really read at all." The professional philosopher has, in other words, happily taken on the role of policing what "counts as real reading" (2020: 94)—and this is fundamentally what is at issue in the first half of the present essay: we, as professional philosophers, tend to take for granted what reading philosophy looks like and make use of this tacit definition in a fairly exclusionary manner.

Nevertheless, perhaps a more constructive way of articulating the disconnection between professional and lay philosopher-readers is not so much in terms of a break between different types of reading practice than in terms of how professional philosophers perform and present their reading practices to others (whether in a classroom or a journal). That is, professional philosophers might encounter texts in all sorts of ways, but the way in which they formally relate these encounters is strictly regulated and so homogenized. Auyoung (2020: 95) again provides a useful gloss on "how critical reading is represented": "Far from capturing the messiness and multiplicity of their actual experiences of reading, [in publications] critics construct coherent arguments by presenting an extremely limited selection of the inferences they have made during the reading process." These constraints on the professional representation of reading thus leave open the possibility of silent, but shared experiences of reading philosophy that have not been deemed worthy of representation in

professional philosophy. In other words, all philosophers might get excited, bored or seduced by philosophical writing, but we just do not hear about it in academic journals. And yet, Davis (1991: xv) reminds us, "It is not good for us to feel ashamed of what we naturally do when we read."

This is no place to set out a wholesale sociology of academic philosophy. Nevertheless, it is worth conjecturing that, just as cultural historians (e.g., Radway, 1991) have long been describing literary reading-communities within and outside the academy and making visible the very different reading habits on display there, further research on the structures and practices of philosophy reading-groups, philosophy cafés and "philosophy in pubs" meetings that occur outside the academy would provide a fuller picture of what the experience of reading philosophy looks like.[13] Further pedagogical research might also shed light on the role of affect in the learning of philosophy-students, especially outside of the classroom, in study groups, etc. There is more than one community of philosopher-readers, and, indeed, one of the more obvious features of the above examples is their communal character, as opposed to professional reading practices often oriented toward individual research projects. The self-denying community of the modern research university[14] stands in contrast to concrete communities of shared reading. In fact, it seems clear that any full account of experiences reading philosophy would need to describe the panoply of "goals," "institutions," "communities," "initiations," "disciplines," and "ideals" that determine them.[15]

Epistemic breakthroughs

In addition to the above high-level description of the structures of reading philosophy, there is space for a personal approach to the singular moments that constitute these experiences. And this is what I want to begin to explore in the final pages of this essay.

`There is a mystery in reading,' writes Simone Weil in opening her `Essay on the Concept of Reading' (Weil, 2015: 21). Such a the `mystery' concerns the discrepancy (or `contradiction', according to Weil) between what reading seems to involve–`some black marks on a sheet of white paper'–and what it can bring about–something comparable to `a punch in the stomach'. She writes, `Sometimes a combination of novel signs that I have never seen seizes my soul right where the wounding meaning penetrates, along with the black and the white, and just as irresistibly.' That is, in the event of reading, a meaning can strike us as viscerally as a violent sensation, along with all its physiological and psychological effects: sensation and meaning are indistinguishable; both directly "jump out" from the text. (2015: 21-2, 25) A useful example of such a sensation experienced in an act of philosophical understanding is furnished by A. S. Byatt in *Still Life* (Byatt, 2003). The protagonist Stephanie returns to an academic library after a hiatus in order to get some reading done; she attempts to get back in the flow of thinking among books, and, amidst everything else going on, she successfully experiences a surge of insight once more:

> [Stephanie] remembered the sensation of *knowledge*, of grasping an argument, seizing an illustration, seeing a link… Knowledge had its own sensuous pleasure, its own fierce well-being, like good sex, like a day in bright sun on a hot empty beach. (2003: 185; discussed in Davis 1991: 40–42)

Byatt's Stephanie is caught up in the attempt to give shape to (and recall) what it feels like to gain knowledge—a sensation that encompasses far more than the sum of its interpretative acts. There is pleasure, physical contact, warmth and even peace involved in Stephanie's feeling for getting at a truth while reading. And this, I want to claim, holds true of any successful attempt at reading philosophy as well: it comprises a "sensation," a bundle of thoughts and feelings, interpretative operations, personal transformations, discoveries and passionate encounters, all of which pertain to some primitive surge of insight. Such a bundle is not composed of distinct, successive or independent elements, but rather everything is fused in an "aha-moment," an event of thinking erupting with in the act of reading.[16]

Sophie Grace Chappell's recent study of the structure of epiphany provides a helpful framework for the sensations involved in this kind of readerly epistemic breakthrough. Chappell (2019: 102) is quick to note that the concept of epiphany need not be limited to epistemic breakthroughs alone, it can be more or less cognitively loaded—in her terms, more "wow-moment" than "aha-moment" (see further Chappell, 2022). However, for the purposes of my interest in *philosophical* epiphany, "aha-moments" provide the paradigm for what it feels like to experience some kind of cognitively-loaded breakthrough while reading philosophy, i.e., what it feels like to experience a truth when reading and to stay faithful to that truth. Chappell

13 For some comments around this issue, see Stern (2015).

14 See Whistler (2016), which in turn builds on Howie (2002) and Howie and Tauchert (2005).

15 In other words, to provide such an account the philosopher would need to start describing doing philosophy from a perspective "thickened" by the methods and conclusions of (for example) anthropology, sociology, autoethnography and literary studies. That is, philosophy as a discipline tends to be blind to the social and cultural formation of its own practices and a more convivial, multidisciplinary approach would, in part, begin to remedy this.

16 Even the most apathetic of professional philosopher-readers still reads intent on experiencing some version of this bundle of cognitive, affective and emendative effects, for, to return to Kant (1989: 5.272), "*Even being without affects* (*apatheia*, *phlegma in significatu bono*)… is sublime" and is caught up in "pure reason's liking."

(2019: 97) goes on to list some of the features that might be attributed to this type of readerly insight: "overwhelming," "existentially significant," "often sudden and surprising," the bringer of "something new," "something given, relative to which I am a passive perceiver." These epiphanies can take the form of "a peak of delight; or of vividness; or of forcefulness or intensity; or of lucidity; or of horror, or of terror, or of anger" (2019: 98). Generally, they constitute "sharp," peak encounters with meaning and so contrast with more everyday meaningfulness (2019: 98–9). As Chappell (2019: 104) also notes, epiphanies are not necessarily private, but can be public and communal, as well as (initially, at least) subconscious, such as when a reader is taken unawares by a new way of seeing. In general, she emphasizes the extent to which any account of these epiphanic moments must be attentive to their "broad and open-edged, and even messy" nature (2019: 104).

Amidst this panoply of characteristics that philosophical epiphanies might display, there are two particular kinds of epistemic breakthrough I want to focus on and which, in many ways, recapitulate some of my earlier discussion in this essay—that is, on the one hand, those breakthroughs that take the reader away from the text and, on the other, those that keep the reader immersed within it, i.e., thinking-in-reading.

Breakthroughs away from the text

The first kind of readerly epiphany has already been described in a number of forms in the foregoing: it constitutes the moment at which something catalytic in the philosophical text propels the philosopher into a thinking beyond reading. The Cartesian principle of the non-simultaneity of reading and thinking forms the basis for such a model: reading serves as a propaedeutic to thinking, a ladder that falls away once the philosopher finds herself initiated into a problem, an argument or a debate. Philosophers read in order to leave reading behind, i.e., attain the point at which the text—with all its contingencies and idiosyncrasies—stops getting in the way.

A pertinent example of this structure is provided by the "philosophy as a way of life" movement. This is because philosophy as a way of life shares many of the concerns I have been discussing above: a distrust of professional philosophers and their monopoly on representing how philosophy is done [what Hadot (1995: 270) disparagingly calls the perennial structure of "professionals training professionals"]; an interest in the contribution lay-philosophizing might make to the discipline (see Sellars, 2017: 48); and a corresponding emphasis on the transformative effects of the pursuit of wisdom when undertaken in all sincerity. And yet, endorsements of philosophy as a way of life are typically accompanied by a denigration of the practices of writing and reading philosophy—based on the principle that "actions are ultimately more philosophically significant than words" (Sellars, 2017: 41). As Shusterman (1995: 40–41) notes, philosophy as a way of life has "asserted itself as something other and more than textual exercises," as a set of transformative practices that occurs "beyond mere utterances of textual inscriptions." The figure of Socrates looms large here as a philosopher who neither read nor wrote, but acted out philosophy.[17] In other words, reading is not enough; its purpose is solely to provoke the philosopher to become more than a reader. On the one hand, this means that the philosophy as a way of life movement is also interested in dismantling the myth of the affective fallacy, so as to show how philosophical texts "actually *do* something to the reader," i.e., "immediately affect, touch, concern, disturb, intrigue, provoke, and make one angry, or else attract, seduce, entice, stimulate, inspire, and obsess the reader" (Faustino, 2020: 368). Nevertheless, on the other hand, according to this model, philosophical writing *acts on* the reader, so as to put an end to mere reading; texts function as instruments for disclosing the more-than-textual. The principle of the non-simultaneity of reading and thinking remains operative.

Thinking-in-reading

In the midst of my "off-duty" reading of the *Critique of Pure Reason* described in §1, I imagine stumbling across a footnote in the chapter on the antinomies which I barely remember having read before. It begins, "To the question, "What kind of constitution does a transcendental object have?" one cannot indeed give an answer saying what it is, but one can answer that the question itself is nothing" (1998: A478/B506). This sentence gives me a jolt: there is something about Kant's attack on the very asking of the question, "what is a transcendental object?," that makes me think. The emergent spark is not particularly well-formed as yet, but it broadly concerns how many Kant scholars still seem to ask the kinds of questions Kant himself seems to want to disqualify with this comment. However, rather than sending me off into the scholarship or even into a reverie about the subtleties of transcendental idealism, this is a surge of inchoate insight that makes me impatient to turn back to earlier sections of the first *Critique*, to reread parts of the Transcendental Aesthetic and Transcendental Logic from this new standpoint (according to which Kant's use of the language of questioning is in some way significant). I am excited to get to grips with my surprise realization, to test it and to develop it by reading more, by getting further into the first *Critique*, i.e., by doing philosophy within the words of the book in front of me. In short, as a result

17 Nietzsche's *Schopenhauer as Educator* has also proven a fortuitous source-text in this regard. Nietzsche is clear, "The philosopher must supply [an] example in his visible life, and not merely in his books; that is, it must be presented in… facial expressions, demeanor, clothing, food, and custom more than through what they said, let alone what they wrote." He continues, "Critique… has never been taught at universities: all that has ever been taught is a critique of words by means of other words." (Nietzsche, 1995: 183-4)

of this event in reading, *the Critique of Pure Reason* now looks different to me: it strikes my attention in a different way, with a new texture, a new topography.[18]

This is another model for an epistemic breakthrough in philosophy, one in which reading more and reading better serves as thinking, in which, that is, thinking takes on the form of passionate reading. It is here we find some preliminary clues as to the "sensation of knowledge" involved in the experience of reading philosophy—and, as might be expected, this sensation splinters into a number of variations:

Thinking-in-reading as force

My encounter with Kant's remark on the question of the transcendental object late in the first *Critique* propels me, as reader, backwards through the text, as well as deeper into it. My personal discovery in an out-of-the-way footnote acts on me, reshapes my understanding and redetermines my route through the text.

Thinking-in-reading as investment

Kant's emphasis on the "nothingness" of the question of the transcendental object demands a new kind of reading; it gives rise to reading habits that are more active, more invested: I'm now intent on making my new idea work when it comes to the first *Critique* as a whole. In other words, much more is now at stake for me in my reading.

Thinking-in-reading as becoming an insider

An illumination that comes from out of nowhere instantly transports me, as reader, into a new logic of the text, into a new appreciation of its patterns and structures, whereas before I had felt like an outsider. This is an unexpected instant of "getting it" (even if it ultimately gets me nowhere) provoked by a previously invisible configuration of terms.

Thinking-in-reading as a minimal disturbance

For many other readers, this footnote reveals nothing: it tells them little that is new and certainly nothing that takes on disproportionate significance for them. But, for me, Kant's (1998: A478/B506) claim that the question of the constitution of the transcendental object is "empty and nugatory" makes me think differently. It acts as some small bump at an unassuming moment within the text with far-reaching consequences for how I in future will encounter the first *Critique*.

Thinking-in-reading as tact

The different reading practice that emerges out of this realization is non-linear: I move through the first *Critique* according to different concerns and, as a result, become a more mobile reader. I glide (insofar as I'm able) against the flow of arguments, between otherwise disconnected concepts, to discover new resonances.

These are but five ways in which one imagined experience of doing philosophy can be rendered, five ways of describing a surge of insight experienced while reading, however small and ultimately fruitless such an insight might turn out to be.[19] Nevertheless, these descriptions help tell us something about what we do when we do philosophy, and so contribute to an increasingly complete description of what it feels like to be a philosopher.

The enjoyment of frustration

The *Critique of Pure Reason*'s Transcendental Deduction is, according to Kant (2004: 4:260) himself, "the most difficult thing that could ever be undertaken on behalf of metaphysics." And most readers agree. The difficult reputation of the B-version of the Deduction, in particular, strikes fear into most who venture into it: Shaddock (2013: 155) is surely right to gloss Kant's comment, "Readers have found it not just difficult but downright impossible." More readings of the Transcendental Deduction end in failure than success; that is, if Kant constructs a language that is "painful to understand" for his readers (as Joubert put it), then the Deduction is where that pain is felt most acutely. And yet, readers keep coming back to this section of the first *Critique*; we are gluttons for punishment. The pain of reading the Deduction is something philosophers seem to want to experience repeatedly, like some cerebral extreme sport. Kant (1989: 5.334) will elsewhere speak of books "that break your head" and books "that break your neck," as well as the books "that break your heart" by sentimental novelists. One lesson to learn from the above is surely that some philosophical explanation is required for the fact that philosopher-readers enjoy failing, despite it all, that they have a passion for headaches.

Philosophers are distinctive insofar as they enjoy failure. The philosopher-reader is someone who spends a lot of time being frustrated at *not* "getting-it," at *not* experiencing some epistemic breakthrough. In other words, while readers often turn to philosophical texts to make themselves feel better, they also turn to philosophical texts *to enjoy making themselves feel worse*. This "feeling worse" comes in two forms: first, readers might turn to philosophy to exacerbate or even generate anxieties about meaning, knowledge, or particular human values; secondly, readers might turn to philosophy *in order to be puzzled*, to fail to understand the text being read. On this second kind of reading, the reader encounters

18 What is not discussed here—and exceeds the scope of the present essay—is any reference to the sharing of such experiences, in terms of both strategies of communicating them to others and the ways in which such dissemination influences and determines further reading experiences. To put it another way: the 'I' of this fiction is certainly not the first person to have the above insight when reading the first *Critique* and knowledge of this must shape their reading experience.

19 For further discussions of these kinds of descriptions, see Davis (2020: 5).

something in the text that acts as a barrier to epistemic or existential breakthrough, a blockage that lends itself to frustration and alienation, instead of epiphany and insight. This is, in many ways, a constitutive characteristic of the philosopher-reader: situating oneself as an outsider trying and failing "to get in," positioning oneself as alienated from the order of philosophical reasons contained in the text and, therefore, engaging in an antagonistic and doomed battle with the author's words to ultimately gain access to these reasons. It is something of what Conceptión (2019) intends when he speaks of "the strangeness and disquiet that so often comes with reading philosophy." This is, in short, a sort of philosophical reader's block that leaves its mark on a lot of philosophical practice.

Any account of the experience of reading philosophy should not just involve, therefore, descriptions of what it is like to encounter a truth; it should also contain descriptions of what it is like to enjoy the messy combination of positive and negative passions felt whenever ideas refuse to come, whenever a breakthrough does not occur and whenever, nevertheless, one keeps coming back for more.

Conclusion: Reading and the philosophical life

A phenomenology of the philosophical life (whether professional or otherwise) must include a description of what happens when we read philosophy. Reading is not a peripheral philosophical pastime (i.e., what we do when we tire of thinking for ourselves); it constitutes much of what we do when we do philosophy. To ignore the experience of reading is both to ignore what most philosophers are up to for the majority of their time and to ignore one of the most significant forms that philosophical thinking can take—*thinking-in-reading*. Moreover, once one does start paying attention to this experience of reading philosophy, it soon becomes clear how much more it involves than just interpretative acts: the philosopher-reader is subject to, among other things, sensations, passions, emendations and transformations. A fuller account of philosophical reading should therefore outline some of the sociological structures that determine how different communities of philosophers (within and outside the academy) construct such experiences, as well as describe in detail ways in which philosophers encounter (or fail to encounter) truths while reading. More generally, any fuller account should describe ways in which philosophy acts upon readers and the various effects that result.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Embracing Uncertainty: How literary writing helps us change our minds

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Creative writing and cognitive neuroscience can jointly illuminate how literary writing can change our minds by enhancing our tolerance for uncertainty. From my perspective as a novelist, I will show how literary writing hijacks the mechanisms of day-to-day perception and orchestrates cognition to facilitate vividness of (imaginary) experience and insight. Drawing on examples from my novel and other research, I will discuss the role of uncertainty and literary devices such as contradiction and paradox in stymieing habitual assumptions while inviting the reader's sensory imagination and conscious awareness, thereby creating an open space for insight. I hypothesize that literary writing promotes a form of dual cognition that involves both sensory experience and detachment, is therapeutic, and may share some of the benefits of mindfulness.

KEYWORDS

literary novel, uncertainty, contradiction, paradox, mindfulness, cognitive dissonance, blindness, insight

Introduction

> *A map is not the territory*
> —Alfred Korzybski, Science and Sanity

I am a novelist who is currently completing a Ph.D. in Creative Writing which comprises a novel and a dissertation informed by neuroscience. Since the late 20th century, neuroscience has advanced our understanding of cognitive processes. Writers and artists also have insight into the workings of cognition because they hijack the mechanisms of day-to-day perception to bring their works to life. It seems extraordinary, if I stop to think about it, that I spend my day typing abstract symbols, which result in experiences for my readers. And sometimes, the experiences that novels or poems provide can be so affecting that they rival, even trump, real life.

My Ph.D. and this paper arise from the question of how this is possible and how literary writing can provoke insight. I believe that creative writing and cognitive neuroscience can jointly illuminate the power of literary writing to change readers' minds. I am offering my thoughts here as a novelist, in the hope that they might inspire collaborations between writers and neuroscientists.

Iain McGilchrist, in *The Master and his Emissary* (McGilchrist, 2012) suggests that we have two fundamentally different cognitive capacities or ways of attending. One,

associated with the left hemisphere, is good at handling concepts, planning, and focusing on parts or details. The other, predominantly associated with the right hemisphere, is characterized by a more open attention and a capacity for understanding complex processes and interconnectivity. Both ways of attending are essential to our social and professional lives.

McGilchrist argues that left hemispheric cognition has, however, come to dominate how we view and navigate the world. If it were the other way round, with the open attention taking the lead, and conceptual, parsing, and planning cognition becoming its servant, we would experience the world differently and we would act differently, creating a better and more balanced world.

From this point of view, my novel and neuroscientific dissertation could be regarded as drawing on different cognitive capacities in investigating how literature moves us. The novel by inquiring experientially and through the act of writing, the dissertation by drawing on neuroscience. Together they build a model of the novel-reader interaction as an intimate dialog.

The novel I am currently writing, *The Generosity of Darkness,* was inspired by neurologist Oliver Sacks' description of Professor John Hull's uncurable blindness as a 'dark, paradoxical gift.' (Sacks, 2003) 'Hull', Sacks writes, 'comes to feel a sense of intimacy with nature, an intensity of being-in-the world, beyond anything he knew when he was sighted. This is not just "compensation" he [Hull] emphasizes, but a whole new order, a new mode of human being. With this, he extricates himself from visual nostalgia, from the strain, or falsity, of trying to pass as "normal, "and finds a new focus, a new freedom. His teaching at the university expands and becomes more fluent, his writing becomes stronger and deeper; he becomes intellectually and spiritually bolder, and more confident. He feels he is on solid ground at last.'

What happened to Hull throws into relief the cognitive habits which determine how we attend to the world. Sight includes our ability to perceive discrete objects, allowing us to track them and to plan our actions in the world. This way of attending to the world has a somewhat separating effect. Sound is much more immersive; there is no obvious boundary that divides us from the music in a concert hall, birdsong in a forest, or the swallowing roar of a train at close quarters. Blindness, according to Hull, leads to him apprehending the world differently.

I wanted to write about this different way of being in the world, alongside studying the neuroscience of different cognitive capacities and the brain's plasticity. I came to realize that books, in a sense, take the reader's sight away; they determine not only *what* the reader perceives but *how*—with which cognitive capacity—it is processed. Literary writing has ways to keep us in the dark; blocking conceptual rat runs, allowing us to perceive the familiar in novel ways. By literary writing, I mean novels and poetry which feature devices such as novel metaphors, ambiguity, contradiction, and detailed sensory description. They invite the reader's creative and active participation in meaning-making and promote a more open, less knowledge-based cognition.

However, the left brain's narrower and more goal-orientated focus does not cease. It goes on, at times haltingly, within a context of the broader attention of the right brain. The latter is more rooted in bodily experience, more willing to entertain contradictions, and more curious about what is just beyond the spotlight of awareness.

I will show how reading literary writing orchestrates our cognition through excerpts from my novel and a discussion of uncertainty, contradiction, and a dual cognition that involves both sensory experience and detachment.

The dual attention – dual cognition paradox

The following is an excerpt from the *The Generosity of Darkness*.

> Agnes didn't hesitate to read the lines, she read them fast, taking in the gist of them like an efficient clerk. It was an apology. He'd been thinking about her. He wanted to see her.
>
> And then descriptions of how he used to feel about her – how he still felt about her – she skirted over these expressions of feeling, before they could do any harm.
>
> When she'd finished, she regarded the lines:
>
> The way the ink had flowed from pen to paper, word after word, line after line, like water, once released continues along its course. Then her eyes returned to, *I love you.* There was nothing that distinguished those three words from the other words that he had written, words like *Nürnberg*, *fade*, *breath* or *hope*. *I love you* was just words, made of letters and yet, unlike the other words, *I love you* hurt.
>
> A sensation of something running from her nostril. She touched the liquid with her fingers and looked. It was red. She regarded the blood, not understanding. She was feeling completely fine.

Agnes, the main protagonist, has received a letter from Peter, a man she loved deeply but who had left her 15 years earlier. She is trying—and failing—to detach from the meaning of the words, from how they make her feel.

Reading literary writing invites a paradoxical state; to slip into a character's skin, feeling what they feel and yet also to remain detached and aware of ourselves. In this way, novels can play host to existential problems without the reader, unlike Agnes, becoming overwhelmed by them. It is like having a lucid dream, conscious of everything but with an underlying feeling of safety.

Novels offer a personal odyssey without the consequences that replying to such a letter in real might entail. Paradoxically, it is because novels affording us this detachment that they might

change our lives, by altering the way we process the painful things that happen to us.

The process of writing, as opposed to reading, also involves a dual cognition; feeling a character's sensations while maintaining the detachment that is necessary to find the words to describe the kind of loneliness that leaves an empty ache in the stomach, even after a hearty meal. Without the element of perspective, the content of experience is all there is, but with it, we are able to perceive in fine-grained detail, without getting lost.

I am suggesting that reading offers similar benefits to mindfulness, by cultivating an open monitoring attention. Mindfulness is thought to reduce stress, by enabling the practitioner to stand back from a situation while being in it at the same time (Farb et al., 2007). Longitudinal studies of mindfulness practice have revealed changes in brain activation patterns (Fox et al., 2014) to this effect.

I will now discuss in more detail how literary writing and other arts create perspective by drawing attention to their artifice. It is as if they sabotage the beholder's suspension of disbelief while at the same time maintaining it. Here are some examples:

Magritte painted a work known as "The treachery of Images." It depicts a pipe along with the words in French, 'This is not a pipe.'

Shakespeare frequently reminds the audience that they are watching a play. In Henry V the chorus refers to the Globe theatre as 'this wooden O' (Prologue, 14). Hamlet's play-within-a play also invites (self-)consciousness of watching a play. Jane Eyre in Charlotte Brontë's eponymous novel addresses the reader directly; "Reader I married him." (Brontë, 2007).

You can judge for yourself, dear reader, the effect of being reminded that you are reading, even though this text is not an enthralling novel.

In addition, novels can draw on devices such as framing narratives, jeopardy, close or omniscient point of view, and detailed description to modulate the ratio between being merged with experience and separate from it.

Paradoxically the open monitoring attention invited by detachment does not lessen the reader's investment; on the contrary, it heightens their capacity for vivid experiencing and pleasure.

A study by Mukhopadhyay proposes a similar notion in relation to the esthetic experience of paintings with his dual phase oscillation hypothesis (Mukhopadhyay, 2014). It describes how paintings co-ordinate two different aspects of our cognition. The first, the absorption phase is dominated by the task-induced demands of information processing (an overall decrease in activity of DMN from baseline level), and the second phase consists of 'introspective detached contemplation' (increased activation of dMPFC and vMPFC). Mukhopadhyay argues that esthetic delight arises when a dynamic balance is struck between the two, and the beholder is simultaneously aware of looking at a work of art and sensorially experiencing it at the same time.

I am proposing that the benefits of dual attention (open monitoring attention plus vivid experiencing) lie in how content is processed. Conscious access theory, which was first postulated by Bernard J. Baars in 1988 as Global Workspace Theory, hypothesizes consciousness as a 'gateway to brain integration, enabling access between otherwise separate neuronal functions.' (Baars, 2002). In other words, the added dimension of awareness plays a pivotal part in making content available more widely across different brain systems. The theory suggests that experiences are processed differently than if they remained unconscious. I am suggesting that the element of reading *about* a difficult experience, rather than living it, introduces a sense of perspective and remove. This remove allows the reader to notice their own responses more closely and in greater detail than if they were experiencing something harrowing in actuality and in real time.

For example, the description of the death of a pet allows the reader to attend to the transition of the animal being aware, breathing, and warm to becoming a limp body. The description may take up an entire paragraph while the process in life may last only seconds—too fast to integrate. Reading about such an experience may also afford processing of past losses.

Literary novels, in this way, train us to attend in a form of dual attention which includes an open monitoring attention that notices the simulated content of the novel as well as the reader's responses to it. This is one way in which novels orchestrate our cognition, allowing us to attend to life in high definition.

Apprehending the world differently

There are plenty of phrases that hint at our efforts to reframe, conceptualize, and integrate the unexpected, or maybe they are just desperate attempts to make the bad stuff feel less bad, less out of our control.

Every cloud has a silver lining.
Look at the bigger picture.
At least you do not have cancer.
It is what it is.
It just wasn't meant to be.
Everything happens for a reason.
Give it time (delivered with empathetic look or sigh).
And my all-time favorite: Shit happens.

After his wife died of cancer, author and lay theologian C.S. Lewis wrote a pamphlet called *A Grief Observed*. After many pages of trying to make sense of his wife's death, he concludes, 'Are not all these notes the senseless writings of a man who will not accept the fact that there is nothing we can do with suffering except to suffer it?' (Lewis, 2015). The line has always stayed with me, as if it contained something far more useful than all the phrases quoted above.

The most striking aspect of John Hull's description of his experience of blindness in his book *Touching the Rock* (Hull, 1990) is that he seems to be curious about what it is like to experience the world in this new and different way. He seems to find a new

freedom not in spite of blindness but because of it. A surprising suggestion given how debilitating it is to live without sight.

As a writer, I aim to describe experiences in close sensory terms. For this reason, I blindfolded myself for 24 h or more at a time. This approach has limits as it is very different from losing your sight permanently. I spoke to blind people to gain insights into their experience.

I tended to go into meetings blind, in a literal sense, because I wanted to know what it is like to meet someone without knowing what they look like. The timbre, speed, and softness of their voice and the experiences they shared were all I knew. They told me of the physical dangers, the isolation, and how tiring it is to employ elaborate strategies to accomplish tasks which sighted people perform with ease and automation.

I felt guilty for driving myself to these appointments with the ease that sight affords and then relaxing into the generosity of not seeing and of not being seen. The process has changed me. I used to believe that the moment I saw a person I knew something about them, now I distrust my first impressions. In the past upon meeting, I would try get to know someone by asking questions but now I relish the feeling of not knowing a person when I first meet them.

All this contributed to my wanting to write about the space beyond the known and to ask if the familiar could become unfamiliar. The main protagonist of my novel, Agnes, is a ceramic artist in her 40s. She lives alone and has barely any friends. After losing her sight, a support worker teaches her how to navigate to the nearest shop.

> Agnes was trailing her hand along the rough pebble-dashed surface of a wall. Sean was watching her. She'd made a decision not to tell him about the difficult weekend. She was practising the route to the corner shop. He'd promised not to intervene unless she was in danger. The wall was dirty and sharp in her hand. Was this the first or the second lot of pebble dash? Her hand dropped into empty space. The wall had ended. Was there another house to come or was this the last one before the crossing? Where was Sean? Probably just a few feet behind. She listened to the sound of the cars. The road sounded close but the noise seemed to be coming from multiple directions. It had to be the crossing she was looking for.
>
> Sean had told her to use the cane for the last bit. She took it out of her bag and extended the telescopic segments. She grasped the handle and placed her palm briefly on the wall again to make sure she was facing in the right direction. Then she let go of the wall and began walking towards the sound of traffic, sweeping the cane in semi-circular movements across the pavement. The scraping sound of the metal tip offended her ears. It also announced her presence to everyone. That was of course part of its function, to flag to the sighted that a blind person was trying to make her way in their world.
>
> She waited for the sensation of the ball-like blisters on the ground, marking out the pelican crossing. Suddenly, the cane dropped into a void and the roar of a lorry engulfed her, followed by a draft of air and grit. She'd got far too close to the road. But surely, Sean would have intervened if it had been unsafe, maybe she wasn't as close as she thought.
>
> She found the edge of the kerb with the cane. She was right by the road. But where were those bumps so she could find the control panel for the lights? She took a few breaths and tried to calm herself following Sean's advice. Couldn't he see she was struggling?

The passage blinds the reader, they are afforded no map or omniscient perspective. They therefore share Agnes' discomfort and shock on 'the edge'. It is very disturbing to leave behind the familiar—'where? … probably … surely … maybe'—but it has its rewards. As a result of my own experiences without sight I no longer so firmly believe that my way of seeing the world is definitive.

The unknown or unexpected is also important in the process of writing. I find it helpful to know what the novel is about, in this case; blindness as a dark, paradoxical gift, and to have a plan for the plot.

And yet when I started writing the scene I quoted at the beginning of this piece, the letter from Peter surprised me as much as it surprised Agnes. Perhaps, it was a postcard from my subconscious. The letter brought the themes of betrayal and loss of trust into the 'theatre of awareness' that is the novel. But it was only later that I realized that the earlier loss of Peter foreshadowed the later loss of blindness and that Agnes' loss of seeing made it necessary for her to face that Peter's betrayal of her shaped the way she saw the world.

At the end of this process, Agnes embraces uncertainty again, the way she did when she was younger. I hope that novels can help us do the same.

Embracing uncertainty and contradiction

Why is it difficult for most of us to include uncertainty and contradiction in our outlook? And why would it help? In the words of Donald Tusk, the former president of the European Council, '*While the truth may be more painful, it is always more useful.*' (Boffey and Jennifer, 2019) So why would we want to resist noticing all relevant information.

Predictive processing, a leading model of brain function in neuroscience, offers a useful way of looking at the underlying mechanism of perception. It explains why it is not easy for us to see something with 'new eyes', as the expression goes. Predictive processing suggests that the brain is constantly generating and updating our model of the world. Two processes are occurring in the brain: One is a top-down process which simulates the

experience that is expected and the other is a bottom-up process based on the sampling of the sounds, sights, smells, and sensations from the environment. If the two do not match a prediction error is generated. It is either resolved by updating the model or by behaving in a way that brings reality into line with the model ('active inference').

While our perception of the world, thanks to predictive processing, is fast and efficient it is always partial. Also, it is sometimes difficult to notice information that is at odds with our beliefs or expectations. There is a certain pressure for our model of how things are to be coherent. Predictive processing is not designed to include contradictions because its purpose is to dish up a definitive version of reality in as close to real time as possible.

Leon Festinger's cognitive dissonance theory (Festinger, 1957) points to similar mechanisms in the brain from the point of view of psychology. Karl Friston, a leading neuroscientist, recently commented on the parallels between predictive perception theory and cognitive dissonance theory (Friston, 2018). Cognitive Dissonance theory suggests that we constantly strive for cognitive consistency, trying to eliminate any contradictory aspects from our experiences, even in retrospect. Studies show that individuals not only choose something because they like it, but that they like something because they chose it. So, after making a difficult choice between two equally preferred items, participants—post the event of choosing—state that they now prefer the chosen item over the unchosen one (Brehm, 1956). The preference adjustment resolves the 'cognitive dissonance' of having to choose between two equally preferred options.

As for Agnes, to restore cognitive consistency after Peter unexpectedly left her, she concludes that Peter never loved her in the first place. This affects the way she lives from that point onward. She no longer believes in love. What would Agnes' life have been like if she had been able to entertain the contradiction that she had been absolutely loved by Peter and yet left? Is it possible to hold contradictory notions in mind simultaneously?

It might seem that such cognition is unhelpful as it defies logic. On the contrary, it is important to learn to tolerate 'messy meaning' and uncertainty not in order to believe falsehoods but because a deeper truth might be glimpsed in the process.

Reading sensory detail – from the map into the territory

Agnes' support worker hands her an object:

> Sean touched her hand, placing an object in it. It was the size and shape of a tennis ball and it was covered in a liquid. Through the moist layer she felt a bumpy surface which had some give in it. The coating, even though it felt wet, didn't seem to stick to her hands. 'What is it?' she asked.
>
> 'What do you think it is?'
>
> 'I have no idea,' she said.
>
> 'What does it feel like?'
>
> 'It's round and it is covered in some kind of fluid.'
>
> 'Do you like the feel of it?'
>
> 'Yes, it's almost soft.' She said and lifted it to smell it.
>
> 'No,' he said and held back her hand.
>
> 'Why?'
>
> 'It's an orange covered in mould.'
>
> She put it on the table. 'Uggh.'
>
> He laughed. 'You might want to wash your hands.'
>
> She got up and found the sink quite easily. The water running over her hands felt very similar to the mould.
>
> She turned around, hoping she was facing him, 'I don't know what point you're trying to make but you've just proved my point.'
>
> 'Which is?'
>
> 'Some things can only be done by sight.'
>
> 'That may be true. But wasn't it interesting?'
>
> 'No,' she protested, even though she agreed with him.

Primary, sensory experience is a way of finding some freedom from the predictive aspect of perception, which might exclude 'unimportant' detail from our awareness. Before the object is identified, Agnes notices vividly a 'moist layer', 'bumpy surface', and that the object is 'rounded'. But she is conflicted ('No…even though') about the value of having been deprived of the information that she is holding an orange. If she had known it was an orange, she could have deduced that the soft, moist sensation may indicate mold.

On the other hand, the absence of knowing, directs her attention to her fingertips and heightens her experience.

I am suggesting that Literary writing employs novel metaphors, contradiction, and detailed sensory description to de-throne the knowledge-based aspect of cognition, so we can experience afresh what our senses (or the senses of our imagination) are tasting. These devices get us from the map into the territory.

Can we live life with the kind of attention we give to an unknown object when our eyes are closed? Can we find a little freedom from the concepts, beliefs, and perceptual habits that shape the way we apprehend the world?

Writing occupies a special place in that it is situated at the nexus of symbols and experience. On the one hand, words direct our attention to particular aspects of an object, on the other they can block off well-worn conceptual grooves, forcing us off piste where we rely on the exact texture of the ground to find our bearings.

I used to make films. When I first started to write I missed having recourse to locations, music, and actors to bring my ideas to life. Then, it dawned on me that with 'mere' words I could command armies many thousand strong, control the density of fog and the path of a single tear.

Words are anything but 'mere'; they are a powerful code that represents reality. Part of their power is that they are more open to interpretation than actual sounds and images. It is the use of this code that makes it possible for novels and readers to become true partners in creation.

In another passage from my novel, I was aiming to capture what it is like to relate to an unknown world primarily through sensory information. Agnes participates in a walk and for the first time:

> Everyone's footsteps and voices re-bounded from the walls of the canyon, giving her clues about the scale of her surroundings. Then the loud screeching of a bird brought even more definition. It was the equivalent of lightning illuminating a landscape at night. Then the world faded once more into absence.
>
> She listened to the drawing of their breaths and the shuffling of their clothes as they walked. The noises seemed embarrassingly private – as if she, and only she, was privy to a secret and intimate world. The way Zora's breath caught slightly towards the end of the inhale high up in her throat and Callum's boots met the ground with certainty and Syddall cleared his throat every now and then…
>
> The bird called again. The sound got inside her. What did it even mean 'inside' and 'outside'?

Literary reading invites both attending to the map and the territory, as here in Agnes's walk. Agnes' blindness affords me as a writer the opportunity to describe the world in an unusual way, without the old way of parsing things, no longer split by the dualism of inside and outside, perhaps without firm boundaries at all.

Paradigm shifts are possible when habitual ways of seeing cease to be the only way.

I have described different cognitive capacities which are trained in the process of literary reading. This dialog between reader and text orchestrates left brain and right brain processing in a way that shifts cognition away from certainty and toward a more open form of attending which is more grounded in sensory detail.

As a medium, literary writing can do this because it interfaces with the reader's brain in unique ways, promoting a style of cognition which facilitates integration of difficult life experiences and promotes insight and the updating of beliefs.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary material; further inquiries can be directed to the corresponding author.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Exploring the therapeutic potential of reading: Case studies in diary-assisted reading

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This article explores the impact that literary texts can have on real lives and considers how, as researchers, we can get closer to the authentic, first-hand experience of reading to better understand its potential therapeutic mechanisms. Three case studies, based on reading diaries kept over a period of 2 weeks and subsequent semi-structured interviews, are presented here, to demonstrate what it is that literature can do to and for us. The methodology used to collect the case studies offers a simple and replicable template both for encouraging deep reading and for capturing its resulting therapeutic and psychological outcomes. By highlighting the real experiences of readers as they encounter and engage with a complex and unfamiliar literary text, this article aims to demonstrate how empirical research methodologies can add new purpose and meaning to literary study, and equally, show how "literary thinking" can contribute to the methodologies of psychological study and the formulation of psychological therapies.

KEYWORDS

bibliotherapy, reading and psychology, medical humanities, empirical studies in reading, diary-assisted reading

Introduction

Rita Felski writes in *The Limits of Critique* that:

""Receptivity"... refers to our willingness to become unclosed" to a text, to allow ourselves to be marked, struck, impressed by what we read. And here the barbed wire of suspicion holds us back and hems us in, as we guard against the risk of being contaminated and animated by the words we encounter (Felski, 2015).

The challenge for researchers interested in the intersection of literature and psychology, and in the empirical study of reading, is how to create a space where readers can open themselves to the possibility of being "marked" or "struck" by a text, and to ensure that those resultant marks can be studied objectively. This article offers a replicable methodology with which we can begin to do this interdisciplinary work. Reading here is not an academic exercise or an explicit therapy. This work sits at the intersection between literary study and psychology and seeks to reinvigorate and challenge both disciplines and the toolkits that they use to do their work.

Wordsworth—the archetypal healing poet—sits at the heart of this study. There is a long tradition of readers and writers attesting to the therapeutic power of his poetry, and

the reading experiment discussed here sought to test that therapeutic power on modern readers. Wordsworth's commitment to prevent the wastage of emotional matter—most particularly grief—is important and speaks to the world's current psychological predicament. In the aftermath of a pandemic, we are navigating concentric circles of grief and bereavement: personal, local, national, and global. How do we start to think about and speak about these experiences, if we possess an over-medicalized and quantitative language for processing grief that, night after night, distils bereavement into graphs and charts displayed on the news? In his poetry, Wordsworth offers us an alternative language for thinking about troubles and existing in our grief: not attempting to deny or alleviate its difficulty, but somehow guiding us to put that trauma to use.

The case studies presented here have grief as a common thread. There is the young man who recalls the death of his father 10 years earlier and explores—with what seems like a new syntax and vocabulary learned from his reading—the contagion of grief, passed onto him by his mother. The middle-aged woman, through her reading of the poem, is taken back to her experience of miscarriage, years earlier. And the headteacher, who abandons her default, academic mode of reading the poem, almost against her own will, to face her mother's recent cancer diagnosis. The case studies offer a glimpse of the helpful patterns of thought that reading may open up to us, and the unexpected moments of empathy that they spark, between people and equally, between past and present versions of the same person. Key findings that emerged from the reading diaries of the group include:

1. Readers begin to shift out of default modes of thinking, reassessing their own approach to the poem and adjusting their way of thinking about it as they progress.
2. Readers are able to explore the wider span of their whole lives, quickly getting into the thick of unconscious or unexpected areas of thinking.
3. Readers seem to quickly access unprocessed traumas and begin—with the guiding influence of the poem—to put that trauma to some use within their own minds.

Methods

Twenty adults were recruited to take part in a reading study through advertisements placed across The University of Liverpool campus and in public libraries in Liverpool and London. The only criterion for inclusion was that participants were fluent English speakers. Recruits were aged between 19 and 71 years and had varied relationships with reading: some were avid readers who had studied, or even taught literature, and others had little or no prior experience of tackling a poem.

Participants were divided into two groups, with care taken to ensure that a similar range of ages and educational experiences, and genders were represented in both groups. The first 10 participants were asked to spend 30 min per day for a period of 2 weeks writing about anything that was important to them. The second group of participants was given a plain notebook containing the text of William Wordsworth's poem "The Ruined Cottage." The 1,009-line poem was split into 14 sections of approximately 70 words each. Participants were asked to spend 30 min each day for a period of 2 weeks reading one section of the poem and writing about anything that they felt to be interesting or important to them. Following the completion of their task, readers were invited to semi-structured interviews. Interviews lasted between 1 and 2 h and began with a series of preset questions to understand how the participant had tackled their task and the effect, if any, that it had had on them. Particularly, salient diary entries were pre-selected by the interviewer in advance of the interview to be re-read and discussed; however, it was through open-ended conversation and reflection during the interviews themselves that both the interviewer and participant selected passages together to re-read and think through again out loud. The purpose of the interview was to encourage deeper reflection and further specificity of thought from participants. In the interviews, as throughout this study, my methodological model is practical criticism—the technique of literary analysis that centers on the close and careful reading of the words on the page (Richards, 1930). The diaries and interview transcripts were cross-checked by a group of three psychologists trained in qualitative analysis to build consensus around themes emerging from the data. Each member of the group coded a set of transcripts before coming together for a series of discussions to explore commonalities and differences in perspectives.

The methodology of diary-assisted reading was developed to encourage participants to establish a structured reading and/or writing routine and to engage in daily focused reflection for a period of 2 weeks. It was important that the structure of the task guided participants toward a slower pace of reading. By slowing down, it was hoped that readers—both those with little experience of reading poetry and those with prior literary training—would be able to break away from any learned behaviors or preconceptions connected to reading. The aim throughout was to capture reading in action and to avoid—as far as possible—reductive summary mode. It was important to create an opportunity for readers to respond instinctively and honestly to the text, to let their guard down, and to read and write with vulnerability and sensitivity. The process of shedding preconceptions and moving away from too-easy default modes was a noted feature of many of the groups who were writing in response to the poem, while it was absent from all those participants who were simply writing a daily diary.

The notebooks given to participants contained plain, unlined paper. Each book was tied with a ribbon and the

passages of poetry were roughly cut out and glued onto the pages. A handwritten note was included with instructions at the start of each diary. These small, seemingly inconsequential choices were deliberate. They intended to disarm readers and mitigate the perceived "threat" of the text—articulated by many of the group, who although had voluntarily signed up to take part, initially spoke of their fear of poetry or of being intimidated by past experiences of academic reading and writing. The task had to have none of the look and feel of an academic assignment. Equally, it was important that the methodology contained no explicit reference or echo of a therapeutic task. Participants should not feel that they were undertaking a version of self-help or therapy. Instead, any therapeutic mechanism should be accidental and spontaneous.

The task was designed to bring readers into contact with a Wordsworthian sense of the therapeutic—which is never explicit—but instead related to slowing down and staying within a mental and physical space. The poem "The Ruined Cottage" which was selected for use in this task tells the story of Margaret—a woman abandoned by her husband and desperately awaiting his return. The story is told by a pedlar who once knew Margaret, remembering her life and tragic decline as he sits beside her now ruined former home. It is a poem that places us quietly within the small details of Margaret's life and contains one of the best examples of Wordsworth's version of a kind of therapeutic transmutation. As the Victorian critic Leslie Stephen—who personally attested to the therapeutic benefits of reading Wordsworth—wrote of the poet's commitment to the transmutation of suffering: "Wordsworth's favorite lesson is the possibility of turning grief and disappointment into account. He teaches in many forms the necessity of "transmuting" sorrow into strength [...] the waste of sorrow is one of the most lamentable forms of waste" (Stephen, 1892).

This article does not propose to set out a detailed breakdown of the results of this study or to provide a comparison of the diaries produced by the two groups of participants—which can be found elsewhere (Green, 2020).[1] Instead, I have been purposefully selective with my choice of case studies to begin to draw out thinking about the potential specific value of literary texts in helping humans to think through their experiences of grief. My intention here is not to force a hypothesis out of what is clearly limited data, but rather to begin to show how a literary approach to methodology and psychology more generally may have potential, particularly in relation to how people understand grief. There are obvious limitations to this approach and to the general methodology that I have selected. The presentation of the notebooks and the structure of the tasks may have led to participants feeling obligated to perform in a certain manner. They may have felt a pressure to self-edit their writing, in the knowledge that it would be read and analyzed. A desire to please or perform well may have extended to the interviews, where face to face with the researcher, participants may have felt even more inclined to self-edit or to tell me what I wanted to hear. The small number of participants recruited for the study and the method of recruitment—through libraries and a university—could cause concern and may have limited the diversity of the group. The act of daily writing, particularly for those writing in parallel to reading a potentially emotionally triggering text may lead to potential risks for vulnerable individuals and a power imbalance between researcher and participant. These issues were considered carefully during the study design and in part mitigated by the attempts previously described to uncouple the study from any academic or therapeutic associations. Ethical approval was obtained from The University of Liverpool and all participants provided informed consent before beginning the study. Participants could withdraw at any time. One person did withhold their final diary and agreed only to be interviewed about their experience of the task, feeling that sharing their writing would expose an element of themselves that they were not willing to.

Results

Case study one: Grief is contagious

Michael is a 26 year old waiter from London. He left school aged 16 after completing his GCSEs and has a keen interest in art and design. He has no memory of reading poetry outside of school and was initially hesitant about taking part in the study, commenting that he "felt anxious about doing it wrong," a statement which legitimizes some of the concerns that I had during the study design about the perceived "threat" of an academic task—which persisted for some participants despite attempts to reduce this anxiety. In his first two diary entries, Michael wrote long, descriptive summaries of the extract that he had read that day. However, on the third day of the task, Michael abruptly altered his method. After reading the day's passage, he wrote:

> Stop thinking/being so analytical—feelings/instincts are real and important. I feel I must take this on board. (Day Three)

From this point on, Michael stopped paraphrasing and instead began to write about what the reading was making him feel each day. Michael went on to write about deeply personal topics. In particular, the grief that he and his mother had experienced after his father had died, 10 years earlier, when Michael was 16 years old.

1 The texts produced by group two were expansive in their scope, drew heavily on the participants memories and early childhoods and quickly got into the thick of emotional troubles that participants may have experienced. Conversely, diaries produced by those in group one focused exclusively on the present. While those in group two demonstrated the capacity to shift perspective over the course of the 2-week period, adapting their approach to the task and casting off default assumptions, there was no evidence of this in group one.

On day 12, Michael read a passage of the poem which tells of Margaret's spiraling decline into despair and her subsequent neglect of her young child. The passage includes the lines:

> Her infant babe
> Had from his Mother caught the trick of grief,
> And signed among its playthings (Wordsworth, 2007, I, ll.868–70).

In response to this passage, Michael wrote:

> Grief is contagious. It seems strange to me that she would seem so affected by her husband's grief yet so unaffected by the death of her child. Or I suppose her husband's death had so affected her that the remainder of him (her child) was a burden. Makes me jealous of that kind of love. You want to scream at her "pull yourself together" which makes me feel as though I'm unsympathetic and dead inside myself. (Day Twelve)

Here Michael is writing about both Margaret and his own mother. He is thinking simultaneously about Margaret's husband and his own father and about Margaret's child and his own self. The poem appears to be allowing him to draw closer to his own parallel experiences and to think and say what would be difficult—if not impossible—for him to say to his mother, "Pull yourself together" or "I'm jealous of that kind of love."

