

Master Thesis

Why do people read climate fiction? An interview-based investigation

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Abstract

During the past years, climate fiction (cli-fi) was increasingly presented as having unique impacts on its readers (Iossifidis & Garforth, 2021; Malpas, 2021; Milkoreit, 2017; Schneider-Mayerson, 2018). Since literature assumes cli-fi to support its readers in dealing with the climate crisis (Johns-Putra, 2016; Nikoleris et al., 2017; Trexler, 2015), it seems important to investigate why people start reading cli-fi books in the first place. This study therefore analyzed the reasons people express to engage in reading cli-fi. Drawing on a Thematic Analysis (TA) of 10 interviews, seven different themes displaying the construction of reasons to engage in reading cli-fi were identified. As most relevant findings, this study depicts the high frequencies of the themes “Recommendations” and “Availability”, indicating that aspects independent from individual characteristics of cli-fi books specifically, seem to play a role in how participants constructed these reasons. While all participants expressed recommendations as a reason to get involved with cli-fi books, the frequency of other reasons varied a lot among the participants, indicating differences in their psychological motivations. Further, especially marketing strategies such as search algorithms or bestseller lists seem to play a role in determining whether people engage in cli-fi reading. However, the results in this thesis should be approached carefully due to limitations such as a small sample size, indicating that further research is needed. Thus, several implications are made for future research on the motivations of cli-fi readers. First, the investigation of individual characteristics of cli-fi readers is suggested to better understand the differences in people’s motivation for reading cli-fi. Finally, the conduction of experimental studies is suggested in order to test whether an increase in availability and recommendations can motivate more people to start reading cli-fi.

Keywords: Climate change, Climate fiction, Psychology of reading, Reading motivations, Climate communication, Climate psychology.

Introduction

In this study, the perspective of climate fiction readers gets investigated by exploring their motivations for engaging with cli-fi books. More specifically, reasons for reading cli-fi books are identified by analyzing cli-fi readers' reasons to engage with them, as expressed in interviews. Thus, the findings of this study will display different themes cli-fi readers constructed as their motivation for starting to read such books. In the following section, climate fiction and the scope of this paper will be introduced in more detail and existing literature will be reviewed.

Over the last decades, climate change has become the most serious environmental issue of present time (International Panel on Climate Change, 2022) and one of the greatest challenges that humanity is facing in this century (Feldmann & Hart, 2017; Goodbody & Johns-Putra, 2019; Sanson et al., 2018; Starup-Hansen et al., 2020). It can be described as long-term changes in modern climate, which were predominantly caused by human activity (Yue & Gao, 2018; Ciscar et al., 2011). Thus, next to ecological changes, studies have shown that climate change also influences people's mental health in terms of psychological distress, anxiety, and depression (Bourque & Cunsolo Willox, 2014; Padhy et al., 2015; Pihkala, 2019).

With the increasing awareness of the catastrophic impacts of climate change, the topic was also started to be addressed by art in various ways (Nurmis, 2016; Schneider-Mayerson, 2017), resulting in movies, comic books, short stories, and novels, in which certain climate change scenarios are presented and which can be classified under the notion of "climate-fiction", also called "cli-fi" (Goodbody & Johns-Putra, 2019; Milner & Burgmann, 2017). In general, cli-fi has existed in one form or another as long as climate change was a topic of public interest (Trexler, 2015), but its popularity peaked during the late 2000s, when climate change became more evident and the public interest for it increased (Schneider-Mayerson, 2020; Trexler, 2015). A considerable variety of climate fiction works arose that cannot be

narrowed down to one single description of this genre's characteristics (Death, 2022).

However, much climate fiction works combine elements of environmental activist fiction like the issue-oriented and didactic approach, with elements of Romantic nature writing, such as intensive descriptions and site specificity (Irr, 2017). Thereby, this new genre aims at letting the reader visualize the effects, causes and general feeling of global warming (Irr, 2017; Milkoreit, 2016), by allowing the reader to imagine certain environmental future scenarios and their possible impacts on human and nonhuman life (Iossifidis & Garforth, 2021; Schneider-Mayerson, 2018). Furthermore, cli-fi explores the topic of climate change not only regarding its setting, but also in terms of social and psychological issues by linking fiction with meteorological facts, speculations about the future of the earth and humanity as well as reflections about the human nature (Goodbody & Johns-Putra, 2019). However, even if a variety of cli-fi characteristics is portrayed in literature, it is not explained whether such characteristics cause people to engage in cli-fi reading or whether they engage with such books due to different reasons.

Overall, literature indicates several reasons for why people start reading books in general. A study from Schiefele et al. (2012), identified the following reasons that motivate people to engage in general reading: curiosity, involvement, competition, recognition, grades, compliance and work avoidance. Next, a paper from Tercanlioglu (2001) investigated students' reading motivations and indicates that they start to read books due to curiosity, competition, grades and challenges. Thus, while previous literature has already explored various reasons for people to engage in general reading, the question remains why people engage in reading cli-fi books specifically.

Even though there are no existing studies that explore the reasons why readers get engaged with cli-fi books, there are a few potential reasons that might be assumed by considering existing theoretical literature. In general, literature suggests cli-fi to have several unique impacts on its readers, which support them in dealing with the climate crisis (Iossifidis

& Garforth, 2021; Malpas, 2021; Milkoreit et al., 2017). Furthermore, a paper from Schneider-Mayerson (2018) identified that cli-fi has positive ecopolitical impacts on its readers by enabling them to imagine potential climate change related futures and by convincing them of the importance and urgency of climate change. Considering these studies, it could be assumed that people engage in reading cli-fi to form their own perspectives of the future by educating themselves about possible climate change scenarios. However, reasons to engage in reading cli-fi could also be much simpler. In that context, people's decision to engage in cli-fi reading might also be influenced by a desire to get involved with the topic of climate change, which is frequently in the news media but otherwise difficult to grasp (Howard-Grenville et al., 2014; Powers et al., 2018; Schäfer & Painter, 2021). Therefore, it could also be assumed that people are curious about the topic of climate change and consider cli-fi as an interesting way to get involved with it.

In this context, the conduction of this study seems valuable due to several reasons. First, it seems important to investigate whether people read cli-fi books with the intention to be influenced by them in order to better cope with the climate crisis or whether they have different reading motivations. Next, by investigating their perspectives, similarities and differences among cli-fi readers might be identified, which eventually allows to distinguish between different types of cli-fi readers (e.g. preferences for dystopian or utopian novels). Additionally, exploring their reasons for reading cli-fi could support climate psychology and climate communication in adapting to potential cli-fi readers' motivations and expectations about the reading experience of such books. Therefore, investigating the readers' perspective could also be important in terms of marketing psychology, as it might identify aspects that stimulate people to start reading cli-fi books. In fact, stimulating people to engage in cli-fi reading might be beneficial, as it can lead to a critical awareness of anthropogenic influences (Lindgren Leavenworth & Manni, 2021; Schneider-Mayerson, 2020).

In this context, this study is placed at the crossroad of the fields of empirical

ecocriticism and climate psychology. In general, ecocriticism is the endeavor of literary scholarship to investigate how the relationship between humans and nature is reflected in literature (Garrard, 2004; Schneider-Mayerson et al., 2020; Tošić, 2006). Further, empirical ecocriticism is a branch of ecocriticism, in which empirical methods are used to investigate the impacts of a literary work on the society and real world (Davidson, 2021; Schneider-Mayerson et al., 2018; Schneider-Mayerson et al., 2020; Toivonen & Caracciolo, 2022). In that regard, researchers in the field of empirical ecocriticism suggest that getting involved with certain narrative literature can increase the awareness of environmental threats such as climate change (Schneider-Mayerson et al., 2018; Schneider-Mayerson et al., 2020; Toivonen, Caracciolo, 2022). Besides, this study also shows strong connections to the research field of climate psychology. Since climate change threatens people with negative emotions such as loss, guilt, anxiety, shame and despair, it can undermine people's capabilities to start understanding or even dealing with the topic of climate change (Hogget, 2019). Thus, it is placed within the field of climate psychology, as it aims to investigate why people deal with the topic of climate change in terms of starting to read cli-fi.

Finally, this study can have implications for the research in different fields, as exploring the reasons of people to read cli-fi could lead to new insights about the kind of tools people use to deal with the climate crisis. More specifically, this study can have implications for the research on persuasive narratives in climate communication, by exploring the reader's perspective and understanding the motivations people construct to engage in certain kinds of narratives such as cli-fi. Next, this study might have implications for environmental education research or climate communication by providing insights into how climate fiction can serve in raising awareness about climate change and motivating environment responsible behavior in e.g. students.

As recent literature does not yet investigate the readers' perspective in terms of motivations for engaging in cli-fi reading and this study aims to fill this gap. Consequently,

this study investigates the expressed reasons for getting involved with cli-fi by conducting a Thematic Analysis to explore the research question: “What kind of themes do people express when discussing their motivation of reading climate fiction books?”.

Methods

Design

This research was conducted in form of an interview study and in collaboration with several students from the University of Twente, who were all working on the topic of climate fiction while targeting different aspects of it. Generally, interviews in this study were semi-structured. Before the start of the data collection, the study was approved by the Ethical Committee of the University of Twente¹.

Participants

Participants were recruited by a research team of several students and a supervisor, using their own personal networks and by making posts on social media (Facebook, Instagram, Reddit). Additionally, participants were recruited via Sona Systems of the University of Twente, which is a participant recruitment portal that facilitates data collection. The inclusion criteria for participation were the minimum age of 18 years and the current or past engagement with at least one cli-fi book. Interviews of ten participants were analyzed, consisting of five interviews conducted by the researcher himself and five transcribed interviews from other collaborating students.

To elaborate on the demographics of the 10 participating readers in this study, their age varied between 21 – 61 years, with eight participants identifying as female and two as male. Within the sample, two different nationalities were represented, with nine participants being German and one being Finnish. Regarding their highest educational degree, nine participants reported to have achieved at least a high school degree and one participant

¹ 220077

reported to have completed medium maturity. Finally, seven different occupations were represented in the sample, including three interviewees currently being students at the University of Twente and two participants being self-employed. In general, all participants were aware about the existence of climate change and a need for action to minimize its threatening consequences. Examples of cli-fi books that participants discussed during the interviews are: “The History of Bees”², “Once there were Wolves”³ and “Memory of Water”⁴, with eight participants having read “The History of Bees”.

Procedure

Participants who showed interest to participate in the study were informed about the details of the study in the form of an information letter (see Appendix B). Next, an agreement for an interview appointment was made and the participants were invited to join a Microsoft Teams meeting via E-mail. Before the interviews, participants were shortly introduced into the aim of the study and provided with an informed consent (see Appendix A), which they signed before the interview started. In addition, participants were presented with demographic questions about age, gender, ethnicity, occupation and education. The interview length varied between 20 and 60 minutes. All interviews were recorded, anonymized, translated into English and transcribed verbatim by the research team, while all spoken words were included, and all sounds were excluded.

Materials

As several students participated in the data collection, sticking to an interview protocol (see Appendix C) allowed to use the interviews of each other. The interview protocol was created and shared by a group of students and their supervisor Dr. Heidi Toivonen. It contains questions about participants’ general perspective on climate change and their experiences and thoughts about climate fiction.

² Novel by Maja Lunde, English version published in 2017 by Simon and Schuster UK

³ Novel by Charlotte McConaghy, English version published in 2021 by Flatiron Books

⁴ Novel by Emmi Itäranta, English version published in 2014 by HarperCollins

After asking for the participants' demographic data, two further questions concerned the interviewees' general perception on and own actions in terms of climate change. Next, 18 questions were asked about the interviewee's reading experience with cli-fi, their general reading frequency, their emotions and thoughts in relation to cli-fi, whether they think that cli-fi impacted them or changed their perspective and whether they discuss cli-fi with other people. As the aim of this study is to investigate the readers motivations to engage in reading cli-fi, two questions that were specifically important for this study are: "*How do you decide which cli-fi books to read?*", and "*What do you think has made you read climate fiction?*". Finally, the interviewees were asked whether there is anything else they want to add to the discussion. In general, probes such as "*Can you elaborate on that*" were used if participants replied shortly or in an ambiguous manner.

Data analysis

To analyze the data, conducting a Thematic Analysis was chosen as it allows to interpret and make sense of the different cli-fi readers' perceptions, by identifying common themes and codes. By doing so, the analysis provides a broad perspective on the reasons that interviewees express when discussing their motivations to engage in reading cli-fi. Therefore, Thematic Analysis was used in an inductive manner, because codes and themes were derived from the data itself (Braun & Clarke, 2012).

The TA was conducted by using the six-step approach from Braun & Clarke (2012). First, the data was investigated in detail by reading all interview transcripts that were analyzed in this study several times, while highlighting relevant excerpts and making notes. Here, not only responses to the aforementioned key questions were taken into account, but also responses to different questions that were relevant for answering the research question were considered. In the transcripts and extracts, participants are referred to with pseudonyms, while the letter "I" refers to the interviewer. Furthermore, the transcripts were already anonymized before uploading them on the Teams channel of the research team in order to ensure

confidentially. Next, initial codes were created from the excerpts by identifying various ways of how participants constructed their reasons to engage in reading cli-fi. Concrete ways of participants expressing reasons to engage in cli-fi reading were the basic unit of analysis. A codable unit of analysis was always represented by whole sentences, and therefore at least consisted of a subject, a predicate, and an object. In the example below, a participant was asked how they decide which cli-fi books to read and responded: “I hear about it”. This example was coded with “personal recommendations from the social environment”. In the next step, themes were derived from the initial codes by identifying common topics, ideas and patterns that occur repeatedly and are relevant to the research question (Braun & Clark, 2012). Therefore, initial codes were combined based on their common underlying features to describe a relevant pattern in the data. In some cases, one theme was created by multiple codes which display similar expressions of reasons to engage in reading cli-fi and were therefore coded as one code. However, sometimes one extract of a theme consisted of several codes. The following extract consists of three different codes, namely “personal recommendations from the social environment”, “recommendations in the newspaper” and “bestseller lists”: “Yes, I do look at such bestseller lists from time to time, but mostly through either personal recommendations or recommendations in the time (a German newspaper).” The excerpt represents the theme “recommendations”, indicating that participants engaged in reading cli-fi based on others’ evaluations of a cli-fi book. In the next step, the quality of the theme construction was evaluated by reviewing the whole data multiple times, considering the coded data and the raw data. Finally, the themes were named, defined and two theme groups were identified by looking for commonalities in the themes.

In terms of reliability and validity, the whole analysis process was discussed with other researchers as well as the supervisor, meaning it was constantly revised to provide trustworthiness (Lincoln & Guba, 1985). Additionally, further interviews were scanned and

analyzed until no new themes were found, indicating that data saturation is reached (Fusch & Ness, 2015).

Results

The findings of this study present seven themes that display reasons to engage in cli-fi reading, as constructed by participants during the interviews: “Forming future perspectives”, “Emotional engagement”, “Curiosity”, “Involvement with reality”, “Recommendations”, “Availability” and “Relevance of the author” (see Table 1). While during their interviews all participants referred to recommendations as a reason to engage in cli-fi reading (see Table 2), each participant mentioned at least one additional theme and thereby combined the themes in different ways. Besides, participants differed a lot in their constructed reasons to engage in cli-fi reading, why it was not possible to further categorize types of cli-fi readers.

Additionally, participants sometimes referred to a theme multiple times during one interview, which was especially the case for recommendations (see Table 2). In the following sections, the themes are described in detail and data extracts from the interviews are provided as examples for each theme. The extracts were modified slightly to ensure anonymity and readability. Additionally, they were stylized by excluding non-verbal sounds.

Table 1

Reasons to engage in reading Cli-Fi

Theme	Definition of theme	Code
1. Forming future perspectives	Imagining how the future will	- Imagining future scenarios
	be affected by the	- Imagining possible outcomes of climate
	consequences of climate	change
	change	- Challenging one’s own perspective

2. Emotional engagement	Expectation of emotional engagement with the topic or the characters of the story	<ul style="list-style-type: none"> - Being able to take the perspective of the characters - Feeling emotionally connected to nature - Being able to dive deep into the topic
3. Involvement with reality	Expecting to get involved with the reality of climate change and its consequences by reading the book	<ul style="list-style-type: none"> - Facing reality of climate change - Interest in reading contemporary literature - Gaining awareness about climate change - Combination of fiction with science - New topic to read
4. Curiosity	Having an interest in the topic and the desire to deal with the topic in more detail	<ul style="list-style-type: none"> - Previous interest in topic - Reading online book description - Reading back of the book - Popularity of the book
5. Recommendations	Relying on the evaluation of people who already know the book	<ul style="list-style-type: none"> - Personal recommendations from the social environmental - Online recommendations - Recommendations in the newspaper - Bestseller lists
6. Availability of the book	Being able to access cli-fi books without much effort	<ul style="list-style-type: none"> - Fast online access to the book - Availability in bookstore - Reading blurbs of books in bookstore - Just looking for an exciting novel
7. Relevance of the author	Engaging in reading cli-fi books based on personal experiences or expectations of the author	<ul style="list-style-type: none"> - Previous interest in the author's literary works - Expecting cli-fi authors to be generally well-informed - Writing style of author

Table 2

Frequencies of constructed reasons to engage in reading cli-fi

Themes	Number of interviewees who mention a theme (N=10)	Overall frequency of the theme during the interviews
Forming future perspectives	6	7
Involvement with reality	4	4
Emotional engagement	4	6
Recommendations	10	15
Curiosity	8	10
Availability	5	5
Relevance of the author	3	3

Forming future perspectives

Six participants reported the formation of future perspectives as a reason to engage in cli-fi reading (see Table 2). In specific, participants expected cli-fi to support them in constructing concrete future perspectives based on the background of the ongoing climate crisis (see Table 1). Four of these participants mentioned that they engaged in cli-fi reading with the motivation of developing new perspectives of the future by imagining future scenarios and possible consequences of climate change. Additionally, three participants indicated that they engaged in reading cli-fi to challenge their previous perspectives of the future. In the example below, “Nina” (41 years old) describes the reasons why she engaged in reading “The History of the Bees”:

Nina: I think because climate change is an interesting topic. And if it's made up really good, then it can be a way of reality. This could be our future if we don't change, it could happen like this. And uhm, Yeah, that would make it interesting.

I: Okay. So, it is about reality when you say that it could look like this in the future?

Nina: When you think about future, you have a certain way of thinking. You say, okay, I think this is going to happen and that is going to happen... for example when talking to my boss ... he thinks we are all going to die from climate change. If we do not stop driving cars, staying home and stop eating meat and stuff like this, we all going to die. That is how he thinks, and this is too much dystopia for me. I have a different way. And I always like to see how other people see the world and how the world could change. And I think these cli-fi books, if they're nicely written, uhm then it's a possible future, not the future I would have made up... but that others have made up and maybe they consider aspects I have never thought about, so... that's interesting.

In this extract, Nina elaborates on the discrepancy between her boss's future perspective and her own. She mentions that she does not agree with his "dystopian" expectation of the future, but that she is still open to other peoples' views. In that context, Nina claims that others might consider aspects in their future construction that she would not have thought about herself, and which could support her in challenging her own perspective, thereby adding to her own view. Thus, by considering cli-fi as a possible "way of reality", she expects it to support her in constructing a more realistic perspective of the future. The formation of realistic future perspectives seem important to Nina, as she is aware that if nothing changes, the impacts of climate change will have drastic effects on the population including herself. Apart from Nina, other participants reported that they started reading climate fiction to imagine possible consequences of climate change and how these could affect them and their environment (see Table 1).

Recommendations

All ten participants mentioned recommendations as a reason to engage in cli-fi reading (see Table 2). In that context, people indicated to rely on the feedback of others when deciding to read cli-fi (see Table 1). While seven participants expressed recommendations from the social environment through e.g. teachers, family member and friends as a reason to engage in reading cli-fi, three participants reported that they also take into account recommendations from the internet or from the newspaper. Next, five participants mentioned that they consider bestseller lists as reasons to engage in reading cli-fi. In the extract below, “Bella” (57 years old) presents why she engaged in reading “The History of Bees” and cli-fi reading in general:

Bella: Well, this book was basically a recommendation from my brother.

I: Oh okay.

Bella: Yes he really liked the book and told me about it, so I bought one myself.

I: So ... you start reading those books based on recommendations or are there other factors?

Bella: Yes, I do look at such bestseller lists from time to time, but mostly through either personal recommendations or recommendations in the time (a German newspaper). There are sometimes very good book recommendations or there are also literary assessments. So, I also rely on such recommendations.

I: Okay and what do you think has made you read climate fiction? So, books from that genre in general?

Bella: So, the interest through the recommendations, but also...

In this example, Bella demonstrates that she mainly gets inspired to engage in reading climate fiction based on recommendations. First, she mentions a personal recommendation from her brother as the reason why she read her first cli-fi book “The History of Bees”. Further, she explains that recommendations from people in her social environment as well as

from the newspaper are generally the main reasons why she engages in reading cli-fi, but that she also considers bestseller lists in her decision-making. Within the extract, Bella refers multiple times to recommendations as a reason for reading climate fiction, without naming any other reasons, indicating that recommendations from others are highly important to her. Even when the interviewer asks whether there are other reasons, Bella keeps referring to other forms of recommendations, which again emphasizes the importance of others' recommendations in her point of view. Hence, Bella mentions that her decision to read cli-fi books does not (only) result from an interest in cli-fi itself, but that she mainly relied on the feedback of others. In that context, she mentions that she actively searches for others' evaluations.

Emotional engagement

Next, four participants mentioned that they started reading climate fiction to get emotionally engaged in the book (see Table 2). Thereby, they read cli-fi since they expected to emotionally connect to the storyline of the book or its characters (see Table 1). In the abstract below, Bella explains what made her read climate fiction, or more specifically "The History of Bees":

Bella: There is a lot of media reporting about climate change with photos and everything and with reports. But I think if you read a novel, you can immerse yourself in it and see the topic from a different perspective. It touches people on a different level.

In Bella's example, she indicates that she started reading climate fiction in the first place, because she expected the book to enable her to become involved with the topic of climate change on a more emotional level. She underlines that in contrast to photos and reports in the media, which would allow her to deal with the topic taking more distanced perspective, reading cli-fi enables her to dive deeper into the topic and experience it from the insight. Thus, it seems as if Bella expected cli-fi to help her become a part of the storyline,

thereby directly experiencing the issue of climate change, rather than being a simple observer watching it by catching glimpses from media documentations. However, by using the you-passive and talking about “people”, Bella is distancing herself, which might indicate that her expectation of getting emotionally engaged with the topic by reading cli-fi was not met.

Overall, three other participants reported that they engaged in reading climate fiction because they expected to be able to deal with the topic of climate-change taking a more emotional perspective. In contrast to Bella, another participant highlighted that she generally feels closely connected to nature and started to read climate-fiction due to this emotional commitment. In fact, this line of reasoning might implicate that she expects cli-fi to have the function of giving her hope through the portrayal of a still existing climate related future and possible solution pathways.

Curiosity

During the interviews, eight participants claimed that they read cli-fi due to an interest in cli-fi or climate change (see Table 2). In that context, people became engaged with climate fiction, because they had earlier developed the desire to learn more about climate change (see Table 1). In the following extract, “Reinhard” (59 years old) explains how he decided to engage in reading the cli-fi book “The History of Bees”:

Reinhard: As far as I know, it was given to me for my birthday. It was certainly a recommendation from some bookstore.

I: Okay, so you didn’t choose the book consciously?

Reinhard: Well, I was already interested in the topic of environment and climate change. And I find books about the environment or novels that deal with the environment and environmental disasters exciting and enjoy reading them.

In this first extract, Reinhard reports that he was already interested in reading novels about environmental disasters before reading cli-fi. He concludes that his first contact with cli-fi, which was receiving the book “The History of Bees” as a birthday present, was initiated

by people from his close environment. He expresses that his curiosity in the topic of climate change was also known by the people from his social environment, which he considers having influenced the kind of present that was given to him. Next to Reinhard, participants also reported that they have started reading cli-fi because they became curious about a book by reading online book descriptions, the back of a book or based on the popularity of a book. The latter aspect was mentioned by a participant who takes into account the numbers of Amazon reviews in his decision to get engaged with cli-fi reading. In this context, he mentioned that solely the numbers of reviews played a role in his decision, regardless of positive or negative evaluations.

Involvement with reality of climate change

Further, four participants mentioned involvement with the reality of climate change as a reason for reading cli-fi (see Table 2). Thereby, they started to read cli-fi, as they consider it as important to get involved with the consequences of climate change (see Table 1). In the following extract, “Vanita” (53 years old) answers to the question why she decided to read “The History of Bees”:

Vanita: I don't know if you know that, but sometimes these topics are of course very exhausting or even depressing. And, for example, if I have the feeling that I'm not in a good mood at the moment, then I don't read it.

I: Yes.

Vanita: I must be in a good mood. I need to feel like: Okay I have the strength to deal with the issue.

I: Okay yes that makes sense. So, what do you think has made you read climate fiction?

Vanita: Well, that I do not want to shut myself off from reality.

The extract above shows that Vanita considers climate change as a topic that triggers negative emotions in her. She clearly states that she does not want to deal with the issue of climate change when being in a bad mood because it exhausts her. Still, despite her negative

emotions, climate change appears to be an important topic to Vanita. Since she does not want to shut off from reality, Vanita seems to use climate fiction reading as an alternative option, to keep the topic of climate change and its “depressing” reality on top of her mind. However, the extract also shows that Vanita seems to position herself above the interviewer by educating him that reading cli-fi can cause feelings of exhaustion or depression. Thereby, Vanita presents herself as an expert who is not only well informed, but also emotional about the topic. Next to Vanita, there was one other participant who reported to engage in reading climate fiction with the intention to be involved with the reality of climate change. Further, one participant reported that he started reading climate fiction to become more aware about climate change in general, while another participant reported to be interested in climate fiction, as it displays modern issues she wants to learn more about.

Availability of the book

Overall, five participants reported that they started reading climate fiction because it was available at a specific time in their lives (see Table 2). In contrast to the theme curiosity, participants’ previous interest was not decisive for reading cli-fi, as they would not have started reading it if it would not have been easily available to them. Instead, solely the availability of cli-fi books inspired them to start reading such books (see Table 1). In the short extract below, “Jana” (23 years old) depicts how she became engaged with climate-fiction due to novelties and recommendations in the bookstore:

I: Uhm, and yeah, you already said that you’ve read some books, but I’m curious, how do you decide which cli-fi books to read? And where do you hear about the books that you decide to read?

Jana: Usually, I’m going to the bookstore and look what they recommend, and sometimes they have books, I don’t know, about soccer, sometimes they have books about cli-fi, sometimes they have drama, poetry, whatever.

In Jana's example, it seems as if it was the latest offers in the bookstores that made her decide on reading climate fiction. It becomes clear that she did not go to the bookstore, because she intended from the beginning to buy a climate fiction book, but that it was the recent selection that played a role in her decision-making process. Thus, cli-fi per se seems to not play a role in Jana's case. Overall, this theme occurred three times during interviews. Next to Jana, one other participant mentioned that he started reading cli-fi as he had fast access to it via the internet, while another claimed that reading the blurbs of the available books in the bookstore made her read cli-fi. Finally, one participant mentioned that he was searching for an interesting novel in general and found a cli-fi book by coincidence, while another expressed during the interview that he searched for cli-fi books on Amazon, but had difficulties to find many of them, because they were not labeled as such.

Relevance of the author

Next, three participants chose to read a cli-fi book due to the books' author (see Table 2). In that sense, not the characteristics of the book were a decisive aspect to them, but they chose to read it based on their previous experience with the author (see Table 1). In the extract below, Anna (23) explains what made her read the climate fiction book "Oryx and Crake"⁵:

I: Then also, how do you decide which climate fiction books to read?

Anna: Uhm, I mean what I did was just, I googled the genre and then I just read descriptions of every book and this one [Oryx and Crake] sounded the most interesting to me and I just picked it. And I picked it, because I knew the author from "The Handmaid's Tale". So, I was like: "Okay, maybe she wrote something good".

In the example above, Anna describes that she specifically searched for climate fiction books on the internet, while she noticed one of the authors, from whom she already knew a book. Further, Anna reports that she just picked a book that sounded interesting, indicating

⁵ Novel by Margaret Atwood, published in 2003 by McClellan & Stewart

that she was initially unsure about which cli-fi book to choose. Next to her previous interest in cli-fi, recognizing the author finally made her choose the cli-fi book, indicating that knowing the author was the decisive step in her decision process, even if Anna does not indicate whether she liked the other book of the author. Next to Anna, two other participants indicated the relevance of the author as reason to engage in cli-fi. Whereas one mentioned that she generally considers cli-fi authors as well informed, the other participant reported that she chose the cli-fi book because she read the first page of the book and liked the author's writing style.

Discussion

In this study, ten semi-structured interviews were analyzed by conducting a thematic analysis, resulting in seven themes of constructed reasons to engage in cli-fi reading (see Table 1). In the following, the results will be discussed regarding existing literature and suggestions for future research in the field of environmental education research and climate communication will be made.

Main findings

Overall, the findings of this study present a large diversity of sometimes contradictory reasons to engage in cli-fi reading. While all participants reported recommendations of others as a rather coincidental reason that made them get in contact with climate fiction, many participants also reported a general interest in the topic, the expectation to form future perspectives and the availability of cli-fi books as reasons for reading cli-fi. Additionally, few participants also reported emotional engagement and an interest in the author as reasons to engage in cli-fi reading. Since all participants reported several reasons to engage in cli-fi reading, findings of this study suggest that cli-fi readers' motivations seem to be rather multifaceted.

To elaborate on the role of recommendations, they seem to be the most prevalent reason for people to engage in cli-fi reading in the light of this research. In this context, participants

reported that recommendations of others made them aware of and interested in climate fiction books in the first place. More specifically, participants indicated especially bestseller lists and personal recommendations as decisive aspects for their engagement with cli-fi books.

Regarding bestseller lists, most participants in this study were Germans who have read the book “History of the Bees”, which was on the bestseller list of the “Spiegel” in Germany for several weeks in 2017 (Henning, 2021). This pattern resonates with previous research demonstrating that bestseller lists can have a direct influence on books sales (Shehu et al., 2014; Sorensen, 2017), since consumers might want to keep up with what others are reading to not be excluded from e.g. conversations about such books (Sorensen, 2017). Next, many participants mentioned personal recommendations by friends or family members as reading motivations. Therefore, recommendations from the social environment seem to play a crucial role in inspiring people to read cli-fi books, which is in line with previous research on general reading motivations, identifying social recognition as one of its dimensions (Schiefele et al., 2012; Schiefele & Schaffner, 2016). To be more specific, previous research suggests that direct or indirect recommendations from the peer group can have influences on the reading choices of peer members (Hopper, 2005; Mansor et al., 2012). As one explanation, this could again be due to a tendency to keep up with people from one's close environment, because people want to be able to talk about the book with their peers to not be excluded (Sorensen, 2007; Sorensen, 2017). As another explanation, people in close relationships often have common interests (Floyd, 1995), indicating that recommendations from close friends and family members that are based on those shared interests might be valued a lot.

Beside recommendations, also the availability of cli-fi books was expressed with a moderate frequency, indicating another reason for reading climate fiction, which is independent from individual characteristics of cli-fi books specifically such as their storyline. On the one hand, participants reported the availability of cli-fi books as a rather coincidental reason that inspired them to read such books. On the other hand, participants indicated the

availability of cli-fi books as a prerequisite to start reading them. These participants presented a lack of availability or hardened access to cli-fi books as an exclusion criterion to engage in cli-fi reading. Therefore, in the light of this study, a lack of availability of climate fiction books seems to portray an obstacle for people to start reading them. To elaborate on that, one participant mentioned that they were barely able to find cli-fi books on Amazon, indicating that the accessibility of cli-fi books on the internet might be limited for some people. This might be due to the algorithms of certain online booksellers such as Amazon, which aim to represent the customers' interest and therefore adapt the search results based on one's previous search queries (Linden et al., 2003). In that sense, different persons might enter the same term in the searching field on Amazon, but obtain different results based on the customers interests as expected by the algorithm (Leino & Rähä, 2007; Pariser, 2011). Hence, it seems to be more difficult for people to find cli-fi books, when they have never searched for them before. Further, another participant mentioned that they were sometimes not able to identify cli-fi books as such, because they did not know how to differentiate them from other books about climate disasters. This especially seems to display a limitation for people who actively search for cli-fi, since they want to read cli-fi books but cannot find them. Overall, both previously mentioned aspects of limited availability seem to make it more difficult for potential cli-fi readers to get engaged with cli-fi, indicating that availability is an important aspect in the decision-making process of people when it comes to engaging in cli-fi reading.

Still, there were also other reasons for reading climate fiction that were frequently discussed by participants. In that context, participants also mentioned curiosity and involvement with the topic as reasons for deciding to engage in cli-fi reading. These findings are in line with previous research identifying involvement and curiosity as reasons for people to engage in reading in general (Schiefele et al., 2012; Schiefele & Schaffner, 2016). This finding shows that beside the psychological impacts cli-fi is suggested to have on its readers

by literary scholars (Iossifidis & Garforth, 2021; Malpas, 2021; Milkoreit, 2017; Schneider-Mayerson, 2018), cli-fi readers also start to engage with such books because they simply consider them as interesting and want to learn more about the topic. Hence, motivations for climate fiction reading do not seem to be that different from motivations for reading in general. Still, some participants reported that they have started reading cli-fi because they expect it to affect them in terms of forming concrete future perspectives. This finding is rather in line with previous research assuming that cli-fi supports a reader's ability to imagine possible climate change related futures (Schneider-Mayerson, 2018; Iossifidis & Garforth, 2021). Thus, in the light of this study, it seems as if some cli-fi readers intentionally read cli-fi books to increase their ability of imagining future scenarios, while other rather engage in cli-fi reading by coincidence, demonstrating differences in the level of psychological motivation of cli-fi readers.

Since previous research already identified reading motivations as a multidimensional construct (Schiefele & Schaffner, 2016; Watkins & Coffey, 2004), this finding is not surprising but rather highlights the differences among cli-fi readers. This is somewhat conflicting with previous literature treating cli-fi readers as one unique group (Gaard, 2015; Iossifidis & Garforth, 2021; Malpas, 2021; Milkoreit, 2017). Instead, in this study, cli-fi readers are presented as individuals who differ radically in their psychological motivations, which entails that not everybody can be motivated on the same level. In that sense, some cli-fi readers seem to read cli-fi in a rather philosophical manner and with the intention of being psychologically affected by it, whereas others might just come across cli-fi by chance, thereby not having concrete expectations of the reading experience or its effects. With regard to this latter aspect, the results of this study demonstrate that there is a world outside the books that influences people in their decision to start reading cli-fi. In contrast to literary scholars tending to assume that cli-fi books are read in a rather complex and philosophical manner (Johns-Putra, 2016; Nikoleris et al., 2017; Trexler, 2015), this study's findings rather

highlight less intentional reasons. More specifically, it indicates that people who do not read cli-fi for working purposes have different reasons and ways of reading cli-fi. Such people might just engage in cli-fi reading because it is available or recommended to them, which highlights a rather economic perspective on reasons to engage in reading climate fiction. To elaborate on that, next to cli-fi's philosophical and educational aspects, findings demonstrate that books from the genre are still products that are sold. Therefore, reasons to engage in cli-fi reading, such as availability and recommendations, seem to be important factors in determining the consumer behavior of potential readers. Generally, these findings are in line with recent literature about the consumer behavior of purchasing books. To elaborate, recent studies indicate that availability is a crucial factor in determining the purchases of books (Yoganandan, & Prabhukumar, 2015) and that recommendations work as cues to purchase books online (Huang & Chen, 2006), thereby influencing people's decision to buy books from a certain genre such as cli-fi.

Based on these findings, the question occurs how these insights can be used to increase cli-fi reading in the future and eventually make use of its suggested effects on the readers. Regarding recommendations, in the light of this thesis, especially social aspects seem to matter in the decision to start reading cli-fi. Therefore, it might be advised to connect more people to reading peers, so they can talk about cli-fi books with people who share their interests and eventually recommend them to others, thereby increasing the general awareness about it. For students, this can be achieved by using the classroom as a space for reading and discussing the books. Additionally, teachers could encourage students to use social networking forums, where they can connect to peers who share similar reading interests (Merga, 2014). Next, an implication to increase the availability could be to create (online) labels for climate fiction books that facilitate their recognition. In fact, literature has shown that labeling can help customers to quickly communicate product information and differentiate between a variety of products (Weinrich & Spiller, 2016). Thus, applying online

and offline cli-fi labels could support readers in recognizing cli-fi books as such, by differentiating them from other climate related books.

Limitations

Still, the results of this study should still be considered in the light of some limitations. First, the study only investigated a small group of participants based on a qualitative approach, indicating limitations in the generalizability of the study. Furthermore, there was not much variability in the participants' sociodemographic data, as most of the participants reported to be well educated, German, female and constructed themselves as believing in the existence of climate change and worrying about its consequences. Next, participants constructed their reasons for reading cli-fi from the retrospective during the interviews, meaning that they might have also taken into account their reading experience. Further, another limitation is that most participants only read one cli-fi book, namely "The History of Bees", meaning that there might not have been a variety in expressions on how they decide between different cli-fi books.

Future recommendations

In previous literature it was often claimed that climate fiction can inspire people to imagine possible futures and perform environmentally responsible actions. However, findings of this study suggest that the availability aspects of cli-fi needs to be considered as well. Hence, future research should investigate whether more people would engage in cli-fi reading if such books were easier to access. As a concrete suggestion for future research, an experiment could be conducted in which it is tested whether the implementation of online labels would increase the accessibility of cli-fi books. More specifically, it could be examined in e.g. an online library to test whether significantly more people access cli-fi books after the implementation of such labels.

Additionally, this study suggests that in terms of recommendations, especially social relations are a relevant factor in the construction of reasons to engage in cli-fi reading. Thus,

further research in the field of climate communication should investigate whether the discussion of cli-fi books in e.g. climate reading groups motivates people to start reading cli-fi. This could again be tested by conducting an experiment that aims to explore whether significantly more students become involved with cli-fi based on the recommendations of others in climate reading groups.

As this study indicates a rich variety in reading motivations but only consisted of a small sample, a future recommendation for research would be to investigate whether certain demographic characteristics of cli-fi readers relate to their construction of reasons. As a research suggestion, a quantitative study could be conducted, including a questionnaire that asks participants for their background variables and motivations to engage in climate change to identify possible subgroups of climate fiction readers.

Conclusion

Overall, the results of this study indicate a diversity of constructed reasons to engage in climate fiction reading. Taking a critical perspective, this work has elaborated on this diversity by emphasizing that cli-fi readers might not be seen as a unique group, but rather as individuals with different psychological motivations. Findings of this study suggest that especially recommendations and the availability of cli-fi books play an important role in people's decision to engage in cli-fi reading. In this context, this study highlights a rather economic perspective, in which marketing strategies such as searching algorithms and bestseller lists portray to have a primary influence on people's decisions to engage with climate fiction.

To conclude, the reasons why people start reading climate fiction seem to be multifaceted in the light of this study. Whereas some readers indeed reported to have a specific intention, others claimed to have engage with climate fiction rather coincidentally, with a single reader sometimes even stating both. Thus, further research is necessary that

investigates the reader's perspective in more detail, also taking into account the role of marketing strategies.

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Appendix A – Informed Consent

FROM:	DATE	PAGE
H.K. Toivonen	24-2-2022	35 of 36
X	OUR REFERENCE	
X		

SUBJECT
Consent for Participation in Interview Research

1. I volunteer to participate in a research project concerning climate fiction reading. I understand that the project is designed to gather information about people's experiences and thoughts on climate change -themed fictional books as well as about how people think about climate change.
2. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without any negative consequences. If I decline to participate or withdraw from the study, no one will be told and it will not affect my relationship with University of Twente.
3. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.
4. Participation involves being interviewed by a student of psychology from University of Twente, using the Zoom or Teams video call platform. The interview will last approximately 30-60 minutes. Notes will be written during the interview. The interview will be recorded, and the anonymized transcript made on the taped video call will be used for research purposes.

DATE	OUR REFERENCE	PAGE
24-02-2022		35 of 36

5. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions. If requested, I can have access to the transcript of my interview by email. I can also request that the final assignment, thesis and/or research article will be sent to me when it has been accepted/published.
6. The data will be destroyed 10 years after the end of the project (that is, in December 2032), or any time at my request.
7. No one outside of the project or not involved with writing assignments, theses, or papers using this data, will have access to the raw notes, recordings, or transcripts.
8. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I give my consent to participate in this study.

9. I have been given a copy of this consent form.

Signature of the participant

.....

Signature of the interviewing student

.....

Signature of the supervisor, Assistant Professor Heidi Toivonen

Heidi Toivonen

Appendix B – Information letter

Research Project: *Narratives in Managing Climate Change Agency and Emotions: Experiences of Reading Climate Fiction*

The genre of climate fiction -fiction that depicts how people experience and deal with climate change- is becoming increasingly popular. Yet, not much qualitative empirical research exists on the topic; we do not know much about the *experiences* of people who have read cli-fi.

This research project, conducted at the **University of Twente**, at Psychology, Health, and Technology, investigates the experiences and perceptions of people who read climate fiction. Assistant Professor Heidi Toivonen is the PI of the project, supervising students of psychology who conduct interviews and analyze the data as parts of their course assignments and theses.

The research involves collecting online one-on-one interviews, mostly in English but also in the native language of the participant if that is not English and the interviewee is fluent in it. The data is collected for the purposes of students writing their research module assignments as well as Bachelor's and Master's theses and can eventually be used for scientific publications by Dr. Toivonen and possibly other scholars.

Naturally, participation in this research is voluntary. The interviews will last for 30-60 minutes. The participant will be asked questions about their experiences of reading climate fiction books and perceptions of climate change. The participant can decline to participate and **withdraw from the research at any time**, without any negative consequences, and without providing any reasons.

The interviews will be audio- and videorecorded. The interview data will be fully anonymized upon transcription, and all interviewees will be referred to with pseudonyms throughout the analysis and in the final written works produced from the data. Individual participants cannot be identified from the assignments, theses, or articles written using this data.

The BMS ethical committee / Domain Humanities & Social Sciences at the University of Twente has approved this study (application number 220077). The data will be stored safely according to the data policy of University of Twente until 10 years after the research has ended.

Responsible researcher and contact person for questions about the research and rights of research participants: Assistant Professor Heidi Toivonen, X.

Appendix C – Interview guide protocol

Ask for their age and gender without assuming that people identify with the traditional binary division.

Ask for occupation and education.

Make sure you know their ethnicity and where they live in the world. Note that nationality is not ethnicity!

1. How would you describe your views on climate change?
2. How would you describe your actions in terms of climate change?

Next, we will move on to talk a little bit more about climate fiction or cli-fi, the kind of fiction that deals with climate change more or less directly.

Just to check, do you have an idea of what kind of literature we are talking about now?

3. How much climate fiction have you read?
 - a. More than one: Could you tell me the names of some climate fiction books that you have read?
 - b. One: Which book was it?
4. How long have you read climate fiction?
 - a. When did you read your first book of climate fiction?
5. How much do you read in general?
 - a. Mostly cli-fi or something else?
6. What was the latest climate fiction book you read and when was it?
7. How was the reading experience (of the last cli-fi book you read)?
8. What is the best cli-fi book you have read?
 - a. Why it is the best?
9. How do you decide which cli-fi books to read?
 - a. That is, where do you hear about books to read?
10. What do you think has made you read climate fiction?
11. Do you discuss these books with other people in person or online?
 - a. Which topics are addressed in these discussions?
12. How have your experiences of reading climate fiction been in general?

13. What kind of emotions have you felt when reading cli-fi?
14. How realistic do you think are the scenarios depicted in the cli-fi books that you have read?
15. Has reading climate fiction influenced your feelings with regards to climate change?
16. Has reading climate fiction changed anything in your thoughts about climate change?
17. Currently, researchers are very interested in negative feelings related to climate change, for example, climate-change related anxiety or “climate anxiety”. Have you experienced anxiety because of climate change?
 - a. If yes, has reading climate fiction had an influence on your climate anxiety?
 - b. Do you think climate anxiety impacts how you think and act with regards to climate change?
18. Has reading climate fiction changed the way you perceive your chances to do something about climate change?
19. Has reading climate fiction changed something concrete in your actions with regards to climate change?
20. Has reading climate fiction influenced your perception of the future?
 - a. If yes, in what way?
21. Is there something else you would like to add about climate fiction reading or climate change that we have not yet discussed?

Many thanks to you for your time and for your interesting answers!