

Fiction as a Means for Understanding the Dynamics of Empathy: A 3-year Empirical Study with Students

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The current study investigated whether the reflective reading of fiction can provide an experiential definition of empathy to supplement more traditional concept analyses. A secondary aim was to look at the rates of absorption (loss of time and space) relative to the rate of reported empathic engagement. Based on earlier studies on reading fiction as an engagement in a social simulation, it was predicted that because fiction is a controlled experience, reading and talking about fiction could provide a forum in which to examine actual experiences of empathy elicitation in relation to an evolving situation. A survey was conducted with 210 student participants over a three-year period. The results show that the empathetic response to narrative is affected in a variety of ways by the presence or absence of an initial sense of affinity and by cognitive input over time, that is, the changing perception of characters and the situations with which they are confronted. Adept readers are more likely to experience absorption, and those who experience absorption are more likely to be empathetically responsive to input and changes in a situation. Empathetic emotions and cognitive empathy can be experienced for multiple objects simultaneously in one situation and relate to past events and potential futures, but they also shift from object to object.

Keywords: absorption, education, empathy, fiction, perspective-taking

1. Introduction and Literature Review

Reading fiction improves our ability to create mental simulations around social scenarios. The reason for this is that it triggers the same area of the mind as actual social interactions (Tamir et al., 2016). The Turkish novelist Orhan Pamuk observes, “Novels are alternate lives. ... novels reveal the nuances and complications in our lives, and they are filled with people, faces and objects that we feel we recognize” (2010, p. 11). This sense of the real in fiction, even when the settings are obviously not, is linked not only to the pleasure of reading but also to its ability to engage our minds and our emotions. Readers report feeling connected to characters in fiction, and they experience emotional and cognitive engagement relative to what happens to the characters. Since the 1970s, for example, the power of stories to affect the emotions and thought processes of readers has been recognized within the field that is now known as the Medical Humanities. In a review of the field, Van den Berg (2015) states that 80% of all medical schools in the United States offer courses with a humanities focus. Reading fiction is an accepted heuristic technique for understanding the self and others better. In Sweden, reading fiction has been a part of medical and nursing education programs for decades at, for example, Sahlgrenska Academy, Linköping, Lund University and Halmstad University.

Within medical and nursing programs, there are various learning objectives related to using fiction, such as attitude change and the reduction of biases (Holmgren, 2016; McCallister et al., 2015), and to help students understand different perspectives in their future work environment, particularly within the medical field and in relation to patients and their families (Van den Berg, 2015; Petty, 2016; McCaffrey et al., 2017). Moreover, there are bibliotherapy programs and professional development courses targeted at various occupations that use fiction to support meta-cognition and other cognitive strategies that underpin empathy through reflection on the self, society, others and ethics in reading fiction.

Studies regarding the use of illness narratives in medical education and clinical settings intersect with cognitive literary research and the study of the effects of reading fiction on empathic competencies. The research in this field suggests that fiction can influence thought and behaviour (Kuafman and Libby, 2002), is capable of promoting insights and self-knowledge (Oatley, 1999; Oatley and Djikic, 2002), and is capable of reducing prejudice (Johnson, 2013). There is also

research that supports that lifelong reading of fiction is a positive predictor of scoring well on social ability measurements, while the long-term reading of non-fiction does not (Djikic, 2013). The research conducted in both fields is important not only for education overall but also for the general societal understanding and estimation of the social functions of fiction.

Within the medical humanities and cognitive literary studies in general, however, there is little empirical research that focuses on the understanding of empathy itself in relation to the experience of reading fiction. Instead, an operational definition is usually provided, and standardized tests are used to measure the relative presence or absence of empathy. An overlooked aspect of the research is what can be learned about empathy from studying its elicitation or relative absence in the reading process itself. This is not meant as a critique of the earlier research; rather, it is an indication of its limitations.

Second, relatively few empirical studies within cognitive science use actual fiction; instead, specially constructed fictional text are used. As Bal and Veltkamp (2013) have noted, this compromises the ecological validity of the studies. There are some notable exceptions that have used full novels, but these can usually be found within the Medical Humanities (Hester and Schleifer, 2016). However, this is changing, and there is an increasing tendency to use short stories even in cognitive research.

Third, there is a need for an investigation into the definition and use of important terminology. *Absorption* and *immersion* are usually defined as a loss of time and spatial awareness; yet when discussed, these terms are usually used to mean the cognitive and affective engagement of the reader in the reading process. *Transportation* is usually explained as a sense of being taken on a metaphorical journey, which arguably focuses on the experience of being somewhere else rather than the loss of where your physical body is actually located. Even if the two are concurrent, one does not have to imply the other. Yet, this distinction is usually not maintained in investigations. Again, cause (engagement) is substituted for effect (loss of time and space). Most researchers investigating absorption/immersion/transportation focus on either cognitive engagement (Kidd and Castano, 2013) or affective engagement (Kuiken et al., 2004; Bal and Veltkamp, 2013), or both (Green and Brock, 2000; Djikic et al., 2013).