During his interview Michael spoke in more detail about how reading the poem had led him to think about grief in a way that he might otherwise have avoided:

> *Michael:* The poem made me think of myself as someone who may have been affected by grief unknowingly.

> *Interviewer:* What do you mean by that?

> *Michael:* Because I have only become a little more tolerant of talking about my own father in the last I would say year or so. Because I never really liked talking about it or anything else and I can't say I was consciously affected by it at the time. It was not... because in the poem it talks about this old woman, and I very much saw my own mum in it. Because she is not the same woman... even now. She is nowhere near what she was. And that was what kind of... I can see how I'm probably a bit more severe in my own nature because she was so miserable. Because I was quite happy go lucky really before that... you know... because I don't like saying it was... because I can't say I ever got on with him, I can't say I ever really liked him, I can't say it was a big loss personally. It was just that thing of how it affected my mother and subsequently how that affected me. Because that was in the poem, I think I just couldn't not write what I wrote. (Interview)

The poem has caused Michael to begin to think about the ways in which grief was transferred between his mother and his own teenage self after the death of his father. This new sense of previously unrealized feeling is articulated here in the silences between words as well as in the words themselves. All of the things that Michael feels he "can't say" pile up here, and yet, it is as if with the help of the poem and in some way shielded by the syntax of the negative, he *is* here able to say the unsayable. This is a small example of a kind of creative inarticulacy that can prove to be therapeutic.

It was moments of personal breakthrough such as this—triggered by immersive, contemplative reading—that this experiment sought to explore, document and analyze. They demonstrate how poetry can guide readers into areas of serious emotional depth and provide them with a language for thinking that helps previously unformed thoughts to surface. Michael has for many years avoided the subject of his father's death, but the poem meant that "I just couldn't not write what I wrote." The double negative form is itself borne out of the literary language that the reader has absorbed, a language that can help us to take hold of those things that we so often do not have the words for, or cannot bear to say.

Case study two: The useless fragment of a wooden bowl

Simone is a 45-year-old Marketing Manager from Liverpool. Unlike many of the participants who quickly began to disclose and explore memories of and feelings about their own lives in their diaries, Simone's submission appeared guarded and focused almost exclusively on her interpretation of the poem, with little allusion to her personal life. However, on day four of the task, there was a sudden surfacing of private trauma and loss. On the page, Simone had highlighted the following lines:

> Beside yon spring I stood,
> And eyed its waters till we seemed to feel
> One sadness, they and I.
> ...
> Stooping down to drink,
> Upon the slimy foot-stone I espied
> The useless fragment of a wooden bowl,
> Green with the moss of years, and subject only
> To the soft handling of the elements:
> There let it lie – how foolish are such thoughts! (Wordsworth, 2007, I, ll.484–496)

In response to these lines, she wrote:

> Soon after I first got married, I quickly became pregnant. But ten weeks later I had a miscarriage. The baby had not survived longer than six or seven weeks, but the bleeding didn't start until the night before my first hospital appointment was due to take place. The doctor said that she would do a scan. She watched on a screen that was angled away from me, but still within view of my husband. She doesn't yet know that he is a doctor too, and he can read the shapes of the ultrasound. So in turn, I watch his eyes as he searches. And I understand what is coming, before the doctor says: "I'm struggling to find an embryo." There is a long, empty silence as she continues to search. Scanning the ocean floor, looking for a sunken wreck. "There is no blood supply," she says. "I'm very sorry." Then she tilts the screen for me to see the black hole inside of me. Lit up all around with the neon glow of blood, a clear circle of blackness at the center. It looked like an image of outer space, taken by a telescope. Why am I writing about this here? It feels inevitable. There is a quietness to death. We are so precarious and that image of my absent baby, that black circle on the screen, was the point at which I felt that precariousness most acutely. There is something about the line in the poem about the "useless fragment of a wooden bowl," I can't help thinking of that scan. The emptiness of it. The poem takes me back to that exact moment in my life. Maybe someone else wouldn't understand the connection. But I feel as I'm reading that the poem understands the connection.

> "There let it lie" the poem says. Okay, I will try. (Day Four)

As Simone writes about this deeply personal experience of grief, she flips into the present tense, "she doesn't yet know that he is a doctor too," "I watch his eyes." It is as if the poem has helped to transport her back into that specific time and place of trauma. Within that experience, Simone is casting about for an image—some form of language—which will reflect what is happening to her; the doctor is searching for a "sunken wreck" on the ultrasound, the image of her empty womb is like something from "outer space." This is both an epic loss and simultaneously a moment of small, near silent, domestic tragedy. Fourteen words are spoken by the doctor—each of them quoted years later by Simone—as if seared in her memory. Both husband and wife are silent, communicating only through their watchful eyes. As in the poem, words are not required for the transfer of feeling and of understanding to take place, "I stood/And eyed it's waters till we seemed to feel/One sadness, they and I." The image of the "useless fragment of a wooden bowl," that Simone—like the pedlar in the poem—has stumbled upon here, powerfully addresses that need within her for an image that corresponds with her feelings. She writes of the poem "understanding the connection" and a level of trust emerges between the reader here and the text itself—borne out of the sense of correspondence that she feels.

Just as Michael had said, "I couldn't not write what I wrote," here Simone writes of the inevitability of addressing her miscarriage within the diary. The poem has led both readers into the thick of their emotional lives and turned what—in regular default mode would be difficult if not impossible to speak of—into an inevitability. In the final sentence of her diary entry for the day, Simone quotes from the poem again, "There let it lie." Held within these four words is a sense of Wordsworth's own hard learnt lesson on grief. It cannot be gotten rid of, left behind, fixed, or perhaps even ever fully understood. Instead, this damaged, broken, painful thing that we hold, should be set down, given its place and "let" to exist there.

Case study three: It was a plot of garden ground run wild

Samantha is the head teacher of a secondary school in the South of England. She teaches English and has studied English Literature to postgraduate level. She is familiar with the poetry of Wordsworth, and in her initial diary entries she frequently referred to what she had formerly learned about Wordsworth at university:

> I think that the description of the sun alongside the 'brooding clouds' description, with the impact of both together on the land, creates a metaphor for the world that I remember from my uni days that this poet inhabited. (Day One).

However, over the course of the task, Samantha appeared to move away from her default academic mode and shifted to a more personal way of reading and writing.

On day 7—half way through the exercise—Samantha reads a description of Margaret's overgrown garden:

> It was a plot
> Of garden ground run wild, its matted weeds
> Mark'd with the steps of those, whom, as they passed,
> The gooseberry trees that shot in long lank slips,
> Or currants, hanging from their leafless stems,
> In scanty strings, had tempted to o'erleap
> The broken wall.
> [...]
> "I see around me here
> Things which you cannot see: we die, my Friend,
> Nor we alone, but that which each man loved
> And prized in his peculiar nook of earth

> Dies with him, or is changed; and very soon
> Even of the good is no memorial left."
> (Wordsworth, 2007, I,ll. 452–74)

In response, Samantha no longer writes as a teacher or a student, she instead begins to react to the poem as a daughter coming to terms with her mother's recent cancer diagnosis:

> I had quite a shock then, reading a description of the overgrown garden, with words like "matted," "leafless," "long lank," "scanty strings" leading then into the man saying what he says about death, and all that we "prize" changing and going with us when we die. I wasn't wanting to think about that, as mum prepares for her op. I'm thinking about the gentle pauses, her lovely garden staying just fine at home for her while dad waits for her to recover and all proceeding forward as it should. I am also a little repelled by the idea that there is "no memorial left" even of the good. (Day Seven)

Samantha appears to find the passage uncomfortable to read. Being faced with an image of an imagined future that she is not ready to accept might become a reality for her is a shock to Samantha and it is this sense of shock that forces her to drop her previous default mode of academic detachment. In this case, her requoting of words from the text is a good thing to come out of her student/teacher experience as it creates a more focused, live reading of the poem. Two weeks later at her interview, I read aloud this same passage of poetry about Margaret's overgrown garden and Samantha spoke again about the fear that it had initially triggered in her:

> Not wanting anything to alter or adjust at all and how like the processes of nature happen anyway no matter what you do and that is quite scary. I've found that, I like that, I really love that passage and I really connected with that passage but at the same time it showed a really powerful advancing of time and nature that is a little bit scary, especially if you are faced with illness at a particular point. The garden itself reminded me of where we lived as kids, they or we had a big garden and I imagine it like now, I imagine it like that, even though they don't live there now. I imagine that if they did, that if mum, I mean mum's getting better, but if she wasn't, there would be that sense of that happening there, and how sad that is. I think that that is a really overwhelmingly sad passage, really powerfully, really powerfully. And how when you go and revisit places, I don't like going and revisiting places particularly because I often find that the experience that you had is altered and not always in a good way. I think that is why that spoke to me as well really strongly in terms of mum's illness, because I don't like going back to where we lived as children in case it has all gone wrong. (Interview)

Rereading this passage of the poem during the interview seemed to help Samantha to quickly get back into the emotions that the text had initially triggered in her. As soon as I had finished reading the passage, she began to speak—not in fully formed sentences—but urgently mid-sentence, keen to articulate, however roughly, the mixture of feelings and memories that the poetry had activated. Reading seems to have become an unexpectedly personal and imaginative process for Samantha, and her case study hints at how reading can perhaps give us a means of imaginatively restoring a place that cannot be returned to in reality.

Discussion

Key findings illustrated in part through the case studies presented here were:

1. Readers begin to shift out of default modes of thinking, reassessing their own approach to the poem and adjusting their way of thinking about it as they progress.

It is perhaps in matters of grief that our default modes of thinking about and processing the world show themselves to be most inadequate. Grief demands more from language, although not more in terms of articulacy or even vocabulary, it demands a more nuanced syntax that can accommodate inarticulacy and silence within it. As Michael clearly showed in his early change in approach to reading the poem, his automatic default of overexplaining and describing did not serve him. In realizing this, he was able to adapt and get more out of the poem and himself as a result.

2. Readers are able to explore the wider span of their whole lives, quickly getting into the thick of unconscious or unexpected areas of thinking.

The poem appeared to act as a guide to readers, drawing them back into the thick of their emotional pasts in a way that was unexpected for many and perhaps also uncharacteristic. The poem appeared to give more to the readers than they had expected, once those default barriers had been disarmed, and as such they in turn were able to offer more back in the process of reading.

3. Readers seem to quickly access unprocessed traumas, and begin—with the guiding influence of the poem—to put that trauma to some use within their own minds.

In small ways, readers appeared to hit upon new truths or previously unrealized understandings of their past experiences, and while this sometimes involved returning to places of intense personal sorrow for them, by returning, staying within and in some way reconfiguring that sorrow, through the supportive correspondence of the poem, they were able to achieve some sort of therapeutic breakthrough.

Data availability statement

The original contributions presented in this study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by Institute of Psychology, Health and Society, the University of Liverpool. The patients/participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual (s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Moments of meeting: A case study of Shared Reading of poetry in a care home

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There is a growing research interest in the value of participative arts-based strategies for enhancing wellbeing amongst adults living with dementia. One such intervention, centred around literature, is the group activity called Shared Reading. The purpose of this case study of weekly Shared Reading sessions of poetry in a care home in Merseyside is to investigate instances of how participants with mild to moderate dementia collaborate in processes of meaning-making that allow them shared experiences of *being moved by poetry*. An under-thematised aspect of psychological wellbeing is the capacity for being moved and for sharing such moments. This article addresses the following question: how can the specific multimodality of the text (participants have a copy of the text before them, the poem is read aloud and there may be use of non-verbal aids) in the Shared Reading model help to bring about such experiences? Using Stern's concepts of Now Moments and Moments of Meeting, this case study discusses various instances of unpredictable, surprising and spontaneous intersubjective moments between participant and poem, participant and reader leader, participant and staff, participant and relative.

KEYWORDS

Shared Reading, dementia, moments of meeting, intersubjectivity, poetry

Introduction

In recent years "there has been a growing awareness that art and aesthetics have an important role to play in delivering healthcare as well as a reappraisal of the associations between the arts and society in general" (Zeilig et al., 2018, p 135). Concomitantly, there has been increased research interest in the value of arts-based strategies for enhancing wellbeing amongst adults living with some form of dementia. Many subtypes of dementia have been defined, each with a different pathway or process (Stephan and Brayne, 2010), but in general terms dementia is characterised by progressive decline in cognition of sufficient severity to interfere with activities of daily living (Knopman et al., 2001). In their review Beard (2011) differentiate between two distinct orientations underpinning participative arts interventions: art as therapy, and art as activity. The former has a biomedical focus, emphasising clinical outcomes, such as the reduction of the behavioural and psychological symptoms of dementia, whereas the latter prioritises person-centred

outcomes, such as providing a source of pleasure and enhancing quality of life. The emerging consensus is that interventions using music, dance, drama, visual arts, and poetry provide positive outcomes for people with dementia (Selberg, 2015). Concretely, they have been found to improve subjective wellbeing (Johnson et al., 2015), learning (Bannan and Montgomery-Smith, 2008), the opportunity to exercise autonomous choice (Melhuish et al., 2017), and enhanced quality of life (Hannemann, 2006).

These findings, however, remain tentative. In a critical review of participative arts interventions, Zeilig et al. (2014) emphasise that adequately evaluating complex interventions such as participative arts projects is difficult as they involve interrelated variables, confounding factors, and a range of possible outcomes. Specifically, as regards poetry interventions, they conclude that "despite the anecdotal evidence that many projects use poetry and creative writing with people living with dementia, studies evaluating the efficacy of these interventions (especially from the point of view of the PWD) are scant and work examining the applications of poetry using rigorous, robust methodologies is rather sparse." (p. 23). When it comes to Shared Reading, however, such rigorous investigations into the impact and effect of reading literature with people with dementia have been undertaken. Billington et al. (2013) have studied Shared Reading conducted in care homes, hospital wards and day centre. Using the Neuropsychiatric Inventory Questionnaire (NPI-Q) to assess staff views of changes in dementia symptom severity for participants in the Shared Reading groups, they found a significant reduction. This effect was predicated not only on enhancement of listening, memory and attention, but also on enjoyment, meaningfulness and renewed sense of personal identity. Furthermore, Longden et al. (2016) carried out a RCT on Shared Reading for adults living with dementia. Quality of Life was measured and the study found that compared to the control condition, the positive effects of Shared Reading on QoL were maintained once the activity ended.

According to Dowrick et al., Shared Reading "not only harnesses the power of reading as a *cognitive* process, but also acts as a [...] socially coalescing presence, allowing readers a sense of subjective and shared experience." (Dowrick et al., 2012, p. 16). It is this power of Shared Reading to create meaningful interaction and a coalescing presence I wish to explore in this article. The purpose of this case study of the use of poetry in weekly Shared Reading sessions in a care home in Merseyside is to investigate instances of how participants with mild to moderate dementia collaborate in processes of meaning-making that allow them shared experiences of *being moved by poetry*. An under-thematised aspect of psychological wellbeing is the capacity for being moved and for sharing such moments. This article addresses the following question: how can the specific multimodality of the text (each reader has the text before them, the poem is read aloud and there may be non-verbal props in the form of, e.g., photographs related to motives in the poem) in the Shared Reading model create moments of meeting?

Method and theory

The study is inspired by ethnomethodology's focus on the processes of meaning-making that are present in social interactions (Garfinkel, 1967). Thus, the process of meaning-making of the literary text is embedded in a group setting, and the group is formed and created through this practice. There is also an action research motivation underlying the study, which "aims at changing three things: practitioners' practices, their understandings of their practices, and the conditions in which they practise" (Kemmis, 2009, p. 463), and which is thus both practice- based and practice-led (Candy, 2006). This case study is based on weekly sessions of Shared Reading in a care home in Merseyside carried out over a period of 12 weeks. The average number of participants was 7–8, ranging from 5 to 12. Some of the participants showed only mild symptoms of dementia, while others had quite severe cognitive impairments. None of the sessions were audio-recorded, so that the empirical material consists of post-session notes made by me as both reader-leader and researcher. The real names of participants have been altered, so that pseudonyms are used throughout, and identifiable information has been excluded. Sessions were conducted in a secluded corner of an open lounge, where we would sit in comfortable chairs forming a neat circle.

All case studies spring from the need to develop in-depth understanding through empirical research of a contemporary phenomenon, based on a small set of instances and complex conditions set in their real-world contexts (e.g., Bromley, 1986). This case study is both descriptive and explanatory (Zeilig et al., 2018) in that it seeks to describe what happens/appears in sessions of Shared Reading, in light of a theoretical framework borrowed from intersubjective psychotherapy. Previous studies of Shared Reading have identified "breakthrough moments" (Davis et al., 2016; Gray et al., 2016; Longden et al., 2016)–moments in which cognitive and affective turning-points take place that may have lasting benefit for the participant, when

> The literature seems to get through to participants, and participants seem to experience a change or awakening taking place beneath the level of intention and beyond the general norms of response or opinion. Evidence that something significant had happened, through a change in the perception of reality, was sought through analysis of the transcripts. These moments, themselves specific and emotionally powerful, were often shown to the participants at interview, to test their validity and significance (Davis et al., 2016).

Such breakthrough moments are understood as intrapsychic events that may be communicated to the group, but can also be private events not shared in the group with the reader leader or other members. For an in-depth discussion of such a private breakthrough moment that had long-lasting life-changing effects, (see Tangerås, 2020). As such, they are similar to what Stern et al.

term "now moments", characterized by elements of surprise, spontaneity, unpredictability and heightened affect:

> These moments are pregnant with an unknown future that can feel like an impasse or an opportunity. The present moment becomes very dense subjectively as in a "moment of truth"… a "now" moment is an announcement of a potential emergent property of a complex dynamic system. Although the history of its emergence may be untraceable, it is prepared for with fleeting or pale prior apparitions, something like a motif in music that quietly and progressively prepares for its transformation into the major theme. Still the exact instant and form of its appearance remain unpredictable (Stern et al., 1998, p. 912).

Such "now moments" may turn into intersubjective moments of meeting. If it is mutually recognized and grasped, the opportunity becomes "lit up" as an affectively rich "moment of meeting" in which "each partner has actively contributed something unique or authentic of his or herself as an individual" (p. 913):

> The key concept, the "moment of meeting", is the emergent property of the "moving along" process that alters the intersubjective environment, and thus the *implicit relational knowing*. In brief, *moving along* is comprised of a string of "present moments", which are the subjective units marking the slight shifts in direction while proceeding forward. At times, a present moment becomes "hot" affectively, and full of portent for the therapeutic process. These moments are called "now moments". When a now moment is seized, i.e., responded to with an authentic, specific personal response from each partner, it becomes a "moment of meeting". This is the emergent property that alters the subjective context (Stern et al., 1998, pp. 909–910).

This kind of emergent property can only arise if the moving along occurs within a context that is rule governed by an established technique that is (implicitly) well understood by the interactants. Affective sounds, head nods, eye contact, and other nonverbal communication are often observed in such moments, followed by brief pauses of "open space" where each sits with and takes in what just occurred. Stern gives two concrete examples: looking at someone in the eyes who is looking at you, and taking a deep breath while talking to someone (Stern, 2004, p. xv). According to Stern, moments of meeting constitute "the key moments of change in psychotherapy" (Stern, 2004, p. xi).

The Boston Process of Change Study Group developed the theory based on detailed observations of "implicit relational knowing" in mother-infant interactions (Stern et al., 1998) and the theory has been applied principally to psychotherapy, but increasingly also to other contexts of pedagogy and learning. For instance, Schneider and Keenan find that "the intersubjective space of the classroom can provide students with experiences of being known and "moments of meeting" which can result in transformative learning" (Schneider and Keenan, 2015, p. 1). There are four distinct phases: moving along, now moments, moments of meeting and open spaces. These are directly applicable to Shared Reading. Thus we may say that "moving along" corresponds to the activities of "getting into" and "staying with" the poem in Shared Reading–the normal procedures of asking questions in relation to the poem, commenting on it or responding to other members' comments. This "moving along" may be punctuated by "now" moments, akin to "breakthrough moments". If these moments are fully met and responded to by either the reader leader or another participant, there may be a moment of meeting, which subsequently segues into an "open space" of stillness and change of affect. In the following I will, through eight vignettes, explore such moments of meeting.

Moments of meeting

An unexpected procedural rupture marked by co-creativity

The first moment of meeting occurred at the very end of the initial session. We had been reading and talking about Philip Larkin's poem Coming. I had chosen it on the basis of personal liking as well as having witnessed it being used with success by another reader leader in a different care home. The poem's theme is resonant for the participants in that it treats of specific childhood memories, and also of implicit affective knowing that may not be verbalizable: "…. And I, whose childhood / Is a forgotten boredom, / Feel like a child /Who comes on a scene / Of adult reconciling, / And can understand nothing / But the unusual laughter, / And starts to be happy". However, although the discussion was productive and touched upon memories of both spring and childhood, the session may be understood to have been marked by a "moving along", in that no apparent "now moments" occurred. It was pleasant and several members contributed actively – questioning the metaphor of foreheads of houses being bathed. But then at the end something unprecedented happened. It is customary to round off the session by a final reading aloud of the poem, ideally a reading which assimilates and is resplendent with all the various meanings we have touched upon during the dialoge. I proceeded to end the talk, and said "so, let us read the whole poem one final time." As I started to read the first words, "On longer evenings…," the participants joined in, one after the other, building to a chorus as we all solemnly but with enjoyment read it aloud together. An entirely surprising, unpredictable and affect-laden experience, and the participants could see that they had greatly surprised me, and several smiles were exchanged. From this moment of meeting, an "open space" was clearly opened up, as we just sat in silent tranquil enjoyment for a long while afterwards. How this arose I will never know. Perhaps it stemmed from a practice common during their school days, which they simply assumed was what we were meant to do. Alternatively, they

took my words at face value: "let *us* read it." What is more important is that this moment created a change of procedure and established a group culture, as on each subsequent occasion we would repeat the chorus at the session's close. It was an important instance of co-creation (Zeilig et al., 2018), of everybody contributing toward a socially coalescing, implicit relational knowing.

Acknowledged discovery of performative skills in participant

The following week I opted for Christina Rossetti' sonnet *Remember.* This may have been a bold choice, as it encourages participants to envisage themselves saying goodbye to a loved one or indeed to life itself. But I knew other reader leaders had used it in care homes. Once again the now moment was connected to the reading aloud aspect. This time, however, it was the surprise discovery of the declamatory abilities of one of the participants that really stood out. The standard procedure in Shared Reading is for the reader leader to read the poem aloud once, and then leave a pause, and if no one comments then offer to read it again, inviting the participants to have a go. At first it did not seem as if anyone would accept the invitation, but then I happened to glance at Katherine, who until this point had been very quiet and avoided eye contact with other participants. She looked up and met my gaze, but did not say anything. By now she seemed fully alert and present. I took a chance and addressed her directly, inviting her to read aloud. Such direct requests can be risky, and in general I tend to avoid them, but I got the sense that she wanted me to ask her. She hesitated for a few seconds, then launched into the most beautiful rendition of the poem, mellifluous, sonorous and rhythmic. Evidently, her reading prompted immediate recognition from the group, as members exclaimed, "ah, that was wonderful" and "thank you." Katherine seemed both energized and proud afterwards – a clear now moment. I consider it also as a moment of meeting in that her skill was acknowledged by us. We would remember this, so that next time, when reading Wordsworth's Composed Upon Westminster Bridge, participants actively encouraged her to open the session by reading it, and I conceded that she would perform it better than I could. As such, it marked a rupture from normal procedure where the reader leader starts by reading the poem aloud. It was a moment that altered both of us. It transpired that she had been a teacher by profession, and also engaged in amateur theatre groups in her younger years.

I must go down to the seas again

Many people in Merseyside have a connection to the sea, so I thought it would be good to include John Masefield's poem *Sea Fever.* The poem gives voice to a universal longing and should therefore appeal to the whole group. Our subsequent discussion proved me right in this, as participants reminisced about family members or days gone by. One of the participants, Henry, told us of his time working in the port, and reflected upon how much society has changed since then. But again, the now moment was related to the act of reading the poem aloud. In another article I have thematized the *double modality* of Shared Reading, the affordances made possible by participants having a copy of the text to read and at the same time being able to listen to the text being read aloud (Skjerdingstad and Tangerås, 2019). In Shared Reading in care homes, this may be expanded to a multimodality (Jewitt, 2007; Kress, 2010). It can be very productive to bring along photos of images related to the poem, for instances pictures of birds (such as a thrush in the case of Larkin's poem) so that participants more easily and vibrantly can envisage the world of the poem. This time, in leading the discussion, as I repeated several of the stanzas of this poem–which is marked by a series of repeated conjunctives ("and," "and") and has a very strong rocking rhythm reminiscent of waves–I would use nonverbal gestures to evoke the imagery. Using exaggerated rhythmic hand gestures and gently swaying my upper body from left to right, I attempted to embody the motion of the waves and the sounds of the sea. This was apparently successful: one participant, Margareth, seemingly without being aware of it, starting to move along in imitation of my gestures. Afterwards, I remarked to her: "you enjoyed that poem, did not you, Margareth?" and she nodded vigorously. The reason I interpret it as a now moment turning into a moment of meeting, is that she was subsequently more active in our discussion of the poem than she had been in previous weeks. She said she could vividly hear "the cry of the gulls, and the splashing of the waves and the feel of the salty wind on my face," thus reiterating not just the images but the repetitions of the conjunctive "and."

The reluctant relative and the fear of being upset

Just as we were about to begin a session, we were interrupted as the husband of one of the participants, Jill, came to visit her. I explained to him about the Shared Reading and that it was open to all, but he was very skeptical and expressed concern lest his wife get "upset" by the poem. Instead of contradicting him, I simply invited him to take part so that he could look after her in case she did get upset. However, as he could see that Jill was contentedly listening to the reading, and also chipping in with some comments during the discussion of the poem (Shakespeare's Sonnet XXX), he started to relax. Jill seemed very pleased and proud to show him what she was part of, and in the way he looked at her afterwards, I could sense that he acknowledged this, and that there was a moment of meeting between the two of them. They took a copy of the poem away with them, as he wheeled her back to her room afterwards. It made me reflect on the word "upset." Although it has a negative valour and is connected to unwanted feelings, it is closely connected to "now moments", in that it represents a rupture which opens up the possibility of repair, if met with empathy.

To those first feelings that were born with me

A now moment may come as a rupture of an interaction pattern or a set way of doing things. One of the regular group members, Elsie, would, as soon as we had finished reading a poem aloud, invariably exclaim, regardless of the poems content or tone: "aw, that's nice." This habitual response was probably a collaborative effort, to show her appreciation. But she seemingly could never follow up on that remark by entering into exploration of the words on the page. The first time she said it, I simply nodded in acknowledgment and smiled, hoping for more. The second time I asked whether there was something particular that she liked about the poem. Perhaps that was too challenging, because she became flustered and bewildered, as if she had been rebuked. On other occasions, someone else would start talking afterwards. On this particular occasion, however, something happened. The poem in question is a rather difficult poem by Emily Brontë, "Often rebuked, yet always back returning". (Curiously, the opening two lines seemed to address this particular sensation: "Often rebuked, yet always back returning / To those first feelings that were born with me.") After Katherine had read the poem for us, there was a pause, and Elsie made to say something. I expected the usual comment, but this time she instead proceeded to read aloud the penultimate stanza of the poem:

> I'll walk where my own nature would be leading:
> It vexes me to choose another guide:
> Where the gray flocks in ferny glens are feeding;
> Where the wild wind blows on the mountain side.

It was very evident that this had made an impact on her, as she was straining to articulate something. "My parents and I, I remember… Us going hillwalking. Going to the mountains. It was windy, the nature, lovely." She wanted to say more, but stopped. It was clear that it was the concrete stanza that had elicited a specific episodic memory. Although not very detailed, the memory evidently had a specific feel to it, as her tears welled up and she looked up into the distance as if she could see the mountain top. So I repeated the last line of the stanza whilst getting eye contact, and she nodded as if I had understood. The importance of increased specificity of memories has been demonstrated by Serrano et al. (2004); using Autobiographical Retrieval Practice, they found that older adults showed decrease in hopelessness and increased life satisfaction when enabled to retrieve specific memories from childhood.

Dear John

The Friday following Remembrance Day we read a poem by Robert Herrick, "To Anthea who may command him anything." The group all agreed it was a lovely poem. One participant suggested it might be a letter from a soldier to his girlfriend back home. Another member picked up on this idea, raising the question whether it could have been a Dear John letter. Then Henry divulged a very significant biographical memory: he had been a soldier, and had been very much in love, "but when I got back home she was seeing someone else." And then he told us he had never got over it and had never married. The participant sat next to him reached out to him and said "that is really sad," while gently touching his shoulder. And then someone else spontaneously read out loud the third stanza:

> Bid that heart stay, and it will stay,
> To honour thy decree;
> Or bid it languish quite away,
> And 't shall do so for thee.

His recollection sprung out of the poem, and his disclosure elicited genuine empathy from several other participants. Furthermore, staff told him afterwards that they did not know this about his life, and felt that they had got to know him better. I consider this an instance of a moment of meeting between poem and participant, between participants, and between participant and staff. The suggestion that the poem was about a soldier writing home was not an obvious one to me. It made me speculate about the following: During our previous session, on Remembrance Day, we had read MCMXIV by Larkin, which famously ends:

> Never such innocence,
> Never before or since,
> As changed itself to past.
> Without a word – the men
> Leaving the gardens tidy,
> The thousands of marriages,
> Lasting a little while longer:
> Never such innocence again.

Could it be that the memory of this poem was carried over into the reading of the Herrick poem, that the context for Larkin's poem resonated with Herrick's love poem? As if there had been a moment of meeting between the two poems themselves.

I hear it in the deep heart's core

Upon reading Yeats' famous poem The Lake Isle of Innisfree, several members said they liked and enjoyed it. One of the new members spoke a lot, sometimes engaging with the poem, other times veering off into off-topic reminiscences and confused thoughts about present and family relations. Henry was the first to question the poem, wondering "how can you possibly hear the water lapping when you are stood in a road in the midst of city noise?" Another participant suggested that he could still hear it inside him, in his heart. Then Elsie read a line out loud: "And I shall have some peace there, for peace comes dripping slow." Pat then commented that it said

some peace, that maybe there was still unrest, disquiet in this person. Henry, having pondered the meaning of the last stanza, then seemed able to relate to their comments, offering the suggestion that the person wanted to get away from his past, and that sometimes the dream is a means of escape. After musing for a few seconds, he thought perhaps it could be somebody who has lost what he has. I think that is quite a profound reading. In this poem's repetition of "I will arise and go" there is a clear allusion to the (King James) Bible, to the parable of the Prodigal Son who indeed loses all he has and goes back home. I am not saying that Henry was cognizant of this allusion, but it was his interpretation that made me connect the poem to the parable, hence he expanded my understanding of the poem. When I acknowledged his interpretation, saying I had never thought of that, he gave me a little smile.

After the end

The final moment I will relate is an astonishing one. As I walked through the tv-lounge on my way to the corner where the group assembles, I noticed an old lady sat slumped in front of the telly. She did not look as if she would be able to join in the Shared Reading, as she was unable to raise her head, and when I went up to talk to her, a member of staff said that she was too ill to take part. However, when I asked her whether she might like to listen to a poetry reading, she responded affirmatively. Maeve was duly placed within the circle of participants, but was unable to hold the sheet of paper containing the poem Rainbow Children by Seamus Heaney. Kindly, Pat, the participant next to her, assisted her by holding it up for her to see. Frankly, I expected little from Maeve by way of active participation. But in this I was wrong. We read and discussed the poem. We spent some time trying to figure out the details of the setting, how the children could be eye-level with the white cups. We read it through several times.

I felt that the session went ok, although perhaps they found it harder to engage with this poem than I expected. They did, however, engage in some complex thinking about the relationship between then and now, the individual and time, elicited in particular by the line "we were small and thought we knew nothing." Only after we had finished reading it aloud together one final time did Maeve speak. In a barely audible voice she related how God had talked to her while she was walking to school one morning when she was "only little." And that she had told no one about this, not daring to tell even her mum. This was brought about by the religious imagery of the poem's ending, where the raindrops are "full with the light of the sky" and the children "could stream through the eye of a needle." In terms of "open spaces", I think the sharing of this remarkable biographical incident opened up the poem for us all.

Conclusion

> "O body swayed to music, O brightening glance,
>
> How can we know the dancer from the dance?"

These vignettes describe eight moments that I understand to be now moments that became moments of meeting. Extrapolating from a psychotherapy context, we may say that insofar as the now moment is sustained and shared between two or more subjectivities–reader leader and participant, between participants or relatives/members of staff–as long as the other is able to grasp the moment and explore it, the possibility of a moment of meeting emerges. In a qualitative study of a variety of therapists from different orientations, Duarte et al., 2022 found that.

> Moments of meeting were described by all therapists as co-constructed moments that take place during the process through therapist-patient interaction. These moments are spontaneous and lived as a genuine and unplanned experience. They are creative, unique and singular experiences that produce feelings of emotional synchrony that can take different forms and levels of intensity. (p. 516).

Furthermore, all therapists interviewed agreed that these moments have a very powerful effects for the therapy process and that they "also have a long-term effect that expresses later during the process. (p. 517)," thus contributing to long term changes. Did the moments of meeting I have described lead to lasting change? I have no way of knowing, but they may have effected change in the short term. One thing is for certain, though: They have had a lasting impact on me and constitute some of the strongest experiences I have had as a reader leader. Duarte et al. suggest that.

> Another interesting area for further research is the effect that MoM may have on the therapists and if it is possible to understand them as therapeutic for the therapist as well as the patient. We hypothesize that through these reminiscences and experiences we can also see a profound psychological effect on the therapist that may influence and reinforce their work and their role. (p. 522).

I think this is a topic that would be interesting to explore in the context of participative arts and bibliotherapy: how is the practitioner changed by her practice?

Data availability statement

The datasets in this article are not readily available because the empirical material consists of field notes. The names of all

participants have been altered. Pseudonyms are used throughout. No specific biographical information about participants' backgrounds is included. Requests to access the datasets should be directed to thormagnus.tangeras@kristiania.no.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

Author contributions

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Regaining autonomy, competence, and relatedness: Experiences from two Shared Reading groups for people diagnosed with cancer

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This study explored 12 cancer patients' experiences from participating in an online and on-site Shared Reading group for 16 weeks in Norway. Shared Reading is a practice in which prose and poetry are read aloud in small parts and discussed along the way. The study is a qualitative evaluation study with a particular focus on how the participants experienced the reading group supported their life living with cancer. The study was mainly based on the data collected from focus group discussions with the participants, which was analysed qualitatively through open coding. In total, four themes were identified: (1) open space, (2) disconnecting through connecting, (3) community, and (4) resonances and echoes. The participants expressed that the RG helped them to "balance life and cancer", and "disconnect" from their illness. The cognitive effort needed was beneficial for the participants as a form for "cognitive training." Since many of the participants had, due to their illness, completely stopped reading books, the reading group also brought literature back into the participants' lives. Furthermore, it was essential for the participants to feel they contributed to a community, to feel useful and valuable for others. The texts were also important, as some of them resonated strongly with the participants in the way of activating memories and connecting a text to own experiences. After a session, a text could still have an impact as an echo. The results are synthesised, discussed, and supported through the framework of self-determination theory and, more specifically, the basic psychological need theory. The reading group was experienced as a

support for autonomy, competence, and relatedness and promoted a feeling of intrinsic motivation that brought about new dimensions in the participants' lives. The study wishes to increase our knowledge of the benefits of integrating Shared Reading groups as a low-cost, literature-based psychosocial support in cancer organisations.

KEYWORDS

Shared Reading, cancer patients, arts in health, literature, quality of life, psychosocial intervention, mental health, self-determination theory (SDT)

Introduction

This study investigated Shared Reading (SR) experiences of 12 patients with cancer, on-site and online, with focus on whether SR can be an alternative way to cope with cancer.

Cancer diagnoses and treatments can have a wide-ranging impact on mental health and the overall quality of life (Walker et al., 2013; Caruso et al., 2017; Pitman et al., 2018; O'Hea et al., 2020). However, the mental health needs of people with cancer are often given less attention during and after cancer treatment, which is mainly focused on treating physical health symptoms and side effects (Niedzwiedz et al., 2019). Thanks to the advances in early detection and treatment, a chronic illness has become an illness people are living longer with; prolongment of patients' lives are now followed by an increasing recognition of the quality of life of people with cancer (Galway et al., 2012, p. 4). In addition, studies show that the COVID-19 pandemic has caused a high prevalence of psychological problems and gaps in mental health services for cancer patients (CPs) worldwide (Wang et al., 2020; Gallagher et al., 2021). These developments point to an urgency of paying more attention to psychosocial and holistic aspects of health care (Adler and Page, 2008). If the psychological needs are not met, then there is a higher risk for patients to develop mental disorders such as depression and anxiety, which negatively affect the process of recovery (Gordon et al., 2011).

Psychosocial interventions, such as social support groups, have been investigated as an effective way to reduce psychological distress in CPs and improving patients' quality of life (Osborn et al., 2006; Galway et al., 2012; Sheinfeld Gorin et al., 2012). Within these, there is a major increase of research in the interdisciplinary fields of Health//Medical Humanities, arts in health and Narrative Medicine into the effect of the arts on health and wellbeing. In 2019, this development was recognised in a scoping review published by World Health Organization (Fancourt and Finn, 2019), which showed a robust impact of the arts on both mental and physical health. It identified how the arts can provide a holistic lens to view conditions that are often treated primarily as physical. Although the review includes over 3,000 studies, there are very few studies conducted with fiction reading as most studies with reading are bibliotherapy using self-help books. This does not necessarily indicate a gap in the report, but reflects the fields in general: literary-based interventions have received less attention. This oversight of literature is more problematic when one considers a body of literature within the newly established field of SR that has explored the link between reading and health research. SR is a specific literary activity contextualised in reading groups, developed, and practiced within the UK-based Get Into Reading (GIR) program and in the charity organisation (The Reader, n.d.). It is characterised by reading aloud a short prose text and a poem, a "Reader Leader" (RL) to guide the conversation, and group interaction. SR is a non-clinical intervention, as it has focus on the engagement with the literature and not a pre-determined therapeutic target (Billington et al., 2013). The health outcomes have been tested on various patient groups and have showed positive results for people with dementia (Longden et al., 2016), chronic pain (Billington et al., 2014, 2017; Ohlsson et al., 2018), and neurological conditions (Robinson, 2008b). Apart from those studies, the main body of the research concerns mental health issues (Robinson, 2008a; Billington et al., 2010; Dowrick et al., 2012; Steenberg, 2014; Gray et al., 2016; Ellis et al., 2019; Billington, 2020; Kristensen et al., 2020; Christiansen, 2021; Christiansen and Dalsgard, 2021), and this research is very promising. However, somatic diseases such as cancer, which is associated with heightened risk of common mental disorders, (Zhu et al., 2017), are underrepresented in the current studies.

The purpose of the current study was 3-folds: First, to investigate how SR was experienced as beneficial for people living with cancer. Second, to develop a coherent theoretical framework that captures the complexity of the participants' experiences, and that can be used as a basis for future research within SR. Third, a more long-term purpose is to move cancer organisations and policymakers to action.

The qualitative and inductive analysis was guided by the language of the participants. A theory that springs from the empirical material is brought into the discussion to frame the

Abbreviations: BPN, basic psychological needs; CP, cancer patient; RG, reading group; RL, Reader Leader; SDT, self-determination theory; SR, Shared Reading.

findings: Self-determination theory (SDT; Deci and Ryan, 2015) with focus on basic psychological needs theory (Ryan and Deci, 2017).

Materials and methods

The organisation of the reading groups

The SR groups were run in two parallel modes in the period September 2021–January 2022 in Norway: one series of physical meetings taking place at a cancer organisation, and one series of online meetings hosted by a hospital library using the secured video platform, Whereby. The participants in both groups had the option to continue for another 4 weeks (16 weeks in total).

The organisation of the reading group (RG) follows The Reader's SR practice (Davis, 2009; Billington et al., 2013; The Reader, 2019), with 1-h reading and discussing a prose text, often a short story; 30-min reading and discussing a poem. The participants did not read the text beforehand and were not informed about which texts they were going to read. As such, there was no prior preparation required by the participants.

The texts were read aloud by a RL. In the on-site group, the participants received a paper copy, whereas in the online group, the text was shared on the screen. For some of the texts, the RL chose to remove the author's name to avoid personal bias.

During the reading, the RL initiated pauses that opened for a group discussion. As such, they were discussing the text before knowing how it might continue. Moreover, the RLs and I agreed on some adjustments specific for the target group to avoid fatigue and concentration issues, e.g., a 5-min break between the short story and the poem, using short stories with only few pages, and using more chronological stories. In addition, the RLs sometimes reread the first paragraph, as the participants often needed some time to get into the text, and when discussing, to ensure everyone understood the text, the RLs used a lot of time on "the concrete level": when, where, what, and who (refer to Appendix 1 for a full description of an on-site and online SR session).

The Reader Leaders

The RLs were librarians with a Norwegian certification and experience in SR.

Participants

In total, 12 female CPs consented to participate in the study (eight participants in the on-site group and four in the online group). The mean age was 51 years, the youngest participant being 23 and the oldest 69. The majority, eight participants, had completed higher education, three had vocational degrees, and one a high school degree. Now they worked either part time, were on sick leave, or had retired.

The participants were diagnosed with various types of cancer between 2012 and 2021, and for some of them, the cancer had recurred recently. Therefore, some of the participants were undergoing chemotherapy or other types of cancer treatment, others just finished their treatment, and some were on life-prolonging medication.

The recruitment for the on-site group was *via* local cancer organisations and cancer nurses at the local university hospital, while recruitment for the online group was through national cancer organisations, where the RG was advertised on their social media platforms. For both groups, project information sheets were distributed at cancer organisations, hospitals, and libraries.

The selection criteria for the participants were adults (18+) with a cancer diagnosis, who could understand Norwegian. The intention was not for the group to be all female, although it could be because a RG might appeal more to women than men (Hartley, 2002; Sedo, 2003), and that women in general utilise community offers, for example, the local library, more than men (Applegate, 2008).

The attendance rate was highest in the on-site group with two to six (out of six) participants in each session. In the online group, there was less stability in attendance with one to three (out of four) participants in each session. The attendance rate was lower because some participants had treatment and surgery in between. During the course of the RGs, two participants withdrew from the study: one from the on-site group and one from the online group.

Data collection

Data were collected during 16 reading sessions from the two RGs ($N = 12$), over a period of 4 months.

Data collected during group sessions

In the beginning, the participants filled out a background questionnaire to collect demographic data, information on the participants' cancer diagnosis, reading habits, and motivation for signing up. During the sessions, I collected data through participant observation (Fangen, 2017) in 31 sessions supported by field notes and audio recordings. The benefit of using this method is to get an in-depth experience and understanding of the participants' experiences and the phenomenon studied.

Data collected after the reading group

The intervention was evaluated in a final focus group session of approximately 2 h with the participants, one for each group, and an additional focus group after a 4-week SR extension with three new participants in the on-site group. The focus groups started with a 5-min prompted writing task: 1) What has been most important for you in the RG? (refer to Appendix 2 for

the interview-guide). Then, a semi-structured interview was conducted with the RLs to get further insight into how SR can be adapted to CPs.

Data analysis

The analysis was inductive, and data-driven, which is why I decided to use open coding on the transcripts of the focus groups. First, I read and reread the transcripts, and during the second reading, I did a pre-coding (Layder, 1998) by commenting and highlighting everything of interest. Then, I continued with a structural coding in NVivo, also known as "utilitarian coding" (Namey et al., 2008; Guest et al., 2012), to code data segments into the different elements in the RG (e.g., group discussion, reading aloud, the RL, the participants, the texts, or outcomes). Hence, the similarly coded segments were grouped, and I could go into the content of the individual structural codes and continue analysing in-depth. At that point, I used a descriptive coding, combined with *in vivo*-coding (Glaser and Strauss, 2010, reprint; Charmaz, 2014; Corbin and Strauss, 2015), two coding strategies that are close to the terms and language used by the participants. Thus, I worked with the data on two levels: on a structural level and a more analytic level. Afterward, I continued the coding process manually, sorting the references to the participants' experiences from the focus groups into categories. This manual process, after the coding process in NVivo, helped me to do an axial coding by grouping the codes into bigger categories and then into bigger themes. In this process, I worked with mind-maps and discussed my codes and categories with peers, and these steps helped me to see overlaps and connections in the material. I ended up with four overall themes, which present the essence of the data. Together, the themes constitute a theory enhancing our understanding of why SR is experienced as beneficial, and how it can potentially work as a coping mechanism for CPs. I went back and forth between data and my interpretations in an iterative process.

Reflexivity

Preunderstanding

Before the data collection, I took the course to become a RL in Norway to get a richer understanding of SR both as participant and RL. I was in general aware of previous and ongoing research within SR.

Role as a researcher and a participant

The participants were informed beforehand about my presence in the sessions as observer *and* participant.

I found it difficult to write field notes during the session, as I was also a participant and had to follow the reading and the discussion very thoroughly. Also, it might have been experienced as a disruption for the participants; if I were taking notes all the time, it could have added to their sense of being observed.

I experienced a dilemma coming from the two positions in "participant-observation"; my research interest would sometimes influence my participation. I will explain it through an empirical example: We read the poem "The Road Not Taken" by Robert Frost (2019) and talked about choices in life and how our choices had led us to where we are today. Halfway through the discussion, I said: "It can also be an event that brings you on a new road." Without saying the word "illness," I still had the link in my mind, and the participant Alice followed up on it: "Or when you become sick." I am not sure if the conversation would have, by itself, without me interfering, gone that direction, but it turned out to be an engaging discussion about how they felt cancer limited them in their lives but also had led to new choices (new roads). Since I was also a participant, it would be difficult not to impact the conversation at all, but these experiences made me more aware of my different roles.

Lens of the participants

A preprint was sent to the participants for member checking and feedback (Korstjens and Moser, 2018).

Results

In the qualitative analysis, and in my categorisation and interpretation of the data, four overall themes emerged. The themes each cover a dimension of the participants' experiences of what they regarded as important for them in the RG. The themes are as follows:

- *Open space*: The experience of a safe environment which is conducive to a process of self-expansion
- *Disconnecting through connecting*: The experience of forgetting worries for a moment by focusing on the engagement with the text.
- *Community*: The experience of contributing and being in a collaborative social environment with other CPs.
- *Resonances and echoes*: The experience of the participants' felt connection to the text and the group. After a reading session the resonances become "echoes."

Together, these themes can be structured in a proposed theoretical model suggesting a theory grounded in the data, on how SR might work as a supportive environment for CPs. I am using the concept of theory from an interpretivist perspective informed by Lincoln and Lynham (2011). In a constructivist paradigm, theory building is a descriptive activity, and the purpose is to provide deep understanding of the lived experience of participants by the researcher (Lincoln and Guba, 1985; Lynham, 2002). The proposed theoretical framework in this

study is captured and explained through a model to visualise how, based on my interpretation, the themes are connected as a whole and placed in the context of a SR session[1].

Process model of the overall themes

The model presented below (refer to **Figure 1**) outlines the processes underlying SR sessions and how these impact participants' lives and that of people around them. Central for these processes is a network of agents: the texts, the participants, the setting, and the RL.

The model is not hierarchical but includes four central elements that influence one another: the environment, the engagement with the text (reading and listening), the group, and the stimuli (the texts and personal stories). In the middle is the *open space*, which contains the components on which the RG is built on – the core. In the open space, there is a process connected to the dynamic in a SR session with reading and discussing a text together (see the yellow boxes). The process of self-expansion shows how (1) a perceived safe space in a reading session and (2) the meeting with an open text, likely will lead to (3) an open discussion sharing different perspectives, which can then create an (4) open space in oneself, by embracing others' ideas and perspectives, and as a result (5) expand one's own thinking, which might in some cases (6) impact the participants' life outside the group.

The grey arrows in the model that begin from "2. An open text" and "3. open discussion" shows how the text, or something another participant says, can create resonances in the participants through recognition. The resonances can then trigger remindings in the individual participant, for example, a memory, which comes from outside the RG space in the participants' personal lives, and are brought into the group. Some of them are shared in the open space through a personal story, which adds spontaneity to the open space. After a reading session, some of the resonances might turn into what I call echoes, that is when the text or the reading experience keep echoing in the participants' lives. The echoes are illustrated in the model as ripples. The black arrows are a way to show that the echoes do not disappear, but are brought to the next session, and in that way, the sessions build on each other and create an environment for transformation.

I will in the following sections elaborate on each of the four themes and the different components in the model.

1 Centre for Research into Literature, Reading and Society (CRILS), in collaboration with The Reader, has previously developed a suggestion for a theoretical model of SR: "Theory of change" (Davis et al., 2016). The theory is based on the idea of feeling a "stuckness" in life and how SR, by a change in perception, can help move people out of their "stuckness". The model is therefore more related to general well-being, where the situation is slighly different from people who are diagnosed with a possible life-threatening illness, such as cancer, that can disrupt the normal track of life. The diagram proposed in this paper is not a "theory of change" but a process model of Shared Reading.

