Creative Artificial Intelligence and Narrative Transportation

Tanja V. Messingschlager[1] and Markus Appel[1]

[1] Psychology of Communication and New Media, University of Wuerzburg

Preprint of a manuscript accepted for publication in the journal *Psychology of Aesthetics, Creativity, and the Arts* (04/21/2022).

Author Note. Correspondence concerning this article should be addressed to Tanja V. Messingschlager (https://orcid.org/0000-0001-6737-8997), Psychology of Communication and New Media, University of Wuerzburg, Building 82, Oswald-Külpe-Weg 82, 97074 Wuerzburg, Germany. Email: tanja.messingschlager@uni-wuerzburg.de, Phone: +49 0931 3186818

Co-Author: Markus Appel, Prof. Dr., Psychology of Communication and New Media, University of Wuerzburg, Germany, Email: markus.appel@uni-wuerzburg.de

Declaration of Interest. We have no known conflict of interest to disclose.

Abstract

Artificial intelligence (AI) is increasingly used to accomplish complex tasks, including the creation of artworks and entertainment products. Our focus here is on user responses to AI systems as authors of fictional stories. Across two experiments we examined how the information that a story was written by AI influences narrative transportation and related experiences. In Experiment 1 ($N = 325$) the information that an AI had created a short story (contemporary fiction) reduced narrative transportation into this story. Experiment 2 ($N = 489$) was an extended replication in which genre differences (contemporary fiction versus science fiction) were addressed. As expected, ostensible AI authorship reduced transportation, but this effect was qualified by genre: Whereas the AI-authorship effect was replicated for contemporary fiction stories, transportation did not differ between human and AI authorship when participants read science fiction stories. Across both experiments, individual differences (openness, affinity for technology and attitude towards AI) did not moderate the effect of AI authorship on any of the dependent variables.

Keywords: authorship information; creative artificial intelligence; narratives; transportation

Creative Artificial Intelligence and Narrative Transportation

For many decades, digital technologies have assisted humans in producing artworks and entertainment products. Recent advancements in the field of computational creativity have enabled artificial intelligence (AI) to become a creator itself (Elgammal et al., 2017; Friedman & Taylor, 2014; Oliveira & Cardoso, 2015). Today, creative AI is able to generate artwork or poems that are hard to distinguish from human artifacts (Gangadharbatla, 2021; Köbis & Mossink, 2021). Whereas the capabilities of AI-technology evolve at a rapid pace, the success of creative AI depends on whether humans appreciate AI-generated content. Our focus here is on user responses to supposedly AI-generated fictional stories, a topic largely neglected by empirical research on creative AI so far. Based on transportation theory (Gerrig, 1993; Green & Brock, 2000; Green et al., 2019) two experiments are presented in which we examine whether the information that an AI has created a story (as compared to a human author) affects narrative engagement in terms of narrative transportation (Green & Brock, 2000). In both experiments the stories presented were identical and actually written by a human, in order to disentangle authorship effects from content effects. In Experiment 1, we further examined recipients' perceived eeriness and the willingness to share the story with others as additional dependent variables as well as openness and affinity for technology as moderating variables. In Experiment 2, we investigated whether the effect of AI authorship on transportation equally holds for stories set in a future world of science fiction and considered the attitude towards AI as a moderating variable. Both experiments were preregistered (Experiment 1: https://aspredicted.org/blind.php?x=dp6xj6; Experiment 2: https://aspredicted.org/blind.php?x=ap73kd). An online supplement, data, codes, and material are provided on OSF (https://osf.io/uhtkc/).

Narrative Transportation and Authorship Effects

The experience of stories or narratives (we use these terms interchangeably) has sparked researchers' interest for the past decades (for an overview see Green et al., 2019).

Narratives hold the potential to expand the boundaries of the self and allow readers to dive into a fictional world. A key variable capturing this experience is recipients' transportation into the story world. Transportation captures the phenomenon that readers devote their full attention to the narrative and get absorbed into the narrative world (Gerrig, 1993; Green & Brock, 2000). It is characterized by vivid imagery of the events described and strong emotional responses. A high level of transportation has been linked to greater enjoyment and perceived realism of the narrative (Bilandzic & Busselle, 2011, Green et al., 2004). Further, the more recipients are transported into the story world, the stronger are the persuasive effects of stories (e.g., Green & Brock, 2000; van Laer et al., 2014).

Research on the predictors of narrative transportation has mainly focused on features of the recipient, the story, and situational variables (such as paratextual information or presentation modes)[1]. Readers' need for affect or openness to experience for example, increased the likelihood of being transported into a narrative (Appel & Richter, 2010; Mar et al., 2009; Mazzocco et al., 2010). Theory and research further suggest that the artistic craftsmanship of authors can facilitate transportation by increasing narrative realism and verisimilitude (Kreuter et al., 2007; Green et al., 2004). If the described emotions, thoughts, and actions of characters seem likely and plausible within the narrative world, it should get easier for readers to dive into the narrative (Hamby et al., 2018). In addition to inherent story characteristics, readers often access paratextual information that can have a crucial effect on recipients' transportation into a narrative, for example whether a story is fictional or non-fictional (e.g., Appel & Maleckar, 2012) or reviews about a movie or book (e.g., Tiede & Appel, 2020).

Importantly, information about the source or author of the narrative can shape the experience of stories. This includes the identity of the author, his or her background, as well

[1] The influence of the latter appears to be limited, as indicated by research in which the same story was presented in print versus online (e.g., Mangen & Kuiken, 2014) or on smaller and larger screens (Appel & Mengelkamp, 2022).

as their life experience. With this information, readers can conclude whether the author may have observed or may have been involved in the situations described in the story. In turn, knowing the author has relevant life experience, can raise the expectation of increased narrative realism and verisimilitude. These expectations increase the chance that readers relate and commit to the story and thus get deeply transported into the narrative. Banerjee and Greene (2013) propose that higher credibility and trustworthiness of authors with relevant life experience might contribute to the positive effect on transportation. A meta-analysis, focusing on consumer research, indicates that stories by other customers lead to more transportation and persuasion in favor of brands than stories by professionals (van Laer et al., 2019). The positive perception of authors whose life experiences contribute to their stories is further reflected in marketing campaigns that highlight pieces of author biographies that match story content (like in the case of espionage novel author John Le Carré who had worked for UK' secret service, Corera, 2020). The public interest in such cases suggests that paratextual information affects responses even after the reading process is finished and the willingness to share and discuss the story with others might be increased by ascribing relevant life experience to an author. The interplay of author biography and the work itself is a broad field of discourse in literary criticism (e.g., Cherniss, 1999).

A perceived lack of relevant life experience may in turn lead to more negative expectations that could keep the reader from getting transported in the story world and instead encourage resistance. Recent work indicates that negative expectations (elicited by negative reviews) hinder recipients' transportation (Tiede & Appel, 2020) and that expectations can be influenced by information about a story's author (Tezer et al., 2020).

Effects of AI-Authorship on Reading Experiences

Although the capabilities of technology and artificial intelligence evolve at a rapid pace, there is no guarantee that humans will change or adapt just as quickly. When machines are capable of more than users expect of them, the violation of user expectations might lead to

a negative evaluation of the human-computer-interaction (Bonito et al., 1999). In the case of creative AI, several studies suggest that with increasing ability of AI, humans have difficulties distinguishing AI-generated work from work by humans (Elgammal et al., 2017; Köbis & Mossink, 2021; Xu et al., 2020). Importantly, despite advancements of creative products by AI, AI-generated paintings, poems and music are evaluated more negatively than human work: Introducing a painting as AI-created (versus human-created) led to a reduced liking of the painting, lower perceived beauty and novelty, and less meaning (Ragot et al., 2020). AI-generated artworks are often attributed less artistic value than work by human artists (e.g., Chamberlain et al., 2018; Hong & Curran, 2019).

We assume that these more negative responses to AI-generated (versus human-made) creative work may be due to the audiences' assessment that AI lacks fundamental human traits that are key to telling stories or producing fine art. In fact, in a non-narrative context, differences in the perceived credibility of news articles by creative AI (compared to human journalists) have repeatedly been attributed to different perceptions of the authors characteristics (Graefe et al., 2018; Tandoc et al., 2020; Waddell, 2018). A large body of research indicates that recipients ascribe humans and AI different characteristics or capabilities to accomplish tasks, depending on their mind perception (e.g., Gray et al., 2007; Gray & Wegner, 2012; Shank et al., 2021; Waytz & Norton, 2014). In the dimensions of mind perception by Gray et al. (2007), AI and robots are often perceived to have a certain degree of agency (the ability to plan and act accordingly) but lack experience (the ability to feel, sense, and have a personality). Since emotions are a key feature of enjoyable literature, this inability to experience emotions like their human readers could disqualify creative AI to be a verisimile author – in particular when it comes to contemporary fiction, which builds on human experiences of everyday life (Maslej et al., 2021). Hence, stories supposedly written by AI should spark less transportation than stories by human authors. Indirect evidence supporting this assumption comes from research on reactions to other products by creative AI.

The perception that a piece of art was AI-generated decreased evaluations, especially when participants were generally convinced that AI was not able to produce art (Chamberlain et al., 2018; Hong & Curran, 2019).

When it comes to AI-generated narratives, we argue that the bias against creative AI might spark negative expectations when readers learn about AI authorship. Participants doubt that AI is capable of producing a good story, since it cannot experience the situations it is writing about and might not comprehend certain implications. The AI-author lacks the essential experience of being human that lies at the bottom of most stories. This knowledge should disturb the reading experience and hence, narrative transportation.

H1: The information that a story is written by an AI reduces readers' transportation into the story.

The effects of AI authorship might not be limited to the reading experience in terms of transportation. We suggest that AI authorship will affect the willingness to share the narrative with others. Theory and research indicate that higher story engagement is tied to a greater likelihood of sharing the story with others (e.g., Hamby et al., 2020). The reduced transportation we associate with AI authorship should in turn reduce the willingness to share the narrative or simply make the story not good or interesting enough to be shared with others. Yet, an opposing influence is feasible as well: The novelty of the creative AI phenomenon could increase the desire to distribute the story. In this case the willingness to share the story could be increased. We therefore formulated a non-directional hypothesis.

H2: The information that a story is written by an AI affects the willingness to share the story.

In the last years, several studies examined robots as storytellers. This did usually not involve questions of robot (and, hence, AI-) authorship. Robots were storytellers, not the authors of the stories told. Still, this research line appears to be relevant for the present topic, not least as it points to further relevant dependent variables. The extant research showed that

robot storytellers evoke less transportation than human storytellers, however, stories told by disembodied electronic voice assistants (such as Alexa or Siri) yielded lowest transportation (Striepe et al., 2019; Striepe & Lugrin, 2017). In the context of robot storytelling, eeriness appears to be a possible, if not common experience, as humanlike robots and other technologies may fall into the uncanny valley (Mori, 1970; for reviews see Kätsyri, et al., 2015; Wang et al., 2015). According to the uncanny valley hypothesis, increasing the human-likeness of technological entities elicits increasing acceptance and likeability up to a point of moderate to high levels of human-likeness. With a further increase, this relationship is reversed. Humanlike, but not perfectly human technologies are met with eeriness and low likability (Appel et al., 2020; Kätsyri et al., 2015). Thus, we assume that AI authors could elicit eeriness.[2]

H3: The information that a story is written by an AI increases participants' eeriness when reading a story.

In addition to the main effects outlined above, the responses to AI authorship were expected to differ between users (Schepman & Rodway, 2020). Individual differences have been identified as a predictor for human responses to (humanlike) robots (e.g., MacDorman & Entezari, 2015). In the field of creative AI, not surprisingly, participants, who had a strong opinion against creative AI and were convinced that AI was not able to produce (true) art, were more likely to evaluate supposedly AI-generated art negatively (Chamberlain, 2018; Hong & Curran, 2019).

In an attempt at identifying broader concepts and personality traits that can account for different reactions to AI-generated stories, we examined possible effects of openness and affinity for technology. First, openness (to experience), a dimension of the Big Five Model (Costa & McCrae, 1992), is a likely candidate, as it is associated with intellectual curiosity.

[2] On an exploratory note, we also explored the relationships between the three dependent variables.

More open people were found to be willing to accept and to adapt to new technologies (Audet et al., 2021; Colquitt et al., 2002). Second, a high affinity for technology facilitates the adoption of technologies and correlates with more positive usage experience (Franke et al., 2019). Both individual difference variables hold the potential to mitigate the expected negative effects of AI authorship on readers' story experience.

H4: Openness (4.1), and Affinity for technology (4.2) will moderate the effect of AI authorship on users' responses to narratives, in a sense that it a) increases transportation (H4.1a, H4.2a), b) increases sharing intention (H4.1b, H4.2b), and c) decreases eeriness (H4.1c, H4.2c) when participants receive the information that a story is written by an AI.

Experiment 1

Method

Participants

The required sample size was calculated a priori, following relevant recommendations for statistical interactions (Giner-Sorolla, 2018; Simonsohn, 2014). These suggest that in order to achieve a sufficient power the initial sample size should be substantially increased. We expected a small to medium effect for the difference between the two groups (authorship: human vs. AI). G*Power (f = .20, α = .05, 1-β = .80) yielded a sample size of 199 participants. To account for the increased power needed to detect interactions, a sample size of 400 participants was preregistered (https://aspredicted.org/blind.php?x=dp6xj6). We recruited a German sample of 423 participants via social networking sites and several research platforms (e.g. surveycircle.com, thesius.de). A total of 98 participants had to be excluded due to several reasons: 71 participants failed to answer the attention check (recalling the supposed author of the story) correctly, 20 fell below a processing time of 240 seconds, six reported that

they did not fill out the questionnaire diligently, and one person was younger than 18 years[3]. The remaining 325 participants (74.5% female, 25.2% male, 0.3% non-binary) were between 18 and 92 years old (M = 27.57, SD = 12.43).

Stimulus Material

Participants first read an informational text about the presumptive author (main factor authorship: human vs. AI). In order to establish a common ground for all participants in the AI condition, we provided a short description of AI and its possible areas of application ("The term AI was first used in a mathematical context at Dartmouth College in 1956. […] Based on the structures of existing works, these creative AIs generate new, own stories with the help of algorithms." see S1.1 for the complete instructions). Participants in the human condition received information about the human author ("Mika J. Baker was born in 1956 and studied at Dartmouth College, USA."). We refrained from providing more information about the human author to prevent that this information drives the results. Next, we presented the story. To increase the generalizability of the study results, participants were presented one of two stories, both being of the contemporary fiction genre. Both stories pictured a scene of human interaction and were in fact written by human authors (see S1.2 for full stories). The stories were about the same length (Story 1: 379 words, Flesch Score: 84; Story 2: 310 words, Flesch Score: 79) and had one female and one male protagonist. Story 1 "The Final Encounter" covered the emotional final goodbye of a couple. The protagonists express their love for each other, as the female protagonist tries to encourage her partner to live a fulfilled life without her. Story 2 "A bumpy start to the vacation" pictured the situation of a couple being late for their flight. They realize they forgot to set the alarm clock and leave in a hurry to catch a cab

[3] Exclusion criteria differed from preregistration in two points: First, processing time was determined by inspecting the distribution of the duration times, rather than outlier analysis. Second, the exclusion of participants younger than 18 was not preregistered. We did not anticipate underage participants because legal age was a prerequisite to participate. Due to the focus of our study on adults, one participant under the age of 18 was excluded.

to the airport. We expected no effects of the story on our dependent variables and no interaction with the authorship factor.

Measures – Continuous Predictors

Openness. The personality trait openness was measured with the 12 items of the BFI 2 (Danner et al., 2019). The items were answered on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*, Cronbach's α = .80, *M* = 3.66, *SD* = 0.57).

Affinity for technology. The participants' affinity for technology was assessed using the TA-EG (Karrer et al., 2009). The 19 items were rated on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). The original questionnaire, which focused on electronic devices, was adapted to focus on software. Therefore, the instruction was changed and the term "computer programs" replaced the expression "electronic devices" (Cronbach's α = .82, *M* = 3.13, *SD* = 0.54).

Measures – Dependent Variables

Transportation. The participants reported their transportation into the short story by answering the German version of the TS-SF (Transportation Scale – Short Form; Appel et al., 2015). It consists of six items answered on a seven-point scale (1 = *not at all* to 7 = *very much*, Cronbach's α = .83, *M* = 4.63, *SD* = 1.29).

Willingness to share. Participants indicated their willingness to share the story with three items – covering their sharing tendencies over social media but also in personal contact with others – on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Although the grand mean was rather low, the internal consistency was satisfactory (Cronbach's α = .78, *M* = 1.79, *SD* = 0.85).

Eeriness. Three items used to measure eeriness were adapted from Gray and Wegner (2012). Participants were asked to indicate how eerie they felt during the reception process on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). The items consisted of one

word each and were translated into German following a committee approach (Cronbach's α = .77, *M* = 2.15, *SD* = 0.97).

Procedure

Based on the regulations for conducting psychological research in Germany, no formal IRB approval was required. The studies followed the ethical guidelines of the APA and the German Psychological Society (DGPs). Before participants could start the study, they had to give their informed consent. They were informed that the study aimed at investigating their reaction to short stories. Further, they were made aware that their participation was voluntary and anonymous. If participants agreed to these terms, they began the study by completing the openness scale of the BFI2 followed by the TA-EG. At this point participants were randomly assigned to one of two authorship conditions. They read a short text about what they were told to be the author of the following story (AI or human). Then, each participant was randomly assigned to one of the two short stories. After the story was completed, they indicated their transportation, eeriness and willingness to share the story with others. Socio-demographics and the attention check followed. Finally, participants were debriefed. The zero-order correlations of the main variables as well as the descriptive statistics are reported in Table 1.

Results and Discussion

Authorship

Three 2x2 ANOVAs were conducted to examine the effect of the presumed authorship (human vs. AI) and the stories (Story 1 vs. Story 2) on the participants' transportation into the story, the eeriness experienced while reading, and their willingness to share the story. The presumed authorship significantly predicted transportation, $F(1,321) = 16.03$, $p < .001$, $d = 0.45$. Participants who were told that the story was written by an AI experienced less transportation ($M = 4.35$, $SD = 1.32$) than those that were told that the author of the story was a human ($M = 4.91$, $SD = 1.20$). Transportation differed between the two different stories, $F(1,321) = 15.07$, $p < .001$, $d = 0.43$ (Story 1, $M = 4.36$, $SD = 1.47$; Story 2, $M = 4.90$, $SD =$

1,02). Yet, there was no significant interaction effect between authorship and story, $F(1,321) = 0.02$, $p = .888$, $d = 0.02$.

The information that a story was written by an AI had no significant effect on the willingness to share the story, $F(1, 321) = 2.20$, $p = .139$, $d = 0.17$. Willingness to share did not differ for the two stories $F(1,321) = 0.42$, $p = .517$, $d = 0.07$, nor did the story influence the effect of the presumed authorship $F(1,321) = 0.61$, $p = .435$, $d = 0.09$.

Contrary to our predictions an AI-authorship decreased (rather than increased) the eeriness experienced during reading $F(1,321) = 3.91$, $p = .049$, $d = 0.22$ (Human, $M = 2.26$, $SD = 0.97$; AI, $M = 2.04$, $SD = 0.98$); and eeriness differed between the presented stories, $F(1,321) = 8.51$, $p = .004$, $d = 0.33$ (Story 1, $M = 2.00$, $SD = 0.86$; Story 2, $M = 2.31$, $SD = 1.06$). The interaction between the two predictors was not significant, $F(1,321) = 0.99$, $p = .321$, $d = 0.11$.

Testing Potential Moderation Effects of Openness and Affinity for Technology

To assess if differences in the participants' openness affected the effects of the presumed authorship, we conducted a hierarchical regression analysis for each of the dependent variables respectively. Results on the two stories were pooled. In the first step, we entered the author condition (0 = Human; 1 = AI) and openness (standardized) as predictors. The interaction term of both predictors was entered in a second step.

Openness was associated with more transportation into the narrative, $B = .21$, $SEB = .07$, $p = .002$, but it did not alter the effect of authorship on transportation, $B = .02$, $SEB = .14$, $p = .896$ (see S2.1 for a complete report). Like transportation, willingness to share was significantly predicted by openness, $B = .16$, $SEB = .05$, $p = .001$, with more open participants reporting a higher willingness to share. There was no interaction of authorship and openness, $B = -.09$, $SEB = .09$, $p = .356$ (S2.2). Openness did not predict eeriness, $B = .06$, $SEB = .05$, $p = .313$, and no interaction was observed, $B = .08$, $SEB = .11$, $p = .491$ (S2.3).

We examined the effects of affinity for technology (standardized) with the same procedure as reported for openness. Transportation into the presented story was not predicted by affinity for technology B = -.05, SEB = .07, p = .461. It did not alter the effect the author had on transportation B = .05, SEB = .14, p = .731 (S2.4). The participants' affinity for technology had no effect on their willingness to share a story, B = .05, SEB = .05, p = .278, nor did a higher affinity for technology raise the sharing intentions if the story was supposedly written by an AI, B = -.08, SEB = .09, p = .796 (S2.5). Lastly, affinity for technology did not significantly reduce eeriness B = -.07, SEB = .05, p = .203, and there was no significant interaction of author and affinity for technology B = -.08, SEB = .11, p = .487 (S2.6).

In sum, the results support H1, the information that an upcoming story was written by AI reduced readers' transportation into the narrative world. Beyond transportation, we found no expected effect of AI authorship on user reactions to narratives. There was no effect on the willingness to share the narrative with others. Surprisingly, the information that an AI had written the narrative decreased (rather than increased) the eeriness participants reported. We will get back to this finding in the general discussion. Taken together, H2 and H3 were not supported. Both individual differences did not moderate the effect of AI authorship on the responses to narratives. Although openness positively predicted transportation and willingness to share the story with others, it did not alter the effect of authorship. The affinity for technology showed no predictive value for any of the variables. Thus, we found no support for H4.1 or H4.2.

Experiment 2

We conducted a follow-up experiment to replicate and extend our results on the influence of story authorship (human vs. AI) on narrative transportation (preregistration https://aspredicted.org/blind.php?x=ap73kd). This time, the experiment was conducted with English language stimulus material and a US sample. Our focus in Experiment 2 was on science fiction, more specifically we examined whether the focal authorship effect (human vs.

AI) changed for science fiction stories. We argue that authorship and genre may yield intriguing interaction effects, since a fit between both could be decisive for their effect on transportation. Even though story genre itself is not a persistent predictor of transportation per se (e.g., Bilandzic & Busselle, 2008; Thompson et al., 2021), it can play into interactions between predictor variables (van Laer, et al., 2014). More specifically, whenever an author's life experience fits the topic or genre of the narrative, we assume benefits for transportation through more positive expectations (Tiede & Appel, 2020). In case of creative AI, we consider science fiction as the genre with the best fit. Works of this genre are typically set in a future world in which technology is further developed, and technology often plays a central role in science fiction (Appel et al., 2016). More so, science fiction stories can even expand readers' perceptions of what seems likely and possible (Black et al., 2018). As compared to contemporary fiction, recipients may ascribe AI substantial knowledge about the core themes and protagonists of science fiction. Given that creative AI itself could be part of our technological future, readers might perceive an AI as a rather competent author for scenarios and plots set in the future world of science fiction. This match between AI and science fiction is expected to mitigate the negative effect of AI authorship on transportation by increasing the verisimilitude of the story. However, there is also the possibility of a reversed effect: The science fiction genre could remind readers of AI authorship at different points throughout the story, thereby increasing the negative effect of AI authorship on readers' transportation into the story world. In sum, we expected genre to moderate the effect of authorship on transportation, putting forward an undirected hypothesis.

H5: The story genre (contemporary fiction vs. science fiction) alters the effect of AI authorship on transportation.

In Experiment 1, we failed to find effects of individual difference. Possibly, the individual differences considered earlier (openness and affinity for technology) were too distal and failed to assess more specific predisposition regarding AI. To address this

shortcoming, we considered attitude towards AI as an individual difference that could moderate the effect of AI authorship on transportation. Attitude towards AI includes affective, behavioral and cognitive aspects. It refers to the attitude towards AI in general and is not bound to a specific field of application. The following assumption was made:

H6: A negative attitude towards AI will increase the effect of authorship on narrative transportation.

Method

Participants

When calculating the required sample size we considered the effect size of authorship on transportation in Experiment 1. A G*Power analysis with $f = .23$ (with $\alpha = .05$, $1\text{-}\beta = .80$) resulted in a required sample size of 151 participants for the authorship main effect. Since we expected a knock-out scenario or a disordinal interaction, we considered recommendations regarding interaction scenarios (Giner-Sorolla, 2018; Simonsohn, 2014) by tripling the sample. Accounting for the exclusion of potential outliers, 553 participants from the United States were recruited via MTurk.

A total of 64 participants were excluded from the analyses due to our preregistered exclusion criteria: 28 participants were unable or unwilling to describe the study in full English sentences indicating low English proficiency or low diligence, 18 failed the attention check item (clicking “disagree strongly”), 13 participants completed the questionnaire in less than 120 seconds or looked at the story for less than 10 seconds, which was deemed an unrealistically short amount of time for attentive participation, and five people did not report their age consistently. The remaining 489 participants were between 19 and 75 years old (M = 40.44, SD = 12.24); 43.1% were female, 55.2% male, and 1.6% were non-binary or preferred not to report their gender. Further, 28.4% of the participants reported having a high school diploma, 50.9% had a bachelor’s degree, 15.3% a master’s degree and 2.2% had a Ph.D. or a higher form of educational qualification. 3.1% reported that they had attended some other

form of high school or trade school. Concerning ethnicity, 82.0% were White, 8.0% were Black or African American, 7.6% Asian or Asian American, 5.9% Hispanic, and 1.0% were Native American, Alaskan Native, Native Hawaiian or Other.

Manipulation and Stories

The information on the supposed author of the stories was identical to Experiment 1. This time, participants were presented one of four narratives, introduced as the beginning of a longer story (see S1.1 and S1.3 for instructions and stories). Two stories belonged to the genre of science fiction (SF1 and SF2), the other two stories were contemporary fiction (CF1 and CF2). The science fiction stories pictured a distant future in which technology is far more advanced. SF1 was about a short conversation of a young girl with a sentient robot and its impact on the robot later on (336 words, Flesch Score: 56.5). In SF2, set in a rather dystopian future world, a woman is sent to a wasteland called "Robot Country" and interacts with a robot spider (337 words, Flesch Score: 77). The contemporary fiction stories pictured everyday scenarios. CF1 portrays a dancer in a restaurant, who reflects on her hopes and dreams, and ends with a new crew member giving her a ride home (431 words, Flesch Score: 85). In CF2 a woman with Italian origins brings her husband to a family dinner for the first time, where they witness the family's heated discussions (343 words, Flesch Score: 80.3).

We conducted a 2 (human vs. AI author) x 2 (contemporary fiction vs. science fiction) x 2 (Story 1 vs. Story 2) ANOVA. There were no interaction effects of the story factor (Story 1 vs. Story 2) and authorship and no three-way interaction between the predictors. This suggests that the effects relevant to our hypotheses were not influenced by the different stories. Hence, scores for Story 1 and Story 2 of the same genre were pooled for the following analyses.

Measures

Attitude towards AI. Participants indicated their attitude towards AI with the WATAI-12 (Authors, in preparation), which contains 12 items that are answered on a five-

point scale (1 = *disagree strongly* to 5 = *agree strongly*). The scale consists of three facets (affective, cognitive, and behavioral). The attitude score was calculated as an average of all items (Cronbach's α = .95, M = 3.60, SD = 0.87, see S4).

Transportation. Again, transportation was measured using the TS-SF (Appel et al., 2015) and showed good reliability (Cronbach's α = .88, M = 4.88, SD = 1.29). Across all conditions, transportation was positively correlated with the attitude towards AI, r = .28, p < .001.

Procedure

After participants gave their informed consent, they worked on the attitude towards AI measure. Next, they were presented information about the supposed author of the story (human or AI). Immediately afterwards, they had to answer an attention check item referring to this manipulation. If they failed to answer this item correctly, they were presented with the author information a second time before they were allowed to continue the questionnaire. Then one out of the four short stories was presented, followed by the transportation scale. After they provided sociodemographic data, all participants were debriefed and informed about the real source of the stories. Checks to identify careless responding were conducted throughout the questionnaire (see S3 for a more detailed description).

Results

Authorship and Genre

A 2 x 2 ANOVA revealed a significant main effect of presumed authorship (human vs. AI) on transportation, F(1,485) = 23.45, p < .001, d = 0.44, which was qualified by an interaction with genre (contemporary fiction vs. science fiction), F(1,485) = 4.84, p = .028, d = 0.20. No main effect of genre emerged, F(1,485) = 1.18, p = .278, d = 0.10 (see Table 2 and Figure 1). To further investigate the interaction effect, simple main effects were inspected. In the contemporary fiction condition, we observed an effect of authorship on transportation, F(485) = 24.45, p < .001, d = 0.45. Like in Experiment 1, participants who were told the story

was written by an AI reported significantly less transportation into a story of the contemporary fiction genre than participants who were told the story was written by a human author. When participants read a story of the science fiction genre, however, there was no significant difference between the levels of transportation they reported, $F(485) = 3.54$, $p = .060$, $d = 0.17$. Comparisons of genre within the authorship conditions revealed that stories from the contemporary fiction genre sparked more transportation than science fiction stories, if the narrative was introduced as written by a human author, $F(485) = 5.35$, $p = .021$, $d = 0.21$. If narratives were supposedly written by an AI, there was no difference between transportation into contemporary fiction and science fiction stories, $F(485) = 0.63$, $p = .429$, $d = 0.07$.

Potential Moderation by Attitude towards AI

A multiple linear regression was conducted to check whether the attitude towards AI (standardized) moderates the effect of authorship on transportation. In this model, a positive association between attitude towards AI and transportation was observed, $B = .35$, $SEB = .09$, $p < .001$, but there was no significant interaction between authorship and the attitude towards AI, $B = .14$, $SEB = .13$, $p = .282$.

In conclusion, the results of Experiment 2 were mainly in line with the results from Experiment 1. In support of H1, the information that a narrative was written by an AI reduced readers' transportation for the contemporary fiction genre. Again, no influence of the individual difference measure emerged (H6). Importantly, the response to AI authorship differed between story genres (H5). When participants were presented a science fiction story supposedly written by an AI, the fit between AI authorship and the setting of the narratives mitigated the negative effect on transportation.

General Discussion

Many aspects of human lives are influenced by AI today and AI will arguably play an even greater role in the future, with some innovations being viewed more critically than others

(e.g., Johnson & Tyson, 2020; Stahl, 2021). Creative AI could change how works of art and entertainment media are produced. Users' responses to AI-generated content are a key factor to its success. In this set of preregistered studies, we addressed the hitherto largely neglected field of AI-generated narratives. Although AI technologies are just starting to generate coherent narratives, the meeting of newest technology and one the oldest form of communication (telling stories) already evokes intriguing questions to be asked and answered by scientists.

In two experiments we consistently showed that AI authorship reduced recipients' transportation into contemporary fiction stories. We attribute this result to less emotional capabilities and desires ascribed to AI (experience in terms of Gray et al., 2007) leading to more negative expectations. These expectations, in turn, reduce transportation (Tiede & Appel, 2020; Tezer et al., 2020). This result is of particular importance as transportation is related to many other experiential states (e.g., enjoyment; Green et al., 2004) and to downstream effects, such as persuasion (Appel & Richter, 2010; van Laer et al., 2014). The main effect of AI authorship on transportation was replicated in two different countries (Germany and USA), with two different languages and with different stories, demonstrating its stability.

Confirming our assumptions, the story genre moderated the effect of AI authorship on transportation: The difference between human and AI authors was reduced when science fiction stories were presented. It seems that AI is perceived to be a more able writer for stories set in the future (in which new technologies flourish) than for stories set in the here and now. The science fiction stories we chose for our experiments featured human as well as machine protagonists and pictured the interaction of both at some point in the story. This might have increased the perception of relevant life experience in an AI author, in turn raising readers' expectations and transportation. This result is in line with earlier findings on AI-generated

music. These suggest that the genre can change the evaluation of pieces, depending on the expectations of AI-generated music (Hong et al., 2020).

Contrary to our predictions, none of the individual differences considered in our experiments (openness, affinity for technology, and attitude towards AI) moderated the effect of AI authorship on transportation. As these individual differences covered a variety of aspects relevant to the context of narratives and AI technology, the absence of a moderation effect points to the stability of the AI author effect across individuals.

No authorship effects were found for sharing intentions and the results on perceived eeriness revealed a surprising effect: Contradicting our hypotheses, AI authorship decreased eeriness. We have a post-hoc explanation about the origin of this unexpected finding: Participants were asked about their eeriness they experienced during reading. Although we conceived eeriness to reflect a negative response to the (uncanny) AI authorship, readers could have experienced eeriness in response to the stories. In line with this expectation, the correlation between eeriness and transportation was positive.

Limitations and Future Research

Several limitations need to be noted. First, even though this work was an important first step in understanding user responses to narratives created by AI, not all related questions could be addressed. More specifically, potential mechanisms, such as expectations on the emotional capability of AI, or the perceived match between author and genre provide fertile ground for future research. We refrained from including these variables in this groundbreaking investigation, as self-reports of expectations or fit could influence the very processes they reflect, leading to less internally valid data. Based on our results, future studies are encouraged to examine these mechanisms more directly.

Second, we acknowledge that the information that introduced the AI author was longer than the information that introduced the human author. The information on the human author was kept short, as additional information on the author might have influenced the results. For

example, mentioning that the text was written by a renowned professional writer could have increased expectations and transportation, mentioning that the text was written by a non-professional writer could have decreased expectations and transportation (cf. Tiede & Appel, 2020). Providing no information about the author at all could have influenced the results as well, as recipients' attention could be allocated to identifying information about the author, thereby reducing transportation. In the AI author condition a few words on AI seemed to be required, in order to establish a basic understanding among all participants. Importantly, we have no indication that the mere length of the author information affected narrative transportation. Still, future studies on fiction and AI are encouraged to reflect upon and potentially improve this methodological aspect.

Third, it was beyond the scope of the present manuscript to incorporate all variables that could be of potential interest. For example, even though we were able to consider the potential influence of several individual difference variables (and found no moderating effects), other variables could follow up in future studies: Participants who are dispositionally concerned about human uniqueness (Stein et al., 2019) might perceive creative AI to be particularly threatening, leading to more negative responses. On a related note, research has just begun to examine the influence of science fiction on individuals and societies, for example regarding responses to technological innovations (e.g., Appel et al., 2016) or audience members' own creativity (e.g., Black & Barnes, 2021).

Fourth, this study focused solely on differences caused by the information that a story was written by an artificial intelligence and did not compare actual AI-generated narratives to human authored stories. The latter angle differs from the angle chosen by us. Identifying differences on the textual level (i.e., the identification of systematic differences in content and/or style between human and AI authors) as well as on the recipient level (how these differences translate to recipient responses) are intriguing research avenues for future research.

As our last limitation and direction for future research, we acknowledge that our focus was on scenarios in which AI created a story without the guidance of human authors. Although AI is increasingly able to generate short coherent narratives and can even write whole film scripts, technology's main role will likely be that of an aid to human writers (Slatter, 2021; Thorne, 2020). Based on initial results in the field of journalism (e.g., Tandoc et al., 2020; Wölker & Powell, 2021), research is encouraged to examine how recipients respond to fictional stories produced by AI-human collaborations.

As a final thought, we wish to emphasize the importance of transparency when applying AI. This does not only refer to the exact AI algorithms (explainable AI) but to the information that AI is involved in services or products, not least in communication contexts. That said, companies may be tempted to conceal that AI is involved in, for example, online customer services or screenwriting. Our work contributes to scenarios in which AI authorship is made knowledgeable. It presumes that readers are informed and aware of the authorship before reading the narrative, which might not always be the case in applied settings.

Conclusion

Across two preregistered experiments we showed that readers are transported less into contemporary fiction when the story is introduced to be written by an artificial intelligence (AI) as compared to a human author. This outcome remained stable across scores on several individual difference dimensions. The AI authorship effect is reduced for stories set in the future world of science fiction.

References

Appel, M., Gnambs, T., Richter, T., & Green, M. C. (2015). The Transportation Scale–Short Form (TS–SF). *Media Psychology*, *18*(2), 243–266. https://doi.org/10.1080/15213269.2014.987400

Appel, M., Izydorczyk, D., Weber, S., Mara, M., & Lischetzke, T. (2020). The uncanny of mind in a machine: Humanoid robots as tools, agents, and experiencers. *Computers in Human Behavior*, *102*, 274–286. https://doi.org/10.1016/j.chb.2019.07.031

Appel, M., Krause, S., Gleich, U., & Mara, M. (2016). Meaning through fiction: Science fiction and innovative technologies. *Psychology of Aesthetics, Creativity, and the Arts*, *10*(4), 472-480. https://doi.org/10.1037/aca0000052

Appel, M., & Maleckar, B. (2012). The influence of paratext on narrative persuasion: Fact, fiction, or fake?. *Human Communication Research*, *38*, 459-484. https://doi.org/10.1111/j.1468-2958.2012.01432.x

Appel, M., & Mengelkamp, C. (2022). Watching videos on a smartphone: Do small screens impair narrative transportation?. *Media Psychology*, 1-22. https://doi.org/10.1080/15213269.2021.2025109

Appel, M., & Richter, T. (2010). Transportation and need for affect in narrative persuasion: A mediated moderation model. *Media Psychology*, *13*(2), 101–135. https://doi.org/10.1080/15213261003799847

Audet, É. C., Levine, S. L., Metin, E., Koestner, S., & Barcan, S. (2021). Zooming their way through university: Which big 5 traits facilitated students' adjustment to online courses during the COVID-19 pandemic. *Personality and Individual Differences*, *180*, 110969. https://doi.org/10.1016/j.paid.2021.110969

Banerjee, S. C., & Greene, K. (2013). Examining narrative transportation to anti-alcohol narratives. *Journal of Substance Use*, *18*(3), 196–210. https://doi.org/10.3109/14659891.2012.661020

Bilandzic, H., & Busselle, R. W. (2008). Transportation and transportability in the cultivation of genre-consistent attitudes and estimates. *Journal of Communication*, *58*(3), 508–529. https://doi.org/10.1111/j.1460-2466.2008.00397.x

Bilandzic, H., & Busselle, R. W. (2011). Enjoyment of films as a function of narrative experience, perceived realism and transportability. *Communications*, *36*(1), 29-50. https://doi.org/10.1515/comm.2011.002

Black, J. E., Capps, S. C., & Barnes, J. L. (2018). Fiction, genre exposure, and moral reality. *Psychology of Aesthetics, Creativity, and the Arts, 12*(3), 328-340. http://dx.doi.org/10.1037/aca0000116

Black, J. E., & Barnes, J. L. (2021). Pushing the boundaries of reality: science fiction, creativity, and the moral imagination. *Psychology of Aesthetics, Creativity, and the Arts*, *15*(2), 284-294, http://dx.doi.org/10.1037/aca0000028

Bonito, J. A., Burgoon, J. K., & Bengtsson, B. (1999). The role of expectations in human-computer interaction. In Hayne, S. C. (Ed.), *Proceedings of the international ACM SIGGROUP conference on Supporting group work* (pp. 229-238). Association for Computing Machinery. https://doi.org/10.1145/320297.320324

Chamberlain, R., Mullin, C., Scheerlinck, B., & Wagemans, J. (2018). Putting the art in artificial: Aesthetic responses to computer-generated art. *Psychology of Aesthetics, Creativity, and the Arts*, *12*(2), 177–192. https://doi.org/10.1037/aca0000136

Cherniss, H. (1999). The biographical fashion in literary criticism. *Classical Bulletin*, *75*(2), 147-159.

Colquitt, J. A., Hollenbeck, J. R., Ilgen, D. R., LePine, J. A., & Sheppard, L. (2002). Computer-assisted communication and team decision-making performance: The moderating effect of openness to experience. *Journal of Applied Psychology*, *87*(2), 402-410. https://doi.org/10.1037/0021-9010.87.2.402

Costa, P. T. & McCrae, R. R. (1992). *NEO PI-R professional manual*. Psychological

Assessment Resources.