In response to these limitations within the research, a project was proposed that would examine the phenomenon of empathy itself in relation to reading narrative rather than just whether it is

elicited in reading. It was also proposed that a distinction be made between the causes of engagement from the effect of absorption as a sense of lost time and space. Far from all readers experience a loss of time and space, but does this mean that they do experience empathy? What is the relationship between absorption and empathic engagement? At Halmstad University, students read fiction, fictionalized memoirs and memoirs as part of a nursing care course in order to practice perspective-taking skills, that is, for them to be able to understand patient perspectives of their disease. Yet, despite an almost unanimous sense that reading and discussing the narratives is rewarding, the students question why their valuable study time at university is spent in this way. This course provided an opportunity for cooperation between nursing care instructors and literary researchers to investigate whether the learning objectives could be refined to include a better understanding of empathy itself through student discussions at the meta-cognitive level about their empathic engagement in the process of reading. It was proposed that the project would encourage student self-reflection on their own engagement and on any potential changes in their empathic response. Moreover, it would also encourage them to consider the experience of others engaging with the text and reflecting on their own process. Due to organizational changes and funding, the author of this article conducted the final analysis of the data was conducted and was responsible for the publication of the results.¹

1.1 Definitions of empathy

There are also multiple definitions of empathy, all of which tend to include an aspect of cognitive understanding of the target and affective engagement. There is also a shared concern in differentiating empathy from related terms, such as emotional contagion, sympathy and compassion (Cuff et al., 2016). Ickes (2003) proposes that although the concepts are similar, they can be differentiated across three dimensions: 1) the degree to which the target's emotional state is understood (cognitively represented), 2) the degree to which the emotion itself is shared, and 3) the degree to which the distinction between self and the target is maintained. *Emotional contagion* is emotion sharing, but there is also a greater merger of the self and other than is to be found with

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empathy. Empathy and sympathy also differ most in the degree to which the emotion is shared. Where sympathy is feeling for the other (concern), empathy is feeling with the other, that is, sharing the emotion (Hein and Sing, 2008; Singer and Lamm, 2009). *Compassion* is the least clearly differentiated term in English. A possible distinction is that offered by Goetz et al. (2010), who link it to the motivation to act, that is, more closely to behaviour.

Melanie Green and Timothy Brock define transportation as metaphor for the phenomenological experience of losing a sense of self and place, and as “an integrative melding of attention, imagery, and feelings” (2000). Their work builds on Richard Gerrig’s (1993), who wrote his study on two recurring interconnected metaphors in reader reports: *transportation* and *performance*. The first refers to the phenomenon of feeling carried away into a different world during the reading of narrative and of temporarily losing a sense of actual time and place. Suddenly, an hour, or two, or four have passed while the reader has been sitting or lying down and reading. The reader has been unaware of the passage of time and of what has been happening around them. The second, performance, refers to the actions the reader must perform in order to be transported. The tasks are multiple and include piecing the story together by engaging in a variety of cognitive processes such as retrospection and rationalization regarding character actions and interactions. Readers also use their own prior experience to make sense of the text emotionally and socially. For Gerrig, there is an overarching metaphor that encompasses both this reader performance and its effect of transportation; he describes the process of reading as equivalent to going on a journey. The reader, or traveller, in this metaphor can return more or less affected, or even changed, after embarking on the trip. In sum, ideational and emotional involvement in a story leads to a sense of being transported or absorbed by another world. The evolving story becomes a journey that can result in changes within the reader in terms of ideas and perspectives.

In this study, Gerrig’s idea of separating cause (performance) and its effect (transportation) is taken one step further. The term *absorption* is reserved for the sense of loss of time and space while reading. This has been done to see if it is possible to determine the relationship between the cognitive and affective effects of reading and the phenomenological experience of losing a sense of self and place and becoming part of the narrative world

It has been observed that a unified definition is not necessarily needed but that the different usages of the terminology can make it harder to see the relationship of different studies to each other (Cuff et al., 2016). An important distinction is whether a study focuses on empathy as a dispositional trait, as situational, or as encompassing behavioural effects. In studies that use a conceptualization of empathy as dispositional, it is treated as a relatively stable trait and ability. Argo et al. (2008) have raised the question whether it is possible to say that fiction evokes empathy at all, or whether it is the case that more empathetic people simply read more fiction. This assumes a dispositional understanding of empathy. Situational empathy is used either explicitly or implicitly as a definition when empathy is situation dependent and studied in relation to the potential for it to be affected by specific circumstances or situations.

1.2 Fiction and empathy

In a review of a large number of empirical studies on the relationship between empathy and fiction in relation to psychology, Mar and Oatley (2008) conclude that, because of its nature as simulated experience in perspective-taking, reading fiction can augment empathy and produce real effects, such as shifting attitudes and the reduction of prejudice. Literary fiction invites immersion and engages theory of mind; thus it requires and improves social skills such as inference and the understanding of intention. The narratives are invitations to engage in social simulations where “consumers of literary stories [may] experience thoughts and emotions congruent with the events represented by these narratives” (p. 173). Though the simulated world in the story is created through selection, abstraction and compression, it, nonetheless, offers a way to different perspectives, different conflicts, and different social and cultural worlds.

The idea that readers create mental or situational models of the world in narratives is based on the more fundamental theory that this is how readers comprehend texts in general (Johnson-Laird, 1983; van Dijk and Kintsch, 1983). The language of the text is a series of cues or “a set of processing instructions on how to construct a mental representation of the described situation” (Zwaan and Radvansky, 1998, p. 162). Creating the model is the process of making sense of the situation in the text through paying attention to spatial factors, textual foregrounding, intentionality (goals and plans of agents in the text) and causation.

In a study on readers and what they care about, Özyürek and Trabasso have shown that “readers identify with characters, show that they care, and monitor their well-being from multiple perspectives” (1997, p. 333). Readers keep track of more than superficial information or information related to actions. It is “an inter-subjective enterprise where internal states and feelings are monitored and inferred depending upon what is happening to agents and agents are doing.” Readers care about the feelings, thoughts and motivations of characters. Özyürek and Trabasso examined how often readers monitor the emotions of characters and how often they evaluate character concerns over the course of the narrative. The results indicated that evaluations occurred across the course of stories, and not just specifically when complications are introduced or resolved (p. 331-2). The results also showed that reader emotions – as much as character emotions – are caused by events in the narrative, and readers’ emotional valences were coherent with the evaluations of characters and their attainment of preferred goals. Readers also have preferences as to what happens and whether or not character goals are attained (p. 333).