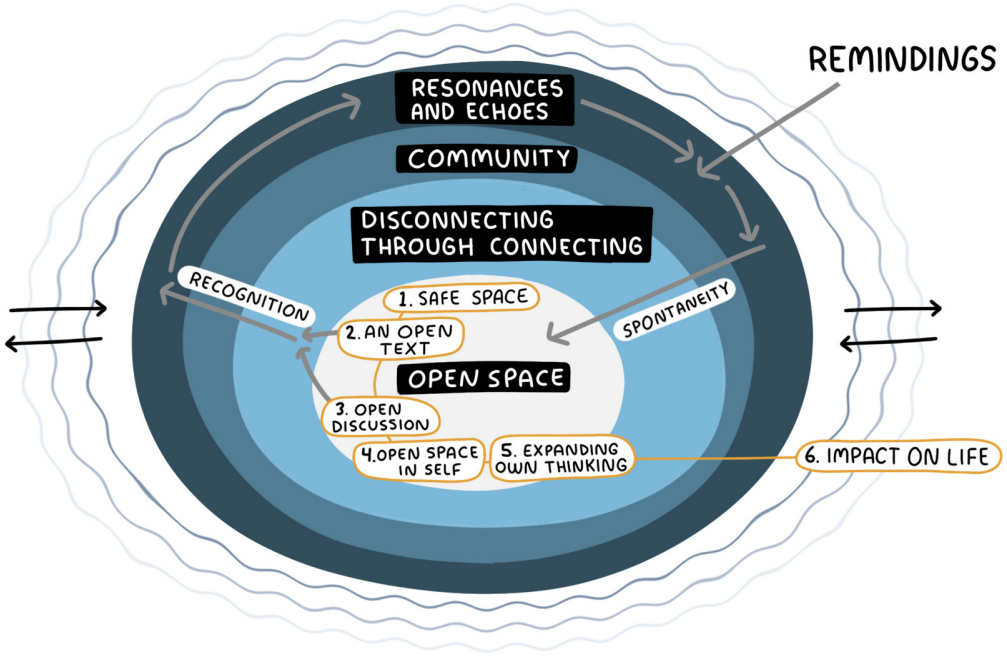

FIGURE 1
Process model of Shared Reading.

Open space

I will start with the model's core – the *open space*. This theme is divided in three closely related categories: "safe space," "balance between life and cancer," and "process of self-expansion."

Safe space

The participants referred to the RG as a place where they could talk about the text, but also about anything in particular, including sharing personal stories. The participants could be themselves, in other words, sharing and talking freely, able to express own ideas and be comfortable enough to share different perspectives in the group. This was possible as there was a respectful tone in the group, communicating that every input is welcome. Furthermore, I observed in the sessions that the participants made room for and listened to each other; for example, when a participant talked for a longer time during the group discussion, the person was normally not interrupted by the others, not even when there were longer breaks in the talking where the participant seemed to think and search for the right words.

One of the participants described the atmosphere with the following words: "And then there is no fact list. There is room for. . . Just as in life there is room for everything. No matter what we mean and think and feel then everything is allowed, right." (Susanne, on-site focus group, 106:34)

In the model, "safe space" is presented as the first step in the process of self-expansion. In this section, I will go further into the category to present how and why the participants perceived the RG as "safe." The concept of safe space, where "everything is allowed," was constructed of several components that intertwine and overlap and that I have grouped in four subcategories:

Mutual understanding

It was crucial for the participants that the group was only for CPs as there was a mutual understanding coming from a shared embodied experience of living with cancer. Social activities and meetings with the "outside," for example, following a conversation and interacting in social settings where people are not aware of their cancer diagnosis, was in general considered very tiring and challenging for the participants. For the same reason, they were hesitant about participating in a public RG at the library. They were worried that it would give them this feeling of incompetence they sometimes have in their social life:

> Because the head is cotton, right. I am dangling around and have to perform everywhere, right. When people don't know it [that she has cancer], I think it can be. . . That it can be challenging for me right. Because they don't see. . . Like they can't see it on us. (Amber, on-site focus group, 11:50).

The quote points to the necessity that the reading group was targeted to CPs, because it provided a safe space that functioned as a contrast to the "outside."

Low threshold for participation

The participants emphasised the significance of how the group was organised and facilitated (for an elaborated characterisation of SR see Dowrick et al., 2012). In SR, there is no preparation for the participants, no pressure to say anything, and listening is also valued as a part of active participation. In addition, it is a core value in SR that it is the participants' experience of a text that is foregrounded, and not an academic approach (Billington et al., 2013). Although the RLs introduced the SR concept in the beginning of the RGs, it was only when the participants experienced it in practice that they really grasped it, when the RL did not have the "final answers" to the text, and when the participants' input to the text was met and recognised as valuable contributions. This freedom to say anything, or just listen, took the external pressure off the participants.

The participants also said that they appreciated the consideration that the RL and I showed them by adjusting the SR practice to their shared needs and challenges, which gave them more flexibility in their participation. Moreover, the on-site group found it helpful that the RG took place at the local cancer organisation, which was a place where they felt comfortable.

In the RG, there were other expectations than in a public RG, as the participant Rachel expressed:

> I would have wanted to be in a normal reading group, but it wouldn't have worked (. . .). Like my well-being is changing a lot. And here I have in a way the opportunity (. . .) You can participate in a part of it, you can participate and be a bit passive if you don't have the energy. (Rachel, online focus group: 49:00)

Ease of participation helped them to take part on their own terms and it gave them a sense of volition.

The Reader Leader's engagement

The participants said it was a central factor for them that the RL showed a personal engagement to the texts and also shared from her own life, as it made it easier for them to share as well. The positive feedback from the RL was emphasised as especially important for creating a pleasant atmosphere in which the participants felt comfortable to say something: "She responds to everything in a very nice and caring way. And she also shared from her private life which makes it feel more safe for me" (Marta, on-site group, 43:00). It was also important that the RL had a warm, caring, and open presence, being more in line with "the one who brings the literature," or a co-participant, instead of a "leader."

Recognition and distance through a literary text

The text can also be considered an essential component in the construction of a safe space through the combination of distance and recognition. One of the participants explained that when she was reading about someone else, there was a distance to herself, that helped her to open emotionally, and it eased some personal issues she was dealing with. Although the story was about someone else, it was also a bit about her. Thus, the texts provided an indirect channel into feelings and reflections about parts of the participants' illness and life in general. Reading a variety of literary texts that did not directly address cancer, but touched on universal feelings, such as, loneliness, love, wonder, sadness, and themes and situations they could recognise in their own lives, from past experiences or through someone they knew, opened naturally for sharing personal stories. The text functioned as a catalyst, or "holding ground" (Davis, 2020) for thinking and feeling, and the text was in some way the foundation of the group, providing a base for interesting conversations about life, as one of the participants explained:

> Well, it has been surprising how great it has been for me [to be in the reading group]. (. . .) But it wasn't really because of the texts. But without the texts there wouldn't have been. . . Right, the text is the basis, that influences the whole group in a way. (Susanne, on-site focus group, 34:26)

The conversations and interactions in the group happened *through* and due to the presence of a literary text.

Balance of life and cancer

These four elements combined: "Mutual understanding," "low threshold for participation," "the Reader Leader's engagement," and "recognition and distance through a literary text" provided a safe environment for the participants, where they were able to balance life and cancer, which can be seen as the function of the open space: "We are in an illness process and then we do something that is not about that. And that actually gives me strength. Mmh." (Lisa, online group: 48:33).

In an interview with one of the RL's, she explained that the participants did not come to the RG as patients, but with their "healthy side". This was possible since the groups did not have a direct focus on the participants' cancer. Additionally, it was because of this experience, of doing something else in an illness process, that the participants experienced the RG as a special arena where there was room for their past experiences *and* their present situation. In the group, they could talk about cancer *and* about other things, a setting which they said was new for them. They explained that other activities specifically offered to CPs were either related to and circling around cancer or not related at all with little room for talking about their illness. A SR study with chronic pain patients (Billington et al., 2017) found a potential therapeutic effect in the recall of *life* experiences, not merely experiences of pain/illness, helping to recover a whole person and not just an ill one. This finding resonates well with the participants' experience of balancing life and cancer, which also had an aspect of perceived autonomy as the participants decided for themselves when and how much they wanted to share.

The participants talked about their cancer story as something they had with them in the RG, and that came to the surface when the text gave language or imagery to reflect on and express their illness experiences. Thus, the sharing of cancer happened more naturally than in other settings where there is a therapeutic target, e.g., in a group therapy session. Moreover, the RG provided a space without close relatives and generated new topics for conversations with friends and family which were not about their illness. This was experienced as a relief for the participants because they felt it was sometimes heavy and sad to talk about their cancer with relatives or friends. In the RG, talking about cancer was easier as it was with "strangers," which helped them to talk more freely about heavier topics. Since the RG was only for CPs, they explained, they could go beyond the topic of cancer and be themselves.

Process of self-expansion

In the process of analysing the data, open space seemed to be conducive to a process of self-expansion and change (see the model on page 5). In the focus groups, the participants talked about intra- and interpersonal processes that emerged from a safe environment. For example, they became more aware of their own and others' way of being and thinking. The participants' increased awareness and acceptance of multiple perspectives was overall regarded as a valuable experience. One of the participants, Amber, explained it the following way:

> . . .I don't have the truth on things here. Like, my way of understanding things is one thing, but you understand it in a completely different way, which can be just as correct what you understand, right. I believe it was kind of good for me and when, for example, she said something or you said something then I thought, wow, it can also be understood in that way. And then I started to reflect more and then I could relate to what had been said. (Amber, on-site focus group, 07:00).

The quote touches on the central aspect, which is the realisation that arose when meeting with perspectives that differed from their own and a reflection about how people in general think differently. Although this would seem like something that was not particularly surprising information for the participants, they said they experienced it as an "aha"-moment because the group discussion facilitated the meeting of multiple perspectives in a very concrete and "embodied" way.

In the model, the process of self-expansion is conceptualised as a path with different stages for the purpose of clarity. In

practice, it might not be a linear path, and the factors will more likely mutually influence each other in a fluid way.

An open text starts an open discussion

In the RG, the participants read and listened to literary texts with multiple voices or perspectives through meeting different "people" and life views. Reading a layered, ambiguous, and often open-ended text, which can be interpreted in several ways, stimulated the participants' wonder, questions, and imagination: "When there is this kind of [open] end you start to think yourself" (Susanne, on-site group: 96:00).

The open spaces in the texts initiated an open discussion where the participants shared their different views, experiences, and interpretations of the text. The times where the participants became "more embracing" toward others' way of thinking does not necessarily imply that the participants always agreed with each other, or with the text, but instead, they listened and met each other and the text with generosity.

Expanding own thinking

The awareness of multiple perspectives in the room both led to an increased consciousness of the participants' own way of being/thinking versus others, and in some cases, it also led to a change in their own mind set, or how they understood a text as the others' input and the text itself kept challenging their thinking and opened their mind for alternative possibilities. This helped one of the participants with breaking negative or restricted patterns of thinking:

> And it touches so important themes in my life at least where I am now, right. Because I sense this dark future, what is that. And then there is the hopeful future. And you stand in between all this, right. And I feel that I can, like, carefully approach this through the texts. And when I interpret the text with you afterward it feels more safe to do, because. . . well, it can be understood that way or that way. So, in a way I don't lock myself in my own pattern. (Susanne, on-site focus group, 11:41).

The dark and the hopeful future is related to an uncertainty in her prognosis, but instead of going into her own pattern of thinking, the discussion opened for approaching "the dark future" in new ways.

Impact on life

The experience of becoming more tolerant, embracing, and generous as a person by listening to the other participants happened temporarily during the RG, but they also talked about being conscious about the other participants' ways of thinking in other settings of life, asking if a situation/text could be understood in a different way: "Like for me it is something I take with me to other situations as well, these voices from the other participants. This about things do not necessarily need to be that way, they can also be in another way" (Rachel, online focus group, 48:00). In that way, these repeated meetings, or confrontations, with other perspectives, accepting and sometimes incorporating them in their own way of understanding themselves and others, supported a self-expansion:

> I have always been the one who had the answer to things, right, I have probably irritated a lot of people in life. And I think. Yes [laughing] I have. But I come here, sit with you all, I listen to you. Then I become like more embracing ["romslig" in Norwegian]. Because I understand that I can't just insist that I read things my way, right. And that has probably impacted my daily life as well, actually. . . (Susanne, on-site focus group, 4:09).

This process of self-expansion was experienced as something the participants learned from the RG, something they had trained and had become better at.

Disconnecting through connecting

Around the open space is the second theme I identified: *disconnecting through connecting*. Focusing on engaging with the texts, by listening to *and* reading short stories or poems, helped the participants to forget the current concerns they had on their mind: "I think, what is nice here, by coming here, is that you get a free minute, right. That you forget everything in a way. And you go into the texts, and that is where you have focus, right." (Amber, on-site focus group, 21:00).

Previous SR studies has mainly focused on the "soothing" and relaxing effect of being read to (see for example: Dowrick et al., 2012, p. 17; Billington et al., 2010, p. 43), where less attention has been giving to the benefits of the parallel activities of listening *and* reading. Skjerdingstad and Tangerås (2019) describe it as a "double modality" in which "affords the recipient easier attention to the work" (p. 6). The combination of reading and listening involves two different but overlapping reading experiences: First, the participants were experiencing the text mediated through the RL. Second, they could follow the text themselves either on print or on screen. In the observation of the groups, I noticed during the sessions that most of the participants followed the text themselves. Sometimes an outburst of laughter or surprise arrived before the RL had reached the place in the text, which showed that the participants from time to time were ahead of the RL. I also observed that "two of the participants only followed the text partially, and the rest of the time they closed their eyes, looked to the side or out of the window" (Field note, session 1). The fact that the participants could follow the text themselves seemed to

give them an element of self-control and autonomy in the reading. It also happened often that the participants became "co-facilitators" by pointing out and reading out loud a passage they found interesting and wanted to bring to the group's attention.

These parallel activities, reading and listening, and the combination of them are what constitute the second theme which contains the categories: "cognitive training," "a richer reading experience," and "being here and now."

Cognitive training

The participants pointed out in the focus groups that they "activated" their minds in the RG as they had to focus to be able to follow the story: "So sometimes she has read aloud and many times I've thought I should tell her to repeat, because I can't. . . It was just as if I mixed things all wrong, and thought that's because my head isn't ready." (Elena, on-site focus group 24.21)

The aspect of required focus in listening and reading had a beneficial outcome for the participants' as "cognitive training." The activity of reading aloud supported the activity of reading, as the participants did not have to read the text themselves; to have the text in hand or on screen was equally experienced as a great aid, a kind of anchor to follow the reading aloud. As many of them struggled with maintaining concentration and had severe headaches, reading small parts together every week helped them to slowly get back into reading.

During the RG, several participants went from not reading at all, despite identifying as readers, to starting to read entire books again because they experienced their ability to concentrate had improved. In some cases, this was correlated with a reduction in side effects from the cancer treatment, and general health recovery, but the RG as a structured activity for cognitive training might have boosted this improvement. As the participant, Molly explained:

> . . .and this is the only type of structured activity, I participate in, where I challenge myself on what I struggle with the most, that is the cognitive. I have to. understand, to remember things, concentrate on something. (Molly, online focus group, 83:29).

Additional reading, engagement, and training cognitive capacity were in some cases naturally related to each other, because when the participants improved their ability to concentrate, it became easier for them to read more, and the experience of being engaged in a text motivated them to read more.

In one case, the SR form was experienced as too demanding due to severe side effects of multiple rounds of treatment. Alice, from the on-site group, was not able to follow the group discussion, when people were talking at the same time, or keeping her concentration while listening to the reading aloud. She said that the treatments "stays with you" (while saying it she pointed to her head). For her, it was easier with the poetry, as a poem consists of fewer words, often limited to one page, and thereby easier to get an overview of. In general, the participants perceived the short stories as more demanding, in terms of concentration, than the poems which the participants described as "the easy one" and a "fresh change" after the short story. This finding seem to differ from a large body of SR research where "the story appeared to foster relaxation and calm, while the poem encouraged focused attention" (Dowrick et al., 2012, p. 17).

A richer reading experience

It was not only a matter of being able to read again, but also about re-experiencing a love of reading or a re-appreciation of the literature. One of the participants was not able to remember very much from when she was reading alone because of cognitive impairment, and her reading experience was as such very poor:

> If I try to read a book, then I use an awful lot of time on it and I feel I lose so much and therefore I have to read the book from the beginning again. I remember very little 2 days after I have finished the book. While here I feel I get more out of it. Because it is read aloud and then I can see it myself. That I can read at the same time. So that combination is good for me. (Rachel, online focus group, 19.56).

It was not the reading aloud in itself that helped her in the RG, but the combination of reading and listening, because she also struggled to keep focus when listening to audio books. The slow pace in reading aloud was also an important factor. The slowing down made it easier for the participants to get into the text, because they would notice and remember more things, and they said that their experience of the texts in the RG was "deeper" than when they read themselves. One of the participants emphasised the fact that every word in the text is read aloud in SR, but when she reads herself, she would often skim some passages, for example, nature descriptions. This made the experience of the text in the RG more absorbing. Moreover, the RL introduced the participants to new literature and dwelled at places they would not necessarily do themselves, which made them aware of other aspects of the text and of literary texts in general, for example, focusing on and going in depth with a beautifully written passage or unfolding an image in the text. These instances of dwelling made the experience richer and surprising, because they would never know where the text, the RL, and/or the other participants would bring them. The participants also believed that discussing a text with others gave the text "another dimension." One of the participants expressed how stunned she was that the group could get so much out of a couple of pages. She pointed out that if she had read one of the short stories or poems herself, she would have read it very quickly and not reflect much about it or go in-depth with

single sentences as they did in the RG. Because they only read a short story and a poem, and often a story of couple of pages only, this absorbed and focused their attention while reading and discussing the text.

"Being here and now"

Another element of going into the story or poem is "being here and now." The participants describe it as coming to the RG with an open mind without having to prepare anything, being served a text – a literary experience, be entertained and get a break from their self; from "performing" in social settings and an everyday preoccupation with cancer treatment. This experience of being present in the moment and not having to worry or think ahead acted as stress relief and mindfulness:

> Well sometimes you can analyse the room like also when you are in different settings, but here I have not done that. I have just felt that it was great to be here and deal with things when they arrived (.) Well, I don't have any homework or anything, I just have to connect and then I have to practice this [to be here and now] (Molly, online focus group, 29:55)

The participant Lisa explained in an interview that it was not only about being deeply engaged in something else, but also with *someone* else. Through the short stories and poems, and especially the short stories, the participants were invited into fictional people's lives and problems, focusing on the feelings and dilemmas presented in the text. Thus, it was easier for them to forget the heavy and sad thoughts on their mind and delve into the complex life of another person. Lisa described this experience as being "lifted up" and "out" of herself, and she felt it was a relief for her to forget herself for 2 h, go deep into the text and focus on something (or someone) else than her cancer, e.g., going into another time époque, or in a different life perspective. As such, "being here and now" does not necessarily entail to be in the present time, but to be flexible and transcend to where the story and the RG brings them.

The category is also related to the slow pace in the reading aloud. It was experienced as a contrast to "the outside," and to how they act in other settings, for example, at work or in social life. The participants emphasised that, due to the slow tempo, the RG, was not efficient at all. This was a challenge for some of them as they were used to seeing themselves as an "efficient" person in the way that they had an urge to go faster through the text. However, they felt it was good for them to challenge this part of themselves, practicing to slow down, dwell and be more present in the moment:

> "One of my trademarks before I got ill was that I was very effective ["effektiv" in Norwegian]. And this here [the RG] is not effective, it takes. . . it has its pace and there is no right or wrong answer, right. It challenges me in many ways and in my way of being for many years. And that is what I like so much about it, and I believe is so good for me. To try to slow down, be here and now, be open, think there is no right or wrong" (Rachel, online focus group: 43.10)

The interrelated categories of "Cognitive training," "a richer experience," and "being here and now" represent different dimensions of the participants' experiences related to the engagement with the texts. The activity of listening and reading helped the participants to stay focused and personally involved which led to them becoming more immersed in the story and disconnecting.

Community

The third theme is community; when there is a strong sense of community, it is more likely that personal stories are shared in the open space and that the participants can disconnect. The participants had a strong need for belonging because many of the participants found it difficult to maintain social relations due to fatigue, and to communicate their illness experiences to friends and family. Although many of them had a supporting social network, they talked about "being alone in their cancer," a feeling of loneliness that some of them had experienced for the first time in their life.

Community contains the categories "to do something meaningful for yourself with others," "contribution and collaboration," and "social relations."

To do something meaningful for yourself with others

Many of the participants were on sick leave, retired, or working reduced hours, a life situation which can be very challenging, they explained, as you have little structure in life and a lot of "free-time": "There is no difference whether it is Monday or Friday, right, you don't get this Friday-feeling which is one of the good things in life, a break because it is weekend. . ." (Bobbi, on-site focus group – 91:08). The RG helped the participants by adding a rhythm to the week, occupying the day, getting out of the house and receiving fresh input from others. In general, doing something which they prioritised and regarded as meaningful. The participants explained it as "choosing their own medication," which gave them a feeling of agency.

The participants explained that being part of something they felt was important and meaningful motivated them. The RG was something they chose to prioritise, and although it was tiring sometimes, it also gave them energy being there.

Contribution and collaboration

The participants talked about another aspect of how cancer changed their life; a sense of uselessness came from situations of not being able to contribute as much at work, at home and in life

in general as they did before they got ill. Regaining value was put forth as central to the participants:

> Now I work 30% this autumn and earlier I partially haven't worked at all. This thing, to feel important for someone (. . .). I feel that you [the other participants] have communicated that to me, that I am important in this group and to know that has been very import in my life. To have a thing in my daily life where I still have significance, because at my work. . . Well, I have a workstation and some tasks, but I am not important in the same way as when I worked full time (.). So, in that way the group has been very. . . Meant a lot for my illness and recovery. (Rachel, online focus group, 62:42)

The aspect about feeling valuable and valued was related to the positive feedback from the RL and the other participants in the group. The RL responded to the participants' input in the group discussion, recognising them as competent contributions by responding with phrases such as: "oh, that was very interesting," "thanks for sharing that with us," and by referring to something a participant had said: "I really liked what Susanne said earlier about the. . .." Feedback was also related to their presence in the group and was expressed in the sessions, but also in follow-up e-mails addressed to each participant after a session or shortly before the next as a gentle reminder. This feedback before and after a session was important for them as it was adding to their feeling of being appreciated and valued.

The participants in general felt a strong need for sharing. This sharing happened in both groups, but where more frequently in the on-site group, as they had more opportunity for small talk and got to know each other better which led to sharing more. The participants shared tips about hikes, book recommendations, memories, illness experiences, coping strategies and advice, tears and laughter, frustration, irritation, feelings, and perspectives across generations. This act of sharing strengthened the community feeling.

Furthermore, it was also essential for the participants that it was an interactive and cooperative group where the individual participant's contribution helped the group to open and understand the text. If just one of the participants saw something in the text, and shared it with the group, the other participants could follow along and maybe, although they did not understand or liked the text themselves, resonate with the other participants' views on the text and build on that. This was an essential dynamic in the group and can be interpreted as the participants were "opening doors" for each other in the text which kept the discussion going. The participants also talked about experiencing the text together at the same pace. In general, when they discussed a place in the text, they talked about it as though they had been there together. In the focus group, Marta tried to recall the memory of a specific text: "That house, do you remember? Then we came home to it, [and] we didn't know if it was the mother-in-law or. . ." (Marta, on-site focus group, 41:00).

The experience of contributing and collaborating in the RG made the participants feel part of something, and they felt competent and useful again.

Social relations

I had initially anticipated that the social part was not as important for the online group as they did not meet each other in person, but this was not the case. In the focus group, all the participants mentioned that the social aspect and meeting the other participants had been very important to them. However, in the online group, the socialising happened more through the group discussions and sharing different perspectives on the text, and less through "small talk." In the on-site group, they were forming new relations and had contact with each other outside the RG. In the online group, they appreciated meeting someone and socialising the 2 h they were there, but they did not get to know each other in the same way, or the process of getting to know each other was slower. In the online group, it seemed to be more about contributing to a community.

Susanne from the on-site group said that each of the participants had become a part of her as "eternal friends." It was not in the way of frequently seeing each other, but she felt she could always reach out to them if she needed to. Rachel from the online group experienced the social interactions as a "by-product" of the RG; the other participants' stories, the things they mentioned which were happening in their lives, inspired her and she got curious and engaged in the other participants' lives.

Resonances and echoes

Resonances through recognition

Moving to the outer circle in the model brings us to the fourth theme: *resonances and echoes*. The theme is related to the personal connections between the individual participants, the group, and the text. A connection could be a feeling, a mood, a memory, or a reflection that the text triggered in the individual and which resonated with them. There were often connections between the participants' lives and the text that created a resonance in the participants, a form for *recognition* or identification of a situation, place, person, attitude, feeling, or belief in the text. It was not necessarily an identification with a story character, as the participants did not believe they identified very strongly with the characters they met in the different texts during the RG. Identification was instead an experience they understood and related to when reading a whole novel or watching a TV series over a longer period. Instead, they talked about the recognition in the text, and that the text had to trigger their interest or a personal story. This included, for example, reading a story that took place in the same surroundings as

where they grew up, or reading about lonely women who stayed home during the day, a theme one of the participants related strongly to because of her own situation of being at home when others had daily routines such as work or school. They also talked about recognising a feeling in the text, to which they could relate and identify, e.g., the feeling of loneliness, the feeling of waiting for an answer, of being in love, or preparing for the worst. One of these moments of recognition happened when we read the poem "Betring" [recovery] by Gyrðir Elìasson (Elíasson, 2016). The poem has 27 words and is about a person who puts down a torch on a rampart an autumn evening, surrounded by darkness, and walks slowly into the light. The participant Rachel recognised her own experience of recovery in the poem's images:

> "It is not a full lighting you walk into, it is not super sharp or clear and maybe a bit unclear boundary between the torch light and. . . Like the beam from the torch and the darkness around. And the dew also makes it a bit like maybe more unclear and that it is like not a very. . . It is not a straight line when you recover from something. Well, that is my experience, right. So, I think that was a very good image." (Rachel, session 7, online group, 01:49).

The poem offered her an image that she, and the other participants could explore and expand by placing herself in the poem (use of third person singular: "*you* walk into"). The poem gave her language, or images, to reflect on some aspects of recovery. In that way, you could say she was reflecting and maybe understanding better her own experience through the poem, and at the same time, she approached and understood the poem through her own experience of recovery.

The participants did not necessarily know what touched them beforehand, but the texts that resonated with them were experienced as significant. Some resonances were shared with the other participants in the "open space" through a personal story or reminding.

Remindings

Remindings, associations, memories from the participants' lives, and past experiences were activated by the text or during the group discussion and brought to the present time – to the RG. In the model, remindings are visualised as a stimuli coming from "outside" the RG. They are uncontrolled and bring spontaneity to the open space: "Like, suddenly something comes from someone and then it starts a thinking-process in us, or feelings, and then we talk about it. . ." (Alice, on-site focus group, 89:38).

Considering the type of memories that were shared during the sessions, the short stories seemed to trigger memories connected more to childhood and growing up – to the past. Whereas the poems seemed to trigger reflections and experiences from their present situation. This might be due to the more narrative form in the short stories, and that the participants believed the poems "had a bigger room for interpretation" as they touched on more universal and existential questions and feelings.

Nevertheless, the poems could also activate memories; for example, when reading the poem "Romanske buer" by the Swedish poet, Tomas Transtrømer (2011), the participant Elena experienced "entering" a memory from a tough time when she experienced stress. The poem's description of inside a church reminded her about an experience she had had herself in a church during this period. She explained that, during the reading aloud of the poem, the church and her memory appeared as an image in her mind, and she felt the church from her past was "in front" of her. She also said that she started to remember more details of the memory during the reading session, some of which she had forgotten about. The memory reminded her about going through something tough and overcoming it. It made her realise that her cancer, because she was getting better, also would become just one part of her life story that she could look back on.

These memories from the participants' past lives, which were brought to the present, were important for them, as it was a means to go through the personal processes related to them, and then let them go. One of the participants explained this process as "cleaning up" the past.

Echoes and ripples

After a reading session, the text or the reading experience could still have an impact on the participants. This I have interpreted as "echoes." The participant Molly talked, for example, about her experience of how the poem "Konkylie" by Olav H. Hauge (1951) kept "coming back to her mind" in the weeks after reading it in the RG: "That one [the poem] I felt still long time after. I remember bringing it up under the dinner saying to my husband that now you have to listen. . . right. And I started to tell, read, and it really stayed with me. The poem kept like coming back again and again" (Molly, online focus group, 58:39). She describes the poem as it has almost a will of its own. This poem was from the first session, but despite her troubles with memory, it is the text she remembered best from the RG. It was especially important to her because it reminded her to "to put a time limit to sadness." She also started to write about the poem. Thus, the echoes of the poem led to actions and small transformations.

In the model, "echoes" are placed in the outer circle together with resonances, but they also continue after a reading group session. Echoes can disappear when leaving the room/logging out of the meeting. They can also linger for a longer time or disappear and then return. An example of a delayed echo, activated by the surroundings, could be when the participant Lisa sent me an e-mail months after the RG had ended with a picture of herself in a meadow of reeds, smiling. The place had reminded her about a short story we had read, where a girl was running through very tall reeds. She got inspired to run through

them herself and felt she was experiencing the same as the girl in the story. She said, being taken back to the story, gave her energy and inspiration, and she asked her friends to take a picture of her to capture the moment.

Echoes can also be reinforced and become stronger again by keeping the text/reading experience alive by telling others about it, rereading or keeping on reflecting, which can create new echoes. Some of the participants googled the author when they came home from the RG. One of the participants explained that she did it not only to get more information about the text, but to understand better the "heart" behind the text – which experiences it originated from. In these ways, the texts kept echoing in the participants. Apart from the echoes of the texts, the RG also seemed to have a "ripple effect" over time where the whole experience of being part of the RG, meeting the other participants, the RL, the researcher (me), and the texts, impacted them and created ripples that spread to their lives and the lives of the people around them: "It is like that butterfly effect or ripple effect; you start doing something and then it becomes big in your life (. . .) it has done so much" (Susanne on-site group, interview).

The continued reading experience, conceptualised here as an echo, points to the idea that the time between a reading session is not empty. When a text, and/or reading experience, keep echoing, a lot can happen within the individual participant. The echoes are brought back to the next session, and in that way, it is a circular and upbuilding process, which can create big or small ripples in the participants' lives.

Discussion

Relations between the four themes

This study explored the experiences from a RG with CPs and how it supported their life with cancer. Based on the findings, one can conceptualise the processes unfolding in a SR session as follows: It was through the feeling of a safe environment, that the participants could balance life and cancer and a process of self-expansion seemed to take place. The open space can be seen as the foundation of the RG, as it helped the participants to engage in SR (connect and disconnect) and to feel comfortable enough to share personal stories, activated through the texts, which strengthened a sense of community.

"Disconnecting through connecting" is related to the engagement with the texts. Through cognitive engagement (connecting), and a way of engaging with the text which was experienced as "richer," the participants' attention was moved to an experience of "being here and now," which helped them to disconnect. The participants seemed to go back and forward between connecting and disconnecting, showing how the process is not necessarily unidirectional. This finding, that a cognitive effort was needed, seems to differ from other SR studies where an atmosphere created by the reading offers "a centre toward which participants can gravitate" (Longden et al., 2015, p. 115). The experience of "disconnecting through connecting" might be similar to how chronic pain patients experienced forgetting their pain, momentarily through engagement with complex and cognitive demanding texts (Billington et al., 2014). I have further investigated how CPs bodily discomforts and cognitive challenges interacts and are supported by a "double modality" – with reading aloud in a slow tempo combined with reading themselves.

The existence of a strong community surrounds the participants' engagement with the texts. Community is built on the experience of doing something meaningful for themselves with others, contributing and collaborating, and by meeting other people with cancer. Community strengthens the other components in the model (more personal stories are being shared and it is easier for the participants to disconnect). Moreover, discussing the text together helped the participants to get into the text, to "connect." Community played an important part in my study, which most likely was because the group was for CPs where the mutual understanding made it easier to share and relax.

Surrounding the community is the resonances and echoes within the individual participant. The theme has both an individual and collective dimension; the experience of recognition activated individual remindings from an entire lifespan. Some were shared spontaneously in the open space which led the discussion in new directions and the participants continued to build on what was shared – a form of "collective reading experience." After the RG, some of the resonances turn into "echoes," which are brought back to the next session, so the model becomes circular and dynamic. Therefore, a SR group probably needs to run for some time before it might have a more lasting impact on the participants lives.

The themes are closely related, and it is the combination of them that makes SR a potential coping mechanism for CPs.

How can Shared Reading support cancer patients' need for autonomy, competence, and relatedness?

In the process of understanding what might be going on in the data, I found the self-determination theory to be central to the participants' experiences, regaining a feeling of contribution and usefulness, feeling related and a part of a community, and overall do something they prioritised, on their premises which brought intrinsic motivation.

Self-determination theory and basic psychological needs

The self-determination theory (SDT) is a psychological and empirically based theory about motivation, addressing "what

energises people's behaviour and moves them into action" (Deci and Ryan, 2015, p. 486). SDT proposes that all human beings have three basic psychological needs (BPN) – the need for *autonomy*, *competence,* and *relatedness.* In SDT, needs are defined as "nutrients that are essential for growth, integrity and wellbeing" (Ryan and Deci, 2017, p. 10). Moreover, a social environment can either "provide the nutrients for growth" (needs are supported) or "disrupt and impair the process" (needs are thwarted; Deci and Ryan, 2015, p. 487). *Autonomy* refers to an individual's perceived agency, and the need is satisfied when we feel we are the origin of our actions, and our behaviour has a sense of volition. *Competence* is the experience of mastery and of operating effectively within important life contexts. *Relatedness* is the need to feel connected with others, to feel understood and cared for, but also to feel significant among others, and equally important, to experience oneself as giving or contributing to others. Relatedness is therefore both directed toward close others, but also to a sense of being part of social organisations and social groups (Ryan and Deci, 2017, p. 11). SDT also differentiates between different types of motivations: *controlled motivation* and *autonomous motivation* (Deci and Ryan, 2015). A controlled motivation is driven by external factors and has an element of obligation, seduction, or force, whereas an autonomous motivation is characterised by choice, enjoyment, and voluntariness. Intrinsic motivation, which is an internal and natural motivation, is the prototype of autonomous motivation. Researchers have proposed that satisfaction of the three needs leads to improved mental health (e.g., lower depression, anxiety, and higher quality of life) and in physical health-related outcomes such as eating healthier, physical activity, and improved adherence to prescribed medications (Ryan et al., 2008).

A fourth need in SDT is suggested by Slater et al. (2014) through the theory of "Temporarily Expanding the Boundaries of the Self" (TEBOTS). Slater et al. propose that our core motivation to engage with narratives is to get a temporary relief from the task of maintenance, defence, and regulation of the personal and social self. Moreover, they suggest that by reading fiction, the boundaries of self are expanded, and the reader is not limited to rules of social norms or morality. In addition, the theory hypothesises that to disconnect in a "profound way," you need to be immersed in a story. This is exemplified by the act of reading while on holiday; we may escape daily pressures by relaxing, but we need a book to take us mentally away to expand the self (Slater et al., 2014, p. 444). Thus, the TEBOTS-model also indicates a possible relation between "open space" and "disconnecting through connecting," between engagement and self-expansion.

The findings in this study broaden the TEBOTS theory by including mechanism in SR that facilitates immersion that is not the property of the narrative: multimodal, pauses, discussions, and re-readings. Moreover, TEBOTS are exclusively referring to narratives, but the participants could be immersed in a narrative as well as a poem.

A cancer diagnosis thwarts basic psychological needs

Perceived autonomy is important regardless of health status, but particularly important in the context of a serious chronic illness because the illness limits the individual's autonomy. Furthermore, when people are diagnosed with serious illnesses, such as cancer, their learned knowledge and behaviour might not be sufficient, and this presents challenges to their feeling of competence (Ng et al., 2012). Cancer can be experienced as quite invasive and autonomy limiting; it often requires radical lifestyle changes, it can impact work, social and personal life negatively, and individuals have little control over how their illness progresses. Specifically, during treatment, cancer is likely to reduce autonomy and patients might particularly benefit from autonomy support (Cosme and Berkman, 2018).

A study interviewed colorectal CPs during adjuvant treatment and found that CPs often experience BPN frustration when undergoing cancer treatment (Romero-Elías et al., 2021); the patients felt autonomy frustration when not being in control of the negative impact of the treatment on life. Relatedness frustration, as they reported not being able to perform the same social plans, also feeling less connected to their environment, and competence frustration as they felt "useless" from being more dependent on other people, e.g., relatives. The participants in my study also experienced similar frustrations coming from a thwarted BPN. In addition, because of the challenges with concentration and memory the participants' ability to immerse themselves in a narrative, the need for temporary relief from maintenance of the self was also thwarted.

Shared Reading as autonomy, competence, and relatedness support

Discussing the findings in the present study in light of SDT theory, we can say that the RG supported an autonomous motivation in various ways. First, the participants' participation was on their own terms; they were informed that they could participate to the extent they were able to, and in whatever way they wished, with no pressure to say anything. Second, the RL and I were highly flexible in meeting the participants' individual needs: there were, for example, no requirements to be present in every session, or an entire session, and there was no homework. The participation was in these ways, self-initiated because, although it was a research project they had signed up for, they experienced the group as something *they* had chosen ("choosing their own medication") and that *they* prioritised, because they enjoyed being there and it gave them energy. This is the essence of intrinsic motivation.

The autonomy was also supported in the sense that the space the group provided was not limited to talking about their cancer. In addition, the texts were not about cancer either, but brought a wide range of conversation topics related to all aspects of life into the room. At the same time, there was also room for the participants' cancer, and the mutual

understanding made it easy for them to switch between talking about cancer and talking about other things. Hence, they could regulate, and balance life and cancer based on their individual need and the sharing of their cancer story was voluntary. Moreover, autonomy was supported through the participants' role as "co-facilitators"; they were not only listening to the story read aloud, but they engaged in the reading themselves.

The role as a co-facilitator also supported a need for competence. The fact that they presented their own views and thoughts, which sometimes differed from the other participants and the RL, indicated self-confidence. Moreover, by sharing their own views, they experienced how the others listened attentively to their contribution, taking it seriously, and responding with positive feedback. These experiences further supported their perceived self-confidence and competence.

In SDT, the need for competence refers to "a feeling of being effective in life." The slow pace of the reading sessions challenged the participants' learned expectations of needing to be and act efficiently. This was regarded as a positive experience, helping them to enjoy a setting in which they did not need to meet expectations (neither their own nor others'), which they could not live up to since they got ill. Thus, they got a break from these external and internal expectations by engaging in a slow activity, dwelling and being present in the moment, and this was something they valued as a richer and more rewarding experience. One of the participants experienced to be "lifted up and out of herself" (see page 10), which perhaps can be explained as a need for relief from expectations and from defence of the self as proposed in the TEBOTS model. Hence, you might say that the RG supported their need for competence but challenged their need for being effective. Thus, the experience of competence when you have a cancer diagnosis might nuance and change the need for competence as described in SDT.

Although one of the participants, Marta, did not participate much in the group discussion, but after the first two sessions, something changed in her; she started to become more active and was the first to respond and openly showed when she disliked a text. Marta's big change in the RG might be because she had a thwarted need for relatedness when she joined the group, as she was experiencing relatedness frustration in her social relations. Marta felt that her friends did not understand her illness situation, as none of them had cancer themselves. They had difficulties in understanding that, although she had finished her treatment, she still did not feel well, but was actually feeling worse. It was difficult for her in general to manage social life because she did not have the energy to be active. She had experienced her social network becoming smaller. This difficulty of maintaining social relations was also recognisable for the other participants; being part of the SR community supported their need for relatedness. Furthermore, relatedness was supported through literary recognition, from "meeting" different types of "people" in various life situations. Some of the texts strongly reflected a feeling of the participants, e.g., loneliness or being in nature, and as such, they felt connected to some of the texts. We were, for example, reading a short story about a boy who crawled up a honey suckle plant, and the participants remembered the times they had encountered its strong smell. One of the participants also said she could recognise and almost feel the pain of the branches in her hands.

The RG, and the texts, echoed and rippled in the participants' lives – it "energised" the participants' behaviour and "moved them into action" (see quote on page 13). The participants started to read more, were inspired to write poems and autobiography, and continued the discussion of the texts with friends or families. In an interview, the participant, Susanne, said that she had a strong wish to share her experience of SR with others. She was very eager to set up a SR group in her local community.

The participant Alice, who experienced the SR form being too demanding and therefore preferred the poem, seemed to be experiencing competence frustration. During the RG, she was often pointing to her limitations and challenges, saying "she was lost in the text," "she was tired," "she didn't understand anything," and "her head was not working anymore." For the remainder of the session, she would often change from focusing on the text to using the group as a room for venting of frustrations connected to her illness experience. She participated in four sessions, and although she was challenged in the activities, she expressed that the social part in the RG had been important for her. Thus, she particularly benefitted from relatedness support and autonomy by being able to vent frustrations and express her emotions in a safe environment. But her experience of competence frustrations might have been what kept her from continuing in the group. Alice's experience points to a group of CPs that might be too challenged by cognitive impairment to engage in SR.

Which findings are specific for cancer patients?

The findings and the model are to a great extent not limited to CPs. Although, I can only speculate about which findings are specific for CPs and which are "core" experiences in SR. I believe the framework can be transferred to a general SR group, but "community" and "disconnecting through connecting" could be more specific for CPs as they can have a more pertinent need for relatedness and competence. The participant Elena told me that she afterward joined a SR group at the local library. She said the biggest difference was that

fewer personal stories were shared in the group. Since it was an open drop-in group, she did not experience either being part of a community. Therefore, the experience of being part and contributing to a community based on unspoken mutual understanding might be essential in SR groups for CPs and in general for people with illness. Moreover, the participants seemed to have a strong need for disconnecting, for cognitive training, and to have an open space that functioned as a contrast to "the outside" where they could get a break from being "efficient" and balance life and cancer. This points to the SDT being more relevant for CPs, or people with illness, where the model and TEBOTS might could hold for all participants in SR.

Recommendation for future research

A meta-analysis of self-determination theory applied to health contexts (Ng et al., 2012) examined the empirical literature testing SDT in health care and health-promoting settings. Overall, the meta-analysis supported the value of SDT as a conceptual framework to study motivational processes and, importantly, to plan interventions for improved health care, improved well-being and quality of life. The study also found that autonomy support in health care positively predicted higher levels of autonomy, competence, and relatedness. In light of these findings, I propose SDT as a framework to facilitate and study SR's potential link to mental health. Future research could further investigate the BPN fulfilment in SR groups, and the occurrence of indications of need fulfilment, as a help to predict mental health outcomes. The following questions remain to be answered: Is the fulfilment of needs dependent on medium or on target group? Does it differ per text genre or text content? Is the need fulfilment in SR phenomenologically different from other types of support groups, for example, psychotherapy, or other artforms? What is the role of the text? Could, for example, the experience of a safe space alone be enough to have an impact? And how might SR be improved to foster and facilitate the BPN? Future research could also investigate in more depth the continuous impact of the texts and the RG in the time between a reading session, and methodical differences between online and on-site SR groups, which has not been part of the present papers' purpose.

The number of participants of the current study is very small, which obviously affects the general conclusions that can be drawn from it. It would be beneficial to the research and the theoretical framework to implement a larger study, extending the number of SR groups (both in person and online) for CPs, also including men. It would also be a valuable contribution to incorporate video recordings, to capture bodily gestures and facial expressions, which might add nuances to the findings. Moreover, the study did not triangulate the data used for this paper with audio recordings of SR sessions due to practical reasons of time constraints. In a future study, I aim to explore the theme "resonances and echoes" in depth by analysing the transcripts from RG sessions. This might further adjust the theoretical framework and the model presented in this paper.

Conclusion

The objective of the current study was to investigate SR as an alternative, low-cost psychosocial offer in a clinical setting, or online, and its benefits for CPs evaluated through the patients' experiences. The findings from the study have demonstrated that SR was experienced as a supportive environment that fulfilled basic psychological needs. By drawing on perspectives from SDT, the study has presented a plausible explanation for how and why SR contributes to mental well-being. Apart from answering the question about why SR "works" in a comprehensive way, the study also provides a reliable framework from which other researchers can generate new research questions.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by the Norwegian Research Ethics Review Board. The patients/participants provided their written informed consent to participate in this study. The names that are used in this article are fictitious.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2022.1017166/full#supplementary-material

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

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Introduction: 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.

Methods: 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.

Results: 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.

Discussion: 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 generalization. Findings are discussed in relation to future shared reading designs.

KEYWORDS

autism, empathy, literary fiction, non-fiction, neurodiversity

1. Introduction

Autism broadly refers to developmental differences that influence how a person might think, feel and interact with the world around them (Fletcher-Watson and 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[1] people (Fletcher-Watson and Happé, 2019; Botha, 2021). 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 et al., 2013; Waltz, 2013). Current diagnostic definitions of autism center upon assumed key deficits in social communication, repetitive behavior and restricted interests (Murray et al., 2005; American Psychiatric Association, 2013). What has resulted is a dominant narrative of disorder that has further led to harmful pursuits toward the prevention and cure of autism (Waltz, 2013; Milton et al., 2020). In wider society, pathological, deficit-focused views of autistic people have resulted in stigma and subsequent discrimination (Green et al., 2005; Pearson and Rose, 2021).

In particular, theoretical models of autism have often been underpinned by deficit views, in a way that subsequently reinforces pathologized 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). Within social situations, this would mean resultant difficulties in understanding overall interactions. Specifically, the WCC would assume difficulties in generalizing social learning across situations, which may be linked to a tendency for feeling socially overwhelmed amongst autistic people (Happé, 1999; Hill, 2004). While the theory has been criticized 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 (Murray et al., 2005; Lesser and Murray, 2020). 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 and Murray, 2020). The theories then suggest that typically developing people would tend to better understand social breadth at the expense of depth (Lesser and 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 (Lombardo and Baron-Cohen, 2011; Bodner et al., 2015). 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 (Burrows et al., 2017; Arnaud, 2022). This contrasts with a general bias for prioritizing first-person self-assessments that is often observed within non-autistic, Western samples (Burrows et al., 2017; Arnaud, 2022). 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 et al., 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 empathizing-systemizing (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, systemizing 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 behaviors 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 empathize with others (Dinishak and Akhtar, 2013; Hume and 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 and Bird, 2020). Broadly, the term is often taken to refer to the inter-related abilities to recognize, predict, feel through, and respond to the feelings of others (Harmsen, 2019; Fletcher-Watson and Bird, 2020). Research on autistic experiences of empathy has generally concluded that autistic people struggle to take the perspective of others (Smith, 2009; Song et al., 2019) and recognize the emotions of others (Gaigg, 2012; Rigby et al., 2018). However, research is often based on cognitive tests that favor fast-paced and conclusive assumptions made on the basis of limited sets of information (Fletcher-Watson and 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 and 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 standardized cognitive tests available (Fletcher-Watson and Bird, 2020).

Furthermore, social deficit accounts of autism fail to account for the bi-directional nature of social interactions (Milton et al., 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

1 This article uses identity-first language (i.e., autistic people) due to existing literature which suggest that identity-first language best meets the preferences of the broader autistic community and prevents understandings of autism that Other autistic people (Kenny et al., 2016; Botha et al., 2021; Bottema-Beutel et al., 2021; Monk et al., 2022).

objectively learnt and generalized as they are so often described (Milton, 2012). Rather, the difficulties often observed when autistic and non-autistic people interact, as Milton (2012) calls problems of double empathy, are positioned as stemming from mutual difficulties in understanding one another's perspective, which has been observed across research (Milton, 2012; Edey et al., 2016; Sheppard et al., 2016; Heasman and Gillespie, 2019; Crompton et al., 2020b). 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 (Milton, 2012; Chown, 2014). 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 (Milton, 2012; Chown, 2014). 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 (Milton, 2012; Chown, 2014; Botha, 2021). 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 (Milton, 2012; Chown, 2014; DeBrabander et al., 2019; Chapple et al., 2021a, 2022). Research has supported this, showing that autistic people interacting together can achieve mutuality (Milton, 2012; Heasman and Gillespie, 2018; Crompton et al., 2020a,c; 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 (Ida, 2020; Chapple et al., 2021a). One ecologically valid method that can offer this type of exploration is the contemplation of fiction (Chapple et al., 2021a, 2022). This is because fiction provides social simulations that mirror the real social world, making the experience feel like a live reality (Mar and Oatley, 2008; Mumper and Gerrig, 2019). Specifically, fiction encourages complex movements between a reader's own perspective, character perspectives and the inferred perspective of the author (Mar and Oatley, 2008; Zunshine, 2011; Waytz et al., 2015). This perspective mobility activates past, personal memories that enable readers to respond empathically with the minds in the text (Mumper and 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 (Zunshine, 2011; 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). 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 and Magee, 2020). This powerful language encourages readers to hold onto feelings of being moved (O'Sullivan et al., 2015; Davis, 2020). 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 (O'Sullivan et al., 2015; Chapple et al., 2022). 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 et al., 2019).

