Adult attachment and engagement with fictional characters

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Abstract

Adult attachment influences how people engage with stories, in terms of how immersed or transported they become into these narratives and the tendency to form close bonds with characters. This likely stems from the ability of stories and story characters to provide interpersonal intimacy without the threat of rejection. In Study 1, we expand on this work to examine how attachment relates to two previously uninvestigated aspects of character engagement: character identification and parasocial interactions. Taking a statistically conservative approach, controlling for broader traits, we demonstrate that the attachment dimensions of anxiety and avoidance differentially predict these forms of character engagement. A high-powered, pre-registered, Study 2 follows up on these results by examining the types of characters that are most appealing, based on one's attachment orientation. Together, these studies demonstrate that attachment plays an essential role in both how we engage with characters and the types of characters to whom we are attracted.

Keywords

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The attachment bonds formed between children and their caregivers form styles of relating to close others as adults that help satisfy core needs for intimacy (i.e., adult attachment; Bowlby, 1969/1982). These styles of relating are incredibly powerful, shaping many aspects of how we interact with the world, especially when close others cannot meet our needs. How immersed we become in stories, for example, and how attached we become to fictional characters are both related to these attachment styles (Silver & Slater, 2019). This is likely because the social and interpersonal content of stories provide a useful way to satisfy intimacy needs, providing a form of closeness safe from the threat of rejection that accompanies intimate relationships. Here we examine how attachment relates to different ways of engaging with fictional characters, including two forms of character engagement previously unstudied in this context and considering important controls. In a high-powered and pre-registered follow-up, we build on these findings to examine a novel question: whether attachment predicts the kinds of characters we are drawn toward. These two studies expand our understanding of how stories and story characters can satisfy core needs for intimacy, for individuals with different styles of relating to close others. In doing so, this research shines light on how styles of relating shape not just our intimate relationships, but also our relationship to stories and story characters.

Adult attachment

Experiences with early caregivers shape how we approach intimate relationships as adults, known as adult attachment (Ainsworth, 1989; Bowlby, 1969/1982; Mikulincer & Shaver, 2007; Simpson et al., 2011). Insecurities about caregiver availability and affection manifests as two separate dimensions of adult attachment (Brennan et al., 1998): (1) attachment anxiety (i.e., hypervigilance and preoccupation with relationships) and, (2) attachment avoidance (i.e., suppression and avoidance of relationship content and needs).

High attachment anxiety is characterized by a chronic hyperactivation of the attachment system in an attempt to gain reliable attention and protection from others, to provide a temporary sense of relief and security (Shaver & Mikulincer, 2007). Individuals high in attachment anxiety have a strong need for emotional closeness, reassurance, and comfort (Davis et al., 2004; Mikulincer & Shaver, 2003). They are also hypervigilant to attachment-related content such as intimacy and relationship partners, and tend to be preoccupied with relationships (Edelstein & Gillath, 2008; Mikulincer & Florian, 1998). In contrast, high attachment avoidance involves a chronic deactivation of the attachment system, engaging various defensive strategies that deny the need for intimacy, emphasizing self-reliance, self-efficacy, and personal strength (Shaver & Mikulincer, 2007). Such strategies include inhibiting feelings of vulnerability, diverting attention away from intimacy issues (Edelstein & Gillath, 2008), and suppressing thoughts and memories related to relationships (Fraley et al., 1998).

High levels of anxiety or avoidance lead to dysfunctional behaviors that are ultimately detrimental to relationships (e.g., Vicary & Fraley, 2007). Individuals high in attachment anxiety frequently experience worry over their relationship (Campbell et al., 2005) and intensify support-seeking, which may ironically frustrate partners and push them away

(Feeney & Collins, 2003). Those high in attachment avoidance, on the other hand, expect relationship failure and have an aversion toward commitment (Birnie et al., 2009). As a result, avoidant individuals offer less emotional support (Brennan et al., 1998), experience less intimacy (Tidwell et al., 1996), and have brief, unsatisfying relationships (Meyers & Landsberger, 2002).

Despite their detrimental long-term effects, the coping strategies associated with attachment anxiety and avoidance may offer comfort in the short-term (Wei & Ku, 2007). In other words, pulling intimate partners close by engaging in clingy behaviors or pushing partners away by avoiding emotional conversations can relieve intimacy threats in the short-term. However, these strategies may not always be feasible. For example, a relationship partner can make it difficult for an anxiously attached individual to gain intimacy, or an avoidantly attached individual to find the distance they crave. In many cases, the coping strategies of these individuals are greatly complicated by their real-world partners. This may be one reason why there is increasing evidence that alternative soothing strategies, such as turning to stories, might be so attractive.

