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Approaching Climate Change Through Fiction? The Effects of Coping Dispositions on

Preferences for Climate Fiction Versus Non-fiction

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Abstract

Climate change is a psychological threat. This research investigates how coping dispositions (vigilance and cognitive avoidance) affect preferences for fictional versus non-fictional information about climate change. Because fictional stories are usually sought out for entertainment rather than informational utility and allow to experience threatening issues at an aesthetic distance, we propose that fiction might be avoided less than non-fiction by individuals with an avoidant coping style. We investigated our hypotheses in two experiments using samples from a Western, industrialized country (N_1=157; N_2=506, Experiment 2 was preregistered; within-subjects factor: fiction vs. non-fiction books). Across both experiments, dispositional avoidance predicted lower interest in climate books. Higher preference for non-fiction over fiction was observed for individuals low in avoidance, whereas highly avoidant individuals showed no preference. This effect was driven by physical threat avoidance, but not ego threat avoidance. Contrary interactions emerged for vigilance: Higher ego threat, but lower physical threat vigilance predicted a stronger preference for non-fiction over fiction.

Keywords: climate change; fiction; coping dispositions; selective exposure

Approaching Climate Change Through Fiction? The Effects of Coping

Dispositions on Preferences for Climate Fiction Versus Non-fiction

Climate change presents one of the major threats of our times, with far-reaching consequences for life on this planet (WMO, 2025). Beyond that, climate change also poses a psychological challenge as an environmental stressor (Clayton, 2020; Doherty & Clayton, 2011; Ogunbode et al., 2022; Reser & Swim, 2011). In the face of the magnitude of this crisis, a significant segment of the public appears to be experiencing *climate fatigue* (Kerr, 2009) and actively avoiding information about the issue (Newman et al., 2023). Disengagement with climate change may stem from various factors, such as low efficacy perceptions, denial, or emotional overwhelm, or the desire to maintain a positive mood (Gifford, 2011; Newman et al., 2023; Stoknes, 2015; Yang & Kahlor, 2013). In populations where the physical dangers of climate change are still perceived as a looming threat rather than experienced directly, one underlying cause for issue avoidance may be the dispositional response patterns of individuals in the face of threats. These coping dispositions can be differentiated by their orientation towards (*vigilance*) or away from the stressor (*cognitive avoidance*, Krohne & Hock, 2011). Individuals with a high disposition for cognitive avoidance may be particularly inclined to disengage with threatening topics such as climate change as an emotion regulation strategy (see Kim et al., 2014; Yang & Kahlor, 2013).

Generally, habitual avoidance behavior in the face of societal threats is considered maladaptive and presents a problem for democratic solutions to climate change (Aalberg & Curran, 2012; Naragon-Gainey et al., 2017). However, we argue that fictional narratives about climate change may not underlie the same avoidance patterns as non-fictional information. Both fiction and non-fiction can shape people's thinking about real-world issues and provide an opportunity for engagement and learning (Green & Appel, 2024; Green & Brock, 2000; Walsh et al., 2022). However, fiction evokes different expectations in audiences

based on the differing norms that guide the production of fiction and non-fiction (Appel &

Malečkar, 2012). Furthermore, fiction allows to experience extreme scenarios and approach

emotionally difficult topics from a safe aesthetic distance (Mar & Oatley, 2008; Menninghaus

et al., 2017; Oatley, 1999). Connecting literature on the psychology of climate change,

individual differences in coping, selective exposure, and fiction theory, we propose that

fictional narratives may be a way to reach audiences who are otherwise inclined to avoid the

topic of climate change in non-fictional media (i.e., individuals high in cognitive avoidance).

We present two experiments conducted in a Western, industrialized context (Germany), that

examine how interest in climate fiction and non-fiction books is contingent on dispositional

cognitive avoidance and vigilance.

Coping With the Psychological Impact of Climate Change

The psychological impact of climate change as an environmental stressor can stem

from various direct and indirect experiences (Brügger et al., 2021; Doherty & Clayton, 2011;

Reser & Swim, 2011). While many communities worldwide (particularly in the Global South)

are already facing the immediate and severe consequences of climate change, for most people

in the Northern Hemisphere—particularly in Western, industrialized nations—risk

perceptions are predominantly shaped through media coverage (e.g., Capstick et al., 2015;

Hase et al., 2021; Parks, 2020). However, the consequences of climate change are becoming

increasingly tangible in all parts of the world, through more frequent extreme weather events

and unusual weather patterns, but also psychosocial consequences like increases in conflict

and migration (Clayton, 2020; Reser & Swim, 2011; WMO, 2025).

The presence of danger, high ambiguity, and low immediate control over a situation

are critical factors contributing to the perception of threat, resulting in psychological stress

(Hock et al., 1996; Krohne & Hock, 2011; Lazarus & Folkman, 1984; Witte, 1992). Climate

change endangers social order and ultimately survival of humanity (Clayton, 2020; Reser &

Bradley, 2017). Furthermore, there is great uncertainty in terms of the occurrence of specific climate change related events, their scope, timing, location, and the socio-political responses to address the threat (Visschers, 2018). Owed to the global scope and complexity of the problem, low perceived behavioral control and self-efficacy to address the problem are widespread perceptions, which ultimately stand in the way of individual action and behavior change (Ajzen, 2002; Gifford, 2011).

Finally, climate change bears both a physical and an ego-threatening dimension by threatening not only physical safety and survival, but also the positive self-views of individuals. Given that climate change disproportionally affects those who are least responsible, it also presents an ethical dilemma. Thus, discourse about climate change often touches on questions of responsibility, justice, and the morality of consumerist ways of life particularly in industrialized countries (Newell et al., 2021; Vandenhole et al., 2023).

In the face of threats, individuals resort to various coping strategies to manage the resulting distress or the underlying problem itself (Folkman, 2013; Lazarus & Folkman, 1984). Coping responses vary across dimensions such as proactivity or reactivity (Reser & Swim, 2011), emotion- or problem-focus (Carver et al., 1989; Lazarus & Folkman, 1984), and orientation towards (vigilance) or away from the threat (cognitive avoidance; Krohne & Hock, 2011). How individuals cope with and adapt to climate-related threats is influenced by various psychological processes which have been synthesized by Reser and Swim (2011): The interplay of threat appraisals (e.g., perceived risk probability and susceptibility), coping appraisals (e.g., perceived coping resources, self- and response efficacy), responsibility attributions and emotions, and various moderators (e.g., personality traits, situational factors) motivates coping responses such as adopting environmentally friendly behavior, seeking social support, engaging in information seeking, or avoidance.

Selective Avoidance of Climate Information as Emotion Regulation

Survey research shows that disengagement with news has increased over the past decade in many countries and climate change is a topic that substantial proportions of respondents report to be actively avoiding (Newman et al., 2023). The long-term character of the climate crisis and continuous reporting of bad news may promote message fatigue for some (Lu, 2022; So et al., 2017). Furthermore, media coverage on climate science tends to neglect reporting on possible solutions, thus emphasizing the threat without providing information to foster efficacy perceptions (Perga et al., 2023), which can increase the likelihood for defensive responses (Witte & Allen, 2000; see also recent research on solutions journalism, which could help to counteract such effects, e.g., Thier & Lin, 2022). If perceived control and self-efficacy to address the cause of a threat are low, individuals are more likely to resort to emotion-focused coping strategies such as emotion regulation (Lazarus & Folkman, 1984). According to Gross (2015), emotion regulation begins with the anticipation of the likely emotional impact of particular situations and the corresponding approach or avoidance of these situations. Thus, disengagement with climate change related information can be a form of proactive, emotion focused avoidance coping through emotion regulation.

Empirical evidence supports this notion. In survey and interview research among news avoiders, anticipation of anxiety is reported as a major motivator (Newman et al., 2023; Toff & Nielsen, 2022). Climate anxiety has been strongly related to exposure to and attention towards climate information (Ogunbode et al., 2022). Yang and Kahlor (2013) found that negative affect predicted information seeking on climate change, whereas positive affect was related to avoidance of climate information. They suggest that for those worried about climate change, seeking information about the threat may serve an instrumental purpose, whereas information avoidance may be motivated by the desire to maintain a positive mood. Moreover, deliberate information avoidance is conceptually distinct and has different

underlying causes from unintentional avoidance (for a theoretical model of intentional risk

information avoidance, see Deline & Kahlor, 2019, and Deline et al., 2024, for an application

and motivations in environmental contexts). The latter often simply reflects stronger

preferences for other concurrent media (e.g., entertainment; Skovsgaard & Andersen, 2020).

Although momentary disengagement with a stressor can provide temporary relief and

serve some adaptive purposes (Naragon-Gainey et al., 2017; Woodstock, 2014), habitual

avoidance is generally considered maladaptive (Naragon-Gainey et al., 2017). On a societal

level, disengagement with media coverage about and apathy towards climate change (whether

intentional or unintentional) is problematic as democratic political solutions require voter

pressure of an informed electorate (e.g., Aalberg & Curran, 2012; Skovsgaard & Andersen,

2020).

The Role of Coping Dispositions for Selective Exposure and Avoidance

Habitual coping responses to threats beyond individual instances of coping are shaped

by personality differences. Thus, we focus on dispositional coping modes as predictors of

interest for climate change related information. The *model of coping modes* (MCM; Krohne,

1993; Krohne & Hock, 2011) defines *vigilance* and *cognitive avoidance* as dimensions of

personality that are rooted in individual differences in one's susceptibility to uncertainty and

emotional arousal, with different implications for attentional processes, self-regulation, and

appraisal in threatening situations. Extending the repression-sensitization construct (Byrne,

1964), the MCM considers vigilance and avoidance as two independent dimensions, rather

than the poles of one dimension. Individuals high in vigilance have a high intolerance for

uncertainty and respond to ambiguity more strongly. As a result, they are more likely to

perceive ambiguous stimuli as threatening (Hock et al., 1996) and respond to threats with

increased attention towards threatening information in an effort to resolve uncertainty (Hock

& Krohne, 2004; Klucken et al., 2010; Koster et al., 2004). Cognitive avoiders on the other

hand are more susceptible to emotional arousal and respond with averting attention from the

threatening information due to a fear of anxiety (Hock & Krohne, 2004). Thus, cognitive

avoidance strategies are conceptualized as fear control processes and vigilance strategies as

danger control processes in the MCM (Krohne, 1993; Krohne & Hock, 2011).

Vigilance and avoidant coping can be induced by threats to the bodily integrity or

survival of individuals (physical threats) or by threats to an individual's self-image (ego

threat; Krohne et al., 2000; Krohne & Hock, 2011). As argued earlier, there is a physical and

an ego-threatening dimension inherent to the climate crisis, resulting from the danger it poses

to the lives of humans, but also their positive self-views. Thus, avoidance of climate change

information may stem from the desire to evade negative emotions associated with its physical

dangers, as well as a need to uphold a positive self-image or avoid scrutiny from others.

Some empirical studies link individual differences in terms of coping to information

seeking and avoidance. Rosen and Knäuper (2009) showed that participants with higher

intolerance of uncertainty responded to situational uncertainty evoked by reading about a

fictitious disease with greater worry and greater information seeking behavior. Kim et al.

(2014) found that sensitizers (i.e., individuals high in vigilance and low in cognitive

avoidance; Egloff & Hock, 1997; Krohne et al., 2000) spent more time with news related to

the financial crisis and less time with crisis-unrelated news, if their financial threat-perception

was high. Johnson and Knobloch-Westerwick (2017) examined the role of coping styles for

selective exposure to online news stories with varying informational utility. Informational

utility describes the extent to which media content is perceived as helpful for different

adaptation needs (Atkin, 1973; Knobloch-Westerwick, 2008). The authors found that

individuals spent more time browsing news with high (vs. low) informational utility only if

they were low on avoidant coping (i.e., had a lower tendency for denial, self-blame, substance

use, and behavioral disengagement as coping strategies; Carver et al., 1989), suggesting that

avoidant individuals may be less likely to seek out information for problem solving.

Engaging With Climate Change Through Fiction

Research on selective exposure and avoidance in the context of climate change has

typically focused on non-fictional media (e.g., Bolin & Hamilton, 2018; Feldman & Hart,

2018; Skurka et al., 2022; Taddicken & Wolff, 2023). However, people frequently use

fictional stories for coping and emotion regulation as well (e.g., Nabi et al., 2022), and

narratives present a useful format for science communication (Dahlstrom, 2014). In recent

years, climate change has increasingly become the subject of narrative fiction, such as movies

or novels (e.g., Andersen, 2020; Hakemulder et al., 2023; Johns-Putra, 2016; Schneider-

Mayerson, 2017; Svoboda, 2016). Climate fiction describes a category of speculative fiction

that explores the impact of anthropogenic climate change on the environment, people, and

society (e.g., Schneider-Mayerson, 2017).

The distinction between non-fiction and fiction is one of a normative agreement

between audiences and authors that pertains to the epistemic ambiguity of fiction and the

differing claims raised with regards to the correspondence to reality: Whereas there is a

general expectation that non-fiction is guided by a principle of truth, this expectation is lifted

when it comes to fiction (Eco, 1994; Genette, 1997). In contrast to non-fiction, writers of

fiction are not bound by the guiding principle of truth and are thus free to imagine places,

persons, and events (Appel et al., 2021). Nevertheless, fictional stories are rooted in reality

and sometimes writers of fiction may be equally motivated to provide accurate portrayals as

writers of non-fiction (Eco, 1994). Therefore, fiction does not necessarily imply that a story is

unrealistic (to describe the extent to which a fictional narrative diverts from the real world,

Busselle and Bilandzic, 2008, use the term external realism).

The epistemic status of a media product (i.e., its fictionality) is often signaled through paratextual information (e.g., as part of a movie trailer, a short overview of the book, or the genre label "novel" on a book cover; Genette, 1997). Contextual information such as the categorization of a book within the fiction or non-fiction section of a (online) bookstore also clarifies fictionality. Fictionality shapes readers' expectations and may thereby influence media choice. Results from Appel and Malečkar (2012) showed that recipients expect a story that is introduced to be fictional (vs. non-fictional) to be less useful and trustworthy, but as more transporting and entertaining. Thus, individuals typically approach fiction with the expectation of entertainment and non-fiction with the expectation of acquiring information. Importantly, non-fictional climate literature may include explicit recommendations for individual, collective, or political action or appeal-like content, whereas such messaging would be less conventional for fiction books. Although some fiction authors may aim to convey a particular message, they are unlikely to do so overtly (Green & Appel, 2024). Because appeals for behavior change have the potential to threaten positive self-views, individuals with a higher tendency for cognitive avoidance (particularly in response to ego-threats) may be less likely to engage with non-fiction climate books. Conversely, vigilant individuals may be more drawn to the efficacy information to be expected in non-fiction climate literature.

Importantly, it has been argued that fictional narratives foster aesthetic distancing processes (Bullough, 1912; Cupchik, 2002; Mar & Oatley, 2008; Menninghaus et al., 2017; Oatley, 1999). Similar to the understanding of psychological distance in construal-level theory (Trope & Liberman, 2010), perception of distance is evaluated in reference to the self in the here and now. Aesthetic distancing requires the audience to recognize that an aesthetic creation is a cultural artifact and involves a "willing suspension of disbelief", acknowledging that the reality presented in the aesthetic event differs from the everyday world (Cupchik,

2002, p. 183). This allows audience members to adopt a witness position and suspends the need to react to eliciting stimuli (Menninghaus et al., 2017). Thus, aesthetic distancing can contribute to psychological distance. For this reason, fiction has been suggested to provide a way for audiences to explore emotionally extreme scenarios and negative emotions without any direct consequences to their real lives (e.g., Koopman & Hakemulder, 2015; Mar & Oatley, 2008; Menninghaus et al., 2017; Oatley, 1999). Menninghaus and colleagues (2017) propose that distancing processes are a crucial ingredient of art reception (including entertainment media) that enable recipients to find enjoyment in the experience of negative emotions. Aesthetic distancing does not necessarily imply that negative emotions are experienced less intensely (Goldstein, 2009) but rather aids the positive reappraisal of negative emotions and thus gives rise to positive affect (for empirical evidence in the context of visual and performative art, see Gerger et al., 2014; Wagner et al., 2014, 2016).

Theory and research suggest that aesthetic distancing does not preclude absorbed experiences and pervasive effects of fictional stories on recipients. Research has shown that audiences can experience narrative transportation (a state of high absorption in which all mental capacities become focused on the processing of a story; Green & Brock, 2000) regardless of the fictional status of a story (e.g., Appel & Malečkar, 2012; Green & Brock, 2000). Highly absorbed narrative experiences and aesthetic distancing rather present complementary modes of media experiences (see Cupchik, 2002; Koopman & Hakemulder, 2015; Menninghaus et al., 2017). When reading stories, recipients alternate between moments of deep immersion into a fictional story world and a distanced mode in which the aesthetic properties of a cultural artifact are salient. For example, recipients may remind themselves of the fictional status of a story to regulate the emotional impact of frightening story events. However, even in a state of high transportation during reading, recipients maintain at least a

basic awareness of the mediated nature of their experience and the distinction between fiction and reality (e.g., Menninghaus et al., 2017).

Extant research found that fictional stories are able to change attitudes, beliefs, and behavior (for overviews see Green & Appel, 2024; Walsh et al., 2022). Importantly, a fast-growing number of studies has shown that fictional stories can shape attitudes on climate change and other environmental issues (e.g., Bilandzic & Sukalla, 2019; Bozeman et al., 2022; Gustafson et al., 2020; Liu & Yang, 2023; Leiserowitz, 2004; Morris et al., 2019; Rickard et al., 2021; Schneider-Mayerson et al., 2023). Whereas this body of research showed that exposure to fictional stories about climate change can have a meaningful impact on recipients, it remains an open question whether climate fiction can attract individuals who are inclined to avoid threatening real-life stimuli.

Study Overview and Predictions

Given the different attentional and behavioral implications of cognitive avoidance and vigilance (see Krohne & Hock, 2011), and the empirical findings that link individual differences in coping to different information seeking and avoidance behaviors in the face of threats and uncertainty (Johnson & Knobloch-Westerwick, 2017; Kim et al., 2014; Rosen & Knäuper, 2009), we hypothesize that:

Hypothesis 1: Lower cognitive avoidance predicts higher interest in climate change related books.

Hypothesis 2: Higher vigilance predicts higher interest in climate change related books.

Particularly for individuals high in dispositional avoidance, we suggest that fiction might present a preferable approach to climate change issues because fiction allows to explore emotionally extreme scenarios in a safe and controlled manner (e.g., Menninghaus et al., 2017; Oatley, 2016). Furthermore, although individuals' attitudes and beliefs can be

influenced by narratives regardless of their fiction status (e.g., Braddock & Dillard, 2016; Green & Brock, 2000; Strange & Leung, 1999), people are more likely to turn to fiction because they expect it to be entertaining and less likely because they expect it to be useful (Appel & Malečkar, 2012). Given that avoidant individuals seem less motivated to seek out information for problem solving (Johnson & Knobloch-Westerwick, 2017), we propose that:

> *Hypothesis 3*: Higher cognitive avoidance predicts a higher interest in climate fiction relative to climate non-fiction
>
> *Hypothesis 4*: Higher vigilance predicts a higher interest in climate non-fiction relative to climate fiction.

We test these hypotheses in two experiments that are focused on responses to paratexts (blurbs, short summaries of a book's content typically found on the back cover or dust jacket) of bestselling non-fictional or fictional books about climate change.

Experiment 1

Method

Design, Sample Size Requirements, and Participants

The experiment followed a within-subjects repeated-measurement design (condition: fiction vs. non-fiction, five measurements per condition) with two continuous moderators (vigilance and cognitive avoidance). We used G*Power (Faul et al., 2007) to estimate the required sample to detect a medium bivariate correlation ($r = .25$) between the moderators and our dependent variable. This yielded a minimum required sample size of $N = 123$ ($\alpha = .05$, 1-β = .80, two-tailed testing).

The questionnaire was distributed through the personal and extended networks of a student researcher and shared on online platforms such as Facebook, Reddit, and Instagram. A total of 220 individuals completed the study. Participants had the possibility to enter a raffle to win one of two monetary rewards (20€). Cases were excluded from the final sample if they

failed one of four instructed attention checks (*n* = 24), self-reported frequent distractions

(another *n* = 7), and if their self-reported German proficiency was less than very good

(another *n* = 5). We also excluded participants who responded inaccurately to the treatment

check (i.e., categorized the fiction books as non-fiction and vice versa, and therefore either

did not notice or understand the treatment, which led to the exclusion of another *n* = 27). The

remaining 157 participants (76% female, 24% male) were 34.11 years old on average (*SD* =

14.71 years), highly educated (54% had a high-school diploma, 34% had a university degree),

and predominantly university students (45%) or employed (35%). The average completion

time was 15.68 (*SD* = 4.69) minutes.

Stimuli and Manipulation

Ten blurbs of climate change related books served as our stimulus material (word

count between 88 and 163 words). We used blurbs of real fiction and non-fiction books (five

each). We chose books that covered a wide range of climate change and environmental topics,

such as climate migration, the effects of climate change on the extinction of species, or

pollution (see Appendix for the stimuli). Each participant was presented with all stimuli in

randomized order. All blurbs were presented alongside the title and author(s) of the book, and

a paratextual note specifying whether the book was fiction or non-fiction. To ensure that

participants noticed the manipulation, we asked participants to confirm the category (fiction

vs. non-fiction) before indicating their interest in each book.

Measures

Means, standard deviations, zero-order correlations, and Cronbach's α for each scale and

subscale are reported in Table 1.

Coping Dispositions. We measured coping dispositions using the Mainz Coping

Inventory (MCI; Krohne et al., 2000), which consists of eight scenarios of threatening

situations (four ego threats, e.g., giving a talk; four physical threats, e.g., sitting in a car with a

reckless driver). Each scenario is accompanied by ten coping strategies (five vigilant, five cognitively avoidant, e.g., for the talk scenario: thinking about questions that may come up after the talk vs. telling oneself that everything will work out fine; for the driver scenario: observing the driver and the street carefully vs. trying to relax and not look at the street). Participants then indicate for each strategy whether it describes a typical behavior or thought they would have in this situation (dichotomous scale: applies/does not apply). The scores for vigilance and avoidance dispositions were computed by summing relevant coping strategies for each scale. Each coping dimension (i.e., vigilance and avoidance) comprises physical threat and ego threat subscales, which can be computed individually.

Interest. We assessed interest for each book with a single item ("How much are you interested in this book?") and a 6-point rating scale ranging from 1 (not interested at all) to 6 (very much interested).

Procedure

After giving their informed consent, participants completed the MCI (Krohne et al., 2000) and were then presented with the 10 blurbs. Each was presented on a separate page, together with the manipulation check and the interest rating. Four instructed attention checks were included throughout the questionnaire. Finally, participants answered sociodemographic questions, received the opportunity to participate in a raffle, and were debriefed.

The studies presented in this article were conducted in full accordance with the Declaration of Helsinki, and the ethical guidelines provided by the German Psychological Society (DGPs). Based on the regulations for conducting psychological research in Germany, no formal IRB approval was required.

Analytic Strategy

We used multi-level modelling to analyze our data to account for the interdependencies of our observations that result from the within-subjects repeated-measures

design. We analysed our data using R (v 4.3; R Core Team, 2021) and the packages lme4 (v

1.1; Bates et al., 2015), sjPlot (v 2.8.15; Lüdecke, 2023), ggeffects (v 1.3.4; Lüdecke, 2018),

ggplot2 (v 3.4.4; Wickham, 2016), interactions (v 1.1.5; Long, 2022), patchwork (v 1.2;

Pedersen, 2024). The categorical predictor (Level 1) was coded −1 (non-fiction) and 1

(fiction). Interest ratings for each stimulus (Level 1) were nested within subjects (Level 2).

Subject was a random factor (random intercepts). Cognitive avoidance and vigilance (Level

2) were grand-mean centered. In addition to the fixed factors, the cross-level interaction terms

between condition (fiction vs. non-fiction) and each of the coping disposition dimensions

(cognitive avoidance and vigilance, respectively) were entered as predictors. We probed

significant cross-level interactions using simple slopes ($M +/- 1\ SD$) and the Johnson-

Neyman (J-N) technique (Bauer & Curran, 2005). Level of α was set to .05.

--- Table 1 ---

Results and Discussion

Results of the first mixed model with condition (Level 1), cognitive avoidance and

vigilance (Level 2), and their cross-level interactions as predictors of book interest are

summarized in Table 2. As predicted, results showed that the main effect of cognitive

avoidance on interest in climate change books is significantly negative ($b = -0.02$, $p = .047$),

lending support for H1. Contrary to expectations, higher vigilance predicted significantly

lower interest in climate change books overall ($b = -0.02$, $p = .038$). Thus, H2 was not

supported.

In H3 we stated that higher cognitive avoidance would predict a higher interest in

fiction relative to non-fiction. Indeed, there was a significant cross-level interaction between

condition and avoidance ($b = 0.01$, $p = .028$; Figure 1, plot A). Analyses of simple slopes

revealed that with increasing avoidance, interest in non-fiction decreased significantly

($b = -0.04$, $p = .005$), whereas this was not the case for interest in fiction ($b = -0.01$,

$p = .495$). Individuals lower in cognitive avoidance ($M - 1\ SD = -5.85$) showed a significant preference for non-fiction over fiction ($b = -0.20$, $p < .001$), as did individuals with an average score of this trait ($M = 0$; $b = -0.12$, $p < .001$). Individuals high in avoidance ($M + 1\ SD = 5.85$) showed no significant preference ($b = -0.05$, $p = .350$). According to the J-N interval, the preference of non-fiction over fiction was significant for values in avoidance below 3.4 (range of observed values: -12.42; 15.58). Although the pattern of the interaction speaks for non-avoidance rather than preference of fiction over non-fiction for individuals high in avoidance, the overall direction of the interaction was consistent with our prediction, thus lending preliminary support for H3.

H4 suggested that higher vigilance would predict a higher preference of non-fiction over fiction. Again, we observed a significant interaction between condition and vigilance ($b = -0.01$, $p = .031$; Figure 1, plot D). The observed interaction pattern was consistent with our prediction: Interest in fiction decreased with higher vigilance ($b = -0.03$, $p = .005$), whereas this was not the case for non-fiction ($b = -0.01$, $p = .433$). Non-fiction was significantly preferred over fiction by individuals with high vigilance ($M + 1\ SD = 6.49$; $b = -0.20$, $p < .001$) and average vigilance ($M = 0$; $b = -0.12$, $p < .001$), but not low vigilance ($M - 1\ SD = -6.49$; $b = -0.05$, $p = .333$). The preference of non-fiction over fiction was significant for vigilance values greater than -3.83 (J-N interval, range of observed values: -16.01; 12.99). Thus, H4 was supported.

--- Table 2 ---

To gain a more detailed understanding how the physical and ego-threatening aspects of climate change might have driven our findings, we conducted follow-up analyses and estimated a second model, this time treating the ego- and physical threat subscales of vigilance and avoidance separately. Results are displayed in Table 3. The main effects of physical ($b = -0.03$, $p = .192$) and ego threat avoidance ($b = -0.02$, $p = .417$) were not

significant. The same applies to the main effects of vigilance (physical threat: $b = -0.04$,

$p = .070$; ego threat: $b = -0.00$, $p = .930$).

However, we observed a significant cross-level interaction of condition with the physical threat subscale of avoidance ($b = 0.03$, $p = .022$; Figure 1, plot C). Interest in non-fiction decreased significantly with higher physical threat avoidance ($b = -0.06$, $p = .026$), but interest in fiction did not ($b = -0.00$, $p = .961$). Non-fiction was significantly preferred over fiction by individuals low in physical threat avoidance ($M - 1\ SD = -3.21$; $b = -0.22$, $p < .001$), and with average physical threat avoidance ($M = 0$; $b = -0.12$, $p < .001$). Individuals high in physical threat avoidance showed no significant preference ($M + 1\ SD = 3.21$; $b = -0.03$, $p = .583$). The preference for non-fiction over fiction diminished to non-significance for physical threat avoidance values of 1.56 or higher (J-N interval; range of observed values: -7.42; 8.58). By contrast, there was no significant interaction of condition with the ego threat subscale ($b = 0.00$, $p = .838$; Figure 1, plot B). Taken together, low physical (but not ego) threat avoidance predicted a higher preference of climate non-fiction over fiction and carried the interaction effect hypothesized in H3. This suggests that avoidance of the physical (rather than ego) threat posed by climate change might have driven the observed results.

For the vigilance subscales, we observed a significant cross-level interaction between ego threat vigilance and condition ($b = -0.04$, $p = .001$; Figure 1, plot E) that showed the pattern predicted in H4. High values of ego threat vigilance ($M + 1\ SD = 4.04$) significantly predicted a higher preference of non-fiction over fiction ($b = -0.28$, $p < .001$), as did average scores of this trait ($M = 0$; $b = -0.12$, $p < .001$), but not low scores ($M - 1\ SD = -4.04$; $b = 0.03$, $p = .608$). The preference for non-fiction over fiction was significant for values of ego threat vigilance above -1.32 (J-N interval; range of observed values: -7.57; 8.43). However, higher ego threat vigilance did not predict significant variation of the interest in

non-fiction ($b = 0.04$, $p = .127$), or fiction ($b = -0.04$, $p = .094$). The interaction between

physical threat vigilance and condition was not significant ($b = 0.04$, $p = .145$; Figure 1, plot

F). This suggests that interest in non-fiction books about climate change may have been

driven by vigilance towards the ego threatening aspects of climate change, but not so much by

vigilance towards the physical threat posed by climate change.

The results of Experiment 1 are intriguing, but the confidence intervals of the slopes

were overlapping for many values of the moderator, suggesting that a larger sample size may

be desirable to corroborate the findings. Therefore, we replicated and extended the experiment

using the same materials, using a larger sample and a different recruiting method.

--- Table 3 ---

--- Figure 1 ---

Experiment 2

Method

Design, Sample Size Requirements, and Participants

Experiment 2 was preregistered at https://aspredicted.org/ZMD_71T. Based on the

magnitude of the observed correlations between coping dispositions and interest in climate

fiction/non-fiction in Experiment 1, we estimated the required sample for a small effect size

($r = .15$). We further aimed for higher power to detect this effect. This yielded a minimum

sample of $N = 462$ (bivariate correlation, $\alpha = .05$, $1-\beta = .90$, two-tailed testing).

We recruited a gender-balanced sample of the German speaking population living in

Germany via Prolific. The survey was completed by 600 individuals for a financial reward of

£3.00. Cases were excluded from data analysis according to the preregistered criteria: Eleven

cases failed one or more instructed attention checks, another 29 responded inaccurately to the

treatment check (i.e., categorized clearly labelled non-fiction books as fiction, and vice versa),

one case self-reported frequent distractions, four completed the survey on their smartphone. One case withdrew consent, another ten self-reported a German proficiency of less than very good. Finally, the page-level response time of 38 cases fell below two seconds per item on pages that assessed the coping dispositions (based on the recommendations by Ward & Meade, 2023; see also Bowling et al., 2016). The remaining 506 participants (48% female, 50% male) were 30.20 years old on average ($SD = 9.31$ years), highly educated (37% had a high-school diploma, 50% a university degree), and predominantly employees (46%) or university students (34%). The average completion time was 13.13 ($SD = 3.85$) minutes.

Measures, Materials, and Procedure

The measures, materials, and procedure were identical to Experiment 1. Descriptive measures, Cronbach's α and subject zero-order correlations are reported in Table 4.

--- Table 4 ---

Results and Discussion

We used the same data analytic procedures as in Experiment 1. Results of the first model are summarized in Table 5. Consistent with our predictions and with the results of Experiment 1, higher interest in climate change related books was predicted by lower cognitive avoidance ($b = -0.03$, $p < .001$), supporting H1. Consistent with Experiment 1, but inconsistent with our hypothesis (H2), we observed a significant negative main effect of vigilance ($b = -0.04$, $p < .001$), suggesting that higher vigilance predicted lower interest in climate books overall.

Cognitive avoidance further significantly interacted with condition ($b = 0.01$, $p = .017$). The pattern of this interaction (Figure 2, plot A) was largely consistent with the interaction observed in Experiment 1, again lending support for H3: Preference for non-fiction over fiction was highest for individuals low in avoidance ($M - 1\ SD = -6.43$; $b = -0.17$, $p < .001$), and became smaller with average avoidance ($M = 0$; $b = -0.13$,

$p < .001$), and high avoidance ($M + 1$ $SD = 6.43$; $b = -0.8$, $p = .002$). The preference for non-fiction over fiction diminished to non-significance for avoidance values of 8.86 or higher (J-N interval; range of observed values: -16.77; 18.23). Higher avoidance values predicted a significantly lower interest in non-fiction ($b = -0.03$, $p < .001$) and – in contrast to Experiment 1 – fiction ($b = -0.02$, $p = .005$).

Contrary to expectations (H4) and to the results in Experiment 1, we observed no significant interaction of vigilance with condition ($b = -0.00$, $p = .174$; Figure 2, plot D). Therefore, H4 was not supported.

--- Table 5 ---

Again, we estimated a second model using the physical and ego threat subscales of vigilance and avoidance as separate predictors (see Table 6 for results). As in Experiment 1, physical threat avoidance ($b = 0.02$, $p = .014$; Figure 2, plot C), but not ego threat avoidance ($b = 0.00$, $p = .794$; Figure 2, plot B) significantly interacted with condition. Those low in physical threat avoidance ($M - 1$ $SD = -3.63$) showed the highest preference for non-fiction over fiction ($b = -0.19$, $p < .001$), which decreased with average ($M = 0$; $b = -0.13$, $p < .001$) and high scores of this trait ($M + 1$ $SD = 3.63$; $b = -0.07$, $p = .032$). The preference diminished to non-significance for values of physical threat avoidance of 3.83 or higher (J-N interval; range of observed values: -8.04; 9.96). Higher physical threat avoidance predicted significantly lower interest in climate non-fiction ($b = -0.06$, $p < .001$), but not fiction ($b = -0.03$, $p = .099$). This suggests that support for H3 was primarily carried by physical (rather than ego) threat avoidance, similar to what was observed in Experiment 1.

Consistent with the pattern observed in Experiment 1, ego threat vigilance interacted with condition ($b = -0.03$, $p < .001$; Figure 2, plot E) such that higher ego threat vigilance predicted lower interest in fiction ($b = -0.04$, $p = .023$), but not non-fiction ($b = 0.02$, $p = .259$). Non-fiction was preferred significantly over fiction by individuals high in ego

threat vigilance ($M + 1\ SD = 3.84$; $b = -0.23$, $p < .001$), and with average scores on this trait

($M = 0$; $b = -0.13$, $p < .001$), but not by individuals low in ego threat vigilance ($M - 1\ SD =$

-3.84; $b = -0.03$, $p = .403$). The preference for non-fiction over fiction was significant for

values of ego threat vigilance above -2.87 (J-N interval; range of observed values: -6.21;

13.79). Surprisingly, the opposite pattern emerged for physical threat vigilance ($b = 0.02$,

$p = .006$; Figure 2, plot F; this interaction was not significant in Experiment 1). Here, higher

physical threat vigilance predicted significantly lower interest in climate fiction ($b = -0.04$,

$p = .005$), but also non-fiction ($b = -0.08$, $p < .001$). Non-fiction was preferred significantly

over fiction by individuals low in physical threat vigilance ($M - 1\ SD = -3.98$; $b = -0.20$, p

$< .001$), and with average scores on this trait ($M = 0$; $b = -0.13$, $p < .001$), but not by

individuals high in physical threat vigilance ($M + 1\ SD = 3.98$; $b = -0.05$, $p = .093$). The

preference for non-fiction over fiction was significant for values of physical threat vigilance

below 3.67 (J-N interval; range of observed values: -8.83; 9.17). Therefore, only the

interaction of condition with ego threat vigilance, but not physical threat vigilance, was

consistent with H4.

--- Table 6 ---

--- Figure 2 ---

General Discussion

Climate change presents not only a physical threat, but also a major psychological

challenge as an environmental stressor (Brügger et al., 2021; Clayton, 2020; Reser & Swim,

2011), and coping dispositions form an important ingredient in understanding how individuals

differ in their responses to the multifaceted threat of climate change. Connecting previously

unconnected research on the psychological impact of climate change, individual differences in

coping, and selective exposure to mass-mediated information, we presented two experiments

that investigated how interest in fiction versus non-fiction books on climate change varies depending on dispositions for cognitive avoidance and vigilance when faced with threats.

Results across both experiments show that interest in climate change books overall decreased with higher avoidance dispositions, particularly for non-fiction books, and that this effect was mainly driven by physical threat avoidance. Surprisingly, higher vigilance also consistently predicted lower (rather than higher) interest in climate change literature. Whereas the results of Experiment 1 supported our hypothesis that the interest in non-fiction relative to fiction would increase with higher vigilance, this was not the case in Experiment 2. Upon closer inspection of the effects based on coping with ego threat and physical threat, it became clear that contrary interaction patterns of these subscales were causing this finding. Whereas the interaction for ego threat vigilance supported the hypothesis across both experiments, a reversed pattern became evident for physical threat vigilance particularly in Experiment 2. Here, lower (instead of higher) physical threat vigilance predicted a higher interest in non-fiction relative to fiction.

The fact that the ego- and physical threat dimensions of coping modes played such differential and (in the case of vigilance) even contradictory roles in predicting preferences in climate literature further informs theory on individual differences in coping styles, and sheds light on the facets of climate change as a psychological threat. Generally, our results confirm the notion that climate change may not only play a role as a stressor in terms of the physical danger it poses to life on this planet, but also by challenging humans and societies to act responsibly and morally. The multi-layered nature of climate change as a threat needs to be considered in research on the psychological impact of climate change and when communicating climate change consequences and solutions.

Furthermore, our results can be interpreted against the backdrop of models of adaptation and coping with climate change (e.g., Reser & Swim, 2011). It is notable that the

only positive predictor of interest in any type of climate literature was ego threat vigilance,

which was consistently and positively associated with an interest in non-fiction. It is possible

that this link reflects the ways in which individuals are most likely to perceive behavioral

control and self-efficacy in response to climate change. A lack of self-efficacy and perceived

behavioral control to influence an outcome are important barriers to climate action (e.g.,

Gifford, 2011). Although individual actions are a crucial part of a transformation towards

carbon neutrality (Whitmarsh et al., 2021), the effects of individual actions on the physical

risk posed by climate change are unlikely to be experienced directly. As a result, individuals

often possess little if any control perception in terms of the physical threat of climate change,

in which case, vigilance can be a maladaptive coping strategy (Krohne & Hock, 2011;

Lazarus & Folkman, 1984). By contrast, the effects of individual actions are much more

immediate and palpable in terms of how they make individuals feel about themselves.

Individuals are highly motivated to maintain a positive self-view (e.g., Cooper, 2007; Steele,

1988), and climate change discourse is often indicative of individual and community efforts to

'do the right thing', as is evident in the demands for climate justice (Newell et al., 2021;

Schlosberg & Collins, 2014). The links between pro-environmental behavior, personal norms,

and self-conscious emotions such as guilt and pride also highlight how individuals' self-

regard is implicated in environmental behaviors (e.g., Bilandzic & Sukalla, 2019; Shipley &

van Riper, 2022). In a similar way, the positive link between ego threat vigilance and interest

in non-fiction suggest that climate non-fiction books may be sought out in a desire to act as

responsible citizens.

Our findings further contribute to research on media preferences and choices,

regarding fiction and non-fiction in general, and in terms of engaging with climate change

information in particular. First, this experimental series advances our understanding of the

effects of fictionality. Previous research has shown that fictional and non-fictional narratives

do not systematically differ with regards to how they are experienced and how they shape beliefs, attitudes, and behaviors (Braddock & Dillard, 2016; Green & Brock, 2000; Green & Appel, 2024; Walsh et al., 2022). Instead, our research supports the notion that the defining differences between fictional and non-fictional narratives might rather be found in the media selection phase, as audiences hold different expectations towards non-fictional and fictional narratives (Appel & Malečkar, 2012), thus shaping motivations to seek out (or avoid) respective media formats.

Second, our findings contribute to research on media preferences related to climate change by investigating individual differences in how individuals respond to threats. We showed that coping styles affected interest in climate fiction and non-fiction in predictable ways, particularly in the case of cognitive avoidance. Only average to low avoiders showed a clear preference of non-fiction over fiction, whereas high avoiders did not. This connects findings from previous research showing that individuals anticipate greater informational utility from non-fiction than from fiction (Appel & Malečkar, 2012), and that individuals with an avoidant coping style are less likely to differentiate between news high and low in informational utility (Johnson & Knobloch-Westerwick, 2017). Our findings highlight the different value media users may perceive in climate fiction and non-fiction in terms of coping with the threat of climate change, depending on their dispositions to respond to threats. The fact that interest in non-fiction increased with higher ego threat vigilance, but decreased with physical threat vigilance, shows that non-fiction books may have different informational utility regarding these facets of the climate crisis. Individuals highly vigilant towards the physical dangers of climate change might find news reporting about climate change more fitting to their information needs than non-fiction books, because news enable monitoring the most current developments of a continuously evolving threat. For individuals high in ego-threat vigilance, on the other hand, climate non-fiction books might hold more informational

utility based on their focus on questions surrounding responsibility and the ethics of the

climate crisis. Future research may examine whether physical and ego threat avoidance not

only predict interest in climate change messages based on different threat frames (i.e., ego- vs.

physical threat), but also in different kinds of media formats.

Finally, our results have implications for the role that fiction can play in engaging

audiences on the issue of climate change. Climate fiction has the potential to address

important barriers to climate action. Psychological distance to the issue is often discussed as a

challenge for climate engagement (for a review, see Kim, 2023). Although fictional status

represents an aesthetic distancing factor that helps to experience fiction from an ideal (i.e.,

less threatening) psychological distance (e.g., Menninghaus et al., 2017), recipients often

make connections between fiction, their selves, and the real world (e.g., Eco, 1994; Cupchik,

2002; Oatley, 2016). Furthermore, fiction often comes in the form of stories (Koopman &

Hakemulder, 2015), which have the capacity to decrease psychological distance by immersing

audiences in experiences beyond their own and bringing distant places, futures, and social

groups closer (e.g., Liu & Yang, 2023). Thus, fiction can affect real-world climate-related

attitudes and behaviors, help reduce the perceived abstractness and improve comprehension of

climate change effects and possible solutions (Dahlstrom, 2014; Green & Appel, 2024).

Science fiction in particular can also foster an understanding and reduce the threat of novel

technologies (e.g., Appel et al., 2016). Given that the transformations required for climate

mitigation and adaptation can be perceived as threatening and generate resistance (e.g.,

Bilfinger et al., 2023; Rubio Juan & Revilla, 2021), climate fiction could help imagine future

scenarios and reduce perceived threat of political, economic, or technological solutions and

their potential impact on societies.

Despite this potential, our findings indicated that fictional narratives did not present a

preferred mode of engaging with climate change compared to non-fiction, regardless of

coping styles. On average, participants in our samples were more interested in non-fiction than fiction, as evidenced by the consistent main effects. Although this preference diminished with variations in coping dispositions, we did not observe a reversal of this preference depending on coping styles. Thus, climate fiction does not appear as a superior medium in reaching individuals who are otherwise inclined to avoid climate change information. Beyond the informational utility of non-fiction, it is possible that genre expectations regarding climate fiction play a role in deterring some audiences. Although themes of mitigation and solutions can be found in some examples of climate fiction literature, many examples (and especially movies) focus on catastrophic events or are set in post-apocalyptic worlds (Andersen, 2020; Schneider-Mayerson, 2017, 2019; Svoboda, 2016). Consistent with these tropes, the climate fiction stimuli in our experiment also alluded to looming catastrophic events or suggested apocalyptic scenarios, which could explain their lower appeal. Audiences who expect climate fiction to amplify fear and a pessimistic view about the future without offering insight or modelling solutions might avoid the genre altogether.

However, and to add nuance to the previous point, we showed that interest in climate non-fiction books varied more strongly based on individual differences in cognitive avoidance than interest in climate fiction. This lends tentative support for the idea that fiction might be less susceptible to habitual avoidance due to threat perception than non-fiction, and points towards the potential of fiction to address and educate about issues that may be avoided in non-fiction. This calls for fictional productions – especially media that reach a wider audience – to include climate and environmental issues in their storytelling, even if climate change is not the primary focus of the story. Several initiatives have emerged that provide resources to this end for authors in the creative industry, such as the *Playbook for Storytelling in the Age of Climate Change* (Good Energy, n.d.), or the *Telling Climate Stories Pocket Guide* released by Albert (2023), the organization for sustainable storytelling owned by the British Academy of

Film and Television Arts. Recent content analyses of television entertainment programming in the US (Giaccardi et al., 2022) and Germany (Hoppe & Neverla, 2023) show that the topic of climate change is largely absent from fictional entertainment, painting a picture in which humans are unconcerned with and unaffected by climate change and its possible solutions. Similarly, collaborating with and advising fictional entertainment productions could be a fruitful avenue for science communication practitioners and climate change experts. A wider representation of the topic across all genres and programming could increase incidental exposure with climate related discourse, model climate friendly lifestyles, or help audiences imagine climate solutions.

Limitations and Directions for Future Research

Some limitations need mentioning. Our results are based on a limited set of examples of a particular form of media – fictional and non-fictional books. Our stimuli were selected to capture the breadth of genres and topics in fictional and non-fictional climate literature (e.g., climate migration, rising sea levels, extinction of species). Given that climate fiction spans multiple genres (e.g., historical drama, science fiction, political thriller, youth literature), interest in climate literature may not only vary within individuals depending on fictionality but also depending on genre. In practice, the potential of climate fiction to reach audiences with different genre preferences presents a potential advantage. However, our study was not designed to systematically test for possible genre-dependent effects that may have influenced our results. Some types of climate fiction, such as utopian literature, were not represented in our set of stimuli, but may be particularly promising genres to investigate in this regard. Thus, we encourage future research to investigate how coping dispositions may affect genre preferences within the climate fiction category. Further, there are many other formats of fiction and non-fiction, such as audiovisual (e.g., movies, series) and auditive narratives (e.g., audiobooks, podcasts), or technologies like augmented and virtual reality, that offer novel and

interactive ways of experiencing narratives. Satirical news (e.g., The Onion) further offer an

opportunity to contrast fiction with non-fiction using a journalistic format. Future research

should examine the extent to which our findings can be generalized to different stimuli and

media formats.

We opted for a within-subjects design given our focus on intraindividual preferences

and to maximize statistical power. We used multiple stimuli to balance the impact of

unavoidable content variations between fiction- and non-fiction stimuli in such a design and

to increase external validity of our results. Although we aimed to equally represent a broad

range of environmental threats in our fiction and non-fiction stimuli, we cannot determine

how differences in threat perception (e.g., severity, scope, temporal or spatial distance)

associated with individual stimuli may have influenced the observed effects. Future research

is encouraged to consider these influences, by pretesting materials or by investigating threat

perception variables as explanatory mechanisms. Future studies may also adopt a between-

subjects design, which enables more experimental control of these content differences.

We operationalized coping dispositions as vigilance and cognitive avoidance using the

MCI (Hock et al., 1996; Krohne & Hock, 2011), a validated instrument that was suitable

given our research interest in personality-based attentional orientation towards or away from

information regarding the climate crisis. However, there are other approaches to

conceptualize and measure coping styles, such as the COPE (Carver et al., 1989), which is the

most common instrument to measure problem- and emotion-focused coping styles

(Greenaway, 2015; Kato, 2015). Methodologically, the assessment of trait coping styles using

the COPE requires participants to indicate the extent to which they generally employ various

coping strategies when dealing with stressful events, relying on the salience of these events

and respondents' ability to accurately generalize across situations. On the other hand, the MCI

uses various threatening scenarios that most people have encountered in their lives, making it

a less ambiguous measure to assess coping dispositions. The subscales of the MCI and COPE have been shown to correlate only weakly or not at all, indicating discriminant validity and different underlying conceptualizations of coping (Krohne et al., 2000). Therefore, both measures can contribute uniquely to our understanding of how coping dispositions influence media choices related to climate change.

Furthermore, we measured our dependent variable through self-reported interest in the respective book. This is a common approach in research on media preferences (e.g., Arpan & Nabi, 2011; Mares et al., 2016; Weaver & Frampton, 2019; see also Knobloch-Westerwick, 2015a), and interest is an important antecedent of exposure, message attention, and elaboration (e.g., Cinelli et al., 2020; David, 2009; Petty & Cacioppo, 1986). However, self-reported interest is not necessarily equivalent to actual behavior, such as active information seeking, selective exposure, or avoidance. Individuals may express strong interest in a book (e.g., because it aligns with their environmental self-concept) without ultimately reading it (e.g, due to anticipating high cognitive or affective challenge; Eden et al., 2018). Thus, future research should include a behavioral variable of media choices to capture selective exposure to and avoidance of climate messages (Hastall & Knobloch-Westerwick, 2013), preferably within the larger context of individuals' media diets.

Because message selection is often a prerequisite of effects (e.g., Slater, 2015; Knobloch-Westerwick, 2015b), and personality traits are an important factor shaping media choices (e.g., Valkenburg & Peter, 2013), our research is a valuable complement to the existing research on experience and effects of environmental narratives (e.g., Bilandzic & Sukalla, 2019; Schneider-Mayerson et al., 2023; Winkler et al., 2023). However, we are silent about actual effects. Furthermore, cognitive avoidance could potentially affect later stages of processing (e.g., through lower narrative transportation). We hope to inspire further research that examines the processing and effects of fictional and non-fictional narratives against the

backdrop of message selection, as well as the potential effects coping dispositions might have for the processing of narratives about threatening topics.

In addition, this research focuses on coping dispositions but did not investigate how specific climate emotions relate to reading preferences for climate fiction vs. non-fiction. Research on the psychological impact of climate change has begun to investigate the implications of emotional responses such as climate anxiety (Clayton & Karazsia, 2020), ecological grief (Pihkala, 2024), or solastalgia (Christensen et al., 2024) for environmental attitudes and behaviors. However, how these emotions affect media preferences and (dis-) engagement with media is not well understood and should be investigated by future research.

Finally, although our findings were consistent across two distinct samples, our focus was limited to a single cultural context. Perceptions, emotional responses, and coping mechanisms related to climate change can vary significantly across cultures. For example, research has shown distinct patterns of climate emotions between countries in the Global South – who are more vulnerable and already experiencing dire consequences of climate change - and North (Kleres & Wettergren, 2017), but also among Western industrialized nations (Böhm et al., 2023). Thus, future research should investigate the role climate fiction may play in different cultural contexts, considering these variations in climate emotions and vulnerabilities.

Conclusion

At the time of this writing, the global mean temperature during the past 12 months was the highest on record. The threshold of +1.5°C as compared to pre-industrial times is surpassed and the global temperatures are expected to increase further (Copernicus Climate Change Service, 2024). Despite the magnitude of the climate crisis, many individuals avoid information about the issue (Newman et al., 2023). We conceived climate change as a psychological threat that people cope with in different ways, and we argued that *climate*

fiction could be a means to overcome avoidance of the climate change issue. Two experiments consistently show that although non-fiction books were generally preferred over fiction, interest in fiction books was less dependent on lower dispositional avoidance, pointing towards the potential of fictional narratives to address commonly avoided issues. However, because audiences are likely deterred by expectations of doom-and-gloom stories of climate change, there is a need for constructive, solutions-oriented climate fiction as well as telling more stories from a "climate lens" across genres (Good Energy, n.d.; see Giaccardi, 2022; Hoppe & Neverla, 2023). Interest in climate non-fiction was consistently driven by ego threat vigilance, indicating that these may serve needs related to coping with the ego threat (rather than the physical threat) of climate change. Our findings inform research on media choice and selective exposure to fiction and non-fiction, and the role of individual differences in coping with the multi-faceted psychological impact of climate change.

Data availability

Our data, analysis code, and materials are available at https://osf.io/24tvs/.

Declaration of interest

The authors have no competing interest to declare.

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