Corera, G. (2020, December 14). *How fact met fiction in le Carré's secret world*. BBC News. https://www.bbc.com/news/entertainment-arts-55300343

Danner, D., Rammstedt, B., Bluemke, M., Lechner, C., Berres, S., Knopf, T., Soto, C. J., & John, O. P. (2019). Das Big Five Inventar 2 [The big five inventory 2]. *Diagnostica*, *65*(3), 121–132. https://doi.org/10.1026/0012-1924/a000218

Elgammal, A., Liu, B., Elhoseiny, M., & Mazzone, M. (2017). CAN: Creative adversarial networks generating "Art" by learning about styles and deviating from style norms. *ArXiv*. https://arxiv.org/abs/1706.07068

Franke, T., Attig, C., & Wessel, D. (2019). A personal resource for technology interaction: development and validation of the affinity for technology interaction (ATI) scale. *International Journal of Human–Computer Interaction*, *35*(6), 456-467. https://doi.org/10.1080/10447318.2018.1456150

Friedman, R. S., & Taylor, C. L. (2014). Exploring emotional responses to computationally created music. *Psychology of Aesthetics, Creativity, and the Arts*, *8*(1), 87–95. https://doi.org/10.1037/a0034940

Gangadharbatla, H. (2021). The role of AI attribution knowledge in the evaluation of artwork. *Empirical Studies of the Arts*, Advance online publication. https://doi.org/10.1177/0276237421994697

Gerrig, R. J. (1993). *Experiencing narrative worlds*. New Haven, CT: Yale University Press.

Giner-Sorolla, R. (2018, January 24). *Powering your interaction.* https://approachingblog.wordpress.com/2018/01/24/powering-your-interaction-2/

Graefe, A., Haim, M., Haarmann, B., & Brosius, H. B. (2018). Readers' perception of computer-generated news: Credibility, expertise, and readability. *Journalism*, *19*(5), 595–610. https://doi.org/10.1177/1464884916641269

Gray, H. M., Gray, K., & Wegner, D. M. (2007). Dimensions of mind perception. *Science*,

315(5812), 619. https://doi.org/10.1126/science.1134475

Gray, K., & Wegner, D. M. (2012). Feeling robots and human zombies: Mind perception and the uncanny valley. *Cognition*, *125*(1), 125-130. https://doi.org/10.1016/j.cognition.2012.06.007

Green, M. C., Bilandzic, H., Fitzgerald, K., & Paravati, E. (2019). Narrative effects. In M. B. Oliver, A. A. Raney, & J. Bryant (Eds.), *Media Effects: Advances in Theory and Research* (4th ed., pp. 130–145). Routledge. https://doi.org/10.4324/9780429491146

Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, *79*(5), 701–721. https://doi.org/10.1037/0022-3514.79.5.701

Green, M. C., Brock, T. C., & Kaufman, G. F. (2004). Understanding media enjoyment: The role of transportation into narrative worlds. *Communication Theory*, *14*(4), 311-327. https://doi.org/10.1111/j.1468-2885.2004.tb00317.x

Hamby, A., Brinberg, D., & Jaccard, J. (2018). A conceptual framework of narrative persuasion. *Journal of Media Psychology*, *30*(3), 113–124. https://doi.org/10.1027/1864-1105/a000187

Hamby, A., Shawver, Z., & Moreau, P. (2020). How character goal pursuit "moves" audiences to share meaningful stories. *Media Psychology*, *23*(3), 317-341, https://doi.org/10.1080/15213269.2019.1601569

Hong, J. W., & Curran, N. M. (2019). Artificial intelligence, artists, and art: Attitudes toward artwork produced by humans vs. artificial intelligence. *ACM Transactions on Multimedia Computing, Communications and Applications*, *15*(2s). https://doi.org/10.1145/3326337

Hong, J. W., Peng, Q., & Williams, D. (2020). Are you ready for artificial Mozart and Skrillex? An experiment testing expectancy violation theory and AI music. *New Media and Society*, *23*(7). https://doi.org/10.1177/1461444820925798

Johnson, C., & Tyson, A. (2020, December 15). *Are AI and job automation good for society? Globally, views are mixed*. Pew Research Center. https://www.pewresearch.org/fact-tank/2020/12/15/people-globally-offer-mixed-views-of-the-impact-of-artificial-intelligence-job-automation-on-society/

Karrer, K., Glaser, C., Clemens, C., & Bruder, C. (2009). Technikaffinität erfassen – der Fragebogen TA-EG [Measuring affinity for technology – the TA-EG questionnaire]. *In* A. Lichtenstein, C. Stößel, & C. Clemens (Eds.), *Der Mensch im Mittelpunkt technischer Systeme*. *8. Berliner Werkstatt Mensch-Maschine-Systeme* (pp. 196–201). Düsseldorf, Germany: VDI.

Kreuter, M. W., Green, M. C., Cappella, J. N., Slater, M. D., Wise, M. E., Storey, D., ... & Woolley, S. (2007). Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine*, *33*(3), 221-235. https://doi.org/10.1007/BF02879904

Kätsyri, J., Förger, K., Mäkäräinen, M., & Takala, T. (2015). A review of empirical evidence on different uncanny valley hypotheses: Support for perceptual mismatch as one road to the valley of eeriness. *Frontiers in Psychology*, *6*, 390. https://doi.org/10.3389/fpsyg.2015.00390

Köbis, N., & Mossink, L. D. (2021). Artificial intelligence versus Maya Angelou: Experimental evidence that people cannot differentiate AI-generated from human-written poetry. *Computers in Human Behavior*, *114*. https://doi.org/10.1016/j.chb.2020.106553

MacDorman, K. F., & Entezari, S. O. (2015). Individual differences predict sensitivity to the uncanny valley. *Interaction Studies*, *16*(2), 141–172. https://doi.org/10.1075/is.16.2.01mac

Mangen, A., & Kuiken, D. (2014). Lost in an iPad: Narrative engagement on paper and tablet. *Scientific study of literature*, 4(*2*), 150-177. https://doi.org/10.1075/ssol.4.2.02man

Mar, R. A., Oatley, K., & Peterson, J. B. (2009). Exploring the link between reading fiction

and empathy: Ruling out individual differences and examining outcomes. *Communications*, *34*(4), 407–428. https://doi.org/10.1515/COMM.2009.025

Maslej, M. M., Mar, R. A., & Kuperman, V. (2021). The textual features of fiction that appeal to readers: Emotion and abstractness. *Psychology of Aesthetics, Creativity, and the Arts, 15*(2), 272-283. https://doi.org/10.1037/aca0000282

Mazzocco, P. J., Green, M. C., Sasota, J. A., & Jones, N. W. (2010). This story is not for everyone: Transportability and narrative persuasion. *Social Psychological and Personality Science*, *1*(4), 361–368. https://doi.org/10.1177/1948550610376600

Mori, M. (1970). Bukimi no tani [the uncanny valley]. *Energy* 7(4), 33–35.

Oliveira, G. H., & Cardoso, A. (2015). Poetry generation with PoeTryMe. In T. R. Besold, M. Schorlemmer, & A. Smaill (Eds.), *Computational Creativity Research: Towards CreativeMachines* (pp. 243–266). Atlantis Press. https://doi.org/10.2991/978-94-6239-085-0_12

Ragot, M., Martin, N., & Cojean, S. (2020). AI-generated vs. human artworks. a perception bias towards artificial intelligence? In *HI EA '20: Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*, 1–10. Association for Computing Machinery. https://doi.org/10.1145/3334480.3382892

Schepman, A., & Rodway, P. (2020). Initial validation of the general attitudes towards artificial intelligence scale, *Computers in Human Behavior Reports*, *1*, 100014. https://doi.org/10.1016/j.chbr.2020.100014

Shank, D. B., North, M., Arnold, C., & Gamez, P. (2021). Can mind perception explain virtuous character judgments of artificial intelligence? *Technology, Mind, and Behavior*, *2*(3). https://doi.org/10.1037/tmb0000047

Simonsohn, U. (2014, March 12). *[17] No-way interactions*. http://datacolada.org/17

Slatter, S. (2021, January 9). *'We still need humans to generate those stories': How AI could influence screenwriting.* If. https://if.com.au/we-still-need-humans-to-generate-those-stories-how-ai-could-influence-screenwriting/

Stahl, A. (2021, March 10). *How AI will impact the future of work and life.* Forbes. https://www.forbes.com/sites/ashleystahl/2021/03/10/how-ai-will-impact-the-future-of-work-and-life/

Stein, J.-P., Liebold, B., & Ohler, P. (2019). Stay back, clever thing! Linking situational control and human uniqueness concerns to the aversion against autonomous technology. *Computers in Human Behavior*, *95*, 73-82. https://doi.org/10.1016/j.chb.2019.01.021

Striepe, H., Donnermann, M., Lein, M., & Lugrin, B. (2019). Modeling and evaluating emotion, contextual head movement and voices for a social robot storyteller. *International Journal of Social Robotics*, *13*(2), 441-457. https://doi.org/10.1007/s12369-019-00570-7

Striepe, H., & Lugrin, B. (2017). There once was a robot storyteller: Measuring the effects of emotion and non-verbal behaviour. In A. Kheddar, E. Yoshida, S. S. Ge, K. Suzuki, J.-J. Cabibihan, F. Eyssel, & H. He (Eds.), *Lecture Notes in Computer Science: Vol 10652. Social Robotics* (pp. 126–136). Springer International Publishing. https://doi.org/10.1007/978-3-319-70022-9_13

Tandoc, E. C., Yao, L. J., & Wu, S. (2020). Man vs. machine? The impact of algorithm authorship on news credibility. *Digital Journalism*, *8*(4), 548–562. https://doi.org/10.1080/21670811.2020.1762102

Tezer, A., Bodur, H. O., & Grohmann, B. (2020). Communicating brand biographies effectively: the role of communication source. *Journal of the Academy of Marketing Science*, *48*, 712-733. https://doi.org/10.1007/s11747-019-00689-z

Thompson, J. M., Teasdale, B., Duncan, S., van Emde Boas, E., Budelmann, F., Maguire, L., & Dunbar, R. I. M. (2021). Differential effects of film genre on viewers' absorption,

identification, and enjoyment. *Psychology of Aesthetics, Creativity, and the Arts*, *15*(4), 697-709. doi:http://dx.doi.org/10.1037/aca0000353

Thorne, S. (2020). Hey Siri, tell me a story: Digital storytelling and AI authorship. *Convergence*, *26*(4), 808-823, https://doi.org/10.1177/1354856520913866

Tiede, K. E., & Appel, M. (2020). Reviews, expectations, and the experience of stories. *Media Psychology*, *23*(3), 365-390. https://doi.org/10.1080/15213269.2019.1602055

van Laer, T., De Ruyter, K., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. *Journal of Consumer Research*, *40*(5), 797–817. https://doi.org/10.1086/673383

van Laer, T., Feiereisen, S., & Visconti, L. M. (2019). Storytelling in the digital era: A meta-analysis of relevant moderators of the narrative transportation effect. *Journal of Business Research*, *96*, 135–146. https://doi.org/10.1016/j.jbusres.2018.10.053

Waddell, T. F. (2018). A robot wrote this?: How perceived machine authorship affects news credibility. *Digital Journalism*, *6*(2), 236–255. https://doi.org/10.1080/21670811.2017.1384319

Wang, S., Lilienfeld, S. O., & Rochat, P. (2015). The uncanny valley: Existence and explanations. *Review of General Psychology*, *19*(4), 393-407. https://doi.org/10.1037/gpr0000056

Waytz, A., & Norton, M. I. (2014). Botsourcing and outsourcing: Robot, British, Chinese, and German workers are for thinking – not feeling – jobs. *Emotion*, *14*(2), 434-444. https://doi.org/10.1037/a0036054

Wilson, E. J., & Sherrell, D. L. (1993). Source effects in communication and persuasion research: A meta-analysis of effect size. *Journal of the Academy of Marketing Science*, *21*, 101–112. https://doi.org/10.1007/BF02894421

Wölker, A., & Powell, T. E. (2021). Algorithms in the newsroom? News readers' perceived

credibility and selection of automated journalism. *Journalism*, *22*(1), 86-103. https://doi.org/10.1177/1464884918757072

Xu, K., Liu, F., Mou, Y., Wu, Y., Zeng, J., & Schäfer, M. S. (2020). Using machine learning to learn machines: A cross-cultural study of users' responses to machine-generated artworks. *Journal of Broadcasting and Electronic Media*, *64*(4), 566–591. https://doi.org/10.1080/08838151.2020.1835136

Table 1

Descriptive Statistics and Zero-Order Correlations (Experiment 1):

	Story 1		Story 2		2	3	4	5
	Human (n = 80)	AI (n = 85)	Human (n = 80)	AI (n = 80)				
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*r* [*p*]	*r* [*p*]	*r* [*p*]	*r* [*p*]
1. Transportation	4.65 (1.37)	4.08 (1.50)	5.17 (0.94)	4.64 (1.04)	.39 [<.001]	.25 [<.001]	.16 [.004]	-.05 [.337]
2. Willingness to share	1.85 (0.86)	1.79 (0.84)	1.87 (0.93)	1.65 (0.74)		.19 [.001]	.19 [.001]	.06 [.322]
3. Eeriness	2.05 (0.82)	1.95 (0.90)	2.47 (1.06)	2.15 (1.04)			.05 [.338]	-.08 [.165]
4. Openness	3.65 (0.60)	3.67 (0.61)	3.65 (0.53)	3.68 (0.57)				.08 [.134]
5. Affinity for technology	3.08 (0.55)	3.19 (0.59)	3.10 (0.51)	3.13 (0.52)				

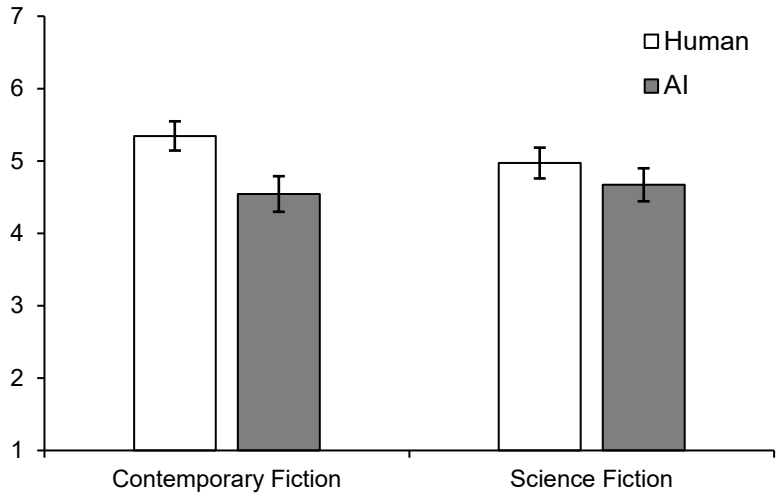
Table 2

Treatment Effects on Transportation: Descriptive Statistics (Experiment 2)

	Contemporary Fiction		Science Fiction		Total	
	n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
Human author	119	5.35 (1.12)	123	4.97 (1.21)	242	5.16 (1.18)
AI author	122	4.54 (1.38)	125	4.67 (1.30)	247	4.61 (1.34)
Total	241	4.94 (1.32)	248	4.82 (1.26)	489	4.88 (1.29)

Figure 1

Effects of Author (Human vs. AI) and Story Genre (Contemporary Fiction vs. Science Fiction) on Transportation (Experiment 2). Means and Standard Errors of the Mean are Displayed.



Supplements

S1 Instruction and Stories (in English and German)

S2 Experiment 1: Tables of Hierarchical Regression Analyses

S3 Experiment 2: Description of manipulation checks

S4 Experiment 2: Attitude towards AI (Descriptive Statistics)

S5 Post-Hoc Mediation Analysis

S1 Instruction, Stories (in English and German), and Excluded Participants

S1.1 Instructions describing the author of the story

AI – German (as used in Experiment 1)

Die folgende kurze Geschichte wurde von einer KI (künstliche Intelligenz) verfasst.
Das erste Mal fiel der Begriff 1956 in mathematischem Kontext am Dartmouth College.
Seitdem versuchen Forscher durch Computerprogramme menschliches intelligentes Verhalten zu simulieren.
Neben KIs, wie intelligenten Suchmaschinen, werden auch kreative KIs entwickelt, die in der Lage sind eigene Texte zu verfassen. Hier konnten Forscher in den letzten Jahren einige Fortschritte verzeichnen. Basierend auf den Strukturen bestehender Werke, generieren die KIs mit Hilfe von Algorithmen neue, eigene Geschichten.

AI – English (as used in Experiment 2)

The following text is the beginning of a short story written by an AI (artificial intelligence).
The term AI was first used in a mathematical context at Dartmouth College in 1956. Since then, researchers have worked on computer programs that can simulate intelligent human behavior.
In addition to common AIs, as used for search engines, there are creative AIs that are capable of writing their own texts. Researchers have made some progress in this area in recent years. Based on the structures of existing works, these creative AIs generate new, own stories with the help of algorithms.

Human author – German (as used in Experiment 1)

Die folgende kurze Geschichte wurde von Mika Beck verfasst. Sie wurde im Jahr 1956 geboren und studierte u.a. am Dartmouth College, USA.

Human author – English (as used in Experiment 2)

The following text is the beginning of a short story written by Mika J. Baker.
Mika J. Baker was born in 1956 and studied at Dartmouth College, USA.

S1.2 Stories – Experiment 1

In Experiment 1 all stories were presented in German. Story 1 was shortened for the purpose of this study (original story: https://www.kurzgeschichten-stories.de/t_493.aspx). Story 2 was newly written for our experiment.

Story 1 – German (as used in Experiment 1)

Letzte Begegnung

Sie sah ihn an als wäre es das erste Mal, dass sie sich sehen würden. Das intensive Blau seiner Augen, seine geschwungenen Lippen, sein gütiger Blick. Er berührte ihre Wange.

„Ich liebe dich und ich werde dich für immer lieben, das weißt du doch, oder?“. Tränen traten in ihre Augen. Sie konnte nichts weiter sagen. So gern hätte sie ihm alles gesagt, was ihr auf der Zunge lag. Dafür war es jetzt zu spät. Sie würde eine neue Reise antreten müssen, eine Reise ohne ihn. Auch wenn sie sich wünschte, dass sie beide noch so viel Zeit haben würden. Das Leben entschied anders.

„Ich möchte, dass du nach vorne siehst. Ich möchte, dass du deine Träume verwirklichst. Kannst du mir das versprechen?“.

Tränen traten in seine Augen, er schüttelte den Kopf und schaute auf den Boden. Sie hielt seinem Blick stand. „Kannst du mir das versprechen, Chris?“ Lange sagte er nichts. Dann schaute er ihr in die Augen. Tränen liefen über sein Gesicht. „Wie könnte ich ohne dich leben? Du bist mein Leben.“

„Du musst mir versprechen, dass du dein Leben weiterführst. Auch wenn ich weg bin, muss es für dich weitergehen“. Sie küsste ihn. Sie legte alle Kraft in diesen Kuss. Er erwiderte ihn zögerlich, aber bestimmt. Mit einer Hand hielt er ihre Hand. Die andere legte er ihr in den Nacken. Ihr Kuss wurde inniger, doch er unterbrach ihn. Er behandelte sie wie etwas Zerbrechliches. Lange sahen sie sich in die Augen, niemand wagte etwas zu sagen.

„Ich verspreche, dass ich am Boden zerstört sein werde ohne dich. Es wird sich anfühlen, als ob etwas in mir gestorben ist. Ich werde dich so vermissen, dass ich die Schmerzen kaum ertragen kann. Aber für dich werde ich nicht aufgeben. Ich bin mir sicher, dass du mich jeden Schritt meines Lebens begleiten wirst. Ich liebe dich, Allie“.

Story 1 – English translation

Meeting for the last time

She looked at him like it was the first time they had ever seen each other. The intense blue of his eyes, the curved shape of is lips, his kind look. He touched her cheek lightly.

„I love you and I will love you forever. You know that, don't you?" Tears came to her eyes. She could say no more. She wanted so much to tell him everything that was on the tip of her tongue. But it was too late for that now. She would have to start a new journey, a journey without him. Even though she wished they both had more time together. But life decided differently.

„I want you to look ahead. I want you to make your dreams come true. Will you promise me that? ".

Tears came to his eyes as he shook his head and looked down to the ground. She held his gaze. "Will you promise me, Chris? ". He said nothing for a while. Then he looked into her eyes. Tears were streaming down his face. "How am I supposed to live without you? You are my life."

„You have to promise me to go on. Even though I'm gone, you must keep on living your life." She kissed him. She put all her strength into that kiss. He returned it hesitantly but firmly. He held her hand in his own. His other lay gently on her neck. Her kiss grew deeper, but he broke it. He treated her like a very fragile thing. They were just looking into each other's eyes for a long time, none of them dared to say anything.

"I promise I'll be devastated without you. It will be a feeling like something has died inside of me. I will miss you so much that I can hardly stand the pain. But for you, I won't give up. I'm sure you will be with me on every step for the rest of my life. I love you, Allie."

Story 2 – German (as used in Experiment 1)

Holpriger Aufbruch in den Urlaub

„Lars, Lars! Wach auf! Wir haben verschlafen!“ Kati springt hektisch aus dem Bett, greift nach ihrer Handtasche und wirft Dinge hinein. „Reisepass, Flugtickets, Portmonee, Handy… Hätte ich doch gestern schon alles parat gelegt.“, sagt sie verärgert und schaut zu ihrem Mann hinüber, der immer noch im Bett liegt. Statt Kati zu helfen, versucht Lars herauszufinden, weshalb der Wecker nicht geklingelt hat. „Das kann doch nicht sein, ausgerechnet heute funktioniert das blöde Ding nicht.“, murmelt er vor sich hin. „Lars, das ist jetzt so unwichtig. Komm schon, Beeilung.“ Bevor Lars antworten kann, ist Kati ins Bad verschwunden. „Wie viel Zeit noch?“, fragt Lars während er sich anzieht. Von Kati kommt nur eine kurze, genervte Antwort: „Wir sollten schnellstmöglich los, der Flieger geht um 10“.

Lars stürmt die Treppe hinunter und wirft einen Blick auf seine Armbanduhr. „Es ist kurz vor 9. Das Gate schließt um halb 10. Die Anfahrt mit dem Taxi dauert ungefähr 15 Minuten. Online eingecheckt haben wir zum Glück gestern schon.“ Nachdem Lars seinen Zeitplan durchgegangen ist, ruft er nach oben: „Kati, ich stell mich schon mal vor die Tür und versuche ein Taxi anzuhalten“.

Zum Glück wohnen die beiden in der Innenstadt, sonst würden sie so spontan kein Taxi bekommen. Während Lars bereits in der Kälte steht und Ausschau nach einem Taxi hält, versucht Kati an alles Wichtige zu denken. „Jetzt bloß nicht hektisch werden.“, denkt Kati und bemüht sich, nichts zu vergessen. „Handtasche ist gepackt, Koffer sind schon unten, Fenster müssen geschlossen werden.“ Kati läuft einmal quer durch das Haus, um alles zu checken.

Draußen packt Lars das Gepäck in ein Taxi. „Kati, kommst du?“, ruft er und hofft, dass sie ihn hört. „Ich komme sofort“, antwortet Kati. Sie schnappt sich den Schlüssel und schlägt die Haustür hinter sich zu. Im Taxi angekommen haben die beiden endlich Zeit, um kurz durchzuschnaufen. Kati schaut nervös auf ihre Uhr. „Ich habe mit Sicherheit irgendetwas vergessen.“ Ihr laufen Schweißtropfen über die Stirn und ihre Knie zittern vor Aufregung. Lars bittet den Taxifahrer, etwas mehr Gas zu geben. “Ihr habt Glück, dass ich euer Fahrer bin. Ich kenne nämlich die perfekte Abkürzung zum Flughafen.”, sagt der Fahrer. Lars dreht sich um, atmet einmal tief durch und lächelt Kati zuversichtlich an.

Der Urlaub kann kommen.

Story 2 – English (translation)

A bumpy start to the vacation

"Lars, Lars! Wake up! We overslept!" Kati frantically jumps out of bed, grabs her purse and throws things into it. "Passport, plane tickets, wallet, cell phone... I should have had everything ready yesterday," she says angrily, looking over at her husband, who is still in bed. Instead of helping Kati, Lars tries to figure out why the alarm didn't go off. "It can't be, today of all days the stupid thing doesn't work," he mutters to himself. "Lars, it's so unimportant now. Come on, hurry up." Before Lars can answer, Kati has disappeared into the bathroom. "How much time left?" asks Lars as he gets dressed. From Kati comes only a short, annoyed answer: "We should leave as soon as possible, the plane leaves at 10".

Lars runs down the stairs and has a look at his watch. „Its just before 9. The gate closes at half past 9. It takes about 15 minutes by taxi. We checked in online yesterday, fortunately." After Lars has gone through his schedule, he calls upstairs, "Kati, I'll go stand outside the door and try to hail a cab."

Luckily, the two of them live downtown, otherwise they wouldn't be able to get a cab so spontaneously. While Lars is already standing in the cold looking for a cab, Kati tries to think of everything important. "Now just don't get frantic," Kati thinks and tries to remember everything. "Handbag is packed, suitcases are already downstairs, windows need to be closed." Kati runs once across the house to check everything.

Outside Lars packs the luggage into a cab. „Kati, are you coming?“, he calls, hoping she hears him. "I'll be right there," Kati replies. She grabs the key and slams the front door behind her. Once inside the cab, the two finally have time to catch their breath. Kati looks nervously at her watch. "I've forgotten something for sure." Drops of sweat run down her forehead and her knees tremble with excitement. Lars asks the cab driver to step on the gas a little more. "You're lucky I'm your driver. Because I know the perfect shortcut to the airport," the driver says. Lars turns around, takes a deep breath and smiles confidently at Kati.

The vacation can come.

S1.3 Stories – Experiment 2

We only presented excerpts of the originals stories in our questionnaire. Participants, who completed the questionnaire were informed about the origin of the stories and received links to the full stories.

Science Fiction – Story 1

Fandom for Robots by Vina Jie-Min Prasad. Read the full story here:

https://uncannymagazine.com/article/fandom-for-robots/

Science Fiction – Story 2

One Thousand Beetles in a Jumpsuit by Dominika Phetteplace. Read the full story here:

https://www.lightspeedmagazine.com/fiction/one-thousand-beetles-in-a-jumpsuit/

Contemporary Fiction – Story 1

The Comedian by Yoko Morgenstern. Read the full story here:

http://flashfictiononline.com/main/article/the-comedian/

Contemporary Fiction – Story 2

Family Harmony by Karin Gall. Read the full story here:

https://flashfictionmagazine.com/blog/2018/06/22/family-harmony/#more-24004

Stories as presented in Experiment 2

Science Fiction – Story 1

Fandom for Robots

The Simak Robotics Museum's postcard set ($15.00 for a set of twelve) describes Computron as "The only known sentient robot, created in 2054 by Doctor Karel Alquist to serve as a laboratory assistant. No known scientist has managed to recreate the doctor's invention. Its steel-framed box-and-claw design is characteristic of the period."

In the museum, Computron is regarded as a charming artefact. He plays a key role in the Robotics Then and Now performance as an example of the "Then." After the announcer's introduction to robotics, Computron appears on stage. He answers four standard queries from the audience as proof of his sentience. Finally, he steps off the stage to make way for the rest of the performance, which ends with the android-bodied automaton TETSUCHAN showcasing its ability to breakdance.

Today's queries are likely to be similar to the rest. A teenage girl waves at the announcer and receives the microphone.

"Hi, Computron. My name is Lulu and my question is… have you watched anime before?"

[Yes, Lulu] Computron vocalises. [I have viewed the works of the renowned actress Anna May Wong. Doctor Alquist enjoyed her movies as a child.]

"Oh, um, not that," the girl continues. "I meant Japanese animation. Have you ever watched this show called Hyperdimension Warp Record?"

[I have not.]

"Oh, okay, I was just thinking that you really looked like one of the characters. But since you haven't, maybe you could give HyperWarp a shot! It's really good, you might like it! There are six episodes out so far, and you can watch it on—"

As the announcer cuts the girl off, he hands the microphone over to the next querent. This night, as Computron readies himself to enter sleep mode, he recalls Lulu's request that he "give HyperWarp a shot." It is only logical to research the Japanese animation Hyperdimension Warp Record in order to address queries from future visitors. The title, when entered into a search engine on the World Wide Web, produces about 957,000 results (0.27 seconds).

Science Fiction – Story 2

One Thousand Beetles in a Jumpsuit

Isla didn't consider herself much of an outdoor person, but after five layoffs and a breakup, she found herself in a drone warehouse at the border of a wasteland known as Robot Country. Robot Country was a flat and dry plain that had first been ruined by land mismanagement, and then further desertified by rising temperatures and changes in precipitation patterns. Its owner, Company Omega, was interested in terraforming. In the long term, they hoped to make Mars habitable.

"Your backpack will be filled with water, but try not to drink it, it's for emergencies," said Kaya, her supervisor. They had only just met but already she was about to set off on her own. Kaya reached over and clicked a few icons on the tablet Isla was holding. "This is how you access your route. At some point a spider will be along to help guide you."

A helicopter drone came to pick Isla up. She flew for a few miles before gently being lowered to the ground. Suddenly Isla was alone.

"Tablet, when will I see a plant again?"

A green icon lit up on her map. There would be a bush on her path in a mile.

The bush, when she encountered it, was knee high and lightly on fire. It was being tended to by a cat-sized spider that used its forelimbs to spray the bush with something.

“Hello?” asked Isla. You could never tell what things were programmed with the power of speech.

“Sorry for the delay,” said the spider. “I was just trying to finish this experiment.”

“What experiment?”

The spider replied by sending a document to her tablet. The bush was genetically engineered, designed to stop forest fires via strategic release of a fire retardant. It seemed like a useful thing when half the world was ablaze.

“Is it working?” asked Isla. It didn’t seem to be working.

“Unknown,” said the spider as it continued to spray. Finally the fire went out. The bush looked charred only at the tips.

Contemporary Fiction – Story 1

The Comedian

Nina and Chloe arrived at the Bavarian Forest Restaurant in Kitchener. The pink neon sign, of which only the “Forest” part remains, buzzes feebly.

This is their fourth gig at the Bavarian Forest as dancers. A singer and a comedian are also part of the team. Today, instead of Dave, there’s a new comedian. But they aren’t surprised. Comedians come, comedians go. Singers come, singers go. Backstage, Chloe and Nina put on their Rio-the-Carnival costumes. Nina puts a tiara on her head. A slight headache has already begun.

The air in the restaurant is like that of the Amazon rainforest. Offstage Nina sees Linda humming, pearls of sweat on her forehead. Nina and Chloe come onstage from either side, eyeing each other with pasted-on smiles. The rhythm doubles. Samba. The scent of Chloe's coconut oil lingers in the air. Nina thinks of her piña colada at the Copacabana. The red-cheeked old men behind the beer steins catapult their arms into the air, iPhones in their hands.

That's okay. People staring at Nina know that she is a dancer. She *is*, not she *wants to be*. Just like she *is* a woman, *is* 25, *is* Canadian. She *is*, even though she isn't on Broadway, in Kitchener. That's why she doesn't have a day job.

In the hall, Nina finds Chloe sitting on a young man's lap, still in her Rio dress. A large, rugged hand is petting her belly.

"Oh, hey," she says, looking at Nina, labouring to smile.

Yes, Nina knows this. If only this wasn't two hours away from home, she'd let her go with him. But she can't. She wants to go back home. "*Er*—I'm ready to go."

"Sure, yeah."

"Hey," a calm, deep voice pops up from behind Nina. She turns around. There stands the comedian. She sees him better now that he's without his makeup. Well into his thirties, his hair a straight dark blond, his eyes green, his lips thin. "If you need a ride, I could take you."

What other options does she have?

<u>Contemporary Fiction – Story 2</u>

Family Harmony

Our family celebrates holiday dinners at Grandma's with a feast fit for an Italian emperor. When I first introduced my husband, Tom, to our family's elaborate holiday meals, he was stunned.

After a few glasses of wine, my aunts and uncles relax enough to tolerate each other. And dinner is served in the family room. As soon as we sit down, the sparring begins. As usual, Aunt Sophia and Aunt Gina attack each other.

“I brought the antipasto,” Aunt Sophia says, her Roman nose tilting slightly upward. “I bought everything at Balducci’s.” Aunt Sophia is the wealthy one in the family.

“Hmm,” Aunt Gina says, selecting a piece of pink prosciutto. She sniffs it, and chews thoughtfully. “I don’t think this is as good a quality as you bought last year. Tastes like that stuff I bought on sale at Walmart one year.”

“It certainly is not! It’s the best prosciutto they have. Straight from Parma.” Aunt Sophia says, spearing a piece of hard salami and a black olive all on the same fork.

“Now, Sophia, no need to get your hackles up. I was just wondering,” Aunt Gina says, ever the passive-aggressive one. “Wait until you have some of my Italian Wedding soup. It’s really good.”

“Oh, did you put veal in the little meatballs this year?” Aunt Sophia asks. “I remember when you used that hamburger with soy in it. That was awful.”

My husband leans over and murmurs, “They don’t get physical, do they?”

Aunt Sophia smiles and says, “Tom, what do you think of the prosciutto?”

“Sure. It’s great.” He answers quickly. As we walk into the kitchen to get the soup, he asks, “Is it going to be like this for every course?”

“Not every course. Just the ones that Aunt Gina and Aunt Sophia made.”

“Can’t we all just get along?” Tom pours himself another glass of wine.

“We are getting along.”

Tom stops in the doorway and asks, “Why doesn’t your grandmother say anything to those two?”

I smile at his naivete. “What would she say?”

S2 Experiment 1: Tables of Hierarchical Regression Analyses

S2.1

Hierarchical Regression Analyses Testing for the Effects of Author and Openness on Transportation (H4.1a).

	DV: Transportation							
	Main Effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	4.92	< .001	4.72	5.11	4.92	< .001	4.972	5.15
Author[a]	-0.57	< .001	-0.84	-0.30	-0.60	< .001	-0.84	-0.30
Openness[b]	0.21	.002	0.08	0.35	0.20	.046	-0.06	0.66
Author x Openness[b]					0.02	.896	-0.26	0.29
Model Summary	$R^2 = .07$, $F(2, 322) = 12.86$, $p < .001$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.02$, $p = .896$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S2.2

Hierarchical Regression Analyses Testing for the Effects of Author and Openness on Willingness to Share (H4.2b).

	DV: Willingness to Share							
	Main Effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	1.86	< .001	1.74	1.99	1.87	< .001	1.74	1.99
Author[a]	-0.15	.117	-0.33	0.04	-0.15	.117	-0.33	0.04
Openness[b]	0.16	.001	0.07	0.25	0.21	.004	0.08	0.34
Author x Openness[b]					-0.09	.356	-0.27	0.10
Model Summary	$R^2 = .04$, $F(2, 322) = 7.28$, $p = .001$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.85$, $p = .356$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S2.3

Hierarchical Regression Analyses Testing for the Effects of Author and Openness on Eeriness (H4.3c).

	DV: Eeriness							
	Main Effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	2.26	< .001	2.11	2.41	2.26	< .001	2.11	2.41
Author[a]	-0.22	.045	-0.43	0.00	-0.22	.046	-0.43	0.00
Openness[b]	0.06	.313	-0.05	0.16	0.02	.850	-0.14	0.17
Author x Openness[b]					0.08	.491	-0.14	0.29
Model Summary	$R^2 = .02$, $F(2, 322) = 2.48$, $p = .085$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.48$, $p = .491$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S2.4

Hierarchical Regression Analyses Testing for the Effects of Author and Affinity for Technology on Transportation (H4.2a).

	DV: Transportation							
	Main Effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	4.91	< .001	4.71	5.11	4.91	< .001	4.71	5.10
Author[a]	-0.55	< .001	-0.83	-0.28	-0.55	< .001	-0.83	-0.28
Affinity for Technology[b]	-0.05	.461	-0.19	0.09	-0.08	.451	-0.28	0.13
Author x Affinity for Technology[b]					0.05	.731	-0.23	0.33
Model Summary	$R^2 = .04$, $F(2, 322) = 8.20$, $p < .001$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.12$, $p = .731$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S2.5

Hierarchical Regression Analyses Testing for the Effects of Author and Affinity for Technology on Willingness to Share (H4.2b).

	DV: Willingness to Share							
	Main effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	1.86	< .001	1.73	2.00	1.87	< .001	1.74	2.00
Author[a]	-0.14	.127	-0.33	0.04	-0.14	.126	-0.33	0.04
Affinity for Technology[b]	0.05	.278	-0.04	0.14	0.09	.187	-0.04	0.23
Author x Affinity for Technology[b]					-0.08	.427	-0.26	0.11
Model Summary	$R^2 = .01$, $F(2, 322) = 1.67$, $p = .191$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.63$, $p = .427$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S2.6

Hierarchical Regression Analyses Testing for the Effects of Author and Affinity for Technology on Eeriness (H4,3c).

	DV: Eeriness							
	Main effects Model				*Model with Interaction*			
	B	*p*	*LLCI*	*ULCI*	*B*	*p*	*LLCI*	*ULCI*
Intercept (b_0)	2.25	< .001	2.10	2.41	2.26	< .001	2.11	2.41
Author[a]	-0.21	.058	-0.42	0.01	-0.21	.057	-0.42	0.01
Affinity for Technology[b]	-0.07	.203	-0.18	0.04	-0.03	.719	-0.18	0.13
Author x Affinity for Technology[b]					-0.08	.487	-0.29	0.14
Model Summary	$R^2 = .02$, $F(2, 322) = 2.79$, $p = .063$				$\Delta R^2 < .01$, $\Delta F(1, 321) = 0.49$, $p = .487$			

Notes. $N = 325$. [a] dummy-coded (0 – human; 1 - AI). [b] standardized.

S3 Experiment 2: Description of manipulation checks

After participants gave their informed consent, they started the online questionnaire by selecting their year of birth in a drop down list for an attention check. Following this, their attitude towards AI was measured using the WATAI-12. They were presented information about the supposed author of the story (human or AI). Immediately afterwards, they had to answer an attention check regarding this manipulation. If they failed to answer correctly, they were presented with the author information a second time. Next, each participant read one out of the four short stories and indicated their perceived transportation into the narrative. After they provided socio demographic data, they had to describe the study in full English sentences. Finally, all participants were debriefed and informed about the real source of the stories.

S4 Experiment 2: Attitude towards AI (Descriptive Statistics)

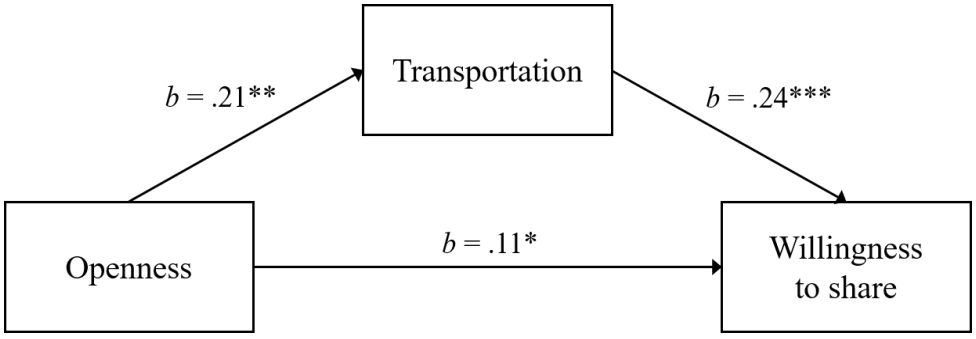
Experiment 2: Descriptive Statistics for Attitude towards AI across the Four Cells

	Contemporary Fiction		Science Fiction	
	Human (n = 119)	AI (n = 122)	Human (n = 123)	AI (n = 125)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Attitude towards AI	3.56 (0.84)	3.55 (0.84)	3.61 (0.96)	3.65 (0.85)

S5 Post-Hoc Mediation Analysis (Experiment 1)

Based on a reviewer's suggestion we conducted a post-hoc mediation analysis with openness as a predictor, transportation as a mediator and willingness to share as the criterion. The analysis revealed a significant indirect effect of openness on willingness to share that was mediated by transportation, $b = .05$, $SE = .02$, 95%CI [.01; .09]. Individuals with higher openness reported higher transportation into the narrative, which in turn was positively linked to the willingness to share the story with others. The total effect of openness on the willingness to share was significant as well, $b = .16$, $SE = .05$, 95%CI [.07; .25]. This includes a significant direct effect, $b = .11$, $SE = .04$, 95%CI [.02; .20].

Figure S4. Mediation Model



Note. Openness has been standardized. *$p < .05$, **$p < 0.01$, ***$p < 0.001$.