Stories provide a rich simulation of interpersonal interactions, portraying our social world in a manner that engages social-cognitive processes while also presenting social content (Mar, 2018; Mar & Oatley, 2008; Oatley, 1999). This makes stories an attractive way of feeling intimate closeness with others, with far less risk of rejection (Rain et al., 2017; Silver & Slater, 2019; cf. Cohen, 2004), providing an avenue to satisfy unmet needs (Slater et al., 2014). Stories may provide a welcome respite from the stress that anxious and avoidant coping strategies inevitably produce, which makes imagining oneself in fictional worlds very attractive (Greenwood, 2008). In addition, we often relate to story characters as if they were real people, making our engagement with fictional characters a useful proxy for intimacy with real-world partners. For example, the presence of a favorite TV character (but not a non-favorite one) can elicit social facilitation, which typically only occurs in front of a human audience (Gardner & Knowles, 2008). Viewing characters as real is also associated with individual differences in character engagement. In a neuroimaging study in which people thought about fictional characters, those with a stronger trait tendency to identify with characters exhibited brain activity more similar to thinking about close friends, relative to those lower in trait character identification (Broom et al., 2021). Thinking about a favorite TV character can also reduce the negative effects of social rejection, illustrating how story characters can stand in for support from real-world intimates (Derrick et al., 2009). The importance of stories and story characters in providing an alternative soothing strategy should not be underestimated, given the stress that the typical anxious and avoidant strategies place on relationships and well-being.

Attachment and narrative transportation

There are several cognitive processes that characterize how we consume stories, including our tendency to become deeply immersed in story worlds, known as narrative transportation (Gerrig, 1993). Transportation involves a focusing of attention on plot events, a diminished awareness of the self and surroundings, and emotional involvement in plot events and characters (Green & Brock, 2000). In light of the social content of

stories (Oatley, 1999), it is unsurprising that attachment plays a role in how immersed people become in stories. For example, one study found that anxiety and avoidance both predict greater transportation (Greenwood, 2008), although the latter association disappears after controlling for anxiety and other indicators of psychosocial functioning (Greenwood, 2008). In three studies building on this work, Rain and colleagues (2017) found that the highest levels of transportation are observed among individuals high in both anxiety and avoidance. Importantly, this held true even after controlling for broader personality traits, isolating construct variance unique to relationship contexts (Noftle & Shaver, 2006). This same pattern was observed for both self-reports of past tendencies (i.e., trait transportation) and when measuring transportation directly after a short film (i.e., state transportation). However, another study found slightly different results, with avoidance negatively associated with transportation at low levels of anxiety, but essentially no association at high levels of anxiety (Silver & Slater, 2019; Figure 4). That said, in this study the highest levels of transportation were observed among those high in both anxiety and avoidance, just as in the prior work by Rain and colleagues (2017). The importance of this interaction between anxiety and avoidance lies in how self-soothing avoidance strategies may be especially damaging when used to cope with the strong needs for intimacy that characterize high attachment anxiety. Overall, these findings demonstrate that adult attachment influences how immersed we become in story worlds, likely because these stories provide a form of social closeness. To that end, it is likely that the characters found in fiction, and our engagement with them, should be closely tied to attachment. After all, characters are the main social aspect of stories.

Character engagement

Involvement with story worlds and story characters is conceptually linked, but the two are independent, with unique precursors and different outcomes (Sestir & Green, 2010). We can engage with characters in a myriad of ways, including feeling close to a character—having parasocial interactions or forming parasocial relationships—or coming to see the fictional world through the eyes of that character, identifying with that character.

Character identification

When identifying with a character, audiences experience the story vicariously through that character (Cohen, 2001). Like transportation, character identification involves diminished self-awareness and increased engagement with the story. What distinguishes the two processes, however, is the frame of reference. In the case of transportation, individuals experience the story as themselves. Character identification, on the other hand, is a process characterized by the shifting of identities. Individuals who identify with a particular character come to share that character's point of view, goals, emotions, and knowledge. One experiences the narrative as if one were the character, rather than as oneself. Narrative transportation and character identification are conceptually distinct and can even be independently manipulated (Cohen, 2001; Sestir & Green, 2010). However, unlike transportation, the role of attachment in character identification has not yet been investigated.