2. Aim and Research Questions

The current study investigated whether the reflective reading of fiction can provide an experiential definition of empathy to supplement more traditional concept analyses. A secondary aim was to look at the rates of absorption (loss of time and space) relative to the rate of reported empathic engagement. Based on earlier studies on reading fiction as an engagement in a social simulation, it was predicted that because fiction is a controlled experience, reading and talking about fiction could provide a forum in which to examine actual experiences of empathy elicitation in relation to an evolving situation. Using the theory that literary narratives provide models of the social world that engage readers and provide them with opportunities to respond to characters and engage in social simulations (Mar and Oatley, 2008), it was postulated that readers are likely to experience fluctuations in empathy and to revise their sense of affinity and opinion of a character as they are to retain it. This raises the question as to what happens in relation to empathy in the reader’s response with longer narratives, that is, in relation to an evolving situation where the empathic response to individual characters is likely to be exposed to stressors. Characters do things that readers disagree with, and they reason in ways that readers find morally objectionable. Additionally, this study seeks to maintain the distinction between absorption and transportation (as effects)

versus cognitive and affective engagement (as cause) in order to investigate the self-assessed rate of absorption itself as a factor in relation to empathy. Does it matter whether readers become so absorbed that they lose track of time and space?

3. Research methodology

3.1 Participants

The study is both quantitative and qualitative. A self-report survey was conducted with 12 student groups bi-annually over a three-year period (n= 210 in total) to gain evidential support of the rate of empathic engagement. Within each larger student group, all of the students were also asked to reflect on and discuss their experience in smaller groups (n=24 groups) in seminar form. All of the students participated in the seminar discussions, but only half of the groups (105 students) participated in the focus groups that inform this study. The groups varied in size from 7-15.

3.2 Ethical approval

The study was approved by the Regional Ethical Board at the University of Lund (Dnr 2016/58), and all the participants were treated according to the standards for the Royal Academy of Science and the Ministry of Justice in Sweden.

3.3 Text material

Within a module on fiction and perspective-taking in a nursing care course, the participants were required to read a full-length narrative and participate in a seminar discussion on their emotional and cognitive response to that novel.

The requirement itself has existed for several years in the course. Participants can choose to read in English or in Swedish, and to read a novel, a fictionalized memoir or a memoir. Table 1 lists the titles of the works in their original language and their genre.

Table 1. List of memoirs, fictionalized memoirs and novels used in the study		
<u>Genre</u>	<u>Swedish works</u>	<u>English works</u>
Memoir		<i>The End of Your Life Book Club</i> by Schwalbe
Memoir based on a blog	<i>I kroppen min: Resan mot livets slut och alltings början</i> by Kristian Gidlund	
Novel		<i>Before I Die</i> by Jenny Downham
Novel		<i>Tell the Wolves I'm Home</i> by Carol Rifka Brunt
Novel		<i>The Shock of the Fall</i> by Nathan Filer
Novel	<i>Jag bara tvingar mig lite</i> (2014) by Maja-Stina Fransson	
Novel (fictionalized memoir)	<i>Zebraflickan</i> (2007) by Sofia Åkerman	
Novel (fictionalized memoir)	<i>Torka aldrig tårar utan handskar, 2. Sjukdomen</i> by Jonas Gardell	

Four of the works were originally published in English, which the students could choose to read either in English or in Swedish. The memoir *The End of Your Life Book Club* (Schwalbe, 2013). *Before I Die* (Downham, 2007) is about a young girl with cancer who makes a list of things she wants to do before she dies. *Tell the Wolves I'm Home* (Brunt, 2012) is a story about the death of a man from AIDS in the 1980s told from the perspective of his niece, who is still a teenage girl. *The Shock of the Fall* (Filer 2013) is told from the perspective of a young man suffering from schizophrenia. Four texts were in Swedish. The memoir, *I kroppen min* (Gidlund, 2013) is a compilation of blog entries made after the author was diagnosed with stomach cancer until shortly before his death. *Jag bara tvingar mig lite* (Fransson, 2014) is a novel about OCD. *Zebraflickan* (Åkerman, 2007) is the fictionalized account of living with self-harm. *Torka aldrig tårar utan handskar, 2. Sjukdomen*

(Gardell, 2013) is also a fictionalized autobiography and is the second novel in a trilogy about being young and gay in Stockholm in the 1980s during the AIDS crisis.

Using these longer works spoke to two research concerns in the project. First, because these types of fictional texts are found commercially, they respond to the need raised by Bal and Veltkamp (2013), for greater ecological validity in looking at the relationship between fiction and empathic engagement. Second, because novels are long and complex, they would allow for an investigation into the nature of empathy as a dynamic process, that is, to see what evidence could be found for it as a responsive phenomenon that changes over time. Fictionalized memoir and non-fiction memoirs also represent two new categories in empirical research on empathy.

3.4 The procedure

After reading their chosen pathography, the students were asked to participate in a self-report survey prior to, or in conjunction with, a group seminar.

The survey was voluntary, and the students could opt out at any time. All 210 students participated and filled out the self-report survey, which consisted of 27 questions. Five questions asked for background information (age, sex, reading and film viewing habits, and the title of the work read). Nineteen of the questions were quantitative and asked for scaled responses. The scale used was a 5-point Likert scale: from Strongly Agree to Strongly Disagree. Eight of the questions were not scaled but asked for free text responses.