Through this movement, the reading experience prevents overly conclusive judgments that are implemented when generalizing from learnt social scripts (Djikic et al., 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 recognizable (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 (Farrington et al., 2019; Davis and Magee, 2020). Shared reading in particular can bring readers from different walks of life together in ways that encourage an overcoming of any pre-conceived prejudice toward different minds (Longden et al., 2015; Chapple et al., 2021a). Where readers are moved to feel with one another through shared thinking together, openness and empathic feeling are supported (Longden et al., 2015; Chapple et al., 2021a). Specifically, reading allows social risk taking, where readers can begin to feel and think with different Others, regardless of any perceived personal or social risks from mutual identification and feeling (Koopman and Hakemulder, 2015). This social risk taking can occur by thinking and feeling with Othered minds within a text (Koopman and Hakemulder, 2015) or with Othered readers through shared reading reflections (Farrington et al., 2019). 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 (Strick and Van Soolingen, 2018; Davis, 2020). 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 et al., 2021b) mean that explorations have so far been designed around autistic people reading alone (Chapple et al., 2021a, 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 (Baron-Cohen, 2008; Barnes, 2012). Although research has demonstrated that autistic people do enjoy and engage with fiction (Barnes, 2012; Davidson and Ellis Weismer, 2018; Armstrong et al., 2019; Chapple et al., 2021b), qualitative research has highlighted that autistic people can find emotional value in reading biographical non-fiction and factual non-fiction that relates to specialized 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 (Zunshine, 2011; McCartney, 2021). 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[2] reading each text aloud. The texts were varied by whether they represented autistic experiences or broader human experiences and also by genre (Section "2.3. Study materials").

2. Materials and methods

2.1. 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, 15 of which 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 and 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 et al., 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 and 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 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.

2.2. Screening measures

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

2.2.1. The autism quotient (AQ)

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

2.2.2. The quick test (QT)

A single 50-item version of the QT (Ammons and Ammons, 1962) 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 was not going to be subjected to further analysis.

2.3. 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 Organization'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 et al., 2021). Although the included text *Eleanor Oliphant is Completely Fine* (Honeyman, 2017) explores themes

2 Experienced reader is used to refer to a literary specialist with extensive experience in reading texts aloud.

of inter-personal trauma, the short extract from this text that was used within this study did not contain any instances of or references to trauma. Additionally, 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) contemporary literature (2010–2020), (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 (2018).[3]

2.4. 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 enroll in the subsequent 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 "2.3. Study materials." 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.

2.5. Analysis

SPSS (IBM statistical package for social sciences) was used to organize quantitative demographic data and to calculate descriptive statistics.

Interviews were transcribed using edited transcription, where irrelevant false starts, filler sections and areas of repetition were omitted, unless used to convey importance or significance. Aside from these instances, participants' words were transcribed verbatim. 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). The close reading practised in this context is in the tradition of "practical criticism" founded by Richards in 1929 (Richards, 2017), which emphasizes analytical attention

3 This article was taken from Mint in 2018 and has since been removed from the website. The extract is attached as **Supplementary Appendix 1**.

TABLE 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

to the words on the page, without preconceptions about their meaning. Reflexive thematic analysis (Clarke and Braun, 2014) was additionally used to deductively analyze 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-analyzing 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.

3. Results

3.1. Summary of reading-aloud design findings

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.

3.2. Qualitative analysis results

The final analysis (see Table 2) comprised 3 themes: (1) From Surface Reading to Intuitive Engagement, (2) Imaginative Feeling and (3) Going Forward from the Reading Experience. Quotes are spilled 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.

3.2.1. From surface reading to intuitive engagement

3.2.1.1. 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 summarize the text

TABLE 2 Themes and subthemes.

From surface reading to intuitive engagement	Imaginative feeling	Going forward from the reading experience
External reading	Feeling for the text	Unaware of own abilities
Getting into the text	Feeling from the text	Resulting salience
Uncovering deeper contexts	More than one	

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 summarizing 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.

3.2.1.2. Getting into the text

Readers often tried to get on the same wavelength of a text by constructing visualizations 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 1 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.

3.2.1.3. 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 contemporary 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"*

3.2.2. Imaginative feeling

3.2.2.1. 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 toward the people in the texts:

> *(P12A: The Psychologist) "empathy helps us understand one another and potentially treat each other better"*

> *(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 behavioral 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 empathize 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 behavioral 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 antagonizing 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 toward 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.

3.2.2.2. 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 toward 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" of 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 realize*** *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 recognized 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."*

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" toward and from the texts.

3.2.2.3. More than one

From the complex consideration of inner and outer character perspectives, readers moved toward 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 summarizing Miss Havisham as *the bad guy*, toward 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"*

3.2.3. Going forward from the reading experience

3.2.3.1. 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 criticized* ***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 labeling 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 toward 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. . .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."*

3.2.3.2. 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 recognized 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 empathize 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?"*

> *(P28: 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 toward 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 socialization. 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.

4. Discussion

4.1. 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 "4.1.1. Challenging theoretical assumptions of an autistic empathy deficit" through "4.1.3. Inclusive shared reading designs" in relation to previous theoretical assumptions and research.

4.1.1. Challenging theoretical assumptions of an autistic empathy deficit

The complex, felt responses toward 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 (Lombardo and Baron-Cohen, 2011; Bodner et al., 2015), 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). 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 and 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 (Schriber et al., 2014; Burrows et al., 2017; Arnaud, 2022). 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 stigmatizing views of autistic people (Green et al., 2005; Pearson and 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 emphasize 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, 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 (Farrington et al., 2019; Davis and Magee, 2020) and shows the personal value for autistic readers.

4.1.2. 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 emphasizes 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 generalized later (Lombardo and Baron-Cohen, 2011). This ready competence for data reduction contrasts with autistic people, who appear to instead favor holding complexity in a way that would encourage slower, more careful considerations of new social situations without pre-emptively applying "core" knowledge (Milton, 2012; Chown, 2014; Chapple et al., 2021a, 2022). 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 systemizing 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.

4.1.3. 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 (Strick and Van Soolingen, 2018; Davis, 2020). Findings here that surprised relatability to a character or situation was moving to the readers contradicts earlier findings that autistic people might need to read texts that are directly relatable to their lived experiences

to achieve maximum immersion (Chapple et al., 2021b). Rather, easily recognized experiences that evoked unsurprisingly familiar feelings failed to shift readers out of default ways of thinking in the way that serious literature can (O'Sullivan et al., 2015; Farrington et al., 2019; Davis, 2020). While previous work has suggested that the age of classic literature can provide a sense of surprised relation through a somewhat unfamiliar language (Farrington et al., 2019), the classic literature used in this study tended to instead promote self-conscious concern with having correctly understood the older language. Therefore, contemporary literature (2010–2020) 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.

4.2. Limitations and future research

Findings from the current study are limited in their generalizability 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. Conclusion

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 generalization 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 toward more inclusive understandings of social processing differences.

Data availability statement

The datasets presented in this article are not readily available because the data used for the current study contained sensitive information that could be used to identify the participants. Quotes have been presented in the manuscript that do not include any of this sensitive information, but the larger data set is not suitable for public availability. Requests to access the datasets should be directed to MC, melissa.chapple@liverpool.ac.uk.

Ethics statement

The studies involving human participants were reviewed and approved by the University of Liverpool Ethics Department. The patients/participants provided their written informed consent to participate in this study.

Author contributions

MC, PD, JB, and RC: conceptualization, methodology, validation, formal analysis, and writing—review and editing. MC: funding acquisition, data curation, project administration, and writing—original draft. PD, JB, and RC: supervision. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

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Beyond the sentence: Shared reading within a high secure hospital

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Ashworth Hospital provides care for inpatients detained under the Mental Health Acts who present a danger to themselves or others. Rehabilitative interventions can help support the best outcomes for patients, their families, care providers, and society. The efficacy of weekly Shared Reading sessions for four patients with experience of psychosis and a history of self-harm was investigated using a 12-month longitudinal case series design. Session data were subjected to psychological discourse analysis to identify discursive strategies employed to accomplish social action and change over the duration of the intervention. Archetypes of interactional achievement across sessions emerged. Broadening of capacity to consider was demonstrated through increased hedging and less declarative language. Increased assertiveness was achieved through reduced generalisation marked by a transition from second-person plural pronouns to more first-person singular pronouns. Avoidance of expression and disagreement strategies diminished over time. In addition, heightened engagement was accomplished through the increased tendency to employ functionally related and preferred responses within adjacency pairs, which mirrored non-verbal communicative strategies. Shared Reading shows promise for promoting the interactional accomplishment for individuals within high secure settings, who are ready to undertake a recovery-related activity. Pathways of interaction should continue to be explored, with consideration to the current study's strengths and limitations. This study contributes to the understanding of efficacious reading study design and the interactional outcomes of therapeutic reading.

KEYWORDS

therapeutic reading, high secure setting, psychological discourse analysis, longitudinal, case series

Introduction

The Reader, established as a national charity since 2008, delivers Shared Reading groups across the United Kingdom and beyond, throughout diverse settings. The Reader's Theory of Change suggests that the reading aloud of classic literature, guided by a facilitator, promotes the recognition and articulation of thought and feeling, thereby positively effecting outcomes including well-being, connectedness, and cognitive and affective flexibility. The Shared Reading model encourages participants to develop an understanding of the self and others, and to connect and realise change with breakthroughs signalled by the transition in language i.e., linguistic traces differing from the norm (Davis et al., 2016). Such transitions may be important given that undeveloped language skills hinder the mastery of self-control (Beaver et al., 2008) and perspective-taking (Rawn and Vohs, 2006). This is congruous with the notion that reading for pleasure can induce the state of "flow"; the experience of this state requires both control and concentration (Towey, 2000). The state of flow has been described as an "autotelic experience", in which the actor's attention is completely focussed on an activity and is not dependent on external goals or rewards (Csikszentmihalyi, 1975).

In terms of participant experience, Shared Reading aims to encourage balance, equity, and non-judgemental attitudes, and these aims may be a key component of Shared Reading's efficacy, particularly within highly constrained environments and clinical settings. Individuals using health care services sometimes report not having adequate time to talk about how they are feeling and feeling pressured to agree with psychiatrists (Taylor et al., 2007). This may lead to failure to attend aftercare and negative expectations for therapy following discharge.

Well-managed Shared Reading sessions should provide an environment that allows patients/group members more time to consider and talk about how they are feeling than perhaps other creative interventions and provide a greater sense of continuity in the absence of an apparent "authority figure" than psychological therapies. In contrast to many existing psychosocial interventions, Shared Reading does not necessitate the direct and explicit repetition of an individual's clinically relevant story which according to Hawton et al. (2011) can be perceived as unhelpful and distressing. Instead, Shared Reading tends to naturally elicit recollections of life beyond the rehearsed clinical narrative, uncovering and reviewing deeper, less emphasised episodes.

The discourse within Shared Reading group discussion prompted by literary material can be used to assess interactional skills and to indicate social psychological phenomena and self-development. Congruently, patients with a diagnosis of schizophrenia experiencing negative behavioural signs (e.g., flat affect, alogia, anhedonia, and avolition; Chang et al., 2018) have shown a tendency to flout social knowledge shaping conversational conduct (Corcoran and Frith, 1996). Concerning relevance, adjacency pairs have been considered the most basic conversational unit, a two-part exchange between two speakers that provides speakers with a frame of reference for conduct to achieve inter-subjectivity (Taguchi, 2019). Turn-taking can take many forms, for example, greeting/greeting, information/acknowledgment, and accusation/denial (Qodriani and Wijana, 2021). It has been suggested that disrupted turn adjacency does not always lead to incoherent interaction although there have been limited suggestions as to how exactly coherence is maintained in such cases (Berglund, 2009).

Co-construction of discourse can establish a sense of community. A discourse analysis of an online graduate course identified how patterns of agreement were linked to shared understanding and an enhanced sense of cohesion (Lapadat, 2007). Sophisticated social negotiations were found to allow disagreement whilst maintaining community which was achieved through allowing an opportunity to face-save, showing understanding, softening, and balancing. In addition, humour was used, participants invited comments, employed inclusive language, showed alignment with other participants, and used familiar genres. These findings indicate that growing social capital within groups allows communication of mutual benefit.

Furthermore, discourse can drive behavioural change. Three dominant devices achieving mobilisation and public engagement were identified using a psychological discourse analysis of two Facebook event pages (Sneijder et al., 2018). Positive atmosphere and "togetherness" were promoted through the use of positive language to undermine or attenuate negative event aspects while the use of the pronoun "we" constructed collectivity. In accordance, the use of "we" in discourse can be used to promote solidarity, shared authority (De Fina, 2003), and construct identity, for example, through indexing inclusivity and exclusivity (Selvi et al., 2021). Additionally, "we" can also introduce ambiguity by hiding agency and has been employed for this purpose in controversial speech (Jalilifar and Alavi, 2011). Flexible use of "we" can influence the power dynamic through, for example, the representation of professional and subgroup positions (Kvarnström and Cedersund, 2006).

Similarly, the use of the singular first-person pronoun "I" can have a multitude of different rhetorical effects. An investigation of a corpus of congressional speeches reported that the functions included achieving self-focus, the exhibition of dominance, to express strong opinions, in turn, dismissing others' opinions, to show compassion, to express personal wishes, and to narrate a story (Lenard, 2016). In studies of power and political discourse, the use of "I" has been associated with declaring responsibility, strong conviction, and willingness to take risks.

The importance of discourse type and implicit alignment of language has been highlighted in the literature. In a discourse analysis of nine individuals' first psychotherapy

sessions, interlocutors most frequently adopted colloquial discourse, whereas the therapists mostly used therapeutic discourse (Wahlström, 2018). It was reported that the common expressions used and shared by therapists and service users within the session allowed for intimate experiences to be explored from new perspectives, and the frequent use of colloquial discourse demonstrated how the person-to-person relationship was a primary function of sessions. In contrast, over-lexicalisation may have a redundant effect, and chaos of stories and events may result in confusion. The discomfort it generates has been linked to countertransference within therapy sessions (Castells, 2018).

The use of silence, the antithesis of over-lexicalisation, has been investigated as a tool (Ephratt, 2008, 2012; Nikolić, 2016) within both conflict management and psychotherapy. Chowdhury et al. (2017) suggested that silence can indicate hesitation or indecisiveness of the speaker and may be used to force another speaker to respond. Qualitative analyses examining therapist perceptions of the use of silence in therapy found silence was used to show empathy (also recognised as a communicative resource; Martinovski, 2006), facilitate reflection and expression, and encourage clients to take responsibility (Ladany et al., 2004). Furthermore, therapists perceived their use of silence to be positively associated with the experience of providing therapy. Therapists, however, reported that they did not tend to employ silence as a communicative strategy with individuals experiencing psychosis, anxiety, or anger. The appropriateness of employing silence and other rhetoric devices appears, therefore, to be client and activity-specific.

The use of therapeutic arts–based therapies has received greater acceptance and recognition from health care professionals and the public in recent years, due to a growing body of evidence supporting outcomes such as enhanced social connection and awareness (National Collaborating Centre for Mental Health UK, 2014). This has led to investment in mental health research networks drawing together professionals from the sciences, humanities, and arts (Medical Research Council, 2018). Much of the research assessing Shared Reading within clinical populations has been conducted within community settings and with predominantly female samples. Shared Reading may be particularly beneficial within high-security psychiatric settings through its potential to improve the quality of interactions and thus level of connectedness.

The goal of this study was to uniquely investigate: (i) participants' use of discourse to accomplish social action across Shared Reading sessions, specifically employing psychological discourse analysis; (ii) to do so within the context of a high secure setting, both drawing on the existing literature and allowing the identification of new, perhaps context-specific pathways of interaction; and (iii) to employ a case series design to identify and differentiate stylistic tendencies and person-centred change over time.

Materials and methods

Design

A 12-month case series design investigated the efficacy of weekly Shared Reading for patients at Ashworth Hospital. Ashworth Hospital is a National Health Service hospital in North West England for patients requiring care and treatment in high secure conditions. The study was reviewed and approved by North West—Liverpool East Research Ethics Committee (Reference 17/NW/0114).

Data collection

The sessions were in keeping with the Shared Reading model. Sessions took place over 2 h, with a short break mid-session. Usually, both a story and a poem were read aloud and discussed within the session. A record of the material can be found in **Table 1**. Reading material was selected by the facilitator, and researcher from literary fiction resources recommended and provided by The Reader. Sessions were facilitated by an Associate Specialist in Forensic Psychiatry [KN] who is a trained Shared Reading group leader and the researcher [MW] who also completed a Read to Lead course provided by The Reader and attended all sessions.

Sessions took place in a therapy suite within Ashworth Hospital and the researcher audio and video recorded all sessions. Participants were invited to a taster session prior to study commencement to help participants decide whether they wished to participate and informed consent was sought prior to starting the study.

The data sources comprised 39 videos and audio-recorded Shared Reading group sessions (approximately 55 h of discourse). The data to be analysed were selected, generating the corpus; salient sessions were selected by the researcher, in agreement with the facilitator and wider research team. Sessions that were considered salient best addressed the research goals and were attended by regular participants allowing change to be observed over time. Transcription, utilising both audio and video recordings, was performed by the researcher to allow full immersion and to respect the sensitivity of the data. All files were accessed and stored using the researcher's password-protected Mersey Care NHS Foundation Trust or University of Liverpool account, and participant responses were pseudo-anonymised.

Analysis

A psychological discourse analysis, a discursive psychological approach proposed by Goodman (2017), was employed to analyse sessions. The analysis procedure was, in keeping with methodological recommendations, focussing

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TABLE 1 Record of sessions and material forming corpus for analysis.

Date from 2017	Group number	Attendees	Material read
7th September	5	Clive Patrick John PN004 PN005	A Selection from "Three Songs at the End of Summer" by Jane Kenyon
12th October	4	Clive John PN005 Max	"Penny in the dust" by Ernest Buckler and "The Stone Beach" by Simon Armitage
9th November	4	Clive Patrick John Max	"Faith and Hope Go Shopping" by Joanne Harris and "Let me die a youngman's death" by Roger McGough
7th December	5	Clive Patrick John Max PN005	"Christmas Cracker" by Jeanette Winterson and "Christmas Light" by May Sarton
18th January	4	Clive Patrick John Max	"The Loss" by David Constantine and "Entirely" by Louis MacNeice
15th February	4	Clive Patrick John Max	"Beyond the Bayou" by Kate Chopin and "The Journey" by Mary Oliver.
29th March	4	Clive Patrick John Max	"Good-for-Nothing" by Dic Tryfan and "Bluebird" by Charles Bukowski
26th April	4	Clive Patrick John Max	"Two Gentle People" by Graham Greene and "Along the Road" by Robert Browning Hamilton
17th May	2	John Max	"Miss Brill" by Katherine Mansfield and "Alone" by Maya Angelou
7th June	2	John Max	"The Bull" by Saki and "Trust" by D. H. Lawrence

on how discursive and rhetoric devices are implemented to accomplish social actions. As advocated by Willig (2001), the researcher also adopted a critical stance and demonstrated awareness of the social context. The epistemological foundations of discourse analysis are within social constructionism rather than positivism which is concerned with uncovering the true nature of actions (Johnstone, 2002). Appropriate research questions were generated that were in keeping with ensuing analysis and discursive theory. The focus was on how participants interacted with the reading material and group members and did not centralise around speakers' thought processes or attitudes toward a topic of discussion.

A "simplified Jeffersonian" (Goodman, 2017) level of transcription was undertaken for reader accessibility. Transcription contained sufficient but not unnecessary detail to address the research questions. Body language and pauses were noted when affecting the meaning of discourse. Transcripts were line numbered for clarity and ease of referral. A preliminary rereading of transcripts was undertaken for data familiarity. Action orientation, i.e., what was being achieved by interaction and initial thoughts were recorded through marking and annotation of transcripts. Drawing on the vast literature, discursive and rhetoric devices used within discourse were identified, for example, use of language of certainty, endorsement seeking, turn-taking, and strategies for disagreement. The use of repertoires, ideological dilemmas, and how subject positions and identity were constructed by the speakers was examined. Devices were recorded through marginal writing on transcripts. Strategies that best addressed the research questions were selected, and extracts and examples were collated in a word document. The extracts were described to illustrate cases for each participant.

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Participants

Initially, ten male participants were recruited, for this year-long Shared Reading intervention. Over the course of that year, the attrition rate was 60% leaving four regular participants upon whom this case analysis is based. Two other participants attended 23 and 5% of the sessions before withdrawing. The case studies present discourse archetypes and participants represented a complex forensic sample; all participants had experienced psychosis, had a history of self-harm, and most had been in the prison system. Participants referenced troubled childhoods, problems at school, and were involved in crime from an early age. These particular men had less of a problem with substance use than the general clinical/forensic population but all of them had experienced it at some point. None had the experience of full employment, two participants regarded themselves as readers prior to the study, two did not, and two participants experienced neurocognitive impairments that impacted their ability to concentrate. The participants shared similar demographic characteristics such as age (M = 45.25, SD = 6.45) and ethnicity, all were White British. Each of the four participants attended over sixty percent of sessions, and reasons for occasional non-attendance of regular participants were mostly attributable to physical illness or other appointments. Discontinuation of two participants beyond the 25th session was due to external, non-study-related factors such as service transfer and/or logistical issues.

Results

Pseudonyms are employed for the following cases.

Participant one—Clive: A broadening of capacity to consider alternative interpretations of events

Clive attended 24 out of 39 study sessions and was present for eight out of ten sessions forming the corpus for analysis. The participant did not generally require encouragement to speak, took more turns than other speakers, and his contribution was generally descriptive. Clive's discourse demonstrated a broadening of capacity to consider different interpretations across sessions and over time. This change was demonstrable both in response to the text and in response to the opinions of other group members to some degree. Particular discursive devices, the change in use and culmination was identified as illustrating this enhanced capacity. These were predominantly the use of certainty and declarative language, consensus, polysyndeton (the use of successive conjunctions), appeals to the listener, and posing of substantive questions.

Clive's discourse in the first few sessions was characterised by expressions of high certainty and commitment to his initial interpretations. This was evident in Clive's discourse around the characters' thoughts, feelings, and actions. For example, "she's got to. . ." and "erm that's still er that's still basically the same" (session one p. 29 line 13 and p. 44 line 28), "he must be thinking. . ." (session two p. 18 line 21), "that's the way it should be" (session three p. 17 line 16), and "I think she's doing what I said before. . . she feels reborn again" (session four p. 59 line 15).

Over time, there was a move to greater use of hedging phrases and words associated with less certainty; "it means to have I think it means to have like erm. . ." (session five p.12 line 38), "so I think looking at that only by my own experience. . ." and "could be loads of different things" (session five p. 18 line 22). Clive's use of hedges served to show his improved consideration of different points of view and seemed to convey a degree of humility by reducing the force of his statements. At six months into the intervention, Clive showed some recognition of this; "I think so anyway probably just prove me wrong as we get further along that's the way these stories are" and "I've changed my mind now about that. . ." (session six p. 6 line 2 and p. 42 line 13). Furthermore, Clive displayed some self-corrective language in session eight (p. 16 line 26); "so it's the be- it might be the beginning of a little affair mighten it because you'll alwa- probably say that may happen or you might. . .."

Toward the start of the intervention, Clive's discourse was characterised by the use of first-person plural pronouns which appeared to act as an indicator of general agreement and in doing so reinforced the speaker's own interpretation. An example of this use of "we," its pairing with the intensifier "all" (a quantifier used for emphasis), "ourselves," and the use of "we" within a rhetorical tag question was evident within the discussion of *A Selection from Three Songs at the End of Summer* by Jane Kenyon, session one (p. 4 line 15): "and I think I think we've all stood under a tree and to protect ourselves from rain and she can feel that rain dripping down off from the tree so her stepping out in the rain. . ." and "we're talking about a pretty big nest here aren't we."

Clive's use of polysyndeton, specifically the successive use of "and," elongated the discourse. The use of the transition "so" further focussed the attention of the listener, before drawing a conclusion. Whilst "I think" can serve as a hedge, contextually, given its repetition, coexisting devices, and syntactic placement as a preface, the effect in this study may be rather factive accomplishing emphasis. Toward the end of session two, as shown in the transcript excerpt in **Figure 1**, the use of "we" and "all of us" was initially used to speak on behalf of the group when Clive conveyed his difficulty in interpreting the material. However, this was not sustained throughout the utterance given the adoption of the second-person plural "you" paired with the modal verb "would." This granted genericity and attenuated agency. This was followed by an explicit acknowledgment that members of the group had different opinions. In contrast to the

Facilitator:	Yeah we got through it, I like that poem though, do you like the poem?
John:	Yeah
Facilitator:	Was it okay?
Clive:	We struggled to understand it though if we didn't have all of us here and you were reading it on our own, I think you'd come to the wrong conclusion about the whole thing and you wouldn't have the diversity of the people that are here because everyone's had their own opinions kind of thing

FIGURE 1
Session two extract (p. 45 line 17).

Facilitator:	How do you feel, how you all feeling?
Max:	Alright
Facilitator:	Have you got things to do, cheer- to think about when you get back? (Patrick laughs)
John:	Yeah
Facilitator:	Yeah take your mind off it a bit
Clive:	It's been a bit exhausting today to be honest, I don't know why
Facilitator:	Because we've talked about some [difficult] things
Max:	Been a bit what?
Clive:	Exhausting but some of us have like John's done it, I've done it, you (gesturing to Patrick) have done it as well lad

FIGURE 2
Session six extract (p. 44 line 5).

session one example, "I think" increased in hedging function, embedded within the utterance. The complement "because" whilst drawing a conclusion had a less exertive force when followed by the terminal tag and hedging phrase, "kind of thing" ascribing less certainty.

The facilitator, acknowledging sensitive discussion within session six, as shown in **Figure 2**, proceeded to "check in" with participants as part of a debrief before participants returned to the ward. Patrick laughed in response to the facilitator's question, "Have you got things to do, cheer- to think about when you get back?" Whilst laughter perhaps served to indicate amusement at the false start and anticipated understatement (cheer you up), on another level, it functioned to terminate talk acting as a turn rejection. John and Max's single-word neutral responses, "yeah" and "alright," respectively, did not require expansion and functioned to push the interaction forward. In contrast, Clive conveyed, although with referential ambiguity, that reflection and disclosure within the session had been cognitively demanding.

Clive's use of the adjective "exhausting" was accompanied by a hedge and honest statement to convey a personal rather than communal record in addition to the anticipatory self-identifying and face-saving expression, "I don't know why." Upon Max seeking clarification, Clive expanded not through the use of inclusive first-person plural pronouns but using address terms, the singular first-person pronoun "I" and the singular second-person pronoun "you," forming a three-part list to augment the idea and separate agency. The approximation and hedge "some of us have like" paired with the ambiguous verb construction "done it" (i.e., spoken about difficult things), and the informal terms of address, "lad," softened the discourse and served to portray a group of individuals with social actions in common, as opposed to signalling a single body all with the same experience. In this way, Clive established a form of collectivity as opposed to his prior tendency to prematurely proclaim an established consensus.

Over the duration of the intervention, Clive's discourse demonstrated a shift in framing from the tendency to be speaker focussed to more listener-focussed. For example, in session one, the use of cajolers such as "can I just say something" (p. 34 line 26) and "you know" served as appeals to the listener and turn-entry devices allowed structuring of the conversation; "you know what, that's where man- a lot of people don't know this- that's where man actually learnt to sing" (p. 5 line 29). The modal "actually" conveyed information about the attitude of the speaker with regards to the message, communicating the speaker's view of the utterance's unexpected content, novelty, and certainty about the surprising content. This was reinforced by the aside "a lot of people don't know this" which has an interactive function, relating the topic to an everyday frame and marking the digression, whilst Clive also established himself as a source of superior knowledge in the group. In session three, Clive continued to convey his own interpretation of the text with appeals to the listener such as "isn't he. . .you can tell. . .," however, the use of an option marker "or" also showed consideration for another speaker's turn; "he's wishing he's wishing isn't he that you can tell by because he mentions death so much I think he's scared of actually dying not just a youngman's death but he's scared of dying in general or like you said he wants to be able to have that opportunity to be able to do the things that he might never of done just faded into the night kind of thing. . ." (p. 7 line 14).

Clive's discourse in session four demonstrated further alignment and recognition of another speaker's turn, the use of "well" demonstrated receipt of information whilst "I mean" promoted speaker clarification; "well yeah you're right you're bang on the button there [Facilitator]. . .'cause I can remember. . . I couldn't cope I mean absolute- I was my most depressed. . ." (p. 63 line 9). The frequent use of the singular first person "I" contributed to the reflective stance and heightened self-involvement through conveying individualised, personal experience. The tendency for listener-focussed speech in later sessions was evidenced by Clive's use of substantive questions. In session one, Clive's discourse was, at times, directive and

Clive:	I don't understand that I don't know what that bit means I don't know what that other bit means where it says… never know that he's in there what does he mean by that what's he trying to say?
Max:	He he ain't showing himself when he's around people
Clive:	Mmm you mean he's keeping the bluebird in there in front of these other people?
Max:	It's not actually about a bluebird it's more how he's feeling inside
Clive:	Okay
Max:	Blue

FIGURE 3
Session seven extract (p. 67 line 24).

knowledge testing creating a demand for certain responses and exercising social control, for example, "there you are [name], there's a question for you - what's a gathering of crows?" (p. 7 line 2). Later discourse was more enquiring, "if someone said I'll give you a hundred quid to do it again would you do it?" (session six p. 14 line 8). Clive's discourse in the extract from session seven, shown in **Figure 3**, during discussion of *Bluebird* by Charles Bukowski exerts no constraints on the following turn and is knowledge-seeking rather than knowledge-giving.

Over the sessions, Clive demonstrated a shift from expressions of high certainty to less certain language and developed a more explorative style of questioning. This indicates how flexibility of thought can arise through participation in Shared Reading and how this promoted development of connectedness with other group members, in keeping with the Theory of Change.

Participant two—Patrick: Increased assertiveness

Patrick attended 25 out of 39 study sessions and was present for seven out of ten sessions forming the corpus for analysis. Patrick's discourse displayed increased self-confidence and assertiveness across sessions, which could be evidenced through changes in generalisation, voicing disagreement in the interpretation of the text, endorsement seeking, and use of humour.

Patrick's discourse up until five months into the intervention showed a tendency to employ plural second-person pronouns, conveying personal experience and opinion through generalisations about how people feel without a clearly identifiable referent. In session one, the facilitator posed the question, "what was it like waiting to go on that first day [of school]?" (p. 32 line 7), to which Patrick responded, "it's like you've got no choice" (p. 32 line 9). Similarly, ambiguity of agency was achieved through discourse such as "when you're a kid all your life's like on rails isn't it" (session one p. 41 line 31) and "for a lot of people in here it's a bit depressing" (session four p. 55 line 24). At five months into the intervention, a story called *The Loss* by David Constantine was read, in which the character Mr. Silverman loses his soul. Patrick's use of self-reference uniquely and unambiguously conveyed access to the speaker, using more first-person singular pronouns. For example, "I think I was there at one point many years ago I was like that at one point… no joy … feelings nothing" (session five p. 30 line 39). In session eight, as shown by the extract in **Figure 4**, the agency behind the generic "you learn" was revealed when Patrick drew on personal experience when prompted, expanding his turn with the use of "I." "I" as the subject of verbs portrayed a truthful narrator and increased level of ownership over discourse albeit then attenuated with the use of the hedge "maybe".

Patrick's discourse was initially characterised by questions and hesitant tonality, "[Researcher]… is it in America?" (session one p. 21 line 8), "are they old people?" (session three p. 17 line 3), "is he actually thinking them thoughts now the dog?" (session four p. 6 line 30), and "do you think she's found someone to love?" (session four p. 61 line 20). Posing utterances as questions accomplished conveying personal interpretation in an unassertive, unchallenging manner. Uncertain language and use of tag questions contributed to this effect; for example, "he wants to die young but he doesn't if you understand what I mean" (session three p. 7 line 8). The contrastive marker "but" adds lexical ambiguity and contradiction whilst the tag question "if you understand what I mean" relied on meta-knowledge of the listener and served to seek endorsement. In later sessions, Patrick communicated interpretation through more declarative utterances.

Disagreement with other speakers was managed diplomatically with the use of hedging; for example, "I don't think it's… a bird as such" (session seven p. 69 line 5), "I think he it's not necessarily what country I think it depends on the person as a person" (session seven p. 38 line 17), and "feels worthless as well because she's got nothing to do…" (session eight p. 30 line 9). The extract from session eight, as shown in **Figure 5**, provided a further example of how Patrick more assertively expressed opinion and feeling; "yeah"

Facilitator:	I think- why do you think there's a difference between the description between the feeling of pleasure and feeling of sorrow (Max shakes head)
Patrick:	Because you learn to be humble when you're sorrowful is that not true?
Facilitator:	Is that is that what you think?
John:	Excuse me (not part of adjacency pair)
Patrick:	I'd say that over the last like twenty years since I committed my index offense (Max looks at John) <I have learnt> to be sorrowful (slight shrug) maybe

FIGURE 4
Session eight extract (p. 40 line 3).

Clive:	So she's been chatting for a mile and er chatting for another mile she didn't chat at all
Patrick:	Yeah but she learned more from sorrow you learn more from sorrow
Facilitator:	Yeah
Researcher:	But what type of things can you learn from sorrow
Clive:	Sadness
Patrick:	Regret… remorse

FIGURE 5
Session eight extract (p. 41 line 13).

Clive:	He's lost it in the dirt hasn't he?
Facilitator:	"I did that again and again. Alas, once too often."
John:	So he's lost it so many times he's lost it again
Clive:	Lost it for good though
John:	Yeah because he's lost it so many times in the past
Clive:	Mmm
John:	Found it [and all of a sudden] can't find it
Clive:	So he would have been better off going to the shop and trading it anyway
John:	Instead of losing it yeah because if he'd spent it in the shop that way he would have benefitted from it

FIGURE 6
Session two extract (p. 12 line 16).

served to acknowledge the previous turn whilst the contrastive marker acted as a rejecter and successive repetition of Patrick's utterance reinforced the speaker's message. Patrick proceeded to demonstrate the development of the emotional lexicon, describing how you can learn "regret" (and then deeper), "remorse" from sorrow.

Additionally, Patrick's use of humour and portrayal of characters in initial sessions generally drew parallels with the experience of psychosis, serving a somewhat self-depreciative function; for example, "I think they'd have something to say if we go off on adventures here" (session three p. 39 line 26) and "he'll end up in here won't he" (session four p. 23 line 23). In session eight, upon the researcher drawing attention to word selection within the poem *Along the Road* by Robert Browning Hamilton, "it's interesting how the word chattered was picked. . . why chattered" (p. 45 line 30), Patrick responded through an impersonation of the imagined character, "a word for rambling (p. 46 line 6). . .oh this is great this is good this is brilliant (laughs)." In contrast to previous humour, the discourse was not negatively inflected and demonstrated the embodiment of the character rather than a comparison to personal circumstances. The shift in positioning suggests heightened absorption in the material and was accompanied by a notably animated tone, which emerged concomitantly with decreased hesitancy.

In summary, over the sessions, Patrick developed discursive strategies to increase the level of ownership of his discourse; his emotions and thoughts became public. Patrick showed greater confidence in expressing his own opinion and interpretation of the reading material. Indeed, the Theory of Change describes how both the reading material and facilitator can enhance the articulation of thought and feeling. This in turn led to greater assertiveness, a key social skill and diminished fear of threat to the self from exposing feelings and the self.

Participant three—John: Decreased avoidance

John attended 32 out of 39 study sessions and was present for all ten sessions forming the corpus for analysis. John's discourse was characterised by particular devices: alignment, repetition, disclaimers, and avoidance. The extent to which communicative strategies served self-presentation and monitoring functions attenuated moderately over time. The quantity and turn-taking frequency of John's discourse varied considerably between sessions but generally increased.

John's discourse in the first six months was particularly marked by repetition and paraphrasing of other speaker's turns, with a tendency to follow and align, particularly with Clive; "like Clive says. . . Clive what were you going to say" (session one p. 30 line 26) and "agree with you Clive good stuff" (session five p. 27 line 46). Similarly, in session two, as shown in **Figure 6**, John repeated the idea that a character in the story *Penny in the Dust* by Ernest Buckler was embarrassed upon losing a special penny from his father. John's use of "so" and "because" continued to reiterate and reinforce an established idea with the use of "yeah" also serving to align with Clive. Subordinate responses within adjacency pairs, through the repetition of established ideas, functioned to avoid expansion and disagreement. The use of non-committal language also served to avoid expressing a personal opinion, for example, in session three following the facilitator's question, "do you think they go together the poem and the story?" (p. 37 line 3), John responded, "might do." This tendency was to some extent acknowledged by John in session ten (p. 24 line 6); "when I don't make comments it's because I don't understand it properly. . .today I've understood quite well. . .when I know what I'm doing when I'm working it out that's when I comment a lot. . .because I understand it and I understand what it says and what it's about."

John's discourse also reflected positive self-portrayal; "I remember I remember everything from the age of two" (session one p. 3 line 16), "I went to the dentist this morning and [they] said I had a good set of strong teeth" (session three p. 19 line 5), and "and like I say I've been here six years I've done some therapies and I must have benefitted off them because I've not self-harmed" (session four p. 47 line 18). When discussing the number of sessions completed in session five,

John:	You take one and think oh this is great so you take another one and next thing you know you're popping twenty thirty
Facilitator:	Yes
John:	You know I've been on various medications in the past but I've never been a druggy
Max:	What do you think they was then
John:	What
Max:	What do you think they were then they're drugs?
John:	What do you mean?
Max:	You were talking about popping pills
John:	Yeah
Max:	How do you know how you [count] that as not popping pills?
John:	They are popping pills what do you mean
Max:	Forget it (leans back)
John:	Ha (smiles) no I'm just saying because they'll affect you they want more don't they

FIGURE 7
Session seven extract (p. 36 line 16).

John enquired as to whether attendance was recorded on the medical record system, "is it on PACIS is it on PACIS?" (p. 52 line 45). Monitoring self-presentation was also accomplished within discussion through John's use of disclaimers, such as "I don't hear voices no more you know but. . . it's been right as rain" (session six p. 32 line 22) and "like I said everybody's got a good side and a bad side haven't they like I've never lashed out at anybody since I've been here you know 'cause I'm not a bad person you know what I mean. . ." (session seven p. 52 line 5).

John went on to explicitly acknowledge concern with self-image, "I was scared I was worried about what people thought of me personally I use to to er worry about what people would think of me. . .I do think because I've been in the nut house. . ." (session seven p. 56 line 16). John's attitude was strongly conveyed by the use of derogatory epithets.

John employed topic change to accomplish avoidance which appeared to be a sophisticated strategy for managing the direction of the conversation, albeit potentially maladaptive in the context of therapeutic encounters. For example, whilst John disclosed the death of a relative following the misinterpretation of the previous speaker's prompt, John proceeded to reject empathy and prevent expansion through talk termination, "time for a drink I think time for a break" (session six p. 23 line 25). Non-alignment in footing (i.e., speaker selection and changing of context) during an interaction with Max was also used to avoid voicing a demanded response, shown in **Figure 7**.

Footing placed the speaker in the least self-threatening position, accomplishing to nullify and disengage from Max's notion that taking prescription drugs for non-prescriptive purposes was not too dissimilar from the "druggy" behaviour John disaffiliated from, "I've never been a druggy" (session seven p. 36 line 20). An interlocutor seeking clarification for a question they do not understand and providing an irrelevant response seems to be an evasive strategy. However, John continues to question the question posed and responded by changing the textual content, following the receipt "ha" and rejection, "no." The interpretation in which the speaker avoids discourse that is dis-concordant with positive self-representation is, in this instance, more in keeping contextually with the surrounding discourse than interpreting the exchange as merely a misunderstanding. Similarly, in session ten, when the facilitator remarked upon the discussion of familial trust, "but does that mean that people would automatically trust?" (p. 47 line 24), John responded, "I would like them to trust me yeah 'cause I'm their father" (p. 47 line 25). John did not align with the facilitator's positioning as indicated by the contrastive marker "but" and used the modal verb "would" and "yeah" to acknowledge the previous turn and topic shift, achieving a degree of evasion. Whilst the maxim of relation, one of Grice's (1975) four maxims forming the cooperative principle remained somewhat violated in this example, the speaker did not employ complete avoidance strategies or ambiguous language.

The novelty of the speaker's turn contrasts the imitation and alignment devices that exemplified earlier sessions. In summary, over the sessions, John's interaction style became less characterised by the tendency to follow within an adjacency pair and the extent to which discursive devices monitored self-presentation reduced to some degree. Change in avoidance strategies may indicate a greater openness to other experiences, which the Theory of Change describes as "breaking through."

Participant four—Max: Heightened engagement

Max attended 30 out of 39 study sessions and was present for nine out of ten sessions forming the corpus for analysis. Changes within adjacency pairs, strategies for disagreement, non-verbal behaviour, and disclosure served the purpose of heightening social interaction and engagement over time. Generally, Max's discourse reflected literary knowledge. Max was often able to add to the group's understanding of settings within the material read and biographical information about authors.

In session two, the facilitator provided introductions upon Max starting the intervention. Following greetings from both the researcher and Clive, the facilitator enquired, "[Researcher] comes from the university like I explained and do you know Clive?" (p. 1 line 23) to which Max responded, "Who's Clive?" (p. 1 line 25). Max's utterance did not attend to cues provided by previous adjacency pairs. In addition, verbal acknowledgment of the other speaker's actions or presence was absent resulting in abruptness of turn. Similarly, when the researcher asked, "do you think his dad might be upset that his son thought [that]" (session two p. 22 line 1), Max provided a non-sequitur, boundary-challenging response, "Are you from London?" (p.

Patrick:	Yeah I've found that as I'm getting older the young ones take the piss a little bit
Clive:	Mmm
Patrick:	As you get a bit older yeah
Facilitator:	And what's that like
Patrick:	Alright just (shrugs)
Clive:	Just laugh at it don't you
Max:	Got to get on with it haven't you just got to get on with it
Clive:	Yeah you're right Max

FIGURE 8
Session six extract (p. 29 line 12).

22 line 4) which may also reflect distraction from the session. The dis-preferred nature of discourse was emphasised by interactional differences in framing.

A later instance in this session demonstrated Max employing functionally related adjacency pairs but in doing so Max dismissed other group members' interpretation of the material, "you aren't going to have six girlfriends are you?" (p. 31 line 27). In contrast, Max used a different discourse style for managing disagreement within a discussion about the effects of money toward the end of the intervention. When John suggested, "too much money goes to people's heads," Max responded, "don't think she's one of them though she's erm she's quite (looking to facilitator) is it corpus mentis [*sic*]?" (session nine p. 35 line 27). The hedge phrases "don't think, quite," the contrastive "though" and hesitator "erm," served to tentatively soften the rejection. In addition, the aiding of group inter-subjectivity in the latter sessions was more collaborative in style; Max was more interactionally responsive to group members; "yeah he is he's a poet and an author" (session seven p. 52 line 20) and conveyed access to other speakers' mental states through empathic turns. For example, in session six, as shown in **Figure 8**, Max acknowledged previous turns discussing ward dynamics and aligned with Patrick and Clive's non-verbal and verbal behaviour. Continuation of sentiment and experience could be identified through the endorsement-seeking tag question, "haven't you," recurrent employment of "just" mirroring previous turns and Max's successive repetition of "got to get on with it" which produced an amplifying effect.

At this six-month point, the use of adjacency pairs served to promote collegiality. Max's language showed a change in attitude, particularly toward poetry, across the intervention. In session two, negative sentiment was expressed through negation, "[got to be honest with you] I'm not really one for. . .poems don't really [get] reading them" (session two p. 30 line 14). This contrasted the engagement within session eight, "so it's totally opposite to the first paragraph isn't it" (p. 39 line 27) and "I tell you. . . it's a way of explaining how he feels" (session seven p. 69 line 6). The use of "so" serves to indicate Max drawing a conclusion with the use of the intensifier "totally" resulting in

Clive:	Sorry Max Max (Max finding place)
Facilitator:	Have you got it Max
Max:	Yeah
Clive:	162 on the left hand side at the top
Facilitator:	Take mine

FIGURE 9
Session seven extract (p. 10 line 2).

a more animated style of discourse. The use of cajolers such as "I tell you" also served to indicate more listener-focussed interaction. Furthermore, positivity was expressed explicitly, "I actually like that one" (session seven p. 71 line 8) and "it was a pleasure today I enjoyed it" (session eight p. 49 line 5).

Throughout the intervention, Max demonstrated an increasing effort to reengage with material and interaction when concentration or engagement lapsed. For example, session four was marked by body language indicating disengagement and distraction such as nail biting (p. 34 line 4), moving the chair back (p. 70 line 11), and fidgeting (p. 63 line 17). Whilst Max remarked, "I'm tired" in session five (p. 3 line 4) this was followed by Max sitting up, making a concerted effort to re-focus. Accordingly, this was mirrored within verbal communication, "can we get a drink in a minute can we get a drink in a minute. . . what's that. . . what's that (session five p. 25 line 17)." Max's frustration at losing his place during reading of the material was recognised by other group members and evident in an extract from session seven, shown in **Figure 9**.

Change in disclosure and expression of feeling was observed in Max's discourse. Following disclosure of the loss of relatives at a young age in session three, the discourse was marked by a long weighted pause marking both listener empathy and speechlessness. Disclosure appeared more like a revelation prompted by the poem as opposed to routine or confessional. John's starter "well" (p. 11 line 28) remained an incomplete phrase whilst Clive communicated empathy more explicitly, "Too early that isn't it too early they sa-" (p. 11 line 29). Talk was terminated by Max's response, "well having said that it was so long ago I was so young I didn't really know what was going on" (p. 11 line 30). The use of "well" functions to preface a topic shift, marks an insufficient response (i.e., not the response intended by the previous turn), it rejects empathy given and in doing so avoids expansion.

Like the literature itself, the participants' discourse was full of spaces for inference, potential resonance, and other unspoken words. However, Max did expand description of negative experiences in later sessions; "I've been like that as well. . . when I was in The Scrubs I wouldn't say I was dirty. . . but er I didn't wash myself I didn't care about myself I didn't eat" (session five p. 31 line 1). Upon reading, *Two Gentle People* by Graham Greene, the group discussed the nature of communication

that you may have with a stranger. Max's discourse explicitly communicated discomfort with conveying feelings, heightened through hesitation and endorsement-seeking appeals to the listener, "I don't like that me I'm . . . I'm quite on my own if you know what I mean I don't really express my feelings you know what I mean (session eight p. 12 line 26)."

Similarly, in session nine, participants discussed what they would do with a million pounds, to which Max responded, "do you know what I'd do. . . I want to build my own prison . . . because I'd feel safe" (p. 29 line 24). In light of this discourse, prior avoidance of expression and disclosure of feelings may have been used as a self-protective communicative strategy. This emphasised the poignancy of Max's discourse in session ten; "I've felt guilty sometimes you know . . . I shouldn't really say this but I will. . . the things is with me like I'm always placing all [my] trust in the relationship you know what I mean" (session ten p. 37 line 31). The frequent use of the singular first-person pronoun "I" accomplished heightened reflection, ownership of feeling and mental autonomy, although cautiously with the employment of the disclaimer "I shouldn't really say this" and two appeals for listener endorsement, "you know." Nevertheless, this contrasted the briskness of turns within initial sessions.

In summary, Max developed strategies for managing disagreement and showed an increased tendency to re-focus following concentration failure. Growth within the Theory of Change links increased attention and openness, which is in keeping with Max's willingness to disclose feelings. These discursive strategies showed Max's heightened engagement over the duration of sessions.

Discussion

Archetypes of interactional achievement across Shared Reading sessions were presented through psychological discourse analysis. Certain rhetorical strategies were identified and their effects were characteristic of, but, importantly, not exclusive to, certain individuals and build upon both the discursive and non-discursive existing literature.