Parasocial interaction

Whereas character identification involves audiences joining with characters to experience a story, during parasocial interactions story characters are perceived as separate and external. The term "parasocial interaction" was first coined by Horton and Wohl (1956) to describe when consumers feel they have an intimate and personal relationship with a media persona. This idea was further refined to describe when viewers feel a sense of mutual awareness between themselves and on-screen characters (Hartmann & Goldhoorn, 2011). Parasocial interaction can be described as the illusion of being in a reciprocal social encounter with someone in the media whom the viewer does not know personally. Similar to character identification, there has also been no research to date investigating whether attachment influences parasocial interactions.

Parasocial relationships

Some forms of character engagement are relatively enduring and can continue long after exposure to that character. Researchers first used parasocial interaction as an umbrella term to describe a form of relationship between viewers and a media persona. This includes in-the-moment participatory behaviors (e.g., yelling at characters to warn them; Allbritton & Gerrig, 1991), as well as enduring engagement long after exposure (e.g., thinking about the character throughout the day; Slater et al., 2018). Scholars now acknowledge the differences between these two types of engagement: (1) *parasocial interaction* describes a perceived social experience during a specific media presentation, whereas (2) *parasocial relationships* refer to enduring, long-term bonds with characters that extend beyond a given exposure (Klimmt et al., 2006; Liebers & Schramm, 2017). These enduring parasocial relationships develop over time as characters "share" experiences with the viewer, leading to a sense of intimacy (Derrick et al., 2008). Despite the fact that parasocial relationships are imaginary, they share similarities with real-world relationships, can feel psychologically real, and be perceived as personally meaningful (Cole & Leets, 1999; Derrick et al., 2008; Giles & Maltby, 2004). This realism likely explains why parasocial relationships are associated with attachment.

Adult attachment and character engagement

Research into how attachment relates to our engagement with story character has so far solely focused on parasocial relationships. These one-sided and intimate bonds are well-suited to fulfilling the relational needs of insecurely attached individuals. In some past research, only attachment anxiety is associated with parasocial relationships, with avoidance showing no such association (Greenwood, 2008; Greenwood & Long, 2011). Other work finds that people high in attachment anxiety and low in avoidance tend to form stronger parasocial bonds (Cole & Leets, 1999; Greenwood et al., 2008; Theran et al., 2010). These same individuals experience higher levels of distress in response to the potential loss of a favorite TV character (e.g., via series cancellation), compared to those low in anxiety and high in avoidance (Cohen, 2004). One other study found that greater avoidance is associated with weaker parasocial relationships when anxiety is low,

but stronger parasocial relationships when anxiety is high (Silver & Slater, 2019). In this study, the same pattern was also observed for relational imaginative involvement, a closely related but distinct construct (Slater et al., 2018). Consistent with some of the past research on transportation (Rain et al., 2017; Silver & Slater, 2019), the highest levels of parasocial bonding were observed for those high in both anxiety and avoidance.

In the current studies, we examine how attachment relates to parasocial relationships, but also present the first investigations of character identification and parasocial interaction (Study 1). We then build on these results to examine whether attachment predicts certain traits in a favorite character, those best-suited to provide comfort for those with a particular attachment style (Study 2). The materials for both studies are publicly posted (https://osf.io/9756b/) and Study 2 was pre-registered (https://aspredicted.org/g4x28.pdf).

Study 1

The goals of Study 1 were twofold. First, we extended existing work by examining how attachment relates to two forms of character engagement that have never been investigated in this context until now: character identification and parasocial interaction. Due to the absence of any previous work in this area, our research was exploratory and entailed research questions as opposed to hypothesis-testing for established theories. It is possible that character identification is better suited for fulfilling the needs of avoidantly attached individuals, rather than parasocial interaction (RQ1). Avoidant individuals regulate distress by enhancing their autonomy and distancing themselves from others. Parasocial interactions are based on an interaction between the self and another, and are therefore less likely to appeal to the avoidantly attached. Character identification, in contrast, lacks a relational component, and involves assuming the character's role in the story. Moreover, because character identification has been shown to affect self-perceptions (Appel, 2011; Sestir & Green, 2010), it is possible that avoidant individuals temporarily inflate their sense of autonomy and independence by identifying with characters who embody these desirable characteristics. In contrast, anxiously attached individuals should be drawn to the relational aspects of parasocial interaction (RQ2). Parasocial interaction seems well-suited to aid the self-soothing strategy of anxious individuals, as the fictional character is perceived as "real" and a separate entity: someone who can form the other half of a close relationship.