Scaled questions

Because we wanted to look more closely at the experience of reading narrative and potential variations in the empathic response, a modified Busselle and Bilandzic questionnaire (2009) was used. The original was adapted to measure emotional engagement. Instead of three statements asking for applicability related to emotional response, the new design includes six statements. One question is the same as in the earlier form: “The story affected me emotionally.” This question serves as a baseline of emotional engagement. Five new statements were added to map anticipated fluctuations in that response:

- I experienced affinity with a character from the beginning of the story. Who? (the students could fill in a name).
- One or more characters that I initially liked became less likeable. Who? (the students could fill in a name).
- One or more characters became more likeable across the storyline. Who? (the students could fill in a name).
- I felt that other characters' thoughts and statements about the main character affected my view of the main character.

Both affinity and whether a character is likeable or not have been linked with empathic engagement in other studies. Thus determining the extent of variations across time or a storyline would contribute to the discussion on the nature of empathy in a changing situation. Busselle and Bilandzic also asked whether the reader at any point feels sorry for one or more of the characters. In the adapted version of their scale, this was changed to "I felt compassion for one or more of the characters." Compassion is more neutral in orientation than "to feel sorry for" (Busselle and Bilandzic, 2009), and in many cases it is understood as synonymous with empathy.

Because cognition is an important component in empathy and in the processing of a story, the survey also included a set of questions dealing with aspects of cognitive engagement and the reading experience. The first asked for a general assessment: "The novel made me think." The second asked for an assessment of the effect of social input within the narrative on the reader's thought about the main character: "The thoughts and statements of other characters affected my view of the main character" and "Different situations involving the main character affected my view of the main character."

The last four related to understanding characters and perceptions of similarity to the self: whether the readers felt that understanding was linked to identification or a sense of feeling that they would respond in a similar way.

Qualitative questions

The survey also included opportunities for the students to clarify their emotional response. For each of the above questions, the students were asked to fill in which character elicited the response or provided an opportunity to clarify their reaction. The current survey also modified the Busselle and Bilandzic question on whether a reader felt happy or sad for the main character to a more encompassing question on basic emotions: “Were you happy/sad/irritated or angry when you read the story? Who were your feelings for? What was the source of your response?” Another qualitative question that was included to further elucidate the social mechanisms behind the empathic response was the following: “Relate one or two scenes where a character’s feelings affected you as you read the book.” Four additional qualitative questions on students’ cognitive response to the narratives were also included: “What, if anything, troubled you about the story? Any specific character?” Even though to be troubled suggests an emotional response, the intent for this reaction was to ascertain the thought process behind it or connected to it: “Whose thoughts and statements affected your view of the main character?; How?”; “What situations engaged your thinking in the story and in what way?”; and “I felt that the story affected my view of... explain briefly.”

All of the students also participated in group discussions in seminar form. Half of the groups were led by the teacher of the course and half by the researcher. Those conducted by the researcher inform this study. Two core aims informed the seminar discussions: giving the students space to discuss potential changes in their sense of affinity and perception of characters and to discuss their own sense of their empathic engagement as defined by both emotional and cognitive levels of engagement.

3.5 Limitations

The current study seeks to increase understanding of how empathy works in relation to longer narratives. Consequently, it has used the self-report method to assess the interactions between cognitive processing and affective responsiveness across plot-time. Because the results of this study are based on self-reporting, there is the risk of a high rate of a social desirability bias. To ensure greater validity, and as a basis for confirmation and elucidation, qualitative follow-up questions and scaled responses were used as counter-measures. Although the use of Pearson’s correlation analyses with Likert ratings is potentially controversial, this study has opted for Pearson

because it allows for the examination of the strength of possible linear relationships in the data. In addition, it provides evidential data for possibilities with regards to which variables are more closely linked and their direction. This study assumes that there is an underlying continuous distribution that would support the current data. An argument could be made to use Kendall's tau-b correlation analyses to look at associations in the data because a Likert-scale was used and the data is non-parametric, but Kendall's tau-b depicts monotonic relationships. Another limitation is that the observations of the variables are not independent. The lack of independence in the observations means that the results are less definitive. However, complete independence is not feasible since the object of the study is to examine the complex response to reading narratives.

4. Results

Of the 210 students asked to participate and fill in the voluntary questionnaire, all accepted. A total of 82% were women and 14% men, with 4% not assigning gender. Though the mean age was 26, in reality 59% were under the age of 24 and 20% over the age of 30. Two students did not give enough information in the questionnaire for us to ascertain what works they had read. Thus the overall response for genre is lower (n=208). A total of 100 students chose a novel, 52 chose a fictionalized memoir and 56 chose a memoir.

The focus in the quantitative data analysis was on frequencies, mode statistics, cross-tabulations and significant correlations. Mode statistics is basically looking for the central tendencies, that is, the most common response. Cross-tabulation allows for a closer examination of those factors, while looking at these correlations makes visible the significance value of certain relationships between different factors. The standard deviation in calculating mode values in this project is relatively high since the study uses a five-point scale. The *sd* is between 0.768 and 1.123. This is not necessarily as problematic as it sounds, because there are redundancies in several of the questions and the SEM value is consistently low (0.058-0.078). In the following presentation and discussion, the focus is on the results in the data that are particularly useful to set alongside previous research on empathy and that can further our understanding of how empathy works in the process of reading. Qualitative responses from the participants are included in the discussion section after the quantitative results have been presented. The qualitative responses expand on and develop the results in the quantitative data.