Broadening of capacity to consider different interpretations across sessions was illustrated through Clive. The function of first-person personal pronouns transitioned from predominantly establishing consensus through speaking on behalf of the group to promoting collegiality. This is reflective of research finding that the flexible use of "we" creates a power dynamic in the representation of subgroups (Kvarnström and Cedersund, 2006) and can function to construct collectivity (Sneijder et al., 2018). There was evidence for discourse shifting from speaker to listener-focussed; initial discourse, characterised by appeals to the listener and polysyndeton, contrasted with later use of non-directive substantive questions. This is in keeping with Lapadat's (2007) finding that posing questions can promote coherence and be forward structuring. However, the current study's findings suggest this effect may not be achieved if the language of substantive questions is directive and knowledge-testing as opposed to knowledge-seeking. Over the duration of the intervention, Clive's discourse also showed a heightened propensity to utilise hedging, ascribing less certainty to claims.

An increase in assertiveness across sessions was identified through Patrick's discourse. This was partly achieved by the movement from second-person plural pronouns to singular first-person pronouns to convey experience. This supports "I" functioning to narrate a personal story (Lenard, 2016) and contrasts the use of "we," found to introduce ambiguity with respect to an agency (Jalilifar and Alavi, 2011). Increased inclination to voice disagreement contributed to greater assertiveness within the discourse of later sessions. The relationship between managing disagreement and assertiveness may be bidirectional or mutually reinforcing given that Lapadat (2007) reported that feelings of empowerment resulted from the expression of beliefs within a safe communication space. Additionally, reduced negatively inflected humour over time resulted in more positive sentiment, which can create a more positive atmosphere (Sneijder et al., 2018).

Discursive devices employed by John represented changes in self-presentation/self-disclosure. Discourse was initially characterised by repetition and alignment. This reinforced other speakers' discourse, avoided voicing an opinion that departed from the perceived norm, and reduced accountability for discourse. Pagliai (2012) suggested that a function of non-alignment in footing was to conceal disagreement with other speakers. However, the strategy, in this case, may have also served to conceal agreement with a statement creating discordance between actual and desired self-image. Congruently, disclaimers functioned to protect the speaker from presenting a negative self-image. The movement from predominant repetition to evasive strategies and use of disclaimers achieved less explicit avoidance of expression of opinion.

Max's non-verbal and verbal communication generally expressed a more positive attitude toward the sessions and engagement over time. Increased preferred responses within adjacency pairs and enhanced social negotiation allowing disagreement achieved inter-subjectivity. Whilst Berglund (2009) suggested that disrupted turn agency does not always lead to incoherent interaction, within this context, dis-preferred responses tended to diminish relation, leading to tangential talk that disrupted focus. Development of interactional accomplishment within the group was demonstrated through increased emotional disclosure overtime. Whilst sometimes prompted by identification with the reading material, increases in this communicative strategy were also likely to occur due to other group member's discourse eliciting reciprocating responses and the development of familiarity and trust within the group over time.

In keeping with the Theory of Change (Davis et al., 2016), participants demonstrated a shift from "stuckness" through expanding discursive strategies employed to accomplish social action. For example, there was an increased tendency for the use of listener-focussed language and preferred responses and reduced negatively inflected humour and avoidance strategies. These cases highlight how discourse can illustrate change and indicate readiness to accept learning and self-development. Characteristics of participant talk were determinable from the start of the intervention. It is, however, noteworthy that, whilst Shared Reading interventions within other populations have demonstrated effects following six weeks (Longden et al., 2015) changes within participant discourse for the current study were discernible from around six months. This is reflective of the gradual development of sessions, the poor concentration and impulsivity of some participants, and willingness to engage with and then discuss the material.

Findings should be interpreted with consideration to study limitations. First, it is not possible to strongly assert that the changes illustrated in the discourse analysis are due to Shared Reading because participants had been receiving care and treatment, including medication and psychological therapy, at Ashworth Hospital for considerable lengths of time. One participant explicitly communicated that they had been at Ashworth Hospital for five years and two participants were preparing to transfer service toward the end of the intervention. Impracticalities and ethical issues render the elimination of many confounding factors difficult. Therefore, future research should employ a matched subjects design to assess the effects of a comparator intervention on discourse.

Additionally, it may be useful to investigate whether a similar expansion of linguistic devices persists in a female sample given that, controversially, linguistic elements may be stylistically stigmatised, associated with gender, age, and social status (Müller, 2005). A larger, more diverse sample would be required to determine the transferability of the current study's findings and learnings. However, recruitment and implementation of a study such as this pose considerable logistical challenges. Furthermore, generalisability has been deemed a controversial topic in qualitative research; with the intentions to investigate a particular phenomenon in-depth, greater importance is often placed on the understanding of circumstances as opposed to producing representative data.

In an attempt to account for confounds, measures of therapeutic alliance, facilitator experience, participant motivation (both degree of motivation and specific reason), personality trait scores, symptomology, and changes in medication that may affect concentration and/or vocal production should be recorded. Whether changes in discourse over time are mirrored in participant's social interactions outside the sessions could also be usefully investigated. This may also elucidate dynamics between participants outside the sessions.

Participants who dropped out of the intervention tended to be younger and at an earlier stage of illness than regular participants. Reasons for withdrawal were not pursued for ethical reasons, but voluntary feedback indicated that this was likely related to anxiety about being in a group, being recorded, concentration or interest. This may indicate that, within forensic settings, Shared Reading may be best suited to operate in tandem with or after some experience of therapy. Whilst it may be worth investigating the implementation of a Shared Reading group on a high dependency ward, it should be recognised that this environment is less conducive to undisturbed, confidential discussion and raises serious issues for audio and video recording in terms of research activity.

Overall, participant discourse strategies over the duration of the intervention showed increasingly sophisticated social function through broadening of capacity to consider, assertiveness, avoidance strategies, and engagement. The current study's findings have practical implications for facilitators of therapeutic activity and group members. These results could be used to assess and develop criteria for interactional progress through signalling key areas for anticipated change in discourse. For example, lists of verbal expressions related to humility, assertiveness, engagement, and evasion could be developed and values assigned to assess linguistic change across therapeutic sessions, through either computerised or manual scoring.

Supporting participants to establish methods for conveying opinion or managing disagreement through the use of colloquial, as opposed to medical or therapeutic discourse, may develop "trusted" pathways of interaction that can be readily employed within day-to-day interaction in the outside world or other institutional settings. Heightened linguistic richness may also lead to greater receptiveness and responsiveness to therapy for those experiencing mental health issues, equipping individuals with a greater linguistic repertoire to explore their own narratives, in doing so promoting social activity and skills. Such changes within interaction and social behaviour can lead to cumulative changes in well-being.

Data availability statement

The data for this study is not readily available due to their sensitive nature and for privacy reasons. Figures can be accessed for session extracts. Requests to access the datasets should be directed to MW, watkinm3@lsbu.ac.uk.

Ethics statement

The studies involving human participants were reviewed and approved by North West—Liverpool East

Research Ethics Committee (Reference 17/NW/0114). The patients/participants provided their written informed consent to participate in this study.

Author contributions

KN and MW facilitated the Shared Reading sessions. MW conducted the analysis, informed by consultation and debrief sessions with KN and input from the wider research team. MW produced the manuscript. RC and KN reviewed the manuscript. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Picture book reading on the development of preschoolers in rural areas of China: Effects on language, inhibition, and theory of mind

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Studies have shown that book reading intervention may scaffold children's language development. However, whether book reading interventions are equally effective for children's cognitive development in a Chinese rural school setting remains to be explored. We conducted a four-month book reading intervention to address these issues in rural Chinese areas. A total of three hundred twenty-one children aged between 2.56 and 6.47 years ($M = 4.66$ ages, $SD = 0.80$) were assigned to three groups as follows: (a) control group without donated picture books; (b) active reading control group with donated picture books; and (c) intervention group with a 4-month instructed picture book reading intervention. The findings indicate that the available books could produce significant positive changes in the development of receptive language ($F_{(1,191)} = 14.46$, $p < 0.01$) and inhibitory control ($F_{(1,190)} = 7.64$, $p = 0.01$) of rural children. However, a 4-month intervention was noneffective at boosting participants' performance on these tasks ($F_{(1,203)} = 0.07 \sim 2.73$, $p > 0.10$). The results discussed the possible explanations, implications for behavioral intervention researchers, and suggestions for social service organizations or public institutions.

KEYWORDS

child development, rural China, book reading intervention, PPVT, inhibition, theory of mind

Introduction

Book reading, as one of the most important educational activities (Ni et al., 2021), is closely related to child development, like problem-solving (Sajedi et al., 2018) and academic achievement (Brown et al., 2022). Many researchers have investigated book reading interventions that are based on the Vygotskian principle (Vygotsky, 1978) that social interactions with peers and parents scaffold children's development over the past 40 years (Dowdall et al., 2020). The terminology varied in different studies, like shared picture book reading interventions

(Whitehurst et al., 1988; Dowdall et al., 2020), book-sharing interventions (Dowdall et al., 2020), shared book reading interventions (Chacko et al., 2018; Noble et al., 2020), and shared reading interventions (Noble et al., 2019). They all refer to the practice of reading books with the child (Noble et al., 2019), including many styles or forms, like reading themselves or with others, individually or in groups. "Sharing," as a typical form, is applied frequently in book reading intervention studies and relates to training adults (parents, teachers, or practitioners) to read with children by using a particular style (such as interactive reading, Noble et al., 2020). We used the term "book reading intervention" because it has been frequently used in the existing literature and can represent the practice of this study that included both sharing with others and reading by themselves.

Available research has documented that book reading supports early language skill development (Fitton et al., 2018; Noble et al., 2019; Riordan et al., 2022), like vocabulary (Farrant and Zubrick, 2012, 2013; Vally et al., 2015; Marjanovič-Umek et al., 2017; Mendelsohn et al., 2020), reading ability (Silva-Maceda and Camarillo-Salazar, 2021), social communication skills (Lever and Sénéchal, 2011; Brown et al., 2018), child socioemotional development (Ni et al., 2021), attention (Cooper et al., 2014; Vally et al., 2015), IQ, and working memory (Mendelsohn et al., 2020). However, some evidence also refutes the effect of book reading intervention. For example, Noble et al. (2020) investigated interactive shared book reading interventions on children's language skills and reported that the interventions did not benefit children's language development. Some other research also showed that book reading intervention does not affect children's oral inferencing ability (Davies et al., 2020) and the complexity of language (Lever and Sénéchal, 2011). Given the inconsistent findings in the previous literature, one goal of this study was to understand the effect of book reading interventions further.

Book reading intervention research is mainly conducted in high-income countries (HICs) with well-established pediatric services (Dowdall et al., 2020), like dialogic reading (Arnold et al., 1994; Chacko et al., 2018), Parent-Child Reading Program (McElvany and Artelt, 2009), Parent-Child Home Program (Gfellner et al., 2008), Raising a Reader (Anthony et al., 2014), Reach Out and Read (Needlman et al., 2005; Klass et al., 2009), and Video Interaction Project (Cates et al., 2018). These studies have shown specific interventions' significant positive impacts on child language development. In recent years, several pieces of research have also been on book reading interventions in low and middle-income countries (LMICs). Valdez-Menchaca and Whitehurst (1992) conducted the first trial using 20 children aged 2 years from a low-income Mexican area and found significant improvement in standardized language tests. Furthermore, similar studies were conducted in rural areas of Bangladesh (Opel et al., 2009) and South Africa (Cooper et al., 2014; Vally et al., 2015; Murray et al., 2016). Wing-Yin Chow and McBride-Chang (2003), Wing-Yin Chow et al. (2008) explored the effects of book reading interventions on children of Hong Kong Chinese kindergarteners and found a positive impact on children's literacy growth and language development. *The Shenzhen Rainbow Flowers Children Readers*, the first registered grassroots nonprofit parent-child reading organization founded in 2009 in Shenzhen, examined the positive association with reading outcomes (Ni et al., 2021).

However, most of the current research is focused on parent-child interaction, that is, to improve and promote parents' book-sharing skills or encourage parents to engage in interactive reading with their children. Parents may effectively promote their children's language development; however, it may be difficult for some parents to involve in family reading activities, let alone some professional book reading intervention (Lonigan and Whitehurst, 1998). Low-income families generally have poor reading environments and less awareness of reading. The frequency of shared reading in these homes is relatively low (Adams, 1990), or even no reading activities. In China, mainly in rural areas, there are 13.84 million children in the compulsory education stage. It is almost impossible for family reading activities due to their parental absence. Most parents in low-resource families in China lack the ability and awareness to support their children's reading because of their low educational attainment (Ni et al., 2021).

Previous intervention studies in China have been conducted in urban areas (Hong Kong, Wing-Yin Chow and McBride-Chang, 2003; Wing-Yin Chow et al., 2008; Shenzhen, Ni et al., 2021). To the best of our knowledge, no studies have examined the effects of book reading interventions in rural areas, which is of great significance to theoretical understandings of the book reading interventions' products and practical enhancement of rural children's reading problems.

Almost every Chinese child aged 3 years begins their preacademic training in a kindergarten. Early exposure to reading would scaffold children's language development (Niklas et al., 2016). Kindergarten is the primary way for these rural children to be exposed to reading. Nevertheless, rural kindergartens are low-resource (e.g., they lack picture books), and teachers have low reading awareness and reading skills. Children from rural areas (low income) perform worse educational outcomes and may always stay behind (Lonigan and Whitehurst, 1998). These resource barriers raise the question of how to promote and enhance child language development in low socioeconomic status (SES) contexts. Book reading interventions are more inexpensive and can be easier to deliver than those more comprehensive interventions (Dowdall et al., 2020). Thus, this study aimed to establish the case for the scale-up of book reading interventions based on school settings in rural China.

Besides improvements in language, there are observational studies that show the positive association between book reading with children's other cognitive abilities, e.g., attention (Cooper et al., 2014; Vally et al., 2015) and working memory (Mendelsohn

et al., 2020), and social cognitive performance, like theory of mind (ToM, Adrian et al., 2005; Cates and Nicolopoulou, 2019). According to the executive function (EF) theory (Diamond, 2013), inhibitory control is closely related to attention and working memory (Raver and Blair, 2016), enabling us to suppress strong internal predispositions or external lures and instead do what is more appropriate or needed (Diamond, 2013). Borella et al. (2010) found that reading performance was related to inhibitory control. However, Howard et al. (2017) investigated the effects of book reading on children's EF and suggested no inhibitory improvements. Thus, there is no clear answer to whether book reading interventions improve children's inhibitory control and ToM due to the small number of studies and the mixed findings. Accordingly, a more exploratory aim of our study was to determine whether book reading intervention also benefited inhibitory control and ToM performance.

In summary, despite a good deal of research suggesting that book reading interventions support children's cognitive development, two issues remain outstanding: whether book reading interventions are equally effective (a) for children from rural areas and (b) for a range of cognitive skills (i.e., language, inhibitory control, and ToM). We designed this study to investigate whether book reading intervention improves children's language, inhibitory control, and ToM in children from Chinese rural areas. We made some improvements to the study design based on the limitations of the existing studies. First, Noble et al. (2020) suggested that factors, like a mismatch between intervention style and natural reading style of disadvantaged contexts (e.g., less educated parents) and familiarity with reading, may affect the effectiveness of book reading interventions. Considering the rural contexts and existing intervention evidence that they are effective at boosting some cognitive skills in some samples, we assigned children to an intervention group, an active reading control group, or a control group. We donated the same picture books to the intervention and active reading control groups. In the intervention group, researchers use specific reading styles (Whitehurst et al., 1988; Noble et al., 2020) to read with children. In the active reading control group (Noble et al., 2020), children read picture books independently in their school routines. In the control group, they received the usual levels of school education.

Second, we originally designed to conduct an immediate posttest (December 2019–January 2020) and a follow-up test (after 6 months, June 2020) on PPVT, inhibition, and ToM after our book reading intervention (refer to Figure 1). A primary limitation of the existing studies was the paucity of follow-up assessments after the immediate postintervention assessments (Dowdall et al., 2020). It is essential to examine the durability of book-sharing effects by designing a longitudinal study to establish existing long-term benefits for children's cognitive development. However, due to COVID-19 and school relocation, only the active reading control group completed three-wave tests (refer to Figure 1). Since children aged 3–5 years develop rapidly in language, inhibition, and ToM (Wellman and Liu, 2004; Diamond, 2013; Noble et al., 2019), there may be significant differences in the performance of these tasks at a 6-month interval (Adolph et al., 2008; Timmons and Preacher, 2015). We adjusted the analysis method due to unavoidable circumstances (e.g., the pandemic). We compared the active reading control group and the control group to examine the effect of the available picture books and compared the intervention group and the active reading control group to investigate the impact of book reading intervention.

Third, group-based intervention (one group included two research assistants and 15–20 children) was used in this book reading intervention. Dowdall et al. (2020) analyzed 19 studies and found that group-based interventions were more effective than one-on-one interventions. Since the teachers in these kindergartens that participated in the project did not have sufficient time and relevant psychological skills, the developmental psychology postgraduates served as experimenters for the intervention study.

Preschoolers were allocated to an intervention group, an active reading control group, or a control group. Based on the theoretical reasons for believing the effect of book reading intervention (Noble et al., 2019), we predicted that (a) children in the book reading intervention group would gain more on the language, inhibition, and ToM tests compared to those in the active reading control group and (b) children in the active reading control group would have significant gains than children in the control group. The advantage of this nonrandomized quasi-experimental study was that it allowed us to explore whether book reading boosts rural children's range of cognitive skills with higher ecological validity.

Materials and methods

Participants and procedure

The procedure and participants in this study are shown in Figure 1. This project lasted 1 year and 1 month between June 2019 and July 2020. The current study's participants were Chinese-speaking monolingual children recruited from three rural kindergartens in southeast China. Ethical approval for this study was received from the Nanjing Normal University. After informed consent to the children's participation was obtained from their parents or guardians, they were administered tests on language, inhibition, and ToM (June 2019, time point 1, T1). Each child was tested individually in one session lasting about 35 min at their school.

Each child's assessment and group-based intervention were conducted by either doctoral or master's students in developmental psychology. In this study, 10 postgraduates had undergone thorough training on these measurements and interventions.

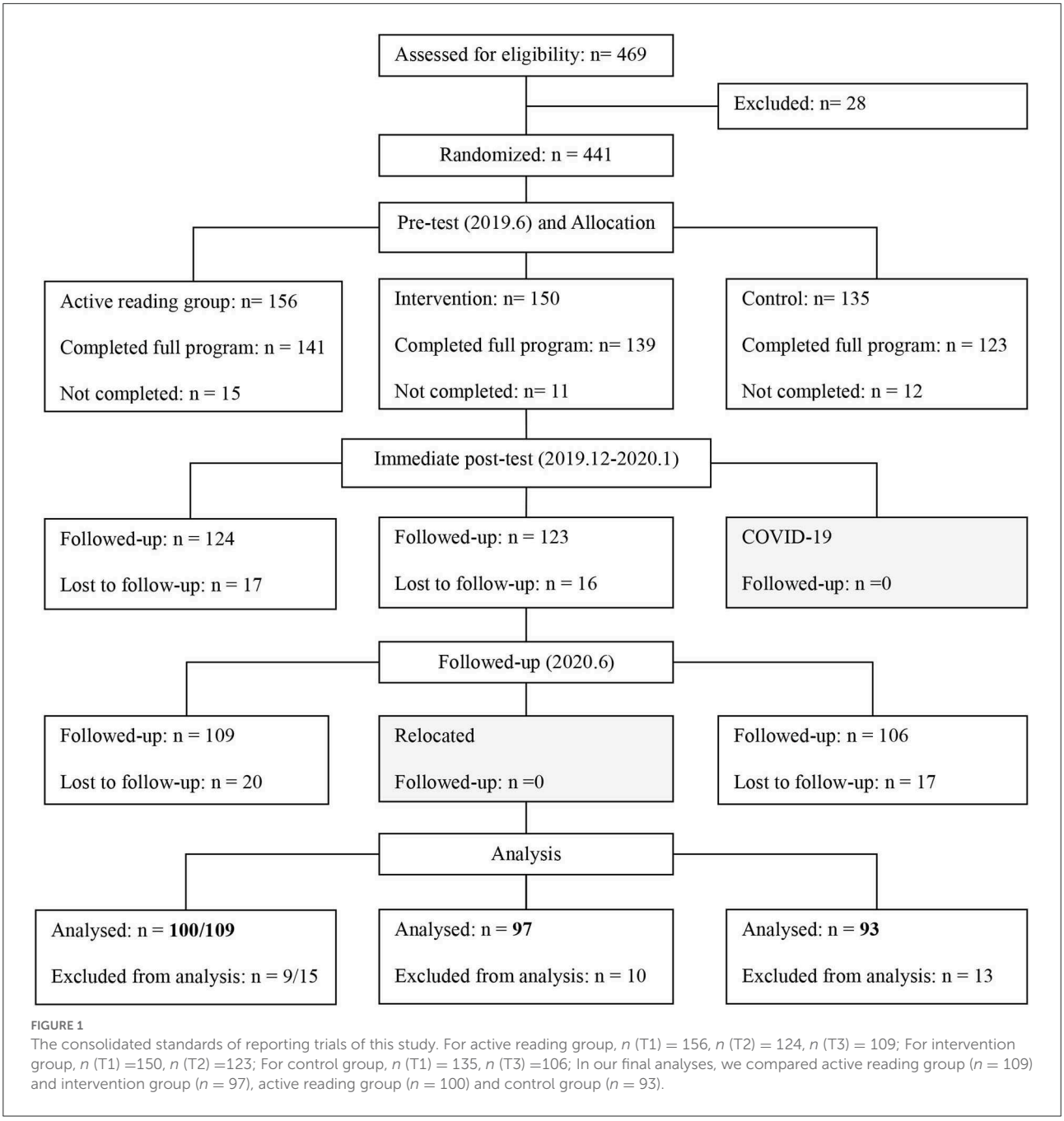

FIGURE 1
The consolidated standards of reporting trials of this study. For active reading group, *n* (T1) = 156, *n* (T2) = 124, *n* (T3) = 109; For intervention group, *n* (T1) =150, *n* (T2) =123; For control group, *n* (T1) = 135, *n* (T3) =106; In our final analyses, we compared active reading group (*n* = 109) and intervention group (*n* = 97), active reading group (*n* = 100) and control group (*n* = 93).

Children were again administered the same tests immediately following the end of the 4-month intervention (December 2019, time point 2, T2) and ∼6 months after the post-intervention session (July 2020, time point 3, T3). However, due to COVID-19 (control group, T2) and school relocation (intervention group, T3), only children in the active reading control group were followed up two times after the intervention (refer to Figure 1). There was no significant difference in children's age, $F_{(2,333)} = 0.61$, $p = 0.54$, and gender, $F_{(2,333)} = 2.68$, $p = 0.07$.

The 321 children in the final analysis (168 boys and 153 girls) ranged in age from 2.56 to 6.47 ($M = 4.66$ ages, $SD = 0.80$) at the pretest. By group, they had mean ages of 4.45 years (SD= 0.89, 55 boys and 42 girls) for the intervention group, 4.65 years ($SD = 0.73$, 70 boys and 61 girls) for the active control group,

FIGURE 2
Picture materials adapted from PPVT.

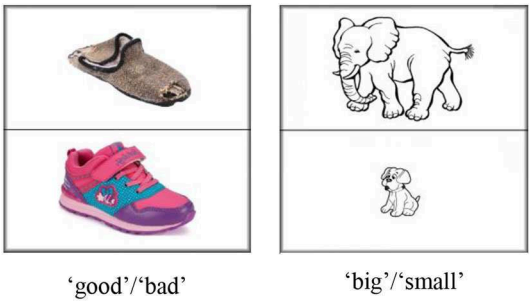

FIGURE 3
Inhibition control material. The images of shoes have been reproduced from Baidu.com.

and 4.72 years ($SD = 0.79$, 47 boys and 46 girls) for the control group, respectively.

Measures

Demographic

Demographic characteristics were assessed *via* an online questionnaire through the SurveyStar online platform (Changsha Ranxing Science and Technology, Shanghai, China) at T1. Child variables included date of birth and gender (0, girl; 1, boy). Family characteristics included family income, parents' educational level, and occupation. SES was calculated by adding the scores of family income, parents' educational level, and occupation to analyses.

Language

Receptive vocabulary skills were measured using the Chinese version of the Peabody Picture Vocabulary Test-Revised (C-PPVT-R; Sang and Miao, 1990), which is an adaptation of the PPVT-R (Dunn and Dunn, 1981) and can be widely used to measure the vocabulary of children aged 3–9 years. DelPhi was used to compile PPVT items into a computer program and performed on a Lenovo Yoga touch-screen computer. Children were required to point to the correct one of four pictures that represents an object or action named in the instructions (e.g., "plant", refer to Figure 2). This test contains 120 items ordered in sets of 4 pictures of the same size and similar difficulty. Each item of pictures was presented for 30 s. The participants' score was the total number of correct answers (total score: 0–120). The task was discontinued when participants made six mistakes out of eight items.

Inhibitory control

We modified the classical Stroop paradigm (MacLeod, 1991) according to the actual situation (children were younger than reading age). In this picture–voice interference test, items were scored as correct if the child pointed to pictures that were easily recognizable and easy to understand (e.g., "good," "big," refer to Figure 3). The pictures and instructions were recorded and coded in the DelPhi to ensure each child received the same stimulation. The following are the main instructions:

> (Congruent condition) When you hear "good," you need to touch on the picture of "good"; when you hear "bad," you need to touch on the picture of "bad"; (incongruent condition) when you hear "good," you need to touch on the picture of "bad"; when you hear "bad," you need to touch on the picture of "good."

> (Congruent condition) When you hear "big," you need to touch on the picture of "big"; when you hear "small," you need to touch on the picture of "small"; (incongruent condition) when you hear "big," you need to touch on the picture of "small"; when you hear "small," you need to touch on the picture of "big."

Participants received four blocks of 14 trials (28 congruent and 28 incongruent trials) in a fixed order. The correct rate was used for analysis.

Theory of mind

Theory of mind was assessed using a set of tasks adapted from those developed by Wellman and Liu (2004), which were found to be valid and reliable for Chinese children (Wellman et al., 2006). Diverse desires *(DD)*, knowledge access *(KA)*, content false belief *(CFB)*, and explicit false belief *(EFB)* are four tasks that gradually become more complex. DD was used

to assess whether a child judges that two persons (the child vs. someone else) have different desires (Wellman and Liu, 2004), including own desire question and target question. To be scored as correct, the child must answer the target question opposite to their answer to the own-desire question (ranging from 0 to 1). KA was used to assess whether a child sees what is in a container and judges the knowledge of another person who does not see what is in a container (Wellman and Liu, 2004), including the target question and the memory question. To be correct, the child must answer the target question "no" and answer the memory control question "no" (ranging from 0 to 1). CFB was used to assess whether a child judges another person's false belief about what is in a distinctive container when the child knows what it is in the container (Wellman and Liu, 2004), including two target questions and two memory questions (ranging from 0 to 2). EFB was used to assess whether a child judges how someone will search given that person's false belief (Wellman and Liu, 2004), including the target question and the reality question (ranging from 0 to 1). All tasks were acted out with figures—cartoons. This task took about 10 min.

Intervention books

The active reading control and intervention groups were given 225 books to read during the 4-month intervention. According to the characteristics of children's cognitive and social development, two developmental psychology postgraduates screened the theme picture books, and then two child psychologists assessed whether those picture books met the children's development. We chose picture books for intervention according to children's cognitive development, e.g., *The Wolf's Chicken Stew* and *Words Are Not For Hurting*. Finally, we donated 225 picture books that were appropriate for the age group to the two groups, including 42 picture books used in the intervention.

Intervention

Before our project, none of the three schools carried out courses related to reading picture books, and these rural children rarely touched picture books in daily life. The active reading control and intervention groups were given the same picture books. The former read books independently, and the latter was conducted to target interactive reading behaviors with two developmental psychology postgraduates during the 4-month intervention. The control condition had neither picture books nor intervention and did normal teaching activities as usual during the intervention period.

The intervention consisted of 4 h each week for four consecutive months and was delivered by 10 trained developmental psychology postgraduates. Each intervention group consisted of 15–20 children and two research assistants. Each session consisted of a reading-aloud presentation and an interactive discussion (questions and answers). The research assistants followed the style of interactive discussion devised by Whitehurst et al. (1988) that involved a series of strategies to scaffold an interactive reading between the child and adults (Noble et al., 2020). It mainly involves open questions, wh-question (i.e., who, what, where, why, when, and how), prompting every child to express. The same time was spent in the active reading control group but without specific reading interaction. In addition, the children in the intervention and active reading control groups have all the picture books available at all times.

Analytical plan

SPSS22.0 was used for all analyses. To assess baseline differences across tasks, we used independent group t-tests for pretest performance. We performed a mixed 2 × 2 analysis of variance (ANOVA) in all tasks (PPVT, Stroop, and ToM) to assess differences between pretest and posttests and test for intervention effects. The ANOVA comprised time (pretest vs. posttest) and group (the active reading control vs. control; the intervention and active reading control) as factors and age as a covariate. For reporting, we started with the difference between the active reading control and control groups and reported the difference between the intervention and active reading control groups separately. All tests were two-tailed, with a significance level of $p < 0{\cdot}05$. However, due to multiple comparisons, the procedure may risk inflating the family-wise alpha (Type-I) error (Ryan, 1959). The Bonferroni procedure is a classical solution to counteract the multiple comparisons problem (Wikipedia contributors, 2022): (1) the p-value for testing H_i was denoted by p_i; (2) H_i is rejected if $p_i \leq \alpha/m$. m is the total number of hypotheses tested; in our study, $m = 6$. Thus, the p-value for statistical significance was adjusted to $p < 0.005$ ($<0.05/6$).

Results

Preliminary analyses

Tables 1, 2 show the mean scores and standard deviations for three groups at the pretest and posttest and gains for all measures. There were no significant differences between the active reading control group and control group on the baseline of age ($t_{(191)} = -0.62$, $p = 0.54$), PPVT, Stroop, and a series of ToM tasks (refer to Table 1). No difference was found between the intervention group and the active reading control group on age ($t_{(204)} = -0.16$, $p = 0.87$), knowledge access, content false belief, and explicit false belief (refer to Table 2). The performance of the active control group on PPVT, Stroop, and diverse desire

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TABLE 1 Session performance for control and active reading control group.

	Pretest		Post-test		Gain	
	M (SD)	*t*	*M* (SD)	*t*	*M* (SD)	*t*
PPVT						
Active reading	32.05 (15.84)	0.19	57.78 (15.66)	3.06**	25.73 (14.99)	3.84***
Control	31.56 (19.18)	49.80 (20.46)	18.24 (11.84)			
Stroop						
Active reading	0.56 (0.23)	0.25	0.81 (0.20)	3.11**	0.25 (0.22)	2.77**
Control	0.55 (0.24)	0.70 (0.29)	0.15 (0.28)			
DD						
Active reading	0.81 (0.39)	0.61	0.96 (0.20)	−1.28	0.15 (0.36)	−1.17
Control	0.77 (0.42)	0.99 (0.10)	0.22 (0.41)			
KA						
Active reading	0.60 (0.45)	0.18	0.79 (0.38)	0.81	0.19 (0.47)	0.53
Control	0.59 (0.45)	0.74 (0.40)	0.16 (0.42)			
CFB						
Active reading	0.59 (0.82)	0.44	0.95 (0.99)	−0.05	0.36 (1.11)	−0.37
Control	0.54 (0.83)	0.96 (0.98)	0.42 (1.14)			
EFB						
Active reading	0.28 (0.45)	−1.27	0.62 (0.49)	0.56	0.34 (0.61)	1.43
Control	0.37 (0.48)	0.58 (0.50)	0.22 (0.61)			

PPVT, receptive vocabulary skills; Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, content false belief; EFB, explicit false belief. df = 191.
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

TABLE 2 Session performance for intervention and active reading control group.

	Pretest		Post-test		Gain	
	M (SD)	*t*	*M* (SD)	*t*	*M* (SD)	*t*
PPVT						
Intervention	23.85 (14.20)	−2.20*	40.93 (19.11)	−1.49	16.02 (13.56)	−0.17
Active reading	28.29 (14.61)	44.65 (15.80)	16.36 (13.27)			
EF						
Intervention	0.49 (0.23)	−1.97*	0.65 (0.30)	−1.80	0.15 (0.33)	−0.48
Active reading	0.55 (0.22)	0.72 (0.27)	0.17 (0.27)			
DD						
Intervention	0.68 (0.47)	−3.00**	0.78 (0.41)	−2.09*	0.10 (0.34)	1.49
Active reading	0.85 (0.36)	0.89 (0.31)	0.04 (0.30)			
KA						
Intervention	0.47 (0.44)	−1.61	0.64 (0.45)	−0.91	0.17 (0.48)	0.85
Active reading	0.58 (0.46)	0.70 (0.43)	0.11 (0.48)			
CFB						
Intervention	0.36 (0.73)	−1.13	0.54 (0.82)	−1.94	0.16 (0.92)	−0.54
Active reading control	0.49 (0.80)	0.79 (0.94)	0.24 (1.15)			
EFB						
Intervention	0.31 (0.46)	−0.18	0.31 (0.46)	−1.92	−0.01 (0.48)	−1.56
Active reading control	0.32 (0.47)	0.44 (0.50)	0.10 (0.50)			

PPVT, receptive vocabulary skills; Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, content false belief; EFB, explicit false belief. df = 204.
*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

TABLE 3 Full statistics for the 2 (group: active reading control vs. control group) × 2 (session: pre vs. posttest) factorial ANOVAs.

	Session			Session*age			Session*group		
	F	*p*-Values	η_p^2	*F*	*p*-Values	η_p^2	*F*	*p*-Values	η_p^2
PPVT	17.63	0.00	0.09	0.23	0.63	0.00	14.46	0.00	0.07
Stroop	2.69	0.10	0.01	0.02	0.88	0.00	7.64	0.01	0.04
DD	19.74	0.00	0.09	11.37	0.00	0.06	1.83	0.18	0.01
KA	5.93	0.02	0.03	2.40	0.12	0.01	0.21	0.65	0.00
CFB	0.63	0.43	0.00	2.62	0.11	0.01	0.09	0.77	0.00
EFB	0.37	0.55	0.00	2.85	0.09	0.02	2.29	0.13	0.01

PPVT, receptive vocabulary skills; Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, content false belief; EFB, explicit false belief.

TABLE 4 Full statistics for the 2 (intervention group vs. active reading control group) × 2 (session: pre vs. posttest) factorial ANOVAs.

	Session			Session*age			Session*group		
	F	*p*-Values	η_p^2	*F*	*p*-Values	η_p^2	*F*	*p*-Values	η_p^2
PPVT	0.94	0.33	0.01	2.89	0.09	0.02	0.07	0.79	0.00
Stroop	2.84	0.09	0.02	8.25	0.01	0.04	0.69	0.41	0.00
DD	1.50	0.22	0.01	3.08	0.08	0.02	2.30	0.13	0.01
KA	2.10	0.15	0.01	0.62	0.43	0.00	0.69	0.41	0.00
CFB	1.21	0.27	0.01	0.48	0.49	0.00	0.31	0.58	0.00
EFB	5.40	0.02	0.03	4.62	0.03	0.02	2.73	0.10	0.01

PPVT, receptive vocabulary skills; Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, content false belief; EFB, explicit false belief.

was significantly higher than that of the intervention group (refer to Table 2).

The SES of the active reading control group (15.34 ± 2.69) was significantly higher than the control group (13.90 ± 3.41, $t_{(148)} = 2.87$, $p = 0.005$) and higher than the intervention group (13.00 ± 3.23, $t_{(159)} = 5.28$, $p < 0.001$). SES is only significantly related to PPVT ($r = 0.17$, $p = 0.006$). Thus, we conduct further analysis without SES.

Intervention effects

To test the effects of the intervention/language environment, we conducted several repeated-measures ANOVAs for each of the assessment tasks, with a group (intervention group and active reading control group; active reading control group and control group) as the between-subjects factor and session (pretest, posttest) as the within-subjects factor (refer to Tables 3, 4).

We observed significant differences in gains for the PPVT task ($t = 3.84$, $p < 0.01$) and Stroop task ($t = 2.77$, $p = 0.006$) between the active reading control group and control group (refer to Figures 4, 5), whereas no difference could be detected for the ToM tasks (refer to Table 1). However, there was no evidence of a gain difference in all tasks between the intervention group and the active reading control group (refer to Table 2, Figures 6, 7).

Measurement of differences in performance in the PPVT task between the pretest and posttest in both active reading control group and control group reached significance, $F_{(1,190)} = 17.63$, $p < 0.001$, $\eta^2 = 0.09$, revealing improvements from pretest to posttest in both groups. The interaction between the session and group, $F_{(1,191)} = 14.46$, $p < 0.01$, was significant. Further simple-effects analysis showed no significant difference between the two groups in the pretest, $t = 0.19$, $p = 0.85$, but there was a significant difference in the posttest, $t = 3.06$, $p = 0.003$.

For the Stroop task, results revealed the effect of the session missed significance, $F_{(1,190)} = 2.69$, $p = 0.10$, $\eta^2 = 0.01$. The interaction between the session and group, $F_{(1,190)} = 7.64$, $p = 0.01$, $\eta^2 = 0.04$ was significant, not reaching significance after Bonferroni adjustment. Further simple-effects analysis showed no significant difference between the active reading control group and control group in the pretest, $t = 0.25$, $p = 0.80$, but a significant difference emerged in the posttest, $t = 3.11$, $p = 0.002$.

Discussion

This study investigated whether book reading intervention or the availability of picture books supports the development

of language, inhibitory control, and ToM in children from rural China. These results demonstrate that the availability of picture books can produce significant positive changes in the development of receptive language and inhibitory control for rural children. However, contrary to our prediction, our short 4-month book reading intervention was noneffective at boosting

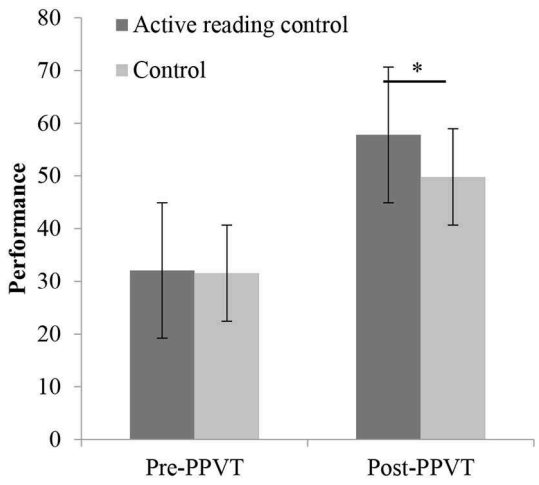

FIGURE 4
PPVT pre- and post-performance between active reading control group and control group. PPVT, receptive vocabulary skills, *$p < 0.05$.

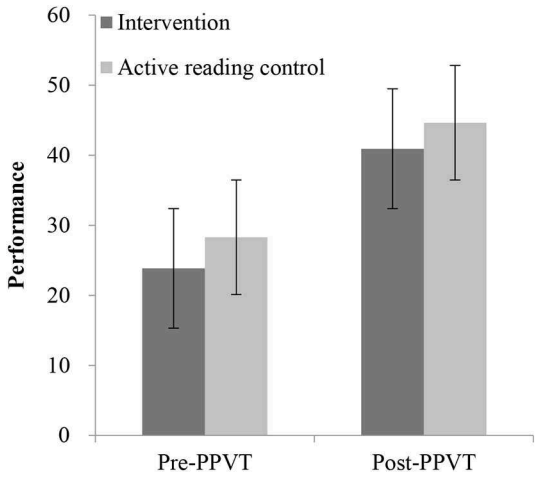

FIGURE 6
PPVT pre- and post-performance between the intervention group and active reading control group. PPVT, receptive vocabulary skills.

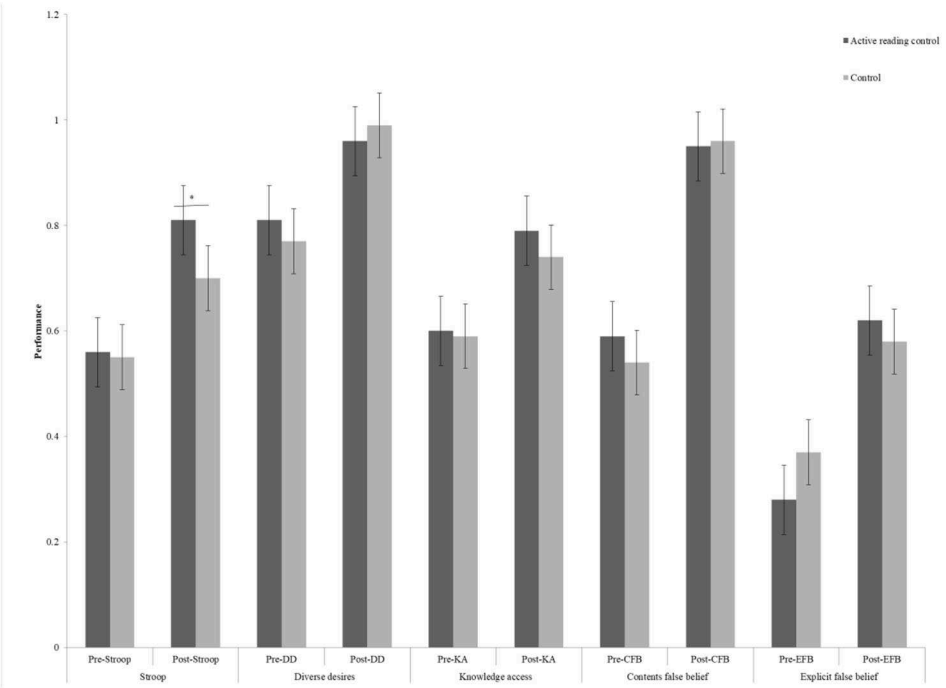

FIGURE 5
Cognitive and social-cognitive pre- and post-performance between active reading control group and control group. Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, contents false belief; EFB, explicit false belief, *$p < 0.05$.

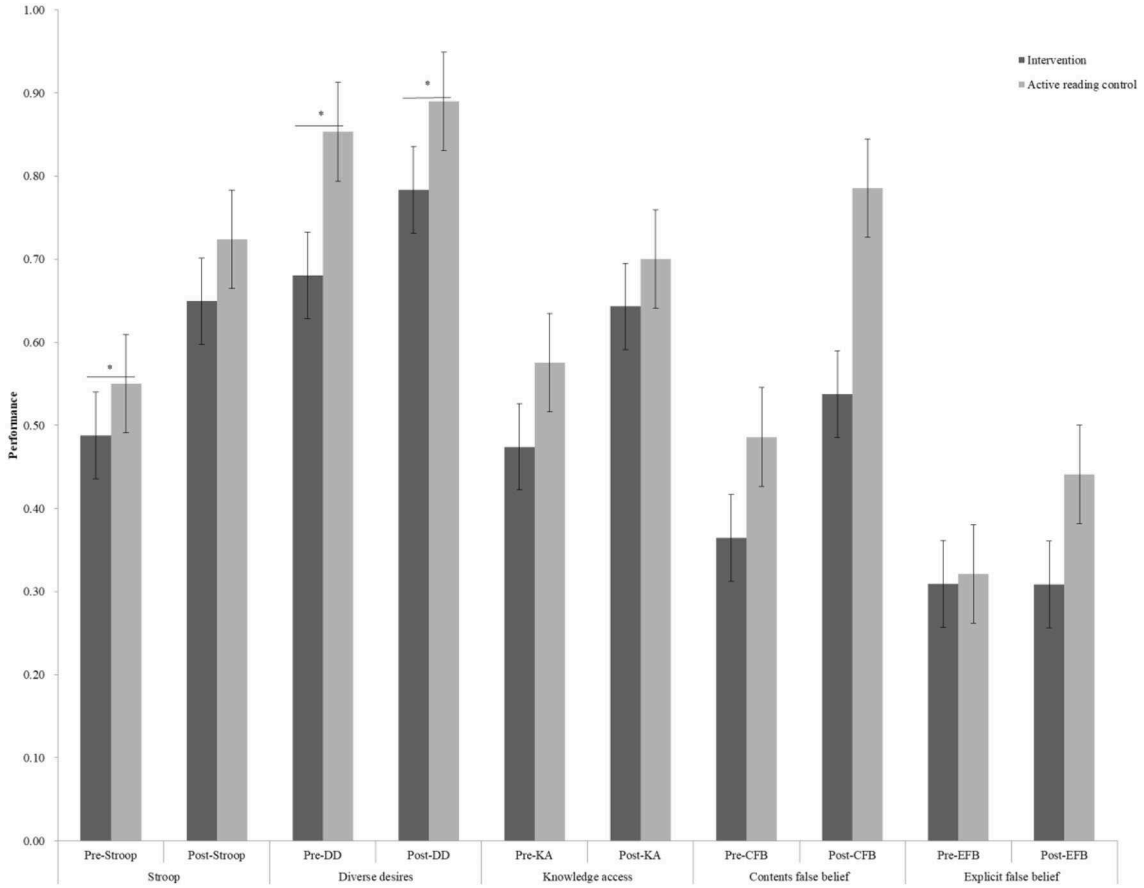

FIGURE 7
Cognitive and social-cognitive pre- and post-performance between the intervention group and active reading control group. Stroop, inhibitory control; DD, diverse desires; KA, knowledge access; CFB, contents false belief; EFB, explicit false belief, $*p < 0.05$.

the development of language, inhibitory control, and ToM in this sample. The following paragraphs discuss these results and their possible explanations and implications in more detail.

The difference between the active reading control and control groups indicated that the availability of picture books in low-resource educational settings could effectively promote the development of children's language and inhibitory control skills, which is an important finding. The possible explanation for why participants in the active reading control performed better would be the interval time (T1–T3, 1 year) between the pretest and posttest. From T1 to T3, participants in the active-reading control group had a whole year to read these picture books we donated before measurable improvements in language and inhibitory control could be observed. It may be practical to increase the number of picture books for rural children, as the active reading control group did. This result also provides evidence for the role of the language environment (e.g., the availability of picture books in this study) for low-resource children.

Moreover, children in the active reading control group would read picture books with their peers. This process of social interaction (Vygotsky, 1978) may scaffold their development of language and inhibitory abilities. Language development for rural children would be silently moistened during daily routines (e.g., reading picture books by themselves or with peers) rather than getting quick profits after a third-party person administering an intervention. These findings suggest that social service organizations or public institutions could provide accessible reading resources for these children from low-income areas, as we did in this study, to facilitate low-resource children's development, which may be the most convenient, economical, and efficient method.

However, the findings between the intervention group and the active reading control group indicated that our book reading intervention may lack significant effects on these measurements (i.e., PPVT, Stroop, and ToM) in this particular study. There are four possible explanations for these results. First, the standardized tests on which we measured children's

performance were limited so that participants may acquire other cognitive skills not measured in this study. Consequently, our results do not necessarily generalize to other book-sharing readings. The book reading intervention may impact different language or EF skills not targeted in this study. However, our measurements are widely used in previous studies; thus, we are confident that our results have broader implications for book reading intervention. Answers to questions concerning the effects of book reading intervention for rural children seem to depend on the outcome measures.

The second possible explanation would be the combination of the intervention form (school-based) and the duration of the intervention. Our chosen 4 months were longer than some previous studies that have reported positive improvements from 1-month interventions on language development (Whitehurst et al., 1988; Opel et al., 2009). However, we only have 1 week per month to implement book reading intervention due to the academic schedule, which may affect the efficacy of the intervention. Another main difference in design lies in the intervention form, such as home-based (Whitehurst et al., 1988) and teacher-based (Opel et al., 2009). They trained parents and teachers who have the most contact with children to achieve better improvements. Child's reading outcomes are shaped mainly by family characteristics, including parental involvement and home literacy environment (Wigfield and Asher, 2002, reprint from 1984; Aikens and Barbarin, 2008). Thus, it is possible that the intervention needed the involvement of both children's teachers and parents to lead to changes in children's outcomes and needed a higher dosage (e.g., 6–12 months instead of 6–8 weeks, Noble et al., 2019).

The third explanation for why the book reading intervention did not work may be that the behaviors of book sharing did not have time to make a difference. The posttest data used for the analysis were immediate posttest, and we could not obtain follow-up data after 6 months like our research design due to the school relocation (refer to Figure 1). Perhaps participants in the intervention group need more time to implement book-sharing strategies of what they have learned before measurable improvements can be observed. Longitudinal studies are required in the future to investigate the intervention effects and the duration of the effects.

The fourth and final possible explanation for ineffective book reading interventions may be that book-sharing interactivity is no more effective than asking children to read more by themselves or their caregivers. In other words, it may be effective for rural children simply to increase the number of picture books, as the active reading control group did, without teaching children to read interactively. However, it may be premature to conclude that we dismiss all interactive book-sharing techniques based on this study alone, given that interactive book-sharing programs have been linked to children's language development in previous studies (Whitehurst et al., 1988; Wing-Yin Chow et al., 2008; Murray et al., 2016; Noble et al., 2020). Thus, we can speculate that book reading interventions can certainly impact some, but not all, children's outcomes.

Although this study provided significant evidence concerning the efficacy of book reading intervention for children from rural backgrounds and the remarkable role of the availability of picture books in the children's language and inhibitory control, some limitations of the current research should also be acknowledged. Although we designed three-wave tests in the study proposal, the regret of this study is the loss of two examinations that may provide more information for book reading intervention studies due to COVID-19 and school relocation. It implies a need for longitudinal studies with follow-up assessments after the postintervention immediate evaluations to examine the durability of book reading intervention effects. But this study gave valuable insights into how to handle modifications in research procedures due to unavoidable circumstances (e.g., pandemic). The second limitation is that we did not record the frequencies and specific performance of their reading behavior, which may affect the efficacy of the intervention (Noble et al., 2020). Future studies could detail the intervention and participants' reading behaviors. This will allow a more realistic and detailed test of the hypothesis of whether book reading interventions have a positive effect on children's outcomes.

Despite all tests and interventions provided by our research team, we still cannot control many factors in applied research settings as we can in laboratory-based research. However, compared with studies conducted under typical controlled research settings, the results of this study have higher ecological validity, i.e., they are instructive about the possible effects of related interventions or educational policies. The distinction has been referred to as efficacy experiments vs. effectiveness experiments (Lonigan et al., 1998; Bryan et al., 2021). Behavioral intervention researchers should recognize the far-reaching implications of heterogeneity and focus equitably on disadvantaged groups (like rural children) rather than just on advantaged groups that are located near research institutions or universities or high-income areas and that select samples or test sites based on convenience, which may make meaningful contributions to social progress.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by NNU20210030. Written informed consent to

participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

YZ analyzed data, wrote the paper, and wrote the first draft of the manuscript. GL, YZ, ZC, and DL performed material preparation, data collection, and analysis. All authors contributed to the study conception and design, commented on previous versions of the manuscript, read, and approved the final manuscript.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

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Children's perspectives on being absorbed when reading fiction: A Q methodology study

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Research in the intersections of literature, media, and psychology increasingly examines the absorbing story experiences of adult readers, typically relying on quantitative self-report questionnaires. Meanwhile, little work has been done to explore how being "lost in a book" is experienced by children, despite the phenomenon's importance for literacy education. Such work requires tools that are more inductive and child-centered than questionnaires. We have conducted a Q methodology study with participants aged 9–12 (n = 28), exploring how it feels for them when the mind and body are attuned to a story and how different facets of absorption (e.g., mental imagery, emotional engagement) inform the experience. Participants numerically sorted 24 cards expressing inner states and expectations relating to book-length fiction reading and were subsequently interviewed regarding their sorting choices. The cards were generated inductively based on preliminary research (focus groups, individual interviews, observations). By-person factor analysis of the sortings combined with reflective thematic analysis of the post-sorting interviews revealed four distinct reader subjectivities, or perspectives: Growth, Confirmation, Attachment and Mental Shift. Crucially, the children in these groups differed as to prominent dimensions of absorption but also as to the overall place of reading in their inner and everyday lives. Based on the four perspectives, we demonstrate that children have varied ways of being absorbed when reading fiction, and reflect on the affordances of Q methodology as a suitable child-centered approach to studying the subjective experiences of reading.

KEYWORDS

absorption, children, Q methodology, reading, child-centered approach, literacy, fiction, subjectivity

Introduction

What does fiction reading feel like in the upper primary years, when it is still a relatively new skill? Who gets absorbed, "lost in a book" (Kuijpers et al., 2021) easily, and how can this go about? In the age of 9–12 years, learning to engage with book-length narratives on one's own can be essential to developing a reading habit and

reaping its various benefits for future life (Mar and Oatley, 2008; Locher and Pfost, 2020; Torppa et al., 2020). Existing research on the everyday subjective experiences of literacy in this period largely focuses on how reading behaviors, motivations, and reader identities are shaped by teachers, peers, and family background (Compton-Lilly, 2007, 2016; Merga, 2017; Scholes, 2018). Children's subjective experiences of the independent reading process proper, and individual variations in this regard, receive far less systematic attention.

One exemplary facet of subjective readerly experience is sensory mental imagery. Reading skill and sensory imaging are known to be mutually correlated (Suggate and Lenhard, 2022) and in research with adult readers, imagery is a key dimension of the construct of absorption (Kuijpers et al., 2014, 2021) which captures deep engagement with fictional narratives. However, common mental imagery interventions aimed at young readers primarily rely on selected visualization techniques (De Koning and van der Schoot, 2013). As individuals vary in their propensity to conjure mental images in different sensory modalities (Isaac and Marks, 1994; Floridou et al., 2022), some children will inevitably be alienated by the instruction to visualize when reading – or to visualize in a particular way (Mackey, 2019). Increased general awareness of pre-existing differences in young readers' inner lives can thus boost individual children's chances of learning to become absorbed in books.

Systematic research into different children's ways of absorbed reading, and the place of sensations within it, has therefore been called for by literacy scholars (Cremin et al., 2014; Wilhelm, 2016; Mackey, 2019). Our study begins to redress this research gap. It is grounded in the premise that for knowledge of individual differences to be practically applicable, it is not enough to conclude that children's conduits into absorbed reading vary. Rather, patterns in this variation need to be examined that will help discern groups of children for whom different absorption facets combine in similar ways. To this end, we have carried out a Q methodology study with children aged 9–12 years, exploring what it is like for them when their mind and body are attuned to reading a story.

Q methodology is an inductive social science methodology (McKeown and Thomas, 2013) wherein participants sort authentic statements on a particular aspect of subjectivity (in our case: the experience of reading fiction) using a bell-shaped grid (scaled for agreement e.g., from −3 to +3). The sorts are then subjected to by-person ("Q") factor analysis. Unlike traditional ("R"; Stephenson, 1936) factor analysis, this procedure exposes pre-existing groups of people sharing a distinct perspective, rather than pre-existing relationships between variables that are generalized to a larger population. The interpretation of these factors further draws on qualitative analyses of post-sorting interviews which elucidate the participants' understanding of individual statements.

The research presented here is the first Q methodology study known to us focusing on children's experiences of reading. Participants sorted statements that were extracted from preliminary qualitative research primarily consisting of creative focus groups and in-depth interviews on how stories "feel from within our bodies" (Kuzmičová et al., 2022). Four distinct perspectives emerged among the participants of the Q study: the *Growth*, *Confirmation*, *Attachment* and *Mental Shift* perspectives, respectively. These differ in absorption style but also beyond, e.g., in what drives one's reading forward, which challenges one faces and how, and where one's sense of self and life beyond the reading situation comes in. Based on the perspectives, we demonstrate that children have varied ways of being absorbed when reading fiction, and we reflect on the affordances of Q methodology as a suitable child-centered approach to studying the subjective experiences of reading.

Absorbed reading

Narrative fiction experiences are relatively widely researched in studies with adult participants, particularly regarding literary texts and the effects of specific linguistic structures (Kuiken and Jacobs, 2021). One of the field's strongest endeavors in recent years has been the systematic study of readerly absorption (Hakemulder et al., 2017; Kuijpers et al., 2021; Kuijpers, 2022) and absorption-like states (Kuiken and Douglas, 2017; Kuiken et al., 2022). Competing with a number of close conceptual relatives such as narrative engagement (Busselle and Bilandzic, 2009), flow (Thissen et al., 2018), immersion (Jacobs and Lüdtke, 2017) and so forth (for reviews see Kuijpers et al., 2021; Pianzola, 2021), absorption is an increasingly dominant multidimensional construct for describing sustained, intrinsically rewarding fiction reading.

The central questionnaire for measuring absorption, the Storyworld Absorption Scale (SWAS; Kuijpers et al., 2014), is agnostic to literary merit. Its components can in theory also be used for exploring experiences of the "formulaic books, series books or what *seem* to be simpler texts" (Wilhelm, 2016; our italics) that many children choose to engage with in their spare time. The main components of absorption (and related constructs) have been abstracted by Kuijpers et al. (2021) as follows: 'attention' (e.g., resistance to distraction, altered sense of time); 'mental imagery' (mainly but *not only* visualization); 'emotional engagement' (e.g., sympathy, empathy for character); 'transportation' (experiences of having entered the story world). These components also correspond to the four subscales of the SWAS (Kuijpers et al., 2014), where 'attention' has been identified as a possible predictor of the remaining three dimensions (Kuijpers, 2022).

The literature on absorption largely creates the impression that there is one universal way of being absorbed. As Kuiken et al. (2022, p. 2) note, "empirically substantiating differences

between two or more theoretically independent modes of deeply engaged literary reading within the same population has not (...) been attempted." As a start to such work, Kuiken and Douglas (2017; Kuiken et al., 2022) have developed the Absorption-like States Questionnaire (ASQ). This tool captures two different routes to "reflective and creative" absorption: expressive enactment (ASQ EE) and integrative comprehension (ASQ IC). These routes differ e.g., with regard to 'peri-personal vs. extra-personal space' (in expressive enactment/EE the story world feels within reach; in integrative comprehension/IC it is perceived from a distal vantage point), self-other relations (in EE one merges with a character through 'pre-enactive empathy;' in IC one assesses characters' states from the outside via 'cognitive perspective-taking'), or verisimilitude (in EE one's self is implicated through reminding with of one's own life; in IC one relies on knowledge of the world and people more generally).

The latter distinctions are an important move toward recognizing plurality in readerly absorption. Unlike other measures, the ASQ covers nuances in notional position vis-à-vis story world and characters and, crucially, discriminative awareness of one's self beyond the moment of reading. The latter is unusual as one's self is assumed largely "lost" in reading as per the absorption literature (Kuijpers et al., 2021). The different facets of absorption are indeed useful in interpreting various types of reading data across age groups and text genres, from experiments (Mangen and Kuiken, 2014) to online reviews (Rebora et al., 2021), although the Absorption-like States Questionnaire specifically was developed with "*difficult* linguistic structures" (Kuiken et al., 2022; our italics) in mind. However, the questionnaires as a tool, and their often intricate wordings (e.g., "my feelings were as 'close' for me as they were for the character whose point of view was being presented there;" Kuiken et al., 2022), may not be suitable for child-centered research.

Child-centered approaches to reading experience

Heeding contemporary calls for supporting children's own voices in research and society (Christensen and James, 2017), children's subjectivity in and around reading needs to be studied with tools more open-ended than traditional questionnaires, also because reading styles evolve throughout one's entire lifespan (Charlton et al., 2004) but most dynamically during childhood (Compton-Lilly, 2016). A step in this direction was recently taken by McGeown et al. (2020) who chose to abandon the established Motivation for Reading Questionnaire (MRQ; Wigfield and Guthrie, 1997; Schiefele and Löweke, 2018) in their exploration of children's reading motivations and concomitant choices among book, magazine, newspaper, and other formats. Instead of having children rate a battery of items effectively testing them for their levels of extrinsic (e.g., "I hate it when others read better than me.") vs. intrinsic motivation (e.g., "I enjoy a long, involved story or fiction book."), the authors conducted qualitative interviews in which children aged 9–11 also acted as co-participant researchers. An alternative set of reading motivations was identified that partly overlapped with those recognized by the MRQ (e.g., 'social motivation,' 'skill development') and partly exceeded them (e.g., 'relax,' 'engage with the familiar'); some MRQ subscales (e.g., 'reading for school grades') were in turn not covered.

Studies of children's reading motivation such as those above cover a wide spectrum of reading materials beyond fiction; they also focus more on reading behaviors than inner experiences proper. Once we zoom in on fiction, the more complex descriptions of meetings between readers and texts tend to be based on field observations rather than interviews (Wolf and Heath, 1992; Mackey, 2007; Lenters, 2018). Field observations inevitably center on the overt interactions (child–child; child–adult) that take place around reading. Although capturing moments of emotional engagement, self-other connection, and so forth, they cannot account in detail for those moments' inner subjective feel. Moreover, certain aspects of absorbed reading, e.g., the sheer experience of paying attention or that of having temporarily relocated into a story world, may escape verbal exchange or even non-verbal expression. Sipe (2000, p. 267) conducted extensive observations of first- and second-graders' (6–8 years) responses to classroom read-alouds and found some, though relatively sparse, explicit references to such experiences, concluding that "the best indication of such an experience is not verbal response, but silence."

Interviews on selected aspects of children's fiction reading are not uncommon *per se*; they have been used to complement observations (e.g., Mackey, 2007), quantitative surveys (e.g., Merga, 2017) or think-aloud responses to texts (e.g., Smith, 1991). Wilhelm (2016) has conducted an interview study exploring children's self-chosen fiction reads in terms of a more nuanced range of subjective states closely related to absorption and motivation. Wilhelm conceptualizes these states as distinct 'pleasures,' having run four in-depth interview sessions over three years with a cohort of fiction-loving eighth-graders (13–14 years initially) and a cohort of secondary students who preferred "marginalized" genres specifically (romance, vampire stories, etc.). The following categories of 'pleasure' emerged across both cohorts: 'immersive play' (a sense of total engagement; a prerequisite of the remaining categories); 'intellectual' (figuring things out); social (reading as conduit to others or one's self); 'practical work' (usefulness for other tasks); 'inner work' (actualizing one's personal potential). All five categories were identified in all participants and Wilhelm argues for their recognition toward developing more child-centered pedagogies. Their relative weight was not compared across participants, however, to expose individual differences

or distinct groups of children who share similar emphases. The latter was a key objective of our current study.

Materials and methods

Q methodology

In the current study, Q methodology was used to preserve the benefits of both quantitative inquiry and open-ended interviewing. Developed in the 1930s for the scientific study of subjectivity (Stephenson, 1936), Q methodology combines a philosophical framework (Q methodology), a data collection technique (Q sort), and a method of analysis (Q factor analysis). This distinctive set of psychometric, operational, and analytical principles provides a systematic and rigorous means to investigate shared perspectives (Stephenson, 1953; McKeown and Thomas, 2013). Q methodology works on two assumptions. Firstly, human subjectivity has a measurable internal structure that provides each individual with a frame of reference for understanding the world around them. This structure can be observed through an individual's actions and modeled based on a systematic ordering of stimuli selected for this purpose. Secondly, the measurement must take place in such a way that participants can dispose of and interpret the meanings of the stimuli. When examining subjectivity, it is necessary to respect the internal frame of reference of the participant (Stephenson, 1953).

Participants in a Q study are presented with a set of cards with authentic experience labels which they are invited to sort. These items – typically verbal, sometimes pictorial (Ellingsen et al., 2014) – are generated either from preliminary qualitative research or from literature reviews and other relevant sources. Our Q sessions consisted of two distinct but interconnected Q studies, both based on the same preliminary research (Kuzmičová et al., 2022; details below): Q Study 1, reported in Supa et al. (Submitted), and Q Study 2, focal to the present article. Q Study 1 used pictorial items which were modeled on children's statements and video stills of their behavior; participants sorted 19 cards depicting different ways of "being with" a story in terms of modalities/activities (e.g., reading; being read to; listening to audio; watching film; playing and playing out; creating; thinking) and situations (postures; degrees of body stability/mobility; degrees of privacy; being tucked in/away; etc.). In the focal Q Study 2, participants sorted 24 verbal statements expressing different inner states and expectations relating to fiction reading, specifically.

Once acquainted with the items, participants are guided by successive steps to compare them with each other and sort them onto a bell-shaped (quasinormal) grid. A typical instruction is "Sort the cards according to what is most like (+3) and most unlike (−3) your everyday feelings" (McKeown and Thomas, 2013; Ellingsen et al., 2014). Participants should arrive at their quasinormal distribution within the given grid so that at the extreme ends, there are only a few items, and toward the middle of the grid, the number of items increases (see **Figure 1**). The resulting Q sort reflects the participant's subjective view of the topic. After sorting, an interview is conducted which focuses primarily on the participant's understanding of items at the extreme ends, inviting the participant to explain the main rationale behind their Q sort. The post-sorting interview facilitates interpretation of the results and can also draw attention to differential understandings of an item between groups of participants.

In the last step, participants' Q sorts are transformed into a raw data matrix and analyzed. The analysis consists of three sequentially applied statistical procedures: correlation, Q factor analysis, and the computation of factor scores (McKeown and Thomas, 2013). The correlation matrix provides a preview of relationships between individual participants. Above all, it serves as input for factor analysis that calculates the number of independent factors. Where traditional ("R"; Stephenson, 1936) factor analysis identifies correlations between variables across participants, Q factor analysis identifies correlations between participants across variables. Each factor represents a group of individual Q sorts that are highly correlated while being uncorrelated with the others. The factor loadings then express the degree to which a given Q sort is associated with each factor. A high positive factor loading indicates that a given participant shares that particular perspective with others, and conversely, a high negative factor loading indicates rejection of that perspective. Finally, factor scores – or z-scores – reflect the degree of agreement of individual statements with the identified factors. Thus, factors are usually called perspectives or viewpoints because they reveal shared views of participants (Brown, 2004). Q methodology does not seek to generalize findings beyond the given group of participants. The relevance of participants to the research question is crucial for their inclusion in the sample. Generalizations should be thought of in terms of the universe of subjectivity rather than in terms of the population's characteristics (Brown et al., 2015, p. 534).

Q methodology research with children and adolescents has appeared in many disciplines including childhood and youth studies (Kerpelman et al., 2002; Metzger et al., 2016), psychology (Richards et al., 2007; Krause et al., 2021), and primary education (Tan et al., 2015). To our knowledge there have not been any Q studies conducted with children or adolescents regarding their reading experience, despite the method's increasing acceptance in both compulsory education research (Lundberg et al., 2020) and audience research (Davis and Michelle, 2011). One Q study on reading (Levitt and Red Owl, 2013) investigated the attitudes, behaviors, and values of veteran teachers. Q methodology is inherently child-centered, aligning with voices asserting the need to study children's lived experience and their subjective understanding of the world (Greene, 2006; Hughes, 2016). If designed with care and

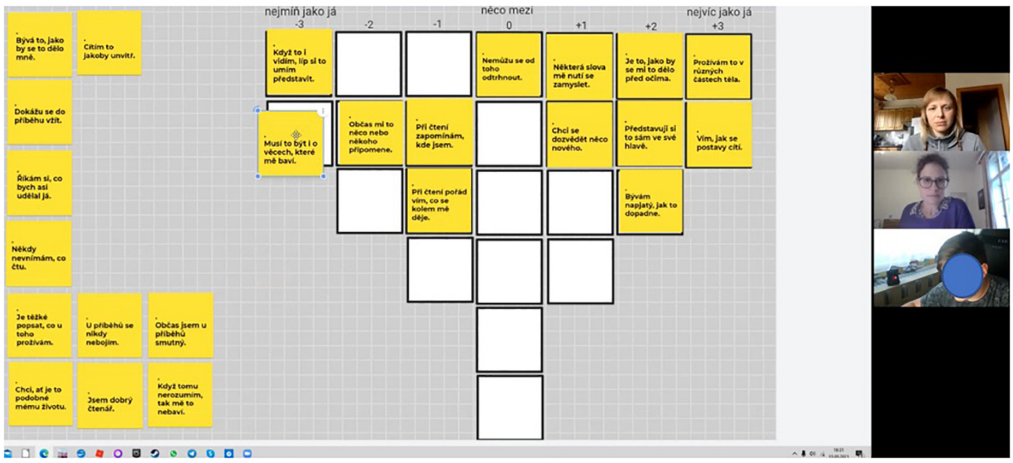

FIGURE 1
Still from online research session: the sorting interface **(left)**, researchers and participant **(right)**.

consideration, it works as an inclusive, respectful, and ethical methodology that challenges a one-size-fits-all approach "by hearing a range of voices, including those marginalized" and that decreases the risk of adult perspectives overshadowing those of children and youth in social research (Hughes, 2016, p. 63).

Items for assessment (Q sample)

The selection of items to be presented to participants (Q sample) is a critical moment that fundamentally affects the outcome of a Q study. Care must be taken that key dimensions of subjectivity relevant to the research topic are represented within a relatively limited set of items; Q samples used with children normally range between 20 and 50 items (Ellingsen et al., 2014). The items in our focal study were gathered in preliminary research using creative focus groups and individual interviews ($n = 19$; $M_{age} = 10.09$), complemented with in-class observations of spontaneous literacy activities. This preliminary research, reported in Kuzmičová et al. (2022), facilitated participants' introspection through bespoke physical props and game-like activities. Conversations about habitual book selections and experiences were combined with direct story exposure; the children not only talked about their favorite stories but also listened to pre-selected read-alouds and watched film snippets, using the props to share their immediate responses. The pivotal questions were how varied engagements with fictional stories (reading, watching, listening, playing, performing, creating, telling, and more) feel like from within one's body; how one's body is configured during the activities; what inner experiences are desired and typical and where one's mind is felt to be ("here" in the room vs. "there" in the story world vs. "elsewhere") when one engages with stories in different ways.

To arrive at the items used in our Q study, the interview and focus groups transcripts and observational notes from the preliminary research were first openly coded and inductively analyzed by the second author of this article, who drew on her expertise in children and youth's lived media experience and learning (Neag and Supa, 2020; Ramsey et al., 2022). Throughout the process, importantly, this researcher remained naïve to any existing reading experience constructs related to absorption (Kuijpers et al., 2021; Kuiken et al., 2022), reading motivation (Wigfield and Guthrie, 1997), or children's reading 'pleasures' (Wilhelm, 2016) as reviewed above. Five inductive categories relevant to absorbed reading emerged from the preliminary analysis and interpretation, to which the researcher gave experience-centered labels: 'living it,' 'imagining it,' 'feeling it,' 'reading it,' and 'experiencing closeness/otherness.' These categories collectively represented shared patterns concerning a focal phenomenon, as this research phase focused on similarities rather than differences. For example, the 'experiencing closeness/otherness' category included statements on stories' different degrees of closeness to one's life and interests and on the life-to-text and text-to-life connections such personal relevance, or lack thereof, might entail (Kuzmičová and Bálint, 2019; Kuzmičová and Cremin, 2022).

As the codes under each category were easily linked back to children's direct quotes, these quotes were then used to develop representative statements for the five categories. The statements in our Q research are therefore based very closely (even verbatim) on children's authentic statements extracted from the preliminary research. Although some of the statements could possibly fall within more than one category, the aim was to place them under a single dominant category, which then allowed reducing our initial, much larger sample to 22

statements while seeking relative balance across the categories (McKeown and Thomas, 2013). Following pilot sessions with three children and discussions with the remaining authors, some statement wordings were slightly changed for accessibility and clarity, and two new items were added that were also based on the preliminary data (#18, #22). Thus we arrived at the final 24 statements.

The inductive categories served solely for the purposes of generating our Q sample in a bottom-up fashion and should not be thought of as an analytical tool in interpreting our data. Links with existing theoretical constructs, which nevertheless proved significant (see **Table 1**), were purposefully explored by the first author only after the Q sample had been finalized. The statements were in Czech, the local language where the study took place. Our own English translations are provided throughout this article. These are *ad hoc* translations for the purposes of the current report that draw on our experience with designing reader response questionnaire items (Kuzmičová et al., 2017; Magyari et al., 2020) and child-centered research in English-speaking environments (Woodfall and Zezulkova, 2016; Kuzmičová and Cremin, 2022); they have not been piloted for research in English.

Participants (P set)

The participants were 28 children aged 9–12 years (M = 10.54), the conventional P set ("P" = participant) size in Q methodology being 20–60 participants (Brown, 1993; Watts and Stenner, 2005). Nine to twelve years is for many a crucial stage in reading development (Compton-Lilly, 2007; Torppa et al., 2020) yet understudied with regard to subjective experiences of the reading process. At the age of nine, reading in a technical sense has typically been acquired by Czech L1 learners as Czech has a consistent orthography and is relatively easy to decode (Caravolas et al., 2013). This is a developmental stage when parents often step away from shared reading, if practiced at all (Merga, 2017; Scholastic, 2018).

Whilst aware that cognitive development cannot be reduced to age alone, our chosen age bracket normally falls under middle and/or late childhood in developmental accounts. Toward the end of late childhood, corresponding to our upper limit of twelve years, children typically begin reaching adult levels of diverse executive functions after which cognitive changes slow down (Buttelmann and Karbach, 2017). Research on maturation in the domains of psychomotor function, attention, working memory, and visual learning (ages 10–18 years) revealed that improvements in speed and accuracy occurred at the greatest magnitude in ages ten to twelve specifically (Cromer et al., 2015). Similarly, the development of social cognition, which is instrumental to – and reportedly fostered by Mar and Oatley (2008) – the processing of narrative fiction, peaks around the transition from late childhood to adolescence (Mill et al., 2014). This suggests a sensitive and dynamic developmental period during which variations in conscious reading experience deserve special attention.

Our study took place in Czechia. A half of the children had participated in the preliminary research (n = 8 focus groups; n = 6 interviews) and a half were recruited through snowball sampling using the participating children's and their parents' social networks (Browne, 2005; Johnston et al., 2010). We used a strategic approach to participant recruitment, looking for a diverse group of participants who would be "likely to express a particularly interesting or pivotal point of view" (Watts and Stenner, 2012, p. 71). The final P set was balanced for gender (14 males, 14 females) and roughly also age (9–12 years) in combination. Among the male participants, there were three 9-year-olds, three 10-year-olds, five 11-year-olds, and three 12-year-olds. Among the female participants, there were three 9-year-olds, four 10-year-olds, four 11-year-olds, and three 12-year-olds.

The participants attended varied schools (public and private, traditional and Montessori), had parents with diverse education levels (from secondary vocational to postgraduate), and lived in urban and rural areas across the country. However, we did not control for social disadvantages (e.g., minority background, non-traditional family, low-income household, etc.); future research could be more sensitive to variation in this matter. In addition to demographic criteria, crucial to our sampling and recruitment strategy was that each participant had independent fiction reading experience and we also took care to include a relatively wide spectrum of overall attitudes to reading (based on the children's or gatekeepers' – parents', teachers' – perceptions). Thus, we ensured that the P set would be relevant and sufficiently heterogeneous (Watts and Stenner, 2012).

Written informed consent was obtained from parents and repeated oral informed consent was provided by the participants. Ethical standards were met specific to participatory research with children (aged 12 and below), while addressing power dynamics and applying strategies to support children in expressing their authentic voices (Montreuil et al., 2021). The research was approved by the Ethics Committee of the Faculty of Arts, Charles University, clearance number UKFF/151685/2021.

Data collection (Q sorting)

Data was collected remotely via the Zoom Meetings software as the research took place in early stages of the COVID-19 pandemic. Within each Zoom session participants completed the two sorts, Q Study 1 and Q Study 2, consecutively using the Jamboard interactive whiteboard in Google Workspace, while being guided by a moderator and co-moderator. In the focal

TABLE 1 Final Q sample with inductive categories and subscales of the SWAS, ASQ EE/IC, MRQ (where supplementary) and reading 'pleasures.'

#	Statement	Inductive category	Subscale (questionnaire)	Reading 'pleasure'
1	It's as if the same things were happening to me.	Living it	Pre-enactive empathy (ASQ EE)	
2	Stories make me feel things in different parts of my body.	Living it	*Mental imagery* (SWAS); *Pre-enactive empathy* + *Peri-personal space* (ASQ EE)	
3	I forget where I am when I read.	Living it	Attention + *Transportation* (SWAS)	
4	I feel connected with what is happening in the story.	Living it	Emotional engagement (SWAS); *Peri-personal space* + Pre-enactive empathy (ASQ EE)	Immersive play
5	I can't stop reading.	Living it	*Transportation*	Immersive play
6	It's as if it were happening in front of my eyes.	Imagining it	Mental imagery (SWAS); Extra-personal space (ASQ IC)	
7	I wonder what I would do.	Imagining it		Inner work
8	It's easier to imagine if I can see it too.	Imagining it	*Mental imagery** (SWAS)	
9	I imagine it in my head.	Imagining it	Mental imagery (SWAS)	
10	I feel things happening inside me.	Feeling it	*Pre-enactive empathy* (ASQ EE)	
11	Sometimes I am sad.	Feeling it	*Emotional engagement* (SWAS)	
12	I know how the characters feel.	Feeling it	Emotional engagement (SWAS); Pre-enactive empathy (ASQ EE); Cognitive perspective-taking (ASQ IC)	Social
13	I am often tense about what will happen next.	Feeling it	*Reading involvement* (MRQ)	*Immersive play*
14	It's hard to describe what it's like for me.	Feeling it		
15	I am never scared.	Feeling it	*Emotional engagement** (SWAS)	Immersive play*
16	I am not always following what I am reading.	Reading it	Attention* (SWAS)	Immersive play*
17	I am a good reader.	Reading it	Efficacy (MRQ)	
18	Some words make me think.	Reading it		Intellectual
19	I always know what is happening around me.	Reading it	Attention* (SWAS)	Immersive play*
20	I want it to resemble my life.	Closeness/ otherness	*Self-implicating givenness* (ASQ EE)	Social
21	When I don't understand it, I don't enjoy it.	Closeness/ otherness	Reading work avoidance (MRQ)	Intellectual*
22	It must also be about things I like.	Closeness/ otherness	Curiosity (MRQ)	
23	I want to learn something new.	Closeness/ otherness	Curiosity (MRQ)	Intellectual
24	Sometimes it reminds me of something or someone.	Closeness/ otherness	*Self-implicating givenness* (ASQ EE); Affective realism + Character realism (ASQ IC)	Social

Reading 'pleasures' appear where wording adheres closely to data cited by Wilhelm (2016). Asterisk indicates reverse perspective. Italics indicate weaker correspondence, i.e., our wording is significantly narrower in scope than given questionnaire item(s) (e.g., #16 vs. SWAS item EE5) or differs in modality (e.g., #19 vs. ASQ EE items MM2-3).

Q Study 2, the statements were shown as virtual post-it notes that could be moved around and flexibly rearranged on the sorting grid (Figure 1). The decision to involve a co-moderator was motivated by the unusual remote interviewing situation; the co-moderator explained technicalities (screen sharing, virtual card sorting) to the participants and was prepared to serve as backup should the moderator be disconnected unexpectedly. The post-sorting interviews were led by the moderator.

Participants were invited to follow their own subjective ideas of the different inner states captured by the verbal statements, and to sort them accordingly using a bell-shaped sorting grid

with a 7-point scale of similarity from *Least like me* (–3) to *Most like me* (+3). At this point they were accustomed to the research activity, having completed the pictorial sort and post-sorting interview of Q Study 1. Participants' occasional questions regarding the meaning of a statement were answered in such a way that interpretation would be constrained as little as possible. Participants' individual interpretations of the verbal statements were explored in the post-sorting interviews. The moderators asked especially about motivations behind extreme card placements (i.e., ranking positions –3, –2; +2, +3) and about examples of personal situations and experiences captured by these statements. Cards that were more centrally (i.e., neutrally) placed within the sorting grid were also discussed as time permitted, especially when they seemed to suggest interesting relationships to the extremities. Participants could elaborate freely, and it was made clear to them that no detail of their experience was irrelevant. Statement #17, "I am a good reader," was always discussed irrespective of placement. Focus was maintained on individual, silent, volitional reading of book-length fiction, although some participants also mentioned experiences of communal reading aloud in both home and school settings, and of stories in other genres and media.

The meetings lasted up to sixty minutes comprising both Q sorts and were video recorded. The participants shared their screen while sorting and in all but one case agreed to having their inbuilt camera switched on throughout the process. The moderator and co-moderator were visible at all points of interaction. Sorting was self-paced. Participants were encouraged to take breaks when needed and aware that they can terminate the session at any time. They could ask questions at the end of the session. Some children wanted to know more about the research aim and purpose, others expressed satisfaction with being able to reflect and/or being listened to, and a few asked for feedback regarding their "performance." A vast majority spontaneously commented that they enjoyed the sorting and post-sorting discussion.

Analyses (Q factor, qualitative analysis)

The sorts were subjected to by-person factor analysis by the third author, using Ken-Q Analysis v1.0.6 and employing the principal component method (PCA). In the focal Q Study 2, three factors were selected for further analysis based on the following criteria (see Watts and Stenner, 2005; McKeown and Thomas, 2013): (1) eigenvalue size greater than one; (2) at least two Q sorts have statistically significant loadings at 0.05 for a given factor; (3) the minimum size of explained variance is 10 percent. Inter-factor correlations ranged from –0.45 to 0.43, without reaching statistical significance at $p < 0.01$, suggesting that distinct perspectives had been extracted. These were subsequently rotated using the varimax procedure and Factors 1 and 3 were manually rotated by –5 degrees. This procedure improved the distribution of participants among factors. One of the factors (F1; "F" = factor) was bipolar, i.e., featured two groups of participants whose sorts were statistically inverse to each other. Two sorts (P21, P28) were removed; P21 did not load significantly onto any factor and P28 was inverse to F3. The last step involved splitting the bipolar F1 into two perspectives: F1a and F1b.

Selected factors accounted for 48 percent of the total variance. None of the final factors significantly dominate in terms of the number of sorts and variance explained: F1a and F1b comprised three and five participants respectively (14% variance), F2 comprised nine participants (18% variance), and F3 likewise comprised nine participants (16% variance). A composite Q sort was generated for each factor representing the sorting of a hypothetical participant matching the given factor to the maximum extent possible, i.e., having a hundred percent factor loading (**Tables 2–5**). Difference scores were likewise calculated which express the magnitude of the difference between the *z*-scores of a particular statement for any two factors. If this difference is statistically significant, the item is a distinguishing statement that splits two (or more) perspectives. If a statement's *z*-scores do not statistically differ between any pair of factors, it is a consensus statement. All composite Q sorts are summarized in the factor array in **Table 6** where *z*-scores and distinguishing/consensus status are also reported for each statement.

The composite Q sorts and factor array were instrumental in the qualitative phase of data analysis. Once the Q factor analysis was completed, the first and second author divided the transcripts of the post-sorting interviews of retained participants (n = 26) according to the three factors and four perspectives. Next, the transcripts and quantitative results were inductively analyzed in tandem, first within each group and then in relation to other perspectives. For these inductive-deductive processes, reflexive thematic analysis (Braun and Clarke, 2006) was used as a framework. The transcripts were independently read and re-read in conjunction with the composite Q sorts by the first two authors before the whole research team jointly discussed first impressions and moved to systematic coding of the qualitative data (Hayfield and Wood, 2019). Yet instead of conceptualizing themes through the coding, we conceptualized perspectives by identifying "patterns of shared meaning" consisting of the most prevalent codes (Braun and Clarke, 2019, p. 592). These patterns both characterized the reading engagement of children within a given perspective, as well as distinguished them from children in the other groups. After defining the essence of individual perspectives and naming them, final additional adjustments were made during

TABLE 2 Composite Q sort – *Growth* (F1a).

–3	–2	–1	0	+1	+2	+3
#8** < It's easier to imagine if I can see it too.	**#10*** < I feel things happening inside me.	#3* I forget where I am when I read.	#7 I wonder what I would do.	#6 It's as if it were happening in front of my eyes.	**#1**** > It's as if the same things were happening to me.	**#9** I imagine it in my head.
#21 When I don't understand it, I don't enjoy it.	**#22*** < It must also be about things I like.	#11 Sometimes I am sad.	#13 I am often tense about what will happen next.	#23 I want to learn something new.	**#4**** > I feel connected with what is happening in the story.	**#2**** > Stories make me feel things in different parts of my body.
	#24 Sometimes it reminds me of something or someone.	#16 I am not always following what I am reading.	#14 It's hard to describe what it's like for me.	#5 I can't stop reading.	**#17** I know how the characters feel.	
		#19 I always know what is happening around me.	#15 I am never scared.	#17 I am a good reader.		
			#18 Some words make me think.			
			#20 I want it to resemble my life.			

Bold # marks items that are key in both quantitative (extreme and/or statistically distinguishing rank) and qualitative terms (interview analysis). Distinguishing items are marked with * ($p < 0.05$) or ** ($p < 0.01$) and < (*z*-score lower than remaining factors) or > (*z*-score higher than remaining factors). For key items, background colors refer to inductive categories: 'living it' – yellow, 'imagining it' – pink, 'feeling it' – green, 'reading it' – purple, 'experiencing closeness/otherness' – orange.

the writing process. The outcome is presented in the next section.

Results

The emergent perspectives on absorbed fiction reading reflected by the factors were interpreted and labeled as follows (in ascending order by *n* participants): *Growth* (F1a), *Confirmation* (F1b), *Attachment* (F2), *Mental Shift* (F3). These four perspectives are described in the remainder of this section. Each description opens with a summary, then follows two non-exclusive headings: *Reading* (what feeds into and happens in the reading situation) and *Beyond reading* (how reading relates to life beyond the reading situation). Relevant Q items are shown in brackets, represented by statement # and ranking. Where a statement's ranking is statistically distinguishing for the perspective, degrees of significance are marked by one ($p < 0.05$) or two ($p < 0.01$) asterisks, respectively. For example, "(#8 –3**; #9 + 3)" means that a specific point in our interpretation is reflected in a given group's distinguishingly low ($p < 0.01$) ranking of statement #8 and very high (but not statistically distinguishing) ranking of statement #9. This information is also provided in Tables 2–6. All direct quotes from participants' post-sorting comments, translated into English by the authors, are accompanied by participant ID and participant's gender (m x f) and age (9–12). For example, "(P23, f9)" stands for Participant 23, female, 9 years old. Each participant is quoted at least once. Throughout this section, we deliberately refrain from using the technical nomenclature linked to absorption and similar constructs, in keeping with the inductive nature of our interpretation of the perspectives. Composite Q sorts are provided, visually coded to show which statements are key in quantitative (extreme and statistically distinguishing ranks) as well as qualitative terms (Tables 2–5).

Growth (F1a)

Summary

Under the *Growth* perspective, written fiction of the most varied kinds is experienced holistically as children think through scenarios, imagine story worlds, and sympathize with characters while also adopting their bodily sensations. For children sharing this perspective, reading is in a close and reciprocal relationship with living, learning, and growing as a person. The main focus

10.3389/fpsyg.2022.966820

TABLE 3 Composite Q sort – *Confirmation* (F1b).

–3	–2	–1	0	+1	+2	+3
#3 I forget where I am when I read.	**#1** It's as if the same things were happening to me.	**#5**** < I can't stop reading.	#6 It's as if it were happening in front of my eyes.	#21 When I don't understand it, I don't enjoy it.	**#9** I imagine it in my head.	**#8**** > It's easier to imagine if I can see it too.
#2** < Stories make me feel things in different parts of my body.	**#4**** < I feel connected with what is happening in the story.	#10 I feel things happening inside me.	#11 Sometimes I am sad.	#7 I wonder what I would do.	**#12**** > I always know what is happening around me.	**#13** I am often tense about what will happen next.
	#17* < I know how the characters feel.	#20 I want it to resemble my life.	#17 I am a good reader.	#14 It's hard to describe what it's like for me.	**#22**** > It must also be about things I like.	
		#15 I am never scared.	#18 Some words make me think.	#16 I am not always following what I am reading.		
			#23 I want to learn something new.			
			#24 Sometimes it reminds me of something or someone.			

Bold # marks items that are key in both quantitative (extreme and/or statistically distinguishing rank) and qualitative terms (interview analysis). Distinguishing items are marked with * ($p < 0.05$) or ** ($p < 0.01$) and < (z-score lower than remaining factors) or > (z-score higher than remaining factors). For key items, background colors refer to inductive categories: 'living it' – yellow, 'imagining it' – pink, 'feeling it' – green, 'reading it' – purple, 'experiencing closeness/otherness' – orange.

to being absorbed in stories is on one's own reflective processes during reading and, crucially, beyond the reading situation.

Reading

Reflective processes are constantly at work in the *Growth* perspective and children are open to tackling any interpretive hurdles or unfamiliar themes (statement #22 ranked –2**; statement #21 ranked –2). Written stories are expressly acknowledged in their power to develop one's imagining, thinking and knowing, and most are therefore potentially of interest, however challenging: "I wasn't so much into WWII because it was just terrible (...) but I wanted to know how things went in the end" (P23, f9); "so I go on and try to look things up to understand better instead of just saying this is not for me" (P13, f12).

Varied forms and dimensions of absorption combine here in a rounded reading experience. This is the only perspective wherein children attest to vicariously adopting characters' movements and inner embodied sensations (#2 + 3**; #1 + 2**; #4 + 2): "like when it says someone's scratched the blackboard with his fingernails then I feel – it comes to me just, like it's me (...) who's doing it" (P13, f12); "it's actually me holding the sword swinging it in the air" (P19, m12). Sometimes this tendency translates into reflexive real-world actions when a child checks their own body based on the text: "when there was a fight and someone lost a tooth, at that moment I put my hand to my mouth (...) when a character gets stabbed in the shoulder, I check my shoulder just in case" (P19, m12). At the same time, directly adopting characters' experiences does *not* extend beyond bodily sensations, e.g., to notional vantage points. Rather, multiple vantage points are often creatively combined (#9 + 3; #6 + 1): "it's as if I cloned myself and while I'm looking at me watching or taking part in things, this other me is doing those things but not seeing them through her eyes" (P13, f12).

The decoupling from characters is even more pronounced in terms of emotions and cognitive states. Children agree that their understanding is more a matter of conscious reflection (#12 + 2), a process of coming to know unexpected things which they so enjoy (#22 –2*; #21 –2; #23 + 1), rather than immediate empathic feeling (#10 –2*). They report assessing characters' inner states "still being myself" (P23, f9), a buddy having "deep, deep sympathy" (P13, f12): "there's a great deal of me working to live it through with (the character) (...) help them with the sadness a little bit" (P19, m12). Potentially unsettling events such as death are likewise reflected on analytically, in terms of their

TABLE 4 Composite Q sort – *Attachment* (F2).

–3	–2	–1	0	+1	+2	+3
#3 I forget where I am when I read.	**#1** It's as if the same things were happening to me.	#2 Stories make me feel things in different parts of my body.	**#14*** < It's hard to describe what it's like for me.	**#11**** > Sometimes I am sad.	**#4** I feel connected with what is happening in the story.	**#9*** > I imagine it in my head.
#15 I am never scared.	**#8**** It's easier to imagine if I can see it too.	#19 I always know what is happening around me.	**#21*** When I don't understand it, I don't enjoy it.	#12 I know how the characters feel.	**#5** I can't stop reading.	**#13** I am often tense about what will happen next.
	#16* < I'm not always following what I'm reading.	#23 I want to learn something new.	#10 I feel things happening inside me.	#7 I wonder what I would do.	**#6*** > It's as if it were happening in front of my eyes.	
		#24 Sometimes it reminds me of something or someone.	#18 Some words make me think.	#17 I am a good reader.		
			#20 I want it to resemble my life.			
			#22 It must also be about things I like.			

Bold # marks items that are key in both quantitative (extreme and/or statistically distinguishing rank) and qualitative terms (interview analysis). Distinguishing items are marked with * ($p < 0.05$) or ** ($p < 0.01$) and <(*z*-score lower than remaining factors) or >(*z*-score higher than remaining factors). For key items, background colors refer to inductive categories: 'living it' – yellow, 'imagining it' – pink, 'feeling it' – green, 'reading it' – purple, 'experiencing closeness/otherness' – orange.

moral implications and their impact on other characters: "and then he kills this guy and I always get real angry, like why did he have to do it if he knew he was someone's friend" (P23, f9). This reflective stance is maintained even when one becomes reminded, life-to-text, of similar events from one's own past: "I know what it's like when your best friend dies, it's happened to me" (P23, f9).

Beyond reading

Stories in their written, non-pictorial form exclusively (#8 – 3**; #9 + 3), fulfill an irreplaceable role in one's personal growth and everyday life. Children knowingly use books for expanding their horizons beyond the moment of reading (#22 – 2**; #21 –2; #23 + 1) and can spend hours, even months, reflecting on what they have read: "then I think of all sorts of alternative solutions (...) so I make the story last longer so to speak, it can be several months even" (P19, m12). Searches for additional relevant information commonly accompany this prolonged reflection. The insights thus encountered and worked through can exceed conventional reality boundaries as children show readiness to embrace alternative visions of the physical world or their potential selves: "I'm really a great optimist in this respect, I figure these things might happen, there might be wizards, there might be people with special skills (...) I dunno like people who have two mouths" (P13, f12).

Text-to-life transfers become manifest not only in thinking but also in overt behaviors. One child engages in reenacting physical actions from stories (#2 + 3**), then integrates her memories of these episodes with further reading: "I can make all these movements I'd make if I were there, I run, I climb trees and so on (...) it's really nice because it makes me part of the story as it were" (P23, f9). For another (P13, f12), physical behaviors transfer text-to-life in the form of "like a new sport" or creative pastimes (figure drawing, modeling) that she picks up from characters. Children often vocalize their story-related thoughts for themselves both during and after reading as they literally engage in dialogue with the text "as if the story was happening in my brain and in my heart also" (P23, f9).

Confirmation (F1b)

Summary

Under the *Confirmation* perspective, written stories must fall within one's preferred subjects, genres and plotlines, and should ideally be illustrated and suspenseful, for moments of absorption to occur in the first place. Emphasis is on the text

TABLE 5 Composite Q sort – *Mental Shift* (F3)

–3	–2	–1	0	+1	+2	+3
#19** < I always know what is happening around me.	**#18**** < Some words make me think.	**#6**** < It's as if it were happening in front of my eyes.	#10 I feel things happening inside me.	**#8**** It's easier to imagine if I can see it too.	#4 I feel connected with what is happening in the story.	**#3**** > I forget where I am when I read.
#15 I am never scared.	#2 Stories make me feel things in different parts of my body.	#1 It's as if the same things were happening to me.	#11 Sometimes I am sad.	**#9*** < I imagine it in my head.	**#16** I am not always following what I am reading.	**#5**** > I can't stop reading.
	#21 When I don't understand it, I don't enjoy it.	#20 I want it to resemble my life.	#17 I know how the characters feel.	#7 I wonder what I would do.	**#13** I am often tense about what will happen next.	
		#22 It must also be about things I like.	#14 It's hard to describe what it's like for me.	#23 I want to learn something new.		
			#17 I am a good reader.			
			#24 Sometimes it reminds me of something or someone.			

Bold # marks items that are key in both quantitative (extreme and/or statistically distinguishing rank) and qualitative terms (interview analysis). Distinguishing items are marked with * ($p < 0.05$) or ** ($p < 0.01$) and <(z-score lower than remaining factors) or >(z-score higher than remaining factors). For key items, background colors refer to inductive categories: 'living it' – yellow, 'imagining it' – pink, 'feeling it' – green, 'reading it' – purple, 'experiencing closeness/otherness' – orange.

selected through these criteria which in turn are understood as its objective features rather than as a matter of subjective attitude. Reading is mostly about receiving confirmation in the given moment of one's familiar ways of reading and living. Suspense is a prominent driver of reading and mental imagery a key sign of being absorbed.

Reading

Children sharing the *Confirmation* perspective prefer to stay within their comfort zone rather than wanting to be challenged by what they read (statement #21 ranked + 1*). Stories must conform to their predefined genre preferences and deal with subjects they find inherently interesting also in everyday life (#22 + 2*). Overall, these children show a heavily subject-based, even factual way of thinking about fiction reading. Instances of not understanding a text are defined as missing "what it's about" (P4, m11), rather than grappling with narrative sequence or characters' motivations; children also spontaneously name subjects that bore them: "say when there's old historical buildings then I don't like it" (P3, f12).

Above all, stories are expected to be suspenseful (#13 + 3). This makes certain parts of texts, such as beginnings, stand out as less entertaining because they try one's patience; the same impatient tendency also surfaces when comprehension difficulties come up (#21 + 1*): "for me it wasn't fun till someplace in the middle of the book, I mean the beginnings are – I always want the tension right away" (P25, m12); "rereading it is not exactly fun but I want to understand it a little bit" (P20, m11). Reading is abandoned and passages skipped at any point (#5 –1**) if a text does not fulfill the desired criteria and confirms the child in their reading endeavor: "when I'm bored, I skip the bit (...) when it's not interesting I can quit easily" (P3, f12). Illustrations are another desired feature because they support one's visual imaging (#8 + 2**): "they show me what I should imagine – and how" (P5, m9).

However, when all the above criteria are met, moments of focused fiction reading still tend to be relatively fleeting as one always remains aware of one's surroundings (#19 + 2**; #5 –1**; #3 –3 understood as low 'attention,' see section "Discussion"). Immediate access to the story world or characters is not particularly lasting or robust, and even visual images, though important to the overall experience (#9 + 2), appear distinct from direct perception: "what I do is I imagine it in my head, like I can see it but I'm not inside the story or anything" (P20, m11). While children seem to have a clear grasp of the varied feelings and embodied sensations that stories potentially afford, they are emphatic about never having such experiences themselves (#2 – 3**; #4 –2**; #12 –2*; #1 –2): "when someone's got an injury, in

TABLE 6 Factor array.

#	Statement	F1a		F1b		F2		F3	
		Sort	Zsc	Sort	Zsc	Sort	Zsc	Sort	Zsc
1	It's as if the same things were happening to me.	**2****	1.1	−2	−1.1	−2	−0.8	−1	−1.0
2	Stories make me feel things in different parts of my body.	**3****	1.8	**−3****	−2.2	−1	−0.7	−2	−1.1
3	I forget where I am when I read.	**−1***	−0.5	−3	−1.4	−3	−1.3	**3****	1.7
4	I feel connected with what is happening in the story.	2	1.1	**−2****	−1.0	2	1.4	2	1.5
5	I can't stop reading.	1	0.6	**−1****	−0.6	2	1.0	**3****	1.9
6	It's as if it were happening in front of my eyes.	1	0.5	0	0.1	**2***	1.3	**−1****	−0.9
7	*I wonder what I would do.*†	0	−0.3	1	0.3	1	0.3	1	0.4
8	It's easier to imagine if I can see it too.	**−3****	−2.0	**3****	1.8	**−2****	−1.1	**1****	0.9
9	I imagine it in my head.	3	1.7	2	1.2	**3***	2.3	**1****	0.5
10	I feel things happening inside me.	**−2***	−1.2	−1	−0.5	0	0.2	0	0.0
11	Sometimes I am sad.	−1	−0.7	0	−0.3	**1****	0.6	0	−0.1
12	I know how the characters feel.	2	1.0	**−2***	−0.6	1	0.5	0	0.1
13	I am often tense about what will happen next.	0	0.5	3	1.7	3	1.6	2	1.0
14	It's hard to describe what it's like for me.	0	0.4	1	0.4	**0***	−0.4	0	0.3
15	I am never scared.	0	−0.3	−1	−0.5	−3	−1.5	−3	−1.3
16	I am not always following what I am reading.	−1	−0.5	1	0.2	**−2***	−1.2	**2****	1.1
17	*I am a good reader.*†	1	0.5	0	−0.1	1	0.3	0	−0.2
18	Some words make me think.	0	0.1	0	0.2	0	0.2	**−2****	−1.2
19	I always know what is happening around me.	−1	−0.5	**2****	0.9	−1	−0.7	**−3****	−1.6
20	*I want it to resemble my life.*††	0	0.0	−1	−0.5	0	−0.3	−1	−0.5
21	When I don't understand it, I don't enjoy it.	−3	−1.6	**1***	0.8	**0***	0.1	−2	−1.0
22	It must also be about things I like.	**−2***	−1.5	**2****	1.7	0	−0.4	−1	−0.7
23	I want to learn something new.	1	0.6	0	−0.3	−1	−0.5	1	0.6
24	*Sometimes it reminds me of something or someone.??*	−2	−0.8	0	−0.3	−1	−0.8	0	−0.4

Ranks of distinguishing statements are shown in bold (*$p < 0.05$, **$p < 0.01$); consensus statements in italics († – non-significant at $p > 0.01$, †† – non-significant at $p > 0.05$).

his arm for instance, I don't feel any of that, no" (P3, f12); "when they're sad, no, that doesn't make me sad" (P25, m12).

Beyond reading

Text-to-life transfer is primarily about having one's reading habits, subject interests, and by implication one's self-understanding, catered to and confirmed. When life-to-text transfer comes up at all, it is mostly in the context of figuring out facts, e.g., when a child (P25, m12) dwells on the geographical details of a story that was loosely set in his hometown. Connected to this, children sharing this perspective are the only group by whom encyclopedias are repeatedly mentioned. Invited life-to-text comparisons (#20 −1) are likewise rejected based on outer, literal dissimilarities: "I've only lost two dogs so far and a great-grandma and I can't say it made me think of them in some way" (P25, m12). Children also comment that they rarely think afterward about what stories do to them, a task that they nevertheless consider potentially uncomplicated: "I don't do this for anyone, telling them how it makes me feel, what I feel, not even for myself. But I don't think it's so hard to describe what I feel" (P20, m11).

Attachment (F2)

Summary

Central to absorbed fiction reading under the *Attachment* perspective is one's intimate empathic relationship with characters. Children become suspended in following characters' plights, even to the point of having to downregulate the experience which can be strongly embodied. Equal emphasis is on the text and one's inner processes. There is a preference for story worlds and characters diverging from everyday reality as these support imaginings that children can augment freely in their minds, beyond the explicitly stated and the ordinary.

Reading

Children develop strong emotional bonds (statement #11 ranked + 1**; statement #4 ranked + 2; statement #12 ranked + 1) with one or more characters in the story, sometimes to the point of having to downregulate the experience: "for instance if I read a book about animals in Africa being killed then I wouldn't like – I don't want to feel that from within" (P7, f11); "or sometimes I might skip to the last page to see

the main character's still there, so I know he doesn't die" (P10, m12). Empathic feelings are common, particularly in connection with physical suffering and dying but also with less extreme misfortunes such as clashes between friends. At the same time, children remain aware that each character with whom "I choose to bond emotionally" (P10, m12) imposes a unique filter onto their individual story experience: "so through this character you also get to know how the other characters feel" (P22, m11); "but if I liked some other character more, then I'd see it through her (eyes) and I'd understand better why she behaves the way she does" (P18, f12). Protagonists are intensely worried about (#15 −3) – and rejected if they happen to have been replaced between two volumes in a series. In suspenseful moments, the tension arising from such close attachment (#13 + 3; #5 + 2) can be distinctly embodied (e.g., making one sweat, bite one's lip) and some children locate it in their abdomen specifically: "as if my bowels were tensing up" (P15, f10); "it gives me a total stomachache (...) everything's just boiling inside me" (P22, m11).

At the same time children overwhelmingly report assuming a spectatorial position, one of an invisible tacit observer who is mostly located inside the story world with the characters (#1 −2; #6 + 2*): "say you're this person who goes scouting with them so you're there, except you're all quiet just watching them, so they have no idea you're there" (P10, m12). Yet visual imaging is a highly dynamic rather than static experience, either because vantage points shift rapidly as story contents "flash in front of my eyes" (P10, m12) or by virtue of "how the characters move" (P15, f10). Children sharing this perspective prefer to visualize story worlds and characters (#9 + 3*; #6 + 2*) creatively: "so I make an image in my mind but some words don't feel like they really fit in that room, so I replace them with stuff of my own" (P6, f10). External imagery in illustrations or film adaptations is expressly rejected for curbing this autonomy (#8 −2**): "when I imagine the dragons in my head what I see is completely different (from the TV cartoon), like I see these huge spikes on their back and there's like a dip for the saddle" (P12, f10).

Children sharing this perspective pay close attention to what they read (#16 −2*) and define "a good reader" (#17) in terms of feeling and joy rather than technical skill: "a good reader, I guess everyone has to find out for themselves, but I think it's more about how much you enjoy it and not so much about how many books you've read" (P18, f12). As they focus on immediacy and affect, they are not happy working through comprehension difficulties (#21 0*) which redirect their consciousness to the linguistic medium. Though clearly capable of astute reflection, these children observe an uneasiness about putting their feelings into words and declare that "I wouldn't know how to describe what it makes me feel" (P1, f11) (#14 0*). This was also reflected in their open pondering of the Q statements that may overall have seemed to them inadequate labels for their inner states.

Beyond reading

On various levels, children desire otherness and distinctiveness in books relative to their non-reading life as they know it (life-to-text) but seek out stories that stimulate creative transfer text-to-life (see also section "Discussion" below, split interpretation of #20). These desires are well served by genres such as fantasy, stories set in the distant past, even sci-fi: "I like it when it's in the future, or in the past, probably things from the past is the best, better than the future, and all kinds of magic too" (P24, m11). These non-realistic genres aside, a more general preference is also expressed for characters whose lives differ from "my life which I can live myself and I don't have to read about it" (P18, f12) and for narrative renditions of exotic experiences: "say (reading about) a beautiful birthday party, that's something I'd enjoy feeling" (P7, f11). Stories of such qualities allow one to dream up text-to-life potentialities after reading, in ways that may disregard conventional realism boundaries: "I want to learn how to fight with a sword and stuff like that (...) to fly riding dragons, that must be so cool though there's downsides to it too" (P12, f10).

Mental shift (F3)

Summary

Central to the Mental Shift perspective is the very process of overcoming distraction, penetrating the linguistic medium and shifting one's mind into absorption. Children actively work toward speed, technical accuracy, and storyline comprehension which they consider crucial to achieving such shifts; these in turn reward them with an altered perception of time following the specific temporality of the plot. Additional gratifications vary as the group diverges in absorption style. It also diverges in overall attitude to fiction reading and story selection strategies; a strong focus on moment-to-moment achievement is combined here with a focus on text characteristics.

Reading

Under the *Mental Shift* perspective, children focus on being perseverant in dealing with written text. They laboriously work out connections between story events, an effort they are willing to make in order to be ultimately carried away by the plot: "so I read it again and then I understand it and then it's nice again because it all fits in the story and when I like the story overall then all the different bits are good too" (P9, m10). Their notion of "a good reader" (#17) is overwhelmingly linked to speed and accuracy, which they frequently quantify: "say someone who makes zero to three mistakes in a chapter and who reads quite quickly" (P26, m9). Imagining (statement #9 ranked + 1**; statement #8 ranked + 1**), too, is understood in terms of mental work toward better comprehension (#21 −2) rather than immediate sensory imaging (#6 −1**): "when I'm imagining it I'm

unpicking the story I've just read" (P11, f11); "I'm like teasing apart the different little bits in my head so I can understand it better" (P14, m10). "In (my) head" (P9, m10) or "in the brain" (P8, f9) is also where these children locate reading on the map of their body. Although they deny spending time thinking of particular expressions (#18 –2**), they are the group who most frequently offer verbatim quotes from stories and refer to what a formulation "actually says" (P16, f11) as the basis for what they take from it.

Children sharing this perspective are particularly sensitive to moments of losing track, which they consider all too frequent (#3 + 3** understood as low 'attention,' see section "Discussion"; #16 + 2**): "there must have been like I dunno five or six minutes when I didn't know what I was reading, my eyes were just moving down the page" (P9, m10); "like when it says 'Adélka opened the door,' then I'm just reading on, and by the time I get to 'the door,' I don't remember 'Adélka opened'" (P17, f10). Rather than yielding to distraction from external stimuli (#3 + 3** understood as high 'attention/transportation,' see section "Discussion"; #19 –3**), their mind frequently wanders off the text to other thoughts: "there's something I'm thinking about but I'm reading at the same time" (P16, f11). Yet they are assiduous in rereading and other strategies to compensate for this: "I go back. A lot. Even four pages sometimes" (P14, m10). Importantly, as their consciousness bounces back and forth within and beyond the text like this, they do not seem to come out of the attentive "bubble" of reading, ultimately losing themselves in the activity for hours (#5 + 3**) and enjoying its distinct temporality: "I can completely forget about time and go on reading and I just can't stop" (P27, m9); "once I read to quarter to eleven because I was so much into the story I forgot to check the clock" (P2, m10).

Though all attest to an altered sense of time, the children diverge as to what else is happening once the shift into a state of absorption has been accomplished. Some sympathize with characters via perspective-taking, some become attached to them empathically, others find it difficult to understand how the characters feel unless it is clearly and simply described in the text. Similar diversity applies to sensory vantage points or life-to-text and text-to-life transfers, and, importantly, to which fiction genres are preferred and how stories are selected. There is a general inclination toward suspenseful page-turners (#13 + 2) which guarantee a speedier flow of time: "The plot must be (...) really exciting and then I just read on and on and on and suddenly it's nine o'clock instead of eight" (P14, m10). Apart from this, these children seem to ground their selections in whatever makes the shift into absorption most likely to happen for them individually. Some read stories on favorite subjects, some follow selected authors and some may even find it hard at times to leave the confines of a particular series: "when it's by this author then it's really nice and easy for me to read" (P8, f9), "I read quite a lot but right now I've stopped because I've read this book and I can't find the next one in the series" (P17, f10).

Beyond reading

Once absorption is achieved, it consistently blocks out the immediate situation (#19 –3**) and reading becomes distinct from life beyond, overriding one's chores, appointments, and physical needs (#5 + 3**): "when I'm reading (...) and granny says I should go pick up lunch then I go back to reading (...) and I forget all about picking up lunch and I just sit there and read" (P14, m10). One child (P8, f9) spontaneously demonstrated how reluctantly she closes her book when life creeps back in and lessons resume after recess in school. Another child says about becoming absorbed that "it's what I do it for" (P16, f11). The only salient point of contact between reading and life beyond may lie in mentions of other ways of engaging with stories, mostly in films and audiobooks. These are more frequent here than in the remaining groups and in line with the children's focus on plot and whole-story comprehension over other, more medium-specific experience facets (e.g., sensory imaging): "I listen to audiobooks instead, so I do five chapters in audio and then maybe read two or three" (P9, m10).

Discussion

Employing a child-centered approach, our Q methodology study identified four distinct perspectives on the lived experience of becoming "lost in a book" among autonomous readers aged 9–12 years. The study addressed multiple research gaps by systematically exploring children's inner reading experiences which are generally understudied (Wilhelm, 2016) and by contributing to the nascent debate on plurality in readers' absorption (Kuiken et al., 2022). Incorporating quantitative and qualitative data collection techniques and methods of analysis, we were able to systematically and rigorously study reading experience as shared within each emergent perspective and as varied across the four perspectives (McKeown and Thomas, 2013). Children of both genders, mixed family and school backgrounds, and geographical locations were represented in all four perspectives, and age spans likewise remained wide (F1a: 9–12; F1b: 9–12; F2: 10–12; F3: 9–11). The Q research allowed us to hear a range of voices (Hughes, 2016) and to closely interpret the distinct perspectives.

In this process, the set of cards with authentic experience statements, which the children were invited to sort in a systematic order and then were interviewed about, played a central role. Responding to these stimuli, the children were able to share their perspectives on varied facets of absorbed reading (Kuijpers et al., 2021), describe the workings of reading on a moment-to-moment basis, and reveal how reading relates to their sense of self within and beyond the reading situation. This

was naturally integrated with accounts of more specific reading 'pleasures' (Wilhelm, 2016), reading motivations (McGeown et al., 2020), overt social interactions (Cremin et al., 2014), and much more. All these accounts were grounded in the structured Q sorts, serving as each child's frame of reference for understanding the world and their own experience within it (Stephenson, 1953).

For us to understand these internal frames of reference, the children had to be actively invited to interpret the meanings of the individual statements. Two statements were particularly striking as to their interpretation and deserve additional commentary as they demonstrate the unique research affordances of Q methodology. Statement #20 "I want it to resemble my life" was explicitly commented on by seventeen participants. Surprisingly, for ten of these participants, the interpretation ran counter to the statement's conventional meaning: participants commented on the possibility of living through adventures encountered in books (text-to-life transfer) rather than on recognizing one's own life in books (life-to-text transfer). Statistically, the statement was not distinguishing or extremely ranked for any factor. However, it was still instrumental to our understanding of the *Attachment* perspective. Here, those who followed the conventional meaning (life-to-text; $n = 3$) evaluated the experience in consistently negative terms while the opposite was true for those assuming the unconventional meaning (text-to-life; $n = 3$). Combined, these contradicting interpretations and inversely contradicting attitudes showed that the group was in fact united in its dislike for all things mundane.

The second notable statement, #3 "I forget where I am when I read," likewise prompted contradictory interpretations. Of the eighteen participants who commented on this statement, one half ($n = 9$) understood it in terms of *high* 'attention' and 'transportation' into a world distinct from one's physical surroundings. This was also the envisioned meaning of the statement (see **Table 1**), corresponding to what had been expressed in the preliminary research (Kuzmičová et al., 2022). The other relevant participants ($n = 9$) interpreted the statement in terms of *low* 'attention,' talking about losing track of the text instead. Unlike #20, this statement did receive extreme composite rankings, in three factors (ranked –3 in F1b; ranked –3 in F2; ranked + 3 in F3). In *Mental Shift*, it was also a statistically distinguishing statement and was discussed in-depth with all but one of nine members. Importantly, the interpretive chasm did not run between the three factors but cut evenly across them. Without the post-sorting comments on this statement, its dual nature, and concomitant experience complexity especially in *Mental Shift*, would not have become evident.

The divergent statement interpretations illustrate the main contribution as well as the limitations of our Q study and its inductive quantitative-qualitative principles. On the one hand, the study allowed us to clearly demonstrate that there is not one universal way of being absorbed in reading and that research inviting children to openly share their distinct perspectives is needed. On the other hand, the invitation for participants to supply their own meaning, or "psychological significance," to the statements complicates the analytical and interpretive processes (Watts and Stenner, 2012, p. 70). It is the researcher who is responsible for recognizing any contradictory interpretations and arriving at a holistic understanding of the data, while at the same time ensuring that the participants rather than the researcher remain central to the study (*ibid.*). Providing a concise overview of the research and an easily applicable blueprint for future work then proves difficult because in Q methodology, data is not simply collected but rather emerges in the participant's reciprocal interactions with the stimuli (interpretation, comparison, sorting) as well as the researcher (explaining extreme rankings, discussing one's interpretations).

The different dimensions of absorption as shown in **Table 1** represent one of many possible ways of reducing our findings for the sake of discussion. Each composite Q sort accentuates slightly different dimensions. Looking at highly ranked (+3, +2) positive (i.e., non-reverse) items through the lens of the Story World Absorption Scale (SWAS; Kuijpers et al., 2014), for instance, the *Mental Shift* perspective (**Table 5**) gravitates towards the scale's 'attention' and 'transportation' dimensions. For the *Confirmation* perspective (**Table 3**), the only highly ranked positive item linked to absorption concerns 'mental imagery;' all other positive items in the plus area fall outside absorption as defined by the SWAS or other tools. For the *Growth* (**Table 2**) and *Attachment* (**Table 4**) perspectives in turn, the plus area of the grid displays more complex combinations of 'mental imagery,' 'emotional engagement' and 'transportation' items. These combinations are not sufficiently described using SWAS categories alone and may require the more fine-grained concepts offered by the Absorption-like States Questionnaire (ASQ; Kuiken et al., 2022). However, as shown under "Results", both perspectives cut across the two alternative absorption routes distinguished by the ASQ. In *Growth*, the expressive enactment route clearly dominates when it comes to characters' embodied sensations; characters' emotions on the other hand seem to call forth integrative comprehension. The inverse applies to the *Attachment* perspective.

Importantly, no two perspectives differed just along the experience dimensions captured in measures of absorption (Kuijpers et al., 2014; Kuiken et al., 2022). Rather, much more deep-going differences emerged that spoke to divergent roles of reading in one's life and concomitant divergent workings of one's consciousness while reading and reflecting on reading. This is particularly true of the first three perspectives, *Growth*, *Confirmation,* and *Attachment*. These perspectives stand in opposition to each other but together also differ in kind from the last one, *Mental Shift*, insofar as they point beyond the realm of reading: to expanding (*Growth*) or not (*Confirmation*) of one's boundaries as a person and to empathizing with (fictional)

others (*Attachment*). Meanwhile, *Mental Shift* suggests an angle on absorbed reading that has limited bearing beyond mastering reading as such. We propose that the children in this group stand yet to transition into the remaining perspectives. The *Mental Shift* perspective is thus a reminder that the emergent perspectives should not be understood as fixed identity labels but as perspectives which may change, even repeatedly and in more than one direction, as fiction reading styles indeed continue to evolve into adulthood (Charlton et al., 2004).

Many of the core experiences defining the *Growth*, *Confirmation,* and *Attachment* perspectives have been identified in previous studies: *Growth* largely conforms to the complex of "transformative dialogic" reading strategies that have been described in education research (Schrijvers et al., 2019); *Confirmation* as a group are directly concerned by calls for enabling personalized subject-driven reading for pleasure in schools (Cremin et al., 2014); the reading style of *Attachment* links to a rich tradition of research across disciplines into young readers' empathy (Kucirkova, 2019) and identification (Andringa, 2004) and other character-driven modes of story engagement (Calvert and Richards, 2014; Rain et al., 2017). In all these cases, our Q methodology study enabled fleshing out a child-centered and more rounded view of familiar facts of people's lives with books and other media. Meanwhile, *Mental Shift* as a distinct perspective within young fiction readers' "universe of subjectivity" (Brown et al., 2015) is an uncharted territory and requires further systematic research unpacking its experiential components, not least because it marks the potentially most vulnerable and volatile reader group from an educational point of view.

Children within the *Mental Shift* perspective were also the most consistent in their interpretation of statement #17 "I am a good reader." For them, the item exclusively suggested technical efficacy, in line with how the very same statement is classified in the Motivation for Reading Questionnaire (Wigfield and Guthrie, 1997) - and in line with how "good reading" is often reductively understood in schools (Cremin et al., 2014; Mackey, 2022). By contrast, children in all the other perspectives tended at least partly to either disregard a technicist definition or complement it with additional qualities: one's private pleasures, reflective depth, openness to different fiction genres, and so forth. Moreover, for the *Mental Shift* group, striving to shift gears onto the level of "a good reader" seemed to also affect their self-perception in the longer term.

As a key invitation for future research, it is therefore desirable that new child-centered studies focus on the longer-term shifts, soliciting children's accounts of having recently become a "better" reader and how this registers in their moment-to-moment reading experience. Until such work is accomplished, our key practical conclusion is that rather than being led to focus on efficacy, children should be taught to reflect on the fuller range of routes to absorbed reading, and on the fact that these vary across individuals.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by the Research Ethics Committee of the Faculty of Arts, Charles University. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

AK designed the overall structure and drafted and finalized the full manuscript. MS co-drafted key sections ("Materials and methods," "Results," and "Discussion") and made revisions to the remaining manuscript. MN co-drafted key sections ("Materials and methods") and made revisions to selected sections ("Results" and "Discussion"). All authors took part in major conceptual decisions regarding the manuscript.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Modeling items for text comprehension assessment using confirmatory factor analysis

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Reading is a complex cognitive task with the ultimate goal of comprehending the written input. For longer, connected text, readers generate a mental representation that serves as its basis. Due to limited cognitive resources, common models of discourse representation assume distinct processing levels, each relying on different processing mechanisms. However, only little research addresses distinct representational levels when text comprehension is assessed, analyzed or modelled. Moreover, current studies that tried to relate process measures of reading (e.g., reading times, eye movements) to comprehension did not consider comprehension as a multi-faceted, but rather a uni-dimensional construct, usually assessed with one-shot items. Thus, the first aim of this paper is to use confirmatory factor analysis (CFA) to test whether comprehension can be modelled as a uni- or multi-dimensional concept. The second aim is to investigate how well widely used one-shot items can be used to capture comprehension. 400 participants read one of three short stories of comparable length, linguistic characteristics, and complexity. Based on the evaluation of three independent raters per story, 16 wh-questions and 60 yes/no-statements were compiled in order to retrieve information at micro and inference level, and 16 main contents were extracted to capture information at the macro level in participants' summaries. Still, only a fraction of these items showed satisfactory psychometric properties and factor loadings – a blatant result considering the common practice for item selection. For CFA, two models were set up that address text comprehension as either a one-dimensional construct (a uni-factor model with a single comprehension factor), or a three-dimensional construct reflecting the three distinct representational levels (three correlated first-order factors). Across stories and item types, model fit was consistently better for the three-factor model providing evidence for a multi-dimensional construct of text comprehension. Our results provide concrete guidance for the preparation of comprehension measurements in studies investigating the reading process.

KEYWORDS

reading, text comprehension, reading comprehension, comprehension assessment, discourse representation, mental model

Introduction

As we read, some kind of mental representation of the semantic structure of the text has to be generated, and – as long as reading progresses and new material (i.e., words) is processed – this model has to be expanded and updated constantly (Verhoeven and Perfetti, 2008; O'Brien and Cook, 2015).

As proposed by Kintsch and Van Dijk (1978), there are two levels to describe the semantic representation of a text, a local micro level and a more global macro level. The basic assumption is that every sentence of the text usually conveys at least one meaning (proposition). The micro level then refers to the whole set of propositions of the text, displaying only linear or hierarchical relations. However, the initial set of propositions has to be reduced and further organized in order to establish connections to the topic of discourse, but also to cope with cognitive limitations such as working memory capacity (Palladino et al., 2001; Radvansky and Copeland, 2001; Butterfuss and Kendeou, 2018). This results in a "meaningful whole" (Kintsch and Van Dijk, 1978, p. 366), a cohesive macro level of informational structure.

A third representation level, the so-called situation model or mental model, furthermore incorporates a reader's world knowledge and provides a scope for their own deductive and interpretive processes (Graesser et al., 1997; Van Den Broek et al., 2005; Sparks and Rapp, 2010). Thus, inferences can emerge that might exceed the literal meaning conveyed by a text (Perrig and Kintsch, 1985; Graesser et al., 1994, 1997). Since this theory considers both, first the construction of an (elaborated) propositional representation, and further the integration of readers' knowledge to form a final mental representation of a text, it is known as the construction-integration model (Wharton and Kintsch, 1991; Kintsch, 2005, 2018). While many more theories and models of text comprehension have been proposed, there is also a broad consensus that the representational structure described above is at the core of the vast majority of these theories and models (for a comprehensive review see McNamara and Magliano, 2009).

Previous research has found evidence that comprehension processes at each of these different levels are necessary (e.g., Perrig and Kintsch, 1985; Fletcher and Chrysler, 1990; McKoon and Ratcliff, 1992; Graesser et al., 1994; McNamara et al., 1996; Perfetti and Stafura, 2014; Kintsch, 2018; Lindgren, 2019), but there has been little research assessing comprehension at these different levels simultaneously. Moreover, current studies that investigated text comprehension in relation to process measures of reading did not assess and/or analyse comprehension scores according to different processing stages. For example, when factors such as text difficulty or inconsistencies and their effects on process measures of reading were investigated, comprehension was usually assumed but not explicitly tested (e.g., Rayner et al., 2006; for a review: Ferreira and Yang, 2019). Other studies relating the reading process to comprehension tried to assess comprehension by means of multiple-choice questions, but most of the time further information about how these items were compiled and/or which processing level they relate to were missing (e.g., LeVasseur et al., 2006, 2008; Wallot et al., 2014, 2015; O'Brien and Wallot, 2016). But even when different items for different processing levels were used (e.g., Schröder, 2011; Mills et al., 2017; Southwell et al., 2020), this differentiation was ultimately lost for further analyses due to averaging to uni-dimensional comprehension scores.

It should be noted that in none of the studies above pre-tests for item comprehensibility, difficulty or consistency were mentioned. It thus has is to be assumed that one-shot items were used in order to asses reader's text comprehension, relying heavily on the experimenters' intuition. With regards to post-hoc quality checks, Schröder (2011) was the only one implementing a comprehension evaluation by three independent raters, and was able to show a moderate level of inter-rater agreement (Fleiss' $\kappa = 0.64$). Furthermore, only Mills et al. (2017) included a reliability analysis and assessed the internal consistency of their comprehension items. However, this was a post-hoc analysis, and the resulting values for Cronbach's α ranged from 0.43 (unacceptable) to 0.86 (good) between texts, indicating high variability in item quality.

Looking at the respective findings, it is striking that in some of the referenced studies process measures of reading, e.g., reading times or eye movements, did relate to text comprehension (LeVasseur et al., 2008; Schröder, 2011; Southwell et al., 2020), but that these effects were lacking in others (LeVasseur et al., 2006; Wallot et al., 2015). Moreover, even when process measures were linked to participants' comprehension scores, effect sizes varied considerably depending on reading tasks (Wallot et al., 2014), data sets (Mills et al., 2017), or age groups (O'Brien and Wallot, 2016). Among the studies investigating the reading process in terms of self-paced reading, word reading speed generally did not predict comprehension well, often producing null-findings, while auto-correlation properties of the fractal scaling type of reading times fared somewhat better (Wallot et al., 2014, 2015; O'Brien and Wallot, 2016). Among the eye movement studies, the models predicting comprehension successfully did not do so based on the same process features (Wallot et al., 2015; Southwell et al., 2020). This state of affairs might be a question of how the reading process was modeled (i.e., which features of the reading process are of importance, and in which combination). However, the problem might also be the result of how the studies referenced above handled the measurement of reading comprehension.

All the studies mentioned above that tried to relate the reading process to comprehension seemed to have worked with one-shot items assessing comprehension through items with little to no systematic pretesting, and without establishing psychometric properties of these items before application. Moreover, they seemed to implicitly assume that comprehension is a uni-dimensional concept, with comprehension being mainly high or low (or present or absent) by averaging all items, or even using Cronbach's α as an indicator of reliability. However, to the degree that different levels at which comprehension can take place are distinguishable, a

TABLE 1 Participant demographics.

Short story	N	Sex			Age (years)			Reading per week (hours)		Educational level			
		Female	Male	Other	Range	*M*	*SD*	*M*	*SD*	Higher edu. entrance	Vocational qualification	Higher education	Other
1	117	93	24	0	[19, 77]	47.24	16.98	19.16	12.89	22	11	83	1
2	126	98	27	1	[19, 77]	46.42	14.32	20.38	12.41	13	16	91	6
3	140	111	28	1	[19, 91]	47.46	17.41	20.82	16.85	32	13	92	3
Overall	383	302	79	2	[19, 91]	47.05	16.29	20.17	14.31	67	40	266	10

Reading per week refers to the self-reported number of hours that participants approximately read per week (including books, newspaper articles, blog posts, etc.).

uni-dimensional concept might be misleading. The criticism raised here also applies to our own past work, which has followed the same practice and made the same assumptions (Wallot et al., 2014, 2015; O'Brien and Wallot, 2016). Accordingly, we are curious to find out, how good this practice of generating one-shot items can be in terms of producing reliable measures of comprehension, and in how far the assumption of uni-dimensionality is warranted in order to potentially improve future work.

Hence, the aim of the current study is to investigate how good the measurement properties of sets of one-shot comprehension questions are. Moreover, we aim to test whether and how items for comprehension assessment that target different levels of discourse structure (micro vs. macro vs. inference level) jointly contribute to text comprehension. For this purpose, we intend to deduce whether text comprehension can be measured and modelled as a uni-dimensional or multi-dimensional construct by means of confirmatory factor analysis (CFA). Additionally, as exploratory questions, we will investigate the relation between participants' text comprehension, their liking and interest ratings, as well as text reading times.

Materials and methods

The methods described below were approved by the Ethics Council of the Max Planck Society. Before inspection of any data, the study was preregistered *via* Open Science Framework (OSF[1]).

Participants

In total, 400 participants were recruited by distributing leaflets in local pedestrian zones, cafés, libraries, book stores and cinemas, placing advertisements at the institute's homepage and Facebook, as well as contacting participants *via* email using an in-house database and open email lists. At the end of the survey, participants could decide to join a lottery to win a book voucher of 10 € with odds of one in five. All participants were native speakers of German and at least 18 years old.

Two participants were excluded due to missing data of comprehension items and summary. Another 15 participants' data was excluded based on text reading times of less than 5 min or more than 40 min. Thus, the final sample consisted of 383 participants (302 females, 79 males, 2 others) with an age range between 19 and 91 years ($M = 47.05$, $SD = 16.29$). A majority of 69.45% of the participants stated holding a higher education degree. With regard to reading habits, participants reported to spend an average of 20.17 h per week ($SD = 14.31$) reading, for instance, books, newspaper articles, and blog posts. Participants were randomly assigned to one of three short stories, see Table 1 for distribution of demographic variables per text.

Materials

Texts

To allow for some generalization of the results across different texts, three short stories with different topics, but comparable complexity of content and pace of narration were selected. Short story 1 ("Brief an Juliane" [Letter to Juliane] by Hosse, 2009) describes the circumstances and challenges of growing up after World War II in an autobiographical manner (first-person narration). In contrast, short story 2 ("Die verborgene Seite der Medaille" [The hidden side of the coin] by Scavezzon, 2010) is a more typical short story with a third-person selective narrator and a plot twist towards its open end. Here, fact and fiction blend into one elaborate metaphor about the life of the main character, a veteran pilot that was involved in the bombing of Hiroshima. Short story 3 ("Der Doppelgänger" [The doppelganger] by Strauß, 2017) is a third-person omniscient narrative featuring a woman with Capgras syndrome, a psychological disorder leading her to the delusion that her husband has been replaced by an identical-looking impostor.

If necessary, the stories were adapted to current German spelling rules. Where possible, direct speech was either omitted or paraphrased. The texts were then shortened to a length of roughly 3,000 words to achieve a reading time of approximately 10–15 min (Brysbaert, 2019). The short stories were matched for number of words per sentence and mean length of words based on both, number of graphemes and number of syllables per word. Moreover, average logarithmic word frequencies obtained from

1 https://osf.io/2u43j

TABLE 2 Key characteristics per text.

Short story	Words	Sentences	Words per sentence	Graphemes per word	Syllables per word	Type frequency		Type frequency DC		Annotated type frequency	
						Absolute	log10	Absolute	log10	Absolute	log10
1	3,123	260	12.01	5.31 (2.99)	1.75 (0.96)	406,824.70	4.40	503,086.36	4.50	343,320.31	4.20
						(785,206.60)	(1.25)	(914,730.01)	(1.54)	(704,039.84)	(1.57)
2	2,967	244	12.16	5.02 (2.72)	1.69 (1.02)	371,672.56	4.56	445,139.65	4.66	318,950.96	4.38
						(695,293.86)	(1.32)	(78,6186.05)	(1.33)	(635,276.25)	(1.37)
3	3,113	262	11.88	5.29 (2.92)	1.77 (0.98)	398,567.54	4.47	505,960.92	4.57	337,254.16	4.30
						(749,976.33)	(1.44)	(961,725.28)	(1.45)	(673,702.76)	(1.47)

Words and sentences refer to the number of words and number of sentences per story, all other values are averaged per story; standard deviations are given in brackets.

dlexDB (Heister et al., 2011) were similar for all texts. See Table 2 for more information regarding text characteristics.

Comprehension items

To assess text comprehension as thoroughly as possible, different types of comprehension tasks were used. For each text, 60 yes/no-statements were generated, 40 of these aimed at micro-level content, the remaining 20 at inference-level content. Items assessing micro level comprehension related to information encoded at the sentence-level. Items assessing inferences did not have an explicit reference in the text as they exceed its literal meaning and integrate the reader's world knowledge. Here is an example:

> **Original text:**
> "Lore und ich verdienten uns unser Taschengeld dann beim Großbauern beim Erbsenpflücken, was damals noch per Hand gemacht wurde. Um sechs Uhr in der Frühe traf man sich und wurde zum Feld gekarrt. Zuweilen brannte die Sonne erbarmungslos, aber wir hatten ein Ziel. Wenn man fleißig war, hatte man am frühen Nachmittag einen Zentner, also fünfzig Kilogramm. Das war mühsam, denn Erbsen sind leicht. Man bekam dafür drei D-Mark, ein kostbarer Schatz, den man hütete."
> *[Lore and I then earned our pocket money by picking peas at a large farm, which was still done by hand at that time. We met at six in the mornings and were taken to the field. Sometimes the sun burned mercilessly, but we had a goal. If you were diligent, you got fifty kilograms by early afternoon. It was exhausting, because peas are light. In return we received three German marks, a precious treasure that we guarded.]*
> **Item for micro information:**
> Die Protagonistin half beim Erbsenpflücken, um sich Taschengeld zu verdienen.
> *The main character helped picking peas to earn some pocket money.*
> **Item for inferred information:**
> Die Protagonistin musste schon früh lernen, hart für ihr Geld zu arbeiten.
> *The main character had to learn early on to work hard for her money.*

Yes/no-statements provide a widely used and, with regards to procedure and analysis, fast and easy tool to evaluate text comprehension. However, in the absence of prior knowledge about such items, there is a risk of comparably high probability of guessing and the possibility that a certain context or wording may simplify giving the right answer. Therefore, 16 wh-questions with open input fields were compiled for each text, 10 of which for testing comprehension at micro level, the remaining six at inference level.

For both tasks, a larger pool of items was initially prepared with items either referring to a specific part of the story or relating to the overall plot. For yes/no-statements this initial item compilation consisted of 120 items per text, for wh-question an initial pool of 40 items was initially generated Supplementary Material 1. Subsequently, these items were independently judged by three raters. Finally, the best-rated 60 yes/no-statements and 16 wh-questions that were evenly distributed throughout the whole text were selected for data acquisition.

In order to examine text comprehension at macro level, three raters summarized the main contents of each story. Ideas that appeared in all three summaries were maintained; ideas that were mentioned in only two of the summaries were first discussed and subsequently either discarded or maintained. This resulted in 16 main ideas per text which were later on used to evaluate participants' summaries – i.e., counting the presence or absence of these ideas in each summary.

Procedure

An online study was set up using the platform SoSci Survey.[2] The study could be accessed from mid-December 2019 until mid-March 2020. At the beginning of the study, participants were informed about the aims and specific contents of the study, as well as data protection rules. Subsequently, they were asked for some socio-demographic information. Participants were then randomly assigned to one of the three short stories. They were instructed to

2 https://www.soscisurvey.de

read the assigned text in a natural manner, if possible, in quiet surroundings and without interruptions. The text was presented as a whole and participants could freely scroll up and down to go back or forth. The text was formatted in HTML with Arial font in size 3. Paragraphs were visually indicated with larger white space between lines. During the experiment, there was no set time limit for reading. On average, participants needed 12.97 min ($SD = 4.69$) to read a text.

After reading the short story, participants were required to write a brief summary reflecting the main contents of the short story. Subsequently, participants first answered the wh-questions followed by the yes/no-statements. All wh-questions were presented in one list but in randomized order. The sequence in which yes/no-statements were displayed was also randomized, and items were distributed across three pages of the survey. Finally, participants were asked to fill out a short questionnaire assessing their reading experience in terms of interest, liking, suspense, urgency, vividness, cognitive challenge, readerly involvement, rhythm, and intensity. To this end, participants were asked to rate how strongly they agree with a presented statement on a seven-point scale ranging from 0 ("not at all") to 6 ("extremely"). For the purpose of this study, we were only interested in participants' global interest ("How interested are you in the text?") and liking ("How much do you like the text?" "How gladly would you like to read similar texts?," "How strongly would you recommend the text to a friend?").

Item selection

Participants' answers to the wh-qhestions were assessed as true (1) or false (0). Furthermore, the written summaries were evaluated regarding the presence (1) or absence (0) of the 16 main ideas, thus, each summary could have received a maximum of 16 points. For this purpose, two raters familiarized themselves again with the text (i.e., reading the short story and reviewing its main ideas), and subsequently discussed and rated eight randomly drawn summaries together. The raters assessed another two summaries individually and then discussed their evaluations until they agreed upon a final assessment. This training was implemented to ensure best possible inter-rater reliability and took about 1.5 h per short story. Afterwards, both raters individually assessed all summaries corresponding to the respective short story (approximately 5.5 h per rater and text). The order of the summaries was randomized. Indeed, good inter-rater agreement was achieved as indicated by Krippendorf's α of 0.926 for short story 1, 0.936 for short story 2, and 0.902 for short story 3. Finally, discrepant evaluations were discussed until the raters agreed upon a final rating (roughly 1 h per text).

To filter out items with bad psychometric properties before computing any model, an item analysis was performed. As a first step, individual distributions of the items were inspected. Items that showed an accuracy rate of less than 5% or more than 95% were excluded from further analysis. Subsequently, joint distributions were observed by computing the phi coefficient (r_ϕ) for each pair of items. Since the different types of comprehension items are assumed to evaluate a different level of text comprehension, items of the same type are supposed to correlate with each other while items of different types should be not at all or less strongly correlated. Hence, items were successively excluded until items within a type reached an average r_ϕ between 0.1 and 0.9, and items between types did not exceed an average r_ϕ of 0.25.

With the remaining items a CFA was carried out using the R package *lavaan* (Rosseel, 2012). If the analysis did not converge, additional items were discarded based on their loadings, starting with the item with the lowest loading. When the analysis converged, standardized estimates were assessed and items with values of less than 0.2 and greater than 0.9 were removed.

Following the steps of the item analysis described above, at least three items for each item type could be retained per short story. An overview of the items can be found in Supplementary Material 2.

Results

The average reading time over all texts was 12.97 min ($SD = 4.69$), 15.08 min ($SD = 4.87$) for short story 1, 11.33 min ($SD = 4.14$) for short story 2, and 12.68 min ($SD = 4.36$) for short story 3. Participants' liking and interest ratings were in the medium range with an average score of 3.48 ($SD = 1.62$) respectively 3.68 ($SD = 1.54$) across all texts. For short story 1, ratings yielded an average of 3.51 ($SD = 1.64$) for likability and 4.02 ($SD = 1.56$) for interest. Short story 2 scored a mean likability rating of 3.68 ($SD = 1.61$) and a mean interest rating of 3.60 ($SD = 1.65$). For short story 3, mean likability was 3.27 ($SD = 1.60$) and mean interest was 3.46 ($SD = 1.36$). Regarding the comprehension items, participants average accuracy rates were 85.25% for yes/no-statements ($SD = 16.93$; short story 1: $M = 88.69\%$, $SD = 13.89$; short story 2: $M = 82.88\%$, $SD = 17.20$; short story 3: $M = 84.18\%$, $SD = 19.02$), 59.03% for wh-questions ($SD = 22.60$; short story 1: $M = 61.43\%$, $SD = 19.37$; short story 2: $M = 54.71\%$, $SD = 23.02$; short story 3: $M = 60.95\%$, $SD = 25.79$), and 53.87% for the main contents of the summaries ($SD = 29.38$; short story 1: $M = 41.35\%$, $SD = 28.03$; short story 2: $M = 66.82\%$, $SD = 27.22$; short story 3: $M = 53.46\%$, $SD = 28.85$). Accuracy rates per item are provided in Supplementary Material 2.

Comparing text comprehension models (CFA)

For each of the short stories, two different models were set up that reflect text comprehension as (A) one-dimensional construct implemented as uni-factor model with a single comprehension factor, or as (B) multi-dimensional construct capturing all levels of text comprehension (micro level, macro level, inferences) designed as a model containing three correlated first-order factors. All

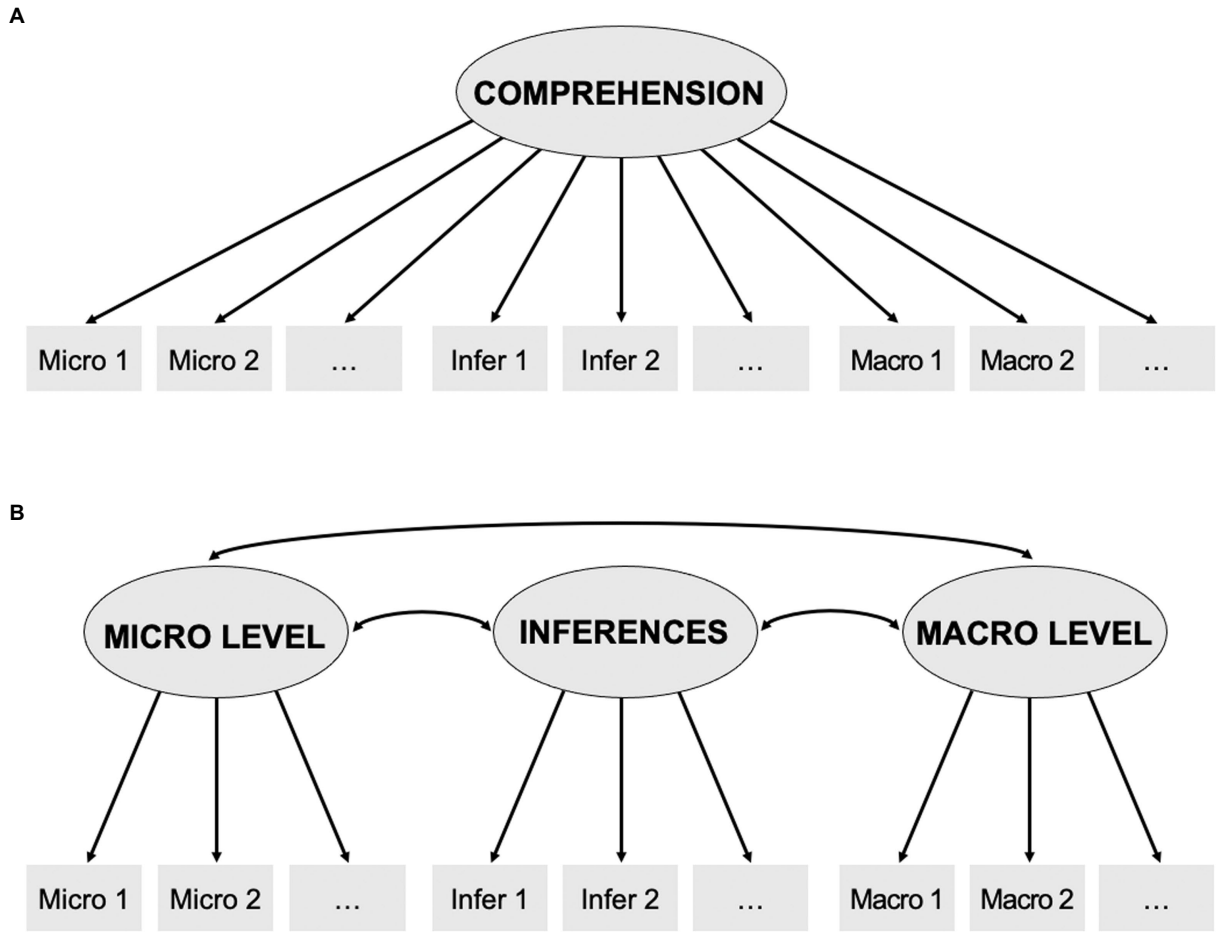

FIGURE 1
Models for confirmatory factor analysis (CFA). **A:** Uni-factor model of comprehension across three different items types (micro, macro, and inference level). **B:** Model of three correlated factors, assigning each item type its own latent variable.

models were conducted separately for wh-questions and yes/zo-statements. The specified models are shown in Figure 1. While we first planned to compute a third model based on the same multi-dimensional construct as in (B), extended by a second-order factor reflecting higher-level, general comprehension, this could not be realized due to converging errors.

Table 3 contains information about the goodness-of-fit indicators for each of the models described above. Both, unstandardized and standardized estimates are shown in Supplementary Material 3. When looking at yes/no-statements, model fit across all short stories is better for the three-factor model as compared to the uni-factor model. Turning towards the wh-questions, the same pattern emerges: Across all short stories, better model fit is indicated for the three-factor model than for the uni-factor model. When comparing the two types of comprehension tasks, some fit indices show even better model fit for wh-questions compared to yes/no-statements. Again, this pattern can be seen across all three short stories. In sum, the assumption that comprehension is a one-dimensional concept did not receive support from our model analysis. Note, that none of the models did converge when set up with the whole set of items; neither did the higher-order factor model.

Relation between comprehension, reading times, global interest and liking

In order to shed light on the relation between participants' comprehension scores, their ratings for global interest and liking of the text, as well as their reading times, Pearson's product–moment-correlation was computed for each pair of variables across short stories. To this end, reading time was logarithmized to adjust for normality, comprehension scores for the different discourse levels (micro vs. macro vs. inference level) were divided by their respective number of items, and an overall comprehension sum score was derived in the same manner, before all variables were z-transformed per short story. Results are shown in Table 4 for wh-questions, and in Table 5 for yes/no-statements.

As is evident in the correlation matrix, the different levels of text processing only show weak correlations among each other.

TABLE 3 Model fit per text.

Short story	Comprehension task	Model	ChiSQ				CFI	TLI	RMSEA			SRMR
			Value	df	ChiSQ / df	*p*			Value	90% CI	*p*	
1	Yes / no statements	A: uni-factor model	150.35	119	1.26	0.027	0.90	0.89	0.05	[0.017, 0.070]	0.549	0.21
		B: three-factor model	109.11	116	0.94	0.662	1.00	1.03	0.00	[0.000, 0.040]	0.989	0.18
	Wh-questions	A: uni-factor model	79.55	77	1.03	0.399	0.99	0.99	0.02	[0.000, 0.056]	0.905	0.15
		B: three-factor model	53.39	74	0.72	0.966	1.00	1.11	0.00	[0.000,0.000]	0.999	0.13
2	Yes / no statements	A: uni-factor model	166.73	152	1.10	0.196	0.91	0.90	0.03	[0.000, 0.051]	0.936	0.18
		B: three-factor model	103.46	149	0.69	0.998	1.00	1.30	0.00	[0.000, 0.000]	1.000	0.14
	Wh-questions	A: uni-factor model	116.63	90	1.30	0.031	0.78	0.74	0.05	[0.016,0.072]	0.516	0.15
		B: three-factor model	76.17	87	0.88	0.790	1.00	1.11	0.00	[0.000, 0.034]	0.994	0.12
3	Yes / no statements	A: uni-factor model	223.04	170	1.31	0.004	0.78	0.75	0.05	[0.028,0.064]	0.587	0.17
		B: three-factor model	153.68	167	0.92	0.762	1.00	1.06	0.00	[0.000, 0.028]	1.000	0.14
	Wh-questions	A: uni-factor model	69.89	77	0.91	0.705	1.00	1.06	0.00	[0.000, 0.038]	0.990	0.13
		B: three-factor model	50.25	74	0.68	0.984	1.00	1.18	0.00	[0.000, 0.000]	1.000	0.11

CFI, comparative fit index; TLI, Tucker-Lewis index; RMSEA, root mean square error of approximation; SRMR, standardized root mean squared residual.

TABLE 4 Correlation matrix for wh-questions (selected items).

		Micro	Macro	Inference	Interest	Liking	Log reading time
Story 1	Micro	–	0.13	0.26**	−0.04	0.04	0.12
	Macro	0.13	–	0.23*	−0.06	0.01	0.08
	Inference	0.26**	0.23*	–	0.27**	0.26**	0.15
	Interest	−0.04	−0.06	0.27**	–	0.74***	0.09
	Liking	0.04	0.01	0.26**	0.74***	–	0.11
	Log reading time	0.12	0.08	0.15	0.09	0.11	–
Story 2	Micro	–	0.06	0.28**	0.09	0.09	0.13
	Macro	0.06	–	0.10	0.03	0.02	−0.09
	Inference	0.28**	0.10	–	−0.03	0.01	0.14
	Interest	0.09	0.03	−0.03	–	0.71***	0.03
	Liking	0.09	0.02	0.01	0.71***	–	0.02
	Log reading time	0.13	−0.09	0.14	0.03	0.02	–
Story 3	Micro	–	0.11	0.18*	0.01	−0.02	0.11
	Macro	0.11	–	0.04	0.04	0.10	0.09
	Inference	0.18*	0.04	–	0.12	0.23**	0.14
	Interest	0.01	0.04	0.12	–	0.68***	0.01
	Liking	−0.02	0.10	0.23**	0.68***	–	0.03
	Log reading time	0.11	0.09	0.14	0.01	0.03	–
Overall	Micro	–	0.10	0.24***	0.02	0.03	0.12*
	Macro	0.10	–	0.12*	0.01	0.05	0.03
	Inference	0.24***	0.12*	–	0.12*	0.17**	0.14**
	Interest	0.02	0.01	0.12*	–	0.71***	0.04
	Liking	0.03	0.05	0.17**	0.71***	–	0.05
	Log reading time	0.12*	0.03	0.14**	0.04	0.05	–

Pearson's *r* correlation coefficients. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

This is true for both, wh-questions and yes/no-statements. As could be expected, participants' global interest and liking of a short story are strongly correlated. However, a better reading experience does not relate to better comprehension of a text in a meaningful way. Furthermore, there is no strong evidence for a correlation between text comprehension and participants' reading times.

The pre-selection of comprehension items as described above descriptively leads to somewhat better discriminatory power between the three levels of text processing: There is a

TABLE 5 Correlation matrix for yes/no statements (selected items).

		Micro	Macro	Inference	Interest	Liking	Log reading time
Story 1	Micro	–	0.08	0.24**	0.03	0.14	0.14
	Macro	0.08	–	0.02	−0.03	0.00	0.02
	Inference	0.24**	0.02	–	−0.03	−0.02	0.01
	Interest	0.03	−0.03	−0.03	–	0.74***	0.09
	Liking	0.14	0.00	−0.02	0.74***	–	0.11
	Log reading time	0.14	0.02	0.01	0.09	0.11	–
Story 2	Micro	–	0.05	−0.04	0.11	0.10	0.18*
	Macro	0.05	–	−0.08	0.04	0.04	−0.07
	Inference	−0.04	−0.08	–	0.07	0.06	0.07
	Interest	0.11	0.04	0.07	–	0.71***	0.03
	Liking	0.10	0.04	0.06	0.71***	–	0.02
	Log reading time	0.18*	−0.07	0.07	0.03	0.02	–
Story 3	Micro	–	−0.03	0.11	−0.05	−0.02	0.12
	Macro	−0.03	–	0.07	0.03	0.08	0.12
	Inference	0.11	0.07	–	−0.10	−0.02	0.17*
	Interest	−0.05	0.03	−0.10	–	0.68***	0.01
	Liking	−0.02	0.08	−0.02	0.68***	–	0.03
	Log reading time	0.12	0.12	0.17*	0.01	0.03	–
Overall	Micro	–	0.03	0.10*	0.03	0.07	0.15**
	Macro	0.03	–	0.01	0.02	0.04	0.03
	Inference	0.10*	0.01	–	−0.02	0.01	0.09
	Interest	0.03	0.02	−0.02	–	0.71***	0.04
	Liking	0.07	0.04	0.01	0.71***	–	0.05
	Log Reading Time	0.15**	0.03	0.09	0.04	0.05	–

Pearson's r correlation coefficients. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

slight decrease in correlation coefficients for the selected items as compared to the whole item set. However, the overall relations between the investigated variables do otherwise remain the same. Correlation results for the whole item set across texts are displayed in Supplementary Material 4.

Discussion

The current study had two aims: First, we wanted to simultaneously model the three processing levels of comprehension (micro, macro and inference level). Particularly, we were interested in comparing a uni-factor model (i.e., that comprehension behaves the same across all of these three levels) with a model that assigns each of these levels their own factor. Second, we wanted to test the quality of different comprehension items in terms of capturing text comprehension after reading. This second point relates to the common practices of comprehension assessment, especially as applied in studies investigating the relation between process measures of reading and text comprehension. Here, researchers often seem to work with one-shot items of unknown psychometric quality, and to implicitly assume that comprehension is effectively a one-dimensional construct.

Our results indicated that a three-factor model of text comprehension fits our data significantly better than a uni-factor model. This was true for all three short stories and regardless of item type. Consequently, we provided evidence that comprehension should indeed be considered a three-dimensional construct. At the same time, our results showed that all three processing levels were correlated. This suggests three related, yet distinct levels of comprehension influencing one another. Thus, our analysis yields complementary evidence to studies investigating specific aspects of these processing levels separately. Accordingly, our results are in line with the assumption of three representational levels of discourse comprehension (micro, macro and inference level; *cf.* Kintsch and Van Dijk, 1978), also when these three levels are investigated simultaneously. In line with the theory, the results suggested a model with correlated factors, indicating that these levels are separate, but interdependent (*cf.* Perrig and Kintsch, 1985; Fletcher and Chrysler, 1990; McNamara et al., 1996; Perfetti and Stafura, 2014; Kintsch, 2018).

However, we would like to point out three aspects of our analysis that were somewhat striking. First, the standardized root mean squared residual (SRMR) values were quite high (≥0.11) for all models that converged, even though other fit indices were in the commonly expected range. Such larger SRMR values were reported before in the case of relatively small sample sizes of 200

or less due to higher degrees of uncertainty or variability that come along with smaller samples (*cf.* Taasoobshirazi and Wang, 2016). Second, when the whole initial item set was used in the comprehension models, none of the models converged. Thus, a comparison between the whole item pool and selected items was not possible indicating that items of poor and/or heterogenous quality are difficult to lump together into a single comprehension score. Third, it should be noted again that a higher-order factor model of text comprehension did not converge, indicating model misspecification. Even though this means we have no model fit indices to compare, it suggests that this is not an appropriate way to model the comprehension data.

As laid out in the introduction, it is currently common practice to assess comprehension in terms of one-shot items which are largely based on the experimenter's intuition for item selection than on theory, pre-tests or post-hoc quality control. As the current study showed, it is of importance to control comprehension items better, even if it requires quite some extra effort. The immense drop-out rate suggests that neither working with independent raters nor basing items on a theory by itself is enough to guarantee high item quality. Pre-testing items and/or reducing items post-hoc in a step-wise manner should be considered when planning further studies that aim to investigate text comprehension processes. Without investing some time and effort on item selection, there is a high risk that comprehension is not assessed in a valid manner and thus cannot be used in order to predict other measures of the reading process.

As we have summarized above, when we compared different studies relating reading process measures to comprehension, very different models emerge, and similar predictors behave differently across these studies (LeVasseur et al., 2006, 2008; Schröder, 2011; Wallot et al., 2014, 2015; O'Brien and Wallot, 2016; Mills et al., 2017; Southwell et al., 2020). This might be due to differences inherent in the specific reading situations (Wallot, 2016), but it might also be a function of varying quality of the comprehension assessment. Please note, that the current study was not a laboratory study, and accordingly, we had little control or information about the time course of reading behavior or the specific reading situation. Even though stricter experimental control is desirable in future work along these lines, this does not invalidate the main conclusion that can be drawn from our results: In order to draw reliable inferences about reading process measures that are related to reading comprehension, reliability and validity of comprehension measures is a necessary prerequisite. If the quality of comprehension measurements is unknown, however, it becomes difficult to trace back why a particular model of reading process measures was successful or failed in predicting reading comprehension as outcome.

Data availability statement

The dataset for this study is available in the online repository Open Science Framework (OSF): https://osf.io/b2zem/.

Ethics statement

The studies involving human participants were reviewed and approved by Ethics Council of the Max Planck Society. The patients/participants provided their written informed consent to participate in this study.

Author contributions

MT designed the experiment and collected and analyzed the data. MT and SW jointly developed the research idea, contributed to the conceptualization of the study, interpreted the results, and wrote the manuscript. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fpsyg.2022.966347/full#supplementary-material

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'Looking before and after': Can simple eye tracking patterns distinguish poetic from prosaic texts?

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Introduction: The study of 'serious' literature has recently developed into an emerging field called neurocognitive poetics that applies cognitive neuroscientific techniques to examine how we understand and appreciate poetry. The current research used eye-tracking techniques on a small sample of young adults to see if and how the reading of short pieces of poetry differed from the reading of matched prosaic texts.

Methods: With 'proof of concept' intentions reflecting arguments first proposed by 19th Century literary figures, there was a particular focus on the differences between the reading of poetry and prose in terms number and frequency of fixations and regressive eye movements back and forth within the texts in this two-by-two experimental design (poetry vs. prose x need vs. no need for final line reappraisal).

Results: It was found that poetic pieces compared to prosaic pieces were associated with more and longer fixations and more regressive eye movements throughout the text. The need to reappraise meaning at the prompt of a final line was only significantly associated with more regressive eye movements. Comparisons examining the 4 text conditions (poetic reappraisal, poetic non-reappraisal, prosaic reappraisal, and prosaic non-reappraisal) showed that the poetic reappraisal condition was characterised by significantly more regressive eye movements as well as longer fixations compared to the prosaic non-reappraisal condition. No significant correlations were found between self-reported literary familiarity and eye tracking patterns.

Discussion: Despite limitations, this proof-of-concept study provides insights into reading patterns that can help to define objectively the nature of poetic material as requiring slower reading particularly characterised by more and longer fixations and eye movements backwards through the texts compared to the faster, more linear reading of prose. Future research using these, and other psychophysiological metrics can begin to unpack the putative cognitive benefits of reading literary material.

KEYWORDS

Literary reading, regressive eye movements, fixations, semantic reappraisal, poetry

Introduction

Wolf (2018) writes of the reading brain's connectedness, in acts of complex literary reading: 'At least as many things are happening in zigzagging, feed-forward, feed-backward interactivity as are occurring linearly.'

Wolf's idea, that literary reading, in comparison with more literal forms of processing, engages deeper and wider potential of the human mind, has a history. In contrast to what we might call

reading as a simple information gathering exercise involving the sequential left-to-right scanning of text, the Romantic poet and philosopher Samuel Coleridge (1817) spoke of literary reading as developing movements and relations of mind that were not simply linear or literally straight-forward:

> "*Most of my readers will have observed a small water-insect on the surface of rivulets … and will have noticed, how the little animal wins its way up against the stream, by alternate pulses of active and passive motion, now resisting the current, and now yielding to it in order to gather strength and a momentary fulcrum for a further propulsion. This is no unapt emblem of the mind's self-experience in the act of thinking. There are evidently two powers at work, which relatively to each other are active and passive; and this is not possible without an intermediate faculty, which is at once both active and passive. In philosophical language, we must denominate this intermediate faculty in all its degrees and determinations, the IMAGINATION.* (Biographia Literaria, Chapter 7)

In the act of literary reading, as a model for what Coleridge takes to be the deepest human thinking, the creation of this intermediate state or middle zone between active and passive depends on the reader not being "*carried forward by merely mechanical impulse*." Instead, processing is more a 'to-and fro-motion': "*At every step the reader pauses and half recedes, and from the retrogressive movement collects the force which again carries him onward*" (Coleridge, 1817).

Coleridge's collaborator, Wordsworth (1805) asserted this understanding in his preface to their jointly published *Lyrical Ballads*, emphasising the importance of a closer future relation between art and science, concluding:

> "*Emphatically may it be said of the Poet, as Shakespeare hath said of man," "that he looks before and after."*

It is argued that literary reading involves the immersion of attention in a dense medium of thick description which holds back over-speedy decisions based on habitual biases, enabling it to process this more complex material for deeper understanding. This processing style likely involves '*the mind's self-experience of the act of thinking*' (Wordsworth, 1805) carefully following the journey of lines and sentences unfolding enroute, without advance knowledge of the final meaning. So, it is claimed that while literary reading is 'slow reading' compared to scanning, by being slow, it exercises the mobility and flexibility of an actively thinking mind in contrast to a mind more simply engaged in the act of information gathering. It is thought that this deeper form of reading channels self-reflection, critical analysis, inductive and deductive reasoning all together during the reading process, creating the mix of a contemplative mind (Wolf and Barzillai, 2009).

The largely implicit processes of sentence comprehension that require internal representation of the syntax and the construction of meaning from it have been reviewed by Staub (2015). In particular, Staub focuses on how physiological monitoring through eye tracking and Event Related Potentials can help to uncover the components of this invisible processing where the issue of serial versus parallel processing continues to be an active area of research. In contrast to serial processing, for parallel processing models, the number of ambiguities or uncertainties reflected in a piece of text increases its computational difficulty. The ambiguity that characterises poetry which requires slow or deep reading (Wolf, 2018) implies a parallel processing model for this type of reading, although so-called hybrid models can also account for the inferred differences in reading of literary compared to more prosaic texts (e.g., Van Gompel et al., 2005). Furthermore, the ambiguity characteristic of haiku texts has been related to particular individual and cultural differences such as emotionality and mental imagery skills (Hitsuwari and Nomura, 2022a,b) The demands placed on verbal working memory is also related to the complexity of the sentence and there are debates about whether a specialised system has developed to tackle these unique processing demands (Staub, 2015). However, there seems to be little specific focus on how the reader's autobiographical recollections impact the achievement and nature of understanding as we read. The engagement of these processes are inferred in Wolf and Barzillai's (2009) idea of deep reading where inductive or analogical processes are invoked. Certainly, the uniqueness of life experiences will influence how we each interpret other's stories in real life and as reflected in literary material.

While fMRI has been quite extensively used to explore meaning derivation from text, eye tracking has been used less frequently for this purpose. Assuming that what is attended to will be what is processed (Majaranta and Bulling, 2014), eye tracking data can provide a clear, moment-to-moment indication of a reader's information seeking strategies. In turn, this information permits tentative inferences about readers' emotional and cognitive engagement with the written word. Eye-tracking studies of reading have tended typically to examine low level visual and lexical processing of text. However, eye movements are also influenced by higher order comprehension and the processes of meaning derivation (e.g., Birch and Rayner, 1997; Cook and Myers, 2004; Rayner et al., 2006).

Linguistic and cognitive processing during reading arises at single word, sentence level and at whole text level. According to Jarodzka and Brand-Gruwel's (2017) model of real-world reading, at the single word and sentence level key questions answered using eye tracking are about when and where we fixate or skip words. At the whole text level, eye tracking can usefully indicate which parts of a text we re-visit or process more and which part(s) we scan. As such, these different levels refer, respectively, to ocular motor control and linguistic processing during reading versus reading comprehension. At both levels, fixations on words and the number of regressive eye movements are variables of interest with both being indicative of perceived text difficulty and therefore regarded to be under cognitive control. It is generally agreed that both fixations and regressions are sensitive to word frequency, difficulty and unpredictability (Jarodzka and Brand-Gruwel, 2017).

Importantly, while most reading happens in forward motion, backward movements from one word to another are not that uncommon with Rayner and Pollatsek (1989) showing that between 10 and 25% of eye movements are backwards within a text. These regressive eye movements appear integral to comprehension as they reflect a revisiting of words to reprocess information towards the final stage of comprehension, the building of a situational model. A useful situational model brings a congruence of local context (the text) and existing real-world comprehension (e.g., McNamara et al., 1996).

With regard to comprehension of whole texts, research has shown there to be differences between styles of reading and the number of fixations and regressions (Reichle et al., 2010; Schotter et al., 2014). Thus, the purpose of the reading task and the nature of the reading material itself influences how people read as reflected in duration and frequency of fixations and regressions (Ehrlich and Rayner, 1981;

Rayner and Duffy, 1986). Furthermore, the nature of the reading material and the purpose for reading it interact with individual reader differences (Jarodzka and Brand-Gruwel, 2017) ranging from specific learning difficulty, prior knowledge and experience of the world to topic or material expertise (e.g., Reingold and Sheridan, 2011). These individual differences further influence how our cognitive resources are distributed across texts through top-down influences on eye movements.

Neuroscience devoted to the study of the processing of literary texts has been referred to as neurocognitive poetics (Jacobs, 2015). In an early example of this emerging field, a study using the same stimuli as used here, O'Sullivan et al. (2015) examined the processing and derivation of meaning of short segments of complex text which were either poetic or prosaic and which either did or did not require substantial reappraisal resulting from a final surprising line. One of O'Sullivan et al.'s findings was an association between the recognition of poetic texts and activation of the right dorsal caudate, an area associated with tolerance of ambiguity or uncertainty. Thus, the authors argued that engagement with literary texts such as poetry has potential to alter thinking styles in a way that will benefit mental health and wellbeing, encouraging fluidity in the consideration of alternative meanings and valuing, instead of fearing, uncertainty. As we live day-to-day in an uncertain world where, for example, others' minds must be modelled and responded to quickly and accurately, this is a valuable form of learning experience (Corcoran and Oatley, 2019). The complex texts of literature, dealing as they so often do with existential, human issues, are defined by the need of the reader to take a layered perspective of possibilities within an unfolding narrative while bearing in mind protagonists' stances beliefs and intentions. Therefore, it is suggested that a growing literary awareness, emerging from the experience of literary reading, has potential, to support fuller, more engaged life experiences.

In a study interested in the issue of the need to reappraise information, Müller et al. (2017) used eye tracking during the reading of English language haikus (ELH). Their findings supported the suggestion that processes of meaning construction are reflected in patterns of eye movements during reading as well as re-reading. Furthermore, the eye movement patterns seen in ELHs requiring re-appraisal were more complex, suggestive of greater effort to reach meaning, compared to patterns seen for the ELH that did not involve re-appraisal.

Considering the relative infancy of neurocognitive poetics, the current study aimed to explore the slow literary reading mind using simple eye tracking metrics. We were interested to uncover the mental to-and fro movement thought to define the literary reading style and which psychologists and neuroscientists would describe as cognitive reappraisal or meaning derivation processes. It attempted to go beyond Müller et al.'s (2017) analyses by comparing poetic and prosaic pieces and further, by investigating the reading pattern that identifies the need for re-appraisal across stimuli pieces. Thus, the present study explored eye tracking patterns, indicative of information processing, of poetic versus prosaic segments of texts half of which embedded the need to revise one's understanding at the final line. The inclusion of this variable enabled us to recognise more readily the effects of major reappraisal reflecting semantic model updating on eye movement patterns.

We aimed to explore the frequency and duration of fixations and the number of long-range regressions (backward eye movements demonstrating a revisiting of earlier text) as measures of the need for more detailed and effortful information processing (Mitchell et al., 2008; Rayner, 2009). We predicted that poetic compared to prosaic texts and texts that explicitly required re-appraisal of meaning at the last line would be associated with eye tracking patterns indicative of the slower literary reading that Coleridge and Wordsworth described in the early 1800s. We anticipated the extent of this reading style to be associated with familiarity with literary material. Specifically, the predictions were:

1. Poetic pieces would require more regressive eye movements and longer and more fixations than prosaic pieces.
2. Pieces that required a major reappraisal of meaning at the point of the final line would be characterised by more regressive eye movements and longer and more fixations than pieces that did not require major reappraisal at the end.
3. Participants' reported familiarity with literary material would be associated with fixations frequency and duration and number of regressive eye movements. However, the direction of the expected correlation was unclear as none of the participants were literary experts. On the one hand, level of familiarity might be associated with easier reading of the material, reflecting greater cognitive assurance with the texts. On the other hand, greater familiarity may prompt a greater recognition of the need to dwell on and revisit words deemed to be of literary value.

Method

Participants

Twenty-seven UG student participants were recruited into this study with 16 (13 females) producing complete eye-tracking data for all stimuli of sufficient quality to enable full analysis. Reasons for exclusion of data from 11 participants included, not consistently reading the stimuli on time, failure of the eye-tracking procedure and procedural human error. The 16 participants whose complete data sets were used had a mean age of 19.9 (+/−1.1) and were all native English speakers who did not study, nor claim specific expertise, in literature. All had normal uncorrected vision and none declared a specific learning difficulty. Informed written consent was collected from all participants in accordance with the University Research Ethics Committee processes.

Stimuli

Experimental stimuli were a subset of the original 48 stimuli behaviourally validated by O'Sullivan et al. (2015) using a sample of 30 individuals ranging in age between 16 and 65 and coming from a mix of educational backgrounds. Using 7-point scales, each stimulus was rated by the sample in terms of confidence that meaning had been understood; the feeling generated by them (negative-mixed-positive affect); the extent to which each had an expected or unexpected final meaning; and how poetic each was felt to be. Balancing the need to avoid undue fatigue with collecting adequate data for analysis, 18 poetic and 18 prosaic stimuli (9 with expected and 9 with unexpected final meanings) were selected for use in this study based on the behavioural ratings collected by O'Sullivan et al. ensuring that the number of words per piece did not significantly differ between poetic and prosaic

TABLE 1 Examples of text stimuli by condition (N.B. the whole stimuli set is available from the authors by request).

Stimuli condition	Text example
Poetic reappraisal	"Do you think of me as I think of you, My friends, my friends?" – She said it from the sea.
	It seemed not much to ask and yet too much
	Is this "Think of me as I think of you"?
Poetic reappraisal	She lived unknown, and few could know
	When Lucy ceased to be,
	But she is in her grave, and, oh,
	The difference to me
Prosaic reappraisal	"I do not know what you are thinking" she said
	She was also unsure what he thought of her.
	Hoping that this would prompt him
	She said "I think about you a lot."
Prosaic reappraisal	She lived a lonely life in the country
	Where he tried to find her,
	When he saw the bright and lively house,
	He knew she was dead
Poetic non-reappraisal	Rain, midnight rain, nothing but the wild rain
	On this bleak hut, and solitude, and me,
	Remembering again that I shall die
	And neither hear the rain nor give it thanks
Poetic non-reappraisal	You cannot move for memories in here
	Tripped up, nudged, shins barked in the dark
	Against the sharp and unexpected corners
	Of the other days
Prosaic non-reappraisal	I had an awful dream the other night.
	It was pouring with rain and I was all alone
	On a remote and deserted island
	And I knew I was going to die out there.
Prosaic non-reappraisal	I have searched everywhere
	Looked in all the dark and dusty corners
	In my house and in my mind too
	But I just cannot find my old photo album

conditions and that valence was matched across conditions. The stimuli were published, but not widely familiar 4-line poetic pieces (P) chosen by the literature scholars on the research team. Prosaic control pieces (C) were constructed by team members to match the poetic texts on parameters including: word count, punctuation, linguistic complexity, valence and global theme content. Poetic and prosaic pieces were further subdivided into those that gave rise to a final global meaning that was unexpected based on the first 3 lines of the text, promoting sematic reappraisal (referred to as the reappraisal condition), and those with a consistent linearly emerging global meaning requiring no reappraisal (referred to as the non-reappraisal condition). Two examples of each stimuli type are provided in Table 1. Further information about the stimuli including validation procedures can be found in O'Sullivan et al. (2015). In summary, the 2×2 design comprised conditions: poetic reappraisal; poetic non-reappraisal; prosaic reappraisal; prosaic non-reappraisal.

Eye-tracking and stimuli presentation

We recorded eye movement data using a monocular (right eye) head-mounted Pupil Labs eye tracker connected to a computer.[1] The devise, worn like a pair of glasses, includes an eye camera directed at the participant's eye (IR global shutter camera, 400×400, 120 hz, latency = 4.5 ms) and a world camera focusing on the stimuli displayed in front of the participant (100-degree wide angle lens, 1,280×720, 60 hz, latency = 5.7 ms). With Pupil Labs' software Capture, the shape and orientation of pupils are computed with contour-detection algorithms (Kassner et al., 2014) and mapped to visual scene coordinates based on calibration parameters.

Text stimuli were presented to participants on a HP Compaq LA2306x computer screen (LED-backlit, LCD, aspect ratio = 16:9, 1920 × 1,080, 60 hz) connected to a MacBook Air (10.12.6), which was used to run the eye tracking software and stimulus presentation program written in Pure Data[2] – a visual programming language for real-time multimedia processing.

Procedure

All participants completed the task in a quiet 2×3 m cubicle with controlled artificial lighting consistent across eye-tracking sessions. Participants were seated approximately 0.5-1 m away from the computer screen, adjusted so that the centre of the screen was at eye level. Participants were given written and verbal instructions and then fitted with the headset. Camera adjustments were made to best capture each participant's right eye and then the eye tracking system was screen calibrated.

Following successful calibration, participants were asked to read the 36 texts in a randomised order. To standardise the starting location of their gaze, all participants were asked to look at a fixation cross prior to each text. Participants were told to read each text until they understood it and then, using the index finger of their dominant hand, to press the spacebar on the Macbook keyboard to move on to the next stimulus. Participants were made aware that each text would be shown for a maximum of 25 s and that they should try to respond within that timeframe if possible. All included participants met this requirement for all texts.

After completing the eye-tracking task, participants were asked three questions to assess their familiarity with literary material. These questions were (1) How often do you read poetry (0 = never; 5 = very often); (2) how often do you write poetry and/or song lyrics (0 = never; 5 = very often); and (3) how good do you think you are at reading and understanding poetry and complex literature (0 = not all, 5 = very good). This produced a subjective literary familiarity score out of 15.

Eye movement analysis

Fixations are characterised by a series of gaze points that occur in close time and range, resulting in a gaze cluster. We identified fixations using a dispersion-based algorithm (I-DT). As fixations are typically at least between 100 and 200 ms in duration, we included a minimum duration threshold of 150 ms in accordance with previous work (Salvucci and Goldberg, 2000). To identify regressions, areas of interest (AOIs)

1 https://pupil-labs.com

2 https://puredata.info

were first created for each word in each text using optical character recognition on stimuli images. Words within texts were then numbered sequentially (irrespective of line position). Most regressions during reading are made to the immediately preceding word, but this short-range backward motion tends to be related to low level comprehension factors (Rayner, 2009). Therefore, it was decided to focus on backward regressive eye movements of greater than one word back for two main reasons. First, research suggests that so-called immediate regressions (back to the immediately preceding word) can be influenced, in large part, by ocular motor accuracy. Second, immediate regressions also reflect the tendency in word level scanning to automatically skip some words (Jarodzka and Brand-Gruwel, 2017). As neither ocular motor accuracy nor automatic scan reading style were of interest in this research, it was decided to ignore the forms of regressive eye movements most associated with them. Instead, consistent with the intention to extract indices widely regarded to reflect focused reading (Reichle et al., 2010), text comprehension and meaning-making, we analysed only regressive eye movements of at least two words back.

Results

The data collected was a mix of normally and non-normally distributed data. As attempts to normalise the non-normally distributed data using log and square root transformation were unsuccessful, non-parametric analyses were carried out where appropriate. Descriptive statistics, divided according to text type (poetic, prosaic, reappraisal, non-reappraisal), are reported in Table 2 where the statistics reported reflect the distribution of the data. Figure 1 provides example texts showing regressive eye movements and fixation points with point size indicative of fixation duration.

Outlier analyses were conducted on data for total regressive eye movements, total number of fixations and total duration of fixations across the stimuli types. Using the 1.5× interquartile range (IQR) and the 3× IQR rules, one potential outlier in the data relating to each of total regressions and total duration of fixations was identified when the 1.5 IQR rule was used. No outliers were identified when the 3× IQR rule was applied, however. As Hoaglin and Inglewicz (1987) argued that the 1.5 IQR rule may be too stringent, wrongly identifying outliers, the results of the 3× IQR rule were accepted for this proof of concept study.

Text type – Poetry versus prose

As the regressive eye movement and fixation data was not normally distributed, a series of Wilcoxon signed ranks tests showed that there was a significant difference in the number of regressions between poetic and prosaic pieces ($T = 16$, $p < 0.01$, $r = -0.63$, one-tailed); a significant difference in the number of fixations between poetic and prosaic pieces ($T = 2$, $p < 0.001$, $r = -0.82$ one tailed) and a significant difference in the duration of fixations between poetic pieces and prosaic pieces ($T = 14$, $p < 0.005$, $r = -0.70$, one-tailed). For all these eye-tracking metrics, poetic pieces outnumbered prosaic pieces.

Reappraisal versus non-reappraisal of meaning

To examine the impact of the need for major reappraisal forced by the final line of the texts paired samples t-tests were used. Analysis showed that the reading of reappraisal pieces was characterised by significantly more regressive eye movements than the reading of non-reappraisal pieces [t (15) = 2.40, $p < 0.05$, $r = 0.53$, one-tailed]. However, a paired samples t-tests showed no significant difference in the number of fixations between reappraisal pieces and non-reappraisal pieces, [t (15) = 0.72, $p = 0.242$, one-tailed] while a Wilcoxon sign ranked test showed no difference in the duration of fixations between reappraisal and non-reappraisal pieces [$T = 42$, $p = 0.096$, one-tailed]. These analyses demonstrate that the nature of the final line affected only the need to revisit preceding text.

Text type by need to reappraise

A significant non-parametric Friedman test [χ^2 (3) = 15.10, $p < 0.005$] followed up with *post hoc* Bonferroni corrected Wilcoxon tests (alternative hypotheses accepted if $p < 0.0083$) showed that the number of regressive eye movements was significantly higher for poetic reappraisal than prosaic non-reappraisal ($T = 0$, $p < 0.005$, $r = -0.91$, one-tailed). No other significant differences between text types were found in number of regressive eye movements (see Figure 2).

When considering the number of fixations, although the overall Friedman test χ^2 (3) = 14.67 $p < 0.005$ was significant, none of the *post hoc* Wilcoxon tests reached significance after Bonferroni correction (See Figure 3).

A significant Friedman test $\chi^2(3) = 14.48$, $p < 0.005$ with *post hoc* Bonferroni corrected Wilcoxon tests showed that the duration of fixations was significantly higher for poetic reappraisal than for prosaic non-reappraisal ($T = 15$, $p < 0.005$, $r = -0.70$, one-tailed). No other significant differences were found in terms of duration of fixations (See Figure 4).

Association with literary familiarity

The median score of the sample on the literary familiarity measure was 4 with a range of 10. A series of two tailed Spearman's correlations

TABLE 2 Descriptive statistics for the eye tracking variables divided according to stimuli type.

Eye tracking measure	Poetic stimuli	Prosaic stimuli	Reappraisal prompted by 4th line	No reappraisal prompted by 4th line
Number of revisits/regressions	65 (143)	47 (84)	65.61, 9.09	56.06, 6.72
Number of fixations	101 (88)	66.5 (87)	89.44 +/−28.13 7.03	86.75 +/−25.76 6.44
Duration of fixations (secs)	0.54 +/−0.26 0.065	0.52 +/−0.27 0.067	0.54 +/−0.29 0.072	0.53 +/−0.25 0.062

Median (Range); Mean, Standard Error as appropriate.

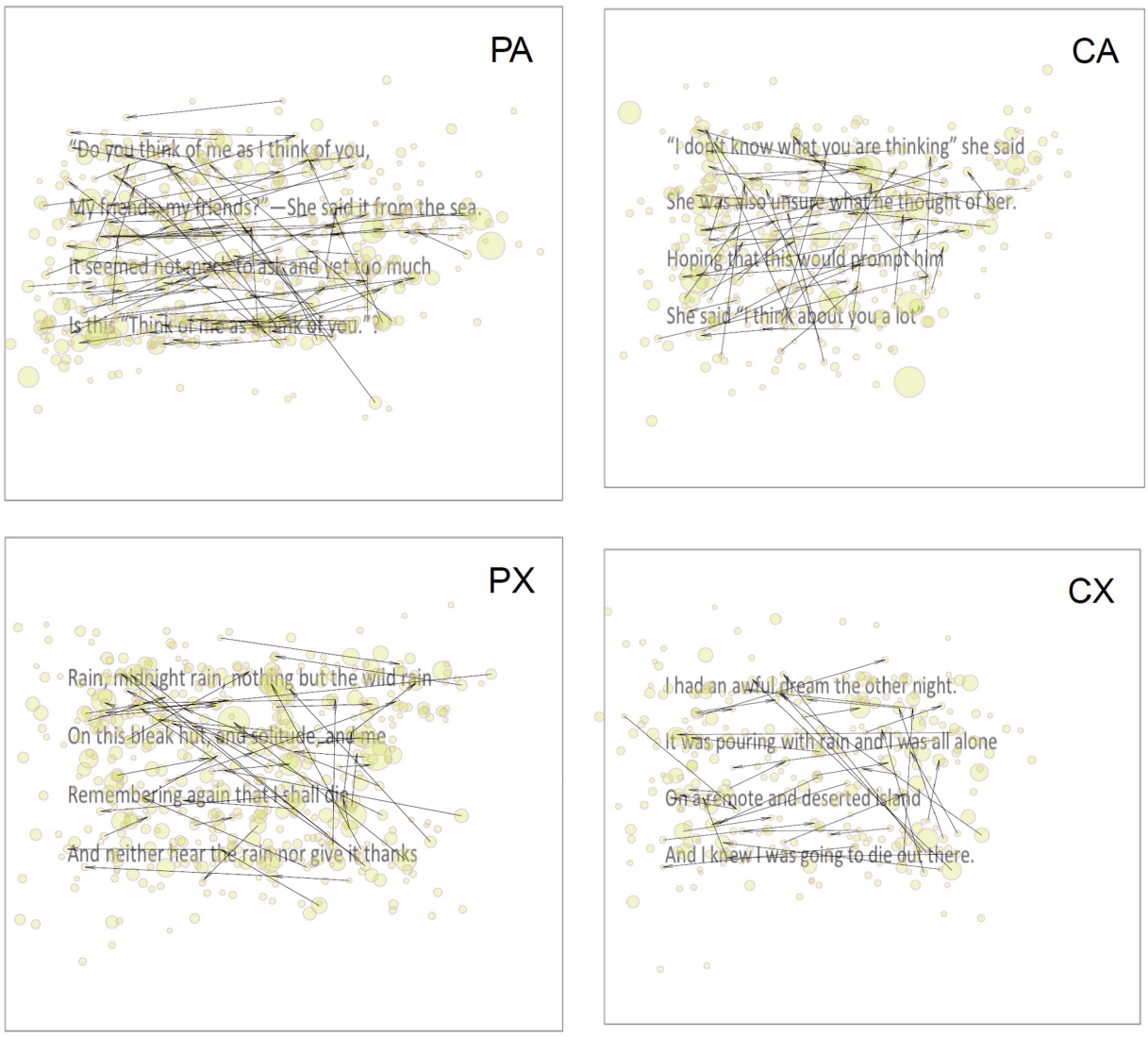

FIGURE 1
Example fixations and revisits/regressions by stimuli type. PA, poetic non-re-appraisal; CA, prosaic non-reappraisal; PX, poetic reappraisal; CX, prosaic reappraisal.

exploring the relationship between self-reported literary familiarity and eye tracking metrics were non-significant (number of regressions across all text types $r=0.13$, $p=0.62$; total number of fixations across all text types $r=0.41$, $p=0.12$; duration of fixations across all text types $r=-0.16$, $p=0.56$).

Discussion

The current study investigated the reading of 4-line texts which were either poetic or prosaic in nature and which either did or did not embed an explicit need to reappraise the text's meaning at the final line. Using simple eye tracking metrics, the study aimed to explore ideas originally expounded by Coleridge (1817) that the reading of poetic texts is not linear but rather involves a complex back and forth revisiting of words and areas within the text that demand different levels of, or further, processing by the reader. To do this the analysis focussed on the number of regressive eye movements recorded and the number and length of fixations within the short texts. It was anticipated that the reading of poetic texts would be characterised by higher values of all metrics compared to prosaic texts. Self-reported familiarity with literary material was also considered in relation to these eye tracking metrics where differences in the reading patterns of participants were anticipated to be associated with reported familiarity with poetic texts.

The findings showed that poetic texts did prompt significantly more regressive eye movements as well as more and longer fixations compared to prosaic texts, supporting Coleridge's hypotheses.

It was further shown that regressive eye movements did likely reflect the need to re-or further appraise the meaning of the short texts because their frequency was significantly greater for those texts that embedded the need for major reappraisal in the last line compared to those that did not. The nature of the last line did not affect the fixation variables, however. The Friedman analyses comparing all text types illustrated that the major differences between the text types lay in the number of regressive eye movements and the duration of fixations

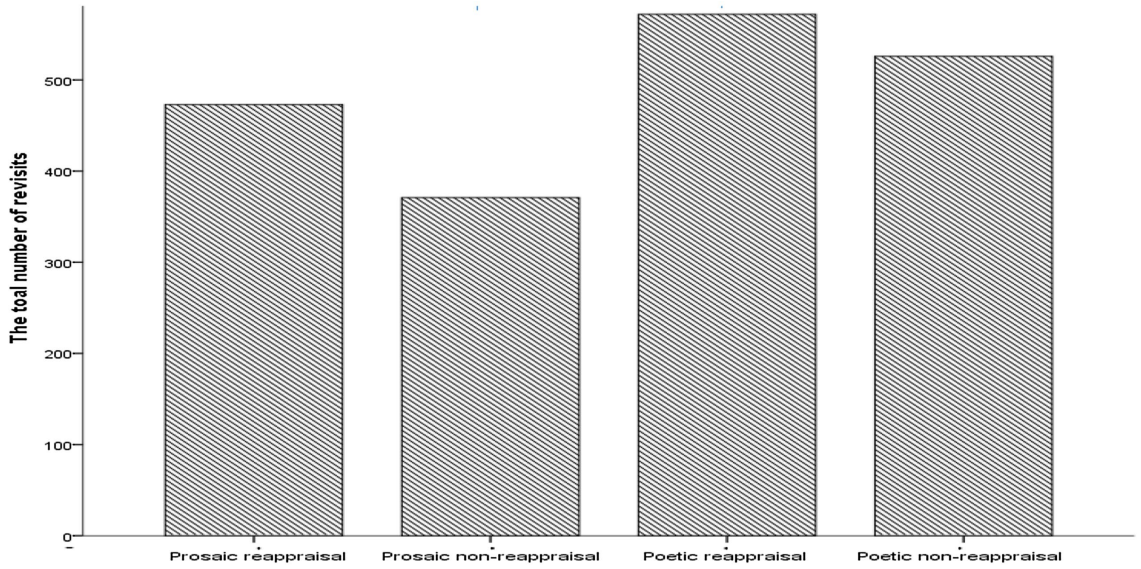

FIGURE 2
Bar graph showing the total number of regressive eye movements by text type. Poetic reappraisal>prosaic non-reappraisal; p=0.002.

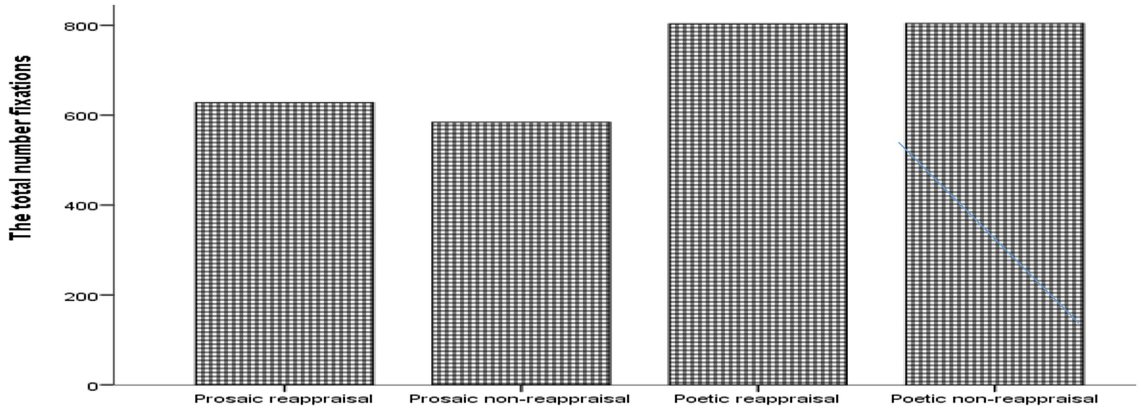

FIGURE 3
Bar graph showing the total number of fixations by text type.

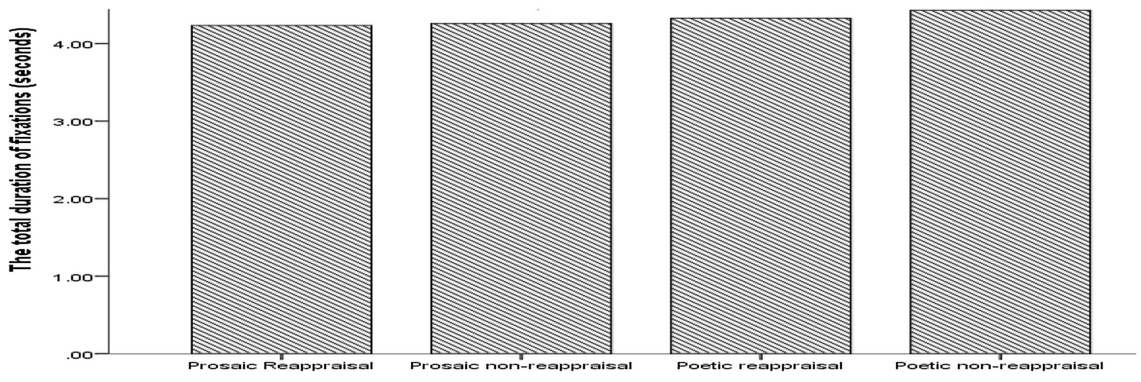

FIGURE 4
Bar graph showing the total duration of fixations by text type. Poetic reappraisal>prosaic non reappraisal; p=0.004.

when poetic reappraisal pieces were compared with prosaic non-reappraisal pieces.

The overall pattern is in keeping with the suggestion that poetic pieces, especially if they require major reappraisal at the final line, are associated with deeper, slower reading compared to prosaic pieces that do not require major reappraisal at the final line. The fact that poetry compared to prose prompts more regressive eye movements as well as longer fixations is consistent with poetry requiring deeper consideration and appraisal of meaning, suggesting more cognitive effort to achieve congruence with the reader's situational model (McNamara et al., 1996). Indeed, maybe the unpredictable nature of poetic texts, evidenced here in the eye tracking metrics, and perhaps experienced by the reader as a series of valid surprises, has potential to alter or update the real-world situational model.

Contrary to expectations, self-reported literary familiarity was not associated with these simple eye-tracking metrics however. This may be explained by the fact that all participants in this small sample were broadly unfamiliar with literary reading and so all could be regarded as novice readers of poetry. Experts in literary reading may show different eye tracking patterns (Reingold and Sheridan, 2011) but determining the reading patterns of such experts would require further eye tracking research.

It is argued that the findings of this study reflect the greater agility of mind needed to consider poetry compared to prose. By and large, it is safe to suppose that a more agile or flexible mind is more capable of accurately processing the complexity of real-world human experiences. If the enhanced experience of mental agility nurtured by the reading of literature can generalise in ways capable of boosting the processing of real-world episodes, then the findings reported here may illustrate positive real-world impacts of reading serious literary material. The idea that the effortful processing of rich literary texts has potential to enhance everyday human functioning is akin to mental muscle type arguments as well as the broadly accepted relationship between analogous reasoning and intelligence. In this, it is resonant of Coleridge's suggestion that the act of literary reading is a good model for the deepest level of human thinking where habitual responses are queried, automaticity disabled and where perhaps the usually efficient reduction of rich information is disfavoured.

This study was a small scale proof of concept of Coleridge's ideas about the literary reading brain and, as such, it has limitations not least the small and homogeneous sample of participants included who were mostly female. Attempts to increase sample size were affected by difficulties associated with the collection of data of high enough quality which meant that responses from 11 additional participants enrolled into the study were not useable. The reasons were several but included variation in the eyes of the participants that made them difficult to track consistently, some failures of procedure during testing arising from both equipment and human error and because the task was cognitively demanding and so impacted by individual differences in reading speed. These issues would need to be accounted for better in future eye tracking research examining these complex text types. A larger sample may have enabled the use of more powerful and parsimonious statistical analysis that would likely provide more convincing and definitive results.

Participant fatigue is a significant issue to consider when repeated measures are used during an intense, demanding task. For this reason, stimuli were presented in randomised order to spread any impact of fatigue evenly through the conditions. Mind wandering is a further potentially troublesome issue with designs such as this. However, as the texts were cognitively demanding, the likelihood of significant mind wandering was reduced. Furthermore, as with fatigue effects, randomisation of order should have spread any potential issues with mind wandering evenly across the conditions.

Unlike with Müller et al.'s (2017) Haikus, this study did not include a measure that assessed the extent to which participants felt they understood the pieces of text. Understanding of poetry is a matter of individual difference where people are bound to respond to and 'get' texts in distinct personal ways according to life experiences and preferences. Of course, this means that the objective measurement of meaning-making is challenging for these texts. Future research should attempt to assess and control for any differences between the text types in terms of the extent to which they were felt to be comprehended as poor comprehension of particular stimuli would likely result in a higher frequency of regressive eye movements, known to be related to comprehension (Schotter et al., 2014; Jarodzka and Brand-Gruwel, 2017). Furthermore, this study only explored one individual difference measure, namely participants' subjective familiarity with poetry. While this variable was not significantly associated with eye tracking indices, it is possible that other cognitive skills such as fluid intelligence, problem-solving, analogous reasoning skills as well as tolerance of uncertainty could have influenced findings (O'Sullivan et al., 2015; Hitsuwari and Nomura, 2022a,b). In any future larger scale research these variables would be worthy of consideration. Finally, the stimuli were short sections of text only. While these were well controlled and validated by O'Sullivan et al. (2015), they are limited in the extent to which their processing can really model the reading of poetry versus prose or other literary material. Further eye tracking research is needed to reflect the different reading patterns associated with poetry, literary fiction and prosaic forms.

Any future research should consider if it is more useful to use mobile eye-tracking units as used here or more restrictive mounted headrest eye tracker kits. The latter may compromise ecological validity and participant comfort while providing data less beset by procedural challenges. With further development of mobile eye tracking equipment to make it more portable and less prone to movement artefact etc. future research, could improve our understanding of the positive power of literature by taking headsets into real world reading scenarios to sample solitary compared to more social forms of reading, for example.

The current study has shown how simple eye tracking variables can inform about reading styles and the processing of different types of text. It is possible that eye tracking and other psychophysiological metrics could be used to select reading material to objectively determine the extent to which reflective, literary processing is drawn on by different texts. This would have implications for the pedagogy of English literature. Perhaps more importantly, this type of study could advance the scientific study of the benefits of the Arts to the development of the thinking mind, replacing its value at the heart of society.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the University Research Ethics Committee, University of

Liverpool. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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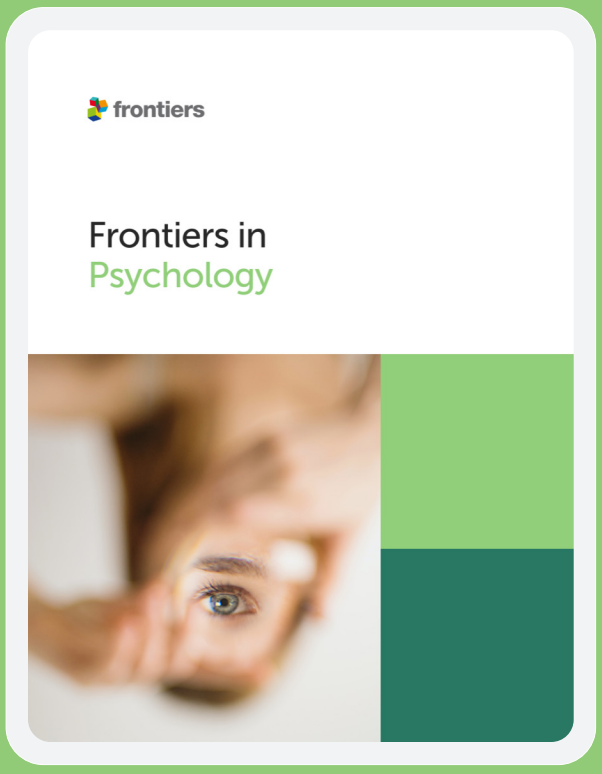

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