Character identification and parasocial interaction are both conceptualized to take place during the presentation of a narrative, just like narrative transportation. However, in this study we measured trait tendencies to engage in these processes, consistent with past work on attachment and transportation (Greenwood, 2008; Rain et al., 2017; Silver & Slater, 2019; cf. Broom et al., 2021). This approach reflects the fact that traits, such as attachment, best predict aggregates of behavior across time and are ill-suited for predicting individual instances of behavior (Diener & Larsen, 1984; Epstein, 1979; Moskowitz, 1982). Only one study to date has examined state transportation into a particular narrative, and it found similar attachment associations as with trait measurement of transportation (Study 3 of Rain et al., 2017).

The second aim of Study 1 was to extend previous findings by examining whether associations between attachment and character involvement remain once broad-level traits are taken into account. To this end, we controlled for Extraversion, Agreeableness, Conscientiousness, and Neuroticism, to rule out the possibility that any observed relations are a function of broader traits, rather than attachment (Noftle & Shaver, 2006).

Methods

Procedure

Participants completed the study online in exchange for course credit. They first completed measures of attachment and trait personality (NB. order randomized), then identified their favorite TV character, and finally responded to questionnaires regarding parasocial relationships, parasocial interaction, and character identification (NB. order also randomized). Lastly, participants completed demographic questions and were debriefed.[1]

Participants

A total of 232 undergraduates participated. Subsequently, 82 were removed for failing to name a favorite TV character ($N = 34$) or failure to answer all 3 items included to detect inattentive responding ($N = 48$; cf. Conscientious Responders Scale, Marjanovic et al., 2014). All decisions regarding exclusions were made a priori, before the data were analyzed. The final sample consisted of 150 participants (66 male), ranging in age from 17 to 28 ($M = 19.3$, $SD = 1.89$).

Materials

Attachment. Attachment anxiety and avoidance were assessed using the Attachment Style Questionnaire (ASQ; Feeney et al., 1994). An example item for anxiety is "I worry that I won't measure up to other people", and for avoidance, "I find it hard to trust other people". Responses are made on a Likert scale ranging from 1 (*Totally Disagree*) to 6 (*Totally Agree*).

Character identification. Identification with a favorite TV character was assessed using a 5-item scale (Tal-Or & Cohen, 2010). This measure focuses on emotional and cognitive perspective-taking for characters. An example item is "I understand the events in the show the way [CHARACTER] understands them." The name of each respondent's favorite character was inserted for each item. Responses were given using a Likert scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*).

Parasocial interaction. Parasocial interaction was measured using the Experience of Parasocial Interaction scale (EPI; Hartmann & Goldhoorn, 2011). This 6-item scale was designed to capture parasocial interaction as conceptually distinct from parasocial relationships, by focusing on perceived interactions with a media persona rather than feelings of friendship (Hartmann & Goldhoorn, 2011). Instructions were slightly modified to reflect our interest in a general tendency toward parasocial interaction, instead of

Table 1. Descriptive statistics for measures in Study 1 and Study 2.

Measure	Min.	Max.	Mean	SD	ω (95% CI)
Attachment Anxiety (S1)	1.69	5.23	3.52	0.72	.82 (.77, .87)
Attachment Avoidance (S1)	1.94	5.50	3.62	0.61	.79 (.72, .84)
Character Identification (S1)	1.00	7.00	5.14	1.21	.88 (.83, .92)
Parasocial Relationships (S1)	1.53	4.93	3.46	0.69	.89 (.89, .92)
Parasocial Interaction (S1)	1.00	7.00	2.73	1.48	.95 (.93, .97)
Agreeableness (S1)	2.33	5.00	3.78	0.59	.73 (.62, .79)
Conscientiousness (S1)	1.56	4.78	3.32	0.56	.60 (.43, .73)
Extraversion (S1)	1.12	4.88	3.18	0.73	.80 (.73, .84)
Neuroticism (S1)	1.00	4.75	3.10	0.76	.82 (.76, .86)
Viewer Anxiety (S2)	1.00	6.00	3.47	0.96	.90 (.88, .92)
Viewer Avoidance (S2)	1.44	5.88	3.63	0.73	.85 (.83, .88)
Viewer Agreeableness (S2)	1.00	5.00	3.65	0.68	.77 (.73, .81)
Viewer Conscientiousness (S2)	1.22	5.00	3.63	0.76	.83 (.78, .86)
Viewer Extraversion (S2)	1.00	5.00	2.69	0.93	.89 (.87, .91)
Viewer Neuroticism (S2)	1.00	5.00	3.02	0.91	.87 (.85, .89)
Favorite Character Avoidance (S2)	1.00	6.83	3.56	1.36	.70 (.61, .79)
Favorite Character Warmth (S2)	1.00	7.00	5.37	1.40	.92 (.90, .93)
Favorite Character Competence (S2)	1.67	7.00	5.99	1.11	.90 (.88, .92)
Favorite Character Sociotropy (S2)	1.00	5.46	3.38	0.88	.91 (.89, .92)
Favorite Character Autonomy (S2)	1.31	5.83	3.94	0.77	.90 (.88, .91)