4.1 Age and Reading Habits

In total, 59.4 % of the student respondents were 24 years old or younger. That said, there are significant correlations related to reading habits if two-tailed null hypotheses are tested using Pearson's r . Looking at possible correlations, four stood out as significant. First, students over 35 show a proportionally marked decrease in reading habits. While 61.4% of the students read fiction, autobiographies or fictionalized memoirs at least once a week, this rate is affected by age, which is positively correlated with reading habits (.148), that is, the younger participants spend more time reading fiction than the older participants.

Second, increased reading habits are positively correlated with transportation (.181) and with a progressive sense of affinity with the characters in stories (.179), but also with the potential to be negatively affected by the protagonist's actions and responses (.142).

The third observation is that age is negatively correlated with understanding the protagonist if they are experienced as different from the self (-.152). In other words, a proportionally larger number of the younger adult readers reported that they did not understand a protagonist that they perceived as different from themselves.

Fourth, age is also negatively correlated with being with being influenced by other characters (-.184), that is, younger readers are more likely to change their opinion of the protagonist based on that character's attitude or behaviour, and they are more likely to allow other characters to influence their initial position vis-à-vis the main character.

		Cognitive Engagement	Affective Engagement	Compassion	Transportation
Cognitive Engagement	Pearson Correlation	1	.687**	.592**	.491**
	Sig. (2-tailed)		.000	.000	.000
	N	210	210	210	210
Affective Engagement	Pearson Correlation	.687**	1	.630**	.479**
	Sig. (2-tailed)	.000		.000	.000
	N	210	210	210	210
Compassion	Pearson Correlation	.592**	.630**	1	.352**
	Sig. (2-tailed)	.000	.000		.000
	N	210	210	210	210
Transportation	Pearson Correlation	.491**	.479**	.352**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	210	210	210	210

4.2 Questions on Absorption

There are significant correlations between immersion as absorption and compassion (.352), cognitive engagement (.491) and affective engagement (.479) (see Table 2). This means that if there is a sense of a loss of time and place, it is, statistically speaking, indicative that the reader also feels concern for one or more of the characters in the story, thinks about the issues involved in the story and, that their emotions come into play for the characters involved. However, the results for absorption as an independent variable are more complex (see Table 2). Overall, less than half of

the students (42.4%) report feeling a loss of time and spatial awareness, while 57.6% either did not feel absorbed or are uncertain, that is, 'neither agree nor disagree'.

The data suggests that when absorption occurs, it is more likely to be linked to the concurrence of specific conditions (see Table 3). In relation to emotional engagement with characters, there is a positive correlation between the experience of absorption with an initial sense of affinity with a protagonist or secondary character (.232), and with a progressive sense of affinity (.136) as the story progresses. In terms of change in response to character and cognitive input, absorption is also significantly correlated with being negatively affected in the response to the main character by situations that occur in the novels (.153). If readers do not experience a loss of time and space in reading, they are more likely to have a negative response to characters in the story.

<i>Table 3.</i> Absorption rates: how common is a sense of lost time and space while reading?				
	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	11	5,2	5,2	5,2
Disagree	42	20,0	20,0	25,2
Neither agree nor disagree	68	32,4	32,4	57,6
Agree	67	31,9	31,9	89,5
Strongly agree	22	10,5	10,5	100,0
Total	210	100,0	100,0	

4.3 Questions Related to Empathy Dynamics

In responding to the statement, “I felt compassion for one or more characters,” the mode on a Likert scale is 5, that is, strongly agree. Regarding cognitive and affective engagement in the narratives, the mode is slightly lower, 4 or agree, as the frequencies are 90.5% for agree and 88.6% for strongly agree, respectively. However, how readers respond to characters in terms of affect changes over time (See Table 4). It is interesting to note that in the discussions in the focus groups it became apparent that the students trace their emotions to specific situational contexts rather than to only the character and their emotional state. This supports an understanding of empathy as a dynamic process rather than a dispositional characteristic.

When the students were also asked to rate the degree of their initial sense of affinity/likeability with regards to the protagonist, 77.1% report a positive response (agree or strongly agree). This means that initial affinity or a perception of likeability occurred for three out of four readers. This initial sympathetic perception of the main character is linked significantly in the data to the presence of affective (.200) and cognitive engagement (.272), but also to absorption (.215) as well

as a sense of compassion (.150). In terms of frequency, 56.1% of readers will feel a greater sense of affinity for at least one character while reading the story.

The frequency for a decreased perception of likeability is lower (22.4%) but still substantial since it represents one in five readers. This response was not correlated to the specific works. In a future study, it may be interesting to look at novels other than illness narratives or to differentiate between memoirs and fictionalized memoirs.

Table 4 presents the Pearson correlations (that is the rate of the concurrence of these responses and 2-tailed significance values for the null hypothesis) for each of the two potential directional changes in relation to the presence of initial affinity. It also presents the Pearson correlations in relation to three other possible factors (narrative structures) that could impact a reader's response: situations that occur in the narrative, input from other characters regarding the main character, and the main character's actions and treatment of other characters.

Situations in which the characters found themselves produced varying levels of engagement. In total, 67.1% of readers report that they are affected or strongly affected in their view/attitude towards characters by situations in the novel. Interestingly, being affected by situations is most likely to occur when a reader is also absorbed (.153), that is, loses a sense of time and place while reading and feels cognitively engaged by the narration in the novel (.191). Increasing awareness of the changes that occur in attitudes to characters over time and the links to levels of absorption is a significant result in this study because it points to the possibility that high levels of absorption (loss of time and space) may be linked to empathetic contagion rather than to an empathy that retains distinctions between the self and other.

The results show that Input from other characters can lead to heightened empathy and compassion, and the correlation is statistically significant (.160). Readers who grow to like a character more or feel a greater affinity with them are also more likely to report a sense of decreased affinity for a character (.301). The frequency of progressive non-sympathy and being negatively affected by input from other characters or protagonist behaviour are similar: 24.3% and 22.4%, respectively.

Table 4. Concurrence of readers reporting a sympathetic perception of characters and being influenced of events in the novel.

		Initially sympathetic	Progressively non-sympathetic	Progressively sympathetic
Initially sympathetic	Pearson Correlation	1	.101	.301**
	Sig. (2-tailed)		.146	.000
	N	210	210	210
Progressively nonsympathetic	Pearson Correlation	.101	1	.346**
	Sig. (2-tailed)	.146		.000
	N	210	210	210
Progressively sympathetic	Pearson Correlation	.301**	.346**	1
	Sig. (2-tailed)	.000	.000	
	N	210	210	210
Negatively affected by the main char.	Pearson Correlation	.056	.292**	.193**
	Sig. (2-tailed)	.423	.000	.005
	N	210	210	210
Affected by the input of other chars	Pearson Correlation	-.008	.117	.160*
	Sig. (2-tailed)	.912	.091	.020
	N	210	210	210

Affected by situations	Pearson Correlation	.206**	.188**	.178**
	Sig. (2-tailed)	.003	.006	.010
	N	210	210	210

5. Discussion

The results show that younger students read more than older students. Increased reading habits can be linked to a greater likelihood of being absorbed by the story and to being affected by one’s sympathetic response to characters in the story. Age affects sympathetic response and the degree to which one can be influenced by others in a story. Younger students find it harder to understand characters that are different from themselves, and they are more likely to change their minds about how they feel about a character in a story in response to what happens. They show an increased tendency to be influenced by others in the story.

The results show that absorption (the sense of losing time and sense of one’s own location as a reader) matters on its own and can be distinguished from cognitive engagement. This augments earlier research that defines transportation by its cognitive and phenomenological effects (Green and Brock, 2000). If a reader does not experience a loss of time and space in reading, they are more likely to have a negative response to characters in the story. Greater absorption in the story is likely to be present if the reader identifies with the main character and with understanding other characters in the story. Absorption is also linked to whether one has responded positively or grows to respond more positively to a main character in the story.

In contrast, cognitive understanding without affinity or without identification does not correlate as strongly with absorption rates when the latter is defined more narrowly as a sense of lost time or spatial awareness in reading. Unsurprisingly and in support of earlier studies, affective engagement is linked to affinity and to self-reported identification.

This study supports that readers change in their empathetic response (Mar and Oatley, 2008; Johnson, 2013). What it adds to earlier investigations is clearer support for the understanding that a reader's empathetic response can change in multiple ways across the reading of one novel. Empathy may be dispositional (Argo et al., 2008), but it is also dynamic and responsive. It is situation sensitive, that is, the empathetic response can shift in its target, be blocked or intensified as a situation evolves. Readers change what they think and in what they feel about characters in the story. Readers report that they are affected by how they feel about other characters in a story, the situations that occur, how characters in the story respond to what happens to them, how they treat each other and what they say about each other.

Reader engagement has been theorized as entering into a social simulation (Oatley, 1999; Mar and Oatley, 2008), where the reader responds to how characters relate to each other, the conditions of the social environment, and how the characters' lives relate to the reader's own ideas of what is desirable or would be existentially or relationally difficult. Though the correlation results can only indicate association rather than causality, the open questions produced comments that suggest that there is a causal connection between situations that occur in the novels and the readers' affective response. Below are a few examples of the types of feelings and emotions the readers report and that they relate to situations in the narratives.

When she is forcibly held down and force fed, that is a violation on the part of the nursing staff. (*Zebrafläckan*, Student # 173027)

Sad. Because Kristian would not be able to live his dream of having a son. (*I Kroppen Min*, Student #153082)

Mostly sad & disappointed at the story behind the rights of homosexuals. The laws & attitudes are completely unthinkable today. Crazy how much has changed – for the better. (*Torka Aldrig Tårar utan Handskar*, Student #154017)

I became sad, irritated and angry when I thought about what life is really like, unfair and callous. (*Torka Aldrig Tårar utan Handskar*, Student #153052)

The above underscores that empathy is an emotion that responds to a situation, that is, to the perceived cause of suffering as well as the suffering itself. One student simply wrote, “I became both [sic] happy, angry and sad because of the situations [I] described earlier” (#153073). The first student above (a) is reacting both to the character who is being violated and to the staff doing the force feeding. In a broader discussion of this scene, the empathetic response is further complicated by the anticipation that one day soon the students themselves will be part of the nursing profession. The students indirectly express a desire to be more compassionate by being critical of earlier attitudes. Though there is also a desire to understand the patient’s perspective more, there is also a fear that this will be difficult. The second response above (b) also implies that the temporal aspect affects and complicates empathic responses. It is possible to talk about anticipatory emotions that occur alongside present emotions, that is, emotions that will occur in the future. Specifically, in this story the character Kristian tries to come to terms with the fact that his desire and expectation of becoming a father someday will not be realized. The feelings in the scene encompasses what he is feeling (sadness, anger, loss) and the feelings that he will not experience (parental love, connection). Readers respond to both the present moment in the scene and the lost future. The third response above (c) also indicates the basic emotion of sadness, but also the social emotions of disappointment, relief and pride (the latter two implied) that occurred at the same time. The contradictory emotions are evoked by the juxtaposition of the social context of the past in the text and the present social context of the reader. In this case it is the historical fear of AIDS and homophobia in Stockholm in the 1980s versus the public acceptance of homosexuality in the present 2010s. Like (c), the fourth comment (d) points to how different empathic emotions can occur concurrently in response to situations in the novel. This is just one example of the accumulation of feelings that can occur in response to a character’s story.

Tamir et al. (2016) proposed that future research should “focus on the *content* of literature to understand the relation between reading and ToM [Theory of Mind]” (np). This study takes up this challenge; and as discussed in the aims, it hypothesized that reading fiction can increase understanding of how empathy works in relation to an evolving social situation. The students report feeling engaged emotionally, and they attempt to construct rationales for the responses of characters. They also judge their behaviour. A study of the different reactions the students give in their free text responses in the survey and the discussion of the novels in the group seminar

indicates that this resulting empathetic response to the story is not in response to one situation but to an evolving situation. This empathetic response is not a singular emotion. Rather, it is a complex density of emotions linked to existential ideational constructs and ideals that evolve both during reading and in discussions after reading.

It was proposed that at least some readers would express having experienced a sense of progressive affinity/likeability or decreased affinity/likeability. The quantitative results support that reader perceptions of affinity change. In order to delve a little deeper into this phenomenon, the questionnaire asked the students how they would rate the effect of the behaviour of the protagonist on their empathic response and the influence of the input of other characters in relation to the main character. The qualitative data supports the quantitative finding that readers can be swayed both positively and negatively in their empathetic response by the input of other characters in the story. Sometimes, this is straightforward. For example, one student reports that in *Zebraflöckan* “The therapist helped me understand the main character better” (Student # 173022). Cognitive understanding and empathy for the main character’s perspective were facilitated through the narrative device of having a therapist interact with the character. Negative input from other characters, however, can also lead to heightened empathy for the protagonist. In the following examples, readers observe this phenomenon in their reading:

when Sara, Rasmus’ mom, didn’t want to believe that Rasmus was interested in men, instead she said: ‘Not, my Rasmus, no.’ (*Torka Aldrig Tårar utan Handskar*, Student # 153043)

When the father says that it is “hard enough for your mother” and June thinks that it is hard for her too, but she is only the niece. Everyone should have the same right to grieve. (*Let the Wolves Come In*, Student # 1520111)

I became a little sad when Rasmus’ dad told him about the white elk, that it was different and a ‘faulty product’. That Rasmus was told so early that it was wrong to be different. I became happy when Rasmus found friends in Stockholm. And when he found the person he was looking for. (*Torka Aldrig Tårar utan Handskar*, Student #153043)

The shared underlying factor in these experiences is that the character giving the input is perceived as acting unfairly or in a way that hurts the protagonist.

Progressive non-sympathy was an important part of the discussions about the characters and the events in the novels. However, direct influence concerning what other characters had to say about the main character did not reach the level of statistical significance. This may be due to the relatively low rate for the influence of other characters overall. A more important factor in disrupting a sense of affinity with the main character and increasing affinity with another character is when the protagonist reacted or did things that disturbed the readers enough for them to feel that their empathic response is affected. The data for progressive non-sympathy and for being affected by input from other characters support each other, and the inference is that decreased empathy occurs as readers are negatively affected by the main character. Sometimes the effect on the reader was so strong that it produced a significant decrease in affective empathy for the protagonist in favour of one or more of the other characters in the story. When asked to describe what, if anything, bothered the readers or affected them negatively about any character, the responses about the protagonist included:

When he came to Stockholm or had been there for a while & was going to a club, it felt like he was a coward somehow. I don't know how to explain it. (*Torika Aldrig Tårar utan Handskar*, Student # 153033)

When Tessa did things only to do them without really evaluating what she was doing, e.g. having sex with a guy she hardly knew. (*Before I Die*, Student # 173017)

Rasmus bothered me, he was so insensitive towards Benjamin. (*Torika Aldrig Tårar utan Handskar* Student # 153073)

Tessa was selfish and mean towards her father, brother, Zoey, one night stand, etc. ... [I] understand that she was frustrated but selfish, especially towards her father who only wanted to help her in any way he could (*Before I Die*, Student # 173018)

These four responses reflect the two aspects of the main character that students reported produced negative affect: the perception of the protagonist's moral character and how their behaviour affects other characters in the story. Cognitively, reader ideals for desirable social behaviours was a strong external factor in the discussions. Several students in each group created hypothetical scenarios of how they or "most people" would react in a similar situation as part of the justification for judging

character behaviours as undesirable and as sources for legitimating their shifts in perception, affect, and overall empathetic engagement for the main character.

One of the claims of earlier research is that reading fiction can help to reduce biases and transform negative or “ill-fitting” attitudes (McCallister et al., 2015). The results of the current study support this. The questions led students to consider what causes a disruption in their positive empathetic response. Sometimes the effect on the reader was so strong that it produced a significant decrease in affective empathy for the protagonist in favour of one or more of the other characters in the story. In the discussions with different student groups, we came to refer to this type of response to the novel as *an empathy shift*. The qualitative responses support the potential for a shift in perception of the main character and empathetic orientation towards other characters:

Matthew, sure I can understand his diagnosis but it was hard to see how he isolated himself from his family who wanted to help him. (*The Shock of the Fall*, Student #1540212)

Other people who were presented in the book [and] who had direct contact with the protagonist. They coloured my picture of her.the mom’s relationship and despair in the face of her daughter’s OCD, powerlessness. (*Jag bara Tvingar mig Lite*, Student #17320)

The dad felt really helpless through it all. He tried to do what he could and he never gave up, even though he did not get anything back or any kind of acknowledgement (*Before I Die*, Student #171023)

This taking of a family member’s perspective always occurs in those survey responses that also reflect that the students have been negatively affected by the main character in some way. However, it is not a one-to-one correspondence. There is room for some ambiguity, because in the event that readers are negatively affected by the protagonist, the incidence of decreased affinity is less than that of increased affinity for a character. Thus one can suggest that some readers remain empathetic despite reacting negatively to the protagonist, which is an aspect that comes up relatively frequently in discussions. A few students remark on it in the open-text responses, for example, “It was interesting that, as a reader, you understood Minna while at the same time you understood why the mother did not understand anything at all” (*Jag bara Tvingar mig Lite*, Student

#173021). The response reflects the meta-awareness that was an important goal in the module and in the discussions. However, what accompanied the meta-awareness was also often increased affective distance. This is evident in the stress on cognitive empathy that characterizes this dual position where the characters are involved in a conflict and both are objects of compassion.

In some cases, it is more as if students' empathy has stalled or been blocked rather than having shifted: "The situations with the father, where he is really offering his help and she does not seem to care. That made me think a lot and try to understand the reasons behind her frustration instead of just thinking that she was being mean" (*Before I Die*, Student #173016). There is clearly affective distance. However, there is a desire to understand the main character, which in itself is indicative of a meta-reflective stance.

Although readers like this student want to remain empathetic, they struggle with their response to the protagonist. Yet, in their reflection on their own reactions, the students are able to see that they are struggling; thus their awareness increases that socially complex situations can be empathically challenging.

The students talked favourably about being asked the questions in the survey and during the seminar discussions. They maintained that both provided an opportunity to reflect on the complexity of social relations and the changing nature of their own responses. They reported increased self-awareness, which supports the call for medical professionals to find and read literature that allows readers to look at themselves and at the "experience of medical practice" in its emotional and social complexity (van den Berg, 2015). One student observed, "A generally deeper way of thinking has been born... An understanding of how complex feelings are and how they can control our behaviour." Another wrote, "Connecting situations to feelings and to why a situation can give rise to certain feelings took the reading to a new level." A third remarked, "It was useful to feel how I experience empathy, and what and how I relate to Kristian Gidlund's book, *I Kroppen Min*. It was the second time I read it, and it made me think about it more from a professional perspective." The articulation of this type of thinking supports the claims that reading and talking about fiction develops theory of mind, that is, it increases understanding of the thought processes of others and self-awareness (Green and Brock, 2000; Oatley and Djikic, 2002). Moreover, it may offer opportunities for cognitive and affective transformations (Johnson, 2013).

6. Conclusions

Based on prior studies (Green and Brock, 2000; Bal and Veltkamp, 2013), we hypothesized that absorption (a sense of lost time and place) was necessary for the empathic response. The results show that absorption does matter. If a reader experiences a loss of time and space in reading, they are more likely to have a positive response to characters in the story. The self-reports indicate that greater absorption in the story is likely to be present if the reader identifies with the main character and understands other characters in the story. Absorption is also linked to whether one has responded positively or grows to respond more positively to a main character in the story.

This matters in considering the selection and role of fiction in discussions about empathy in professional contexts such as medicine and nursing because the public arena is increasingly fraught with social and political tensions.

The results show that younger students (in their twenties) read more fiction than older students and that increased reading habits can be linked to a greater likelihood of being absorbed by the story, which in turn can also be linked to a willingness to change one's mind. This is an important cognitive ability for socially sustainable workplace. However, there is not certain causality in this relationship, which is important to remember because not all malleability in response is positive. The younger students in this study found it harder to understand characters that are different from themselves, and they were more likely to change their minds about how they feel about a character in a story in response to what happens.

They show an increased tendency to be influenced by others in the story. Further research on age and susceptibility among young adults is necessary to validate these results or to problematize them.

Based on prior studies (e.g. Kuiken et al., 2004, Kidd and Castano, 2013), we anticipated that reading fiction, fictionalized memoirs and non-fiction memoirs would prompt an empathic response, that is, affective and cognitive engagement. We also hypothesized that certain types of events in the evolving situation could negatively affect the compassion felt for a specific character while engaging with a story as a complex social simulation. This study supports that readers change

in their empathetic response. Empathy is dynamic and responsive. It is also situation sensitive, that is, the empathetic response can shift in its target, be blocked or intensified as a situation evolves. Readers change what they think and in what they feel about characters in the story. Readers are affected by how they feel about other characters in a story, the situations that occur, how characters in the story respond to what happens to them, how they treat each other, and what they say about each other.

A foundational understanding that emerged in this project is that readers trace their emotions to both specific situational contexts and evolving situations rather than to a dislocated character and their emotional state or a generic situation. This augments existing concept analyses of empathy (Cuff et al., 2016). It argues for the value of teaching students that empathy is a dynamic process that responds to specific situations and that their empathetic response can encompass a density of emotions in relation to both current, past and future scenarios, and to various people involved (including co-workers), rather than being a more straightforward dispositional characteristic evoked in one isolated situation and by one person or group.

Overall, the successful use of fiction in promoting an increased understanding of empathy, as well as the self, in this investigation points to a strong role for literature and literary reading in discussions that aim to build a socially sustainable future. A specific application for this research is to be found in its value for augmenting the current use of fiction in nursing and medical programs as a means not only to understand patient perspectives but also to understand empathy itself.

The results support the use of literature discussions as a means to actively train self-reflection and meta-cognitive awareness in relation to social situations and empathic responses – both their presence, absence and changes in a given response. In post-seminar reflections, students observed that the reading followed by the discussions in the seminar were profitable for their self-awareness and understanding of the role of emotions in social situations.

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