Note. S1 = Study 1, S2 = Study 2.

a specific media exposure. An example items is "While watching the show, I tend to have the feeling that [CHARACTER] is aware of me." Responses were provided on a scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*).

Parasocial relationships. Parasocial bonds with a favorite TV character was measured using Cole and Leets' (1999) Parasocial Interaction Scale. This 15-item questionnaire focuses on capturing the long-term, relational or friendship-like nature of parasocial relationships. An example item is "I think my favorite TV personality is like an old friend." Despite its name, this scale measures parasocial relationships rather than parasocial interaction. We replaced "my favorite TV personality" with the participants' favorite TV character. Responses were given on a scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

Personality. Lastly, the Big Five Inventory (BFI-44; John & Srivastava, 1999) was used to assess Conscientiousness, Extraversion, Agreeableness, and Neuroticism, so that we could control for the influence of these broader traits.

Results

How does adult attachment relate to character identification?

Descriptive statistics are reported in Table 1, including omega for internal reliability (Dunn et al., 2014), and zero-order correlations appear in Table 2. Zero-order

Table 2. Study 1 correlations with confidence intervals.

Variable	1	2	3	4	5	6	7	8
1. Anxiety								
2. Avoidance	.33** [.18, .46]							
3. Character Identification	.07 [-.10, .22]	.18* [.02, .33]						
4. Parasocial Relationships	.24** [.08, .38]	.12 [-.04, .28]	.56** [.44, .66]					
5. Parasocial Interactions	.23** [.07, .37]	.24** [.08, .38]	.31** [.16, .45]	.59** [.47, .69]				
6. Agreeableness	-.19* [-.34, -.03]	-.34** [-.47, -.19]	.10 [-.06, .26]	.04 [-.12, .20]	-.07 [-.23, .09]			
7. Conscientiousness	-.27** [-.41, -.12]	-.06 [-.22, .10]	.09 [-.07, .25]	-.07 [-.23, .09]	-.07 [-.23, .09]	.29** [.14, .43]		
8. Extraversion	-.24** [-.39, -.09]	-.38** [-.51, -.24]	.03 [-.14, .18]	.12 [-.04, .28]	.04 [-.12, .20]	.25** [.09, .39]	.09 [-.07, .25]	
9. Neuroticism	.61** [.50, .70]	.17* [.01, .32]	-.05 [-.21, .11]	.11 [-.06, .26]	.08 [-.08, .24]	-.24** [-.39, -.09]	-.32** [-.45, -.16]	-.19* [-.34, -.03]

Note. Values in square brackets indicate the 95% confidence interval for each correlation. * p < .05. ** p < .01.

correlations were first examined to observe how attachment and character identification are related. These correlations revealed an entirely opposite pattern of associations compared to what has been observed for parasocial relationships. Specifically, character identification was positively related to attachment avoidance and unrelated to attachment anxiety. A follow-up regression analysis included both anxiety and avoidance as predictors (to control for shared variance). Avoidance was a positive predictor of character identification, whereas anxiety was not,[2] although avoidance fell above threshold for statistical significance, Avoidance: $\beta = .15, p = .09$; Anxiety: $\beta = .01, p = .90$; $R^2 = .02$, F (2, 147) $= 1.75$, $p = .18$.[3] (For all regression analyses, assumptions were tested, influential outlying residuals removed, and robust regression or transformations employed when appropriate and as noted.)

We next examined whether this pattern of associations remained after controlling for the influence of broader trait dimensions. Avoidance was a unique predictor of character identification, controlling for attachment anxiety and the relevant Big Five traits, Avoidance: $\beta = .25, p = .008$; Anxiety: $\beta = .10, p = .34$; Agreeableness: $\beta = .15$, $p = .11$; Conscientiousness: $\beta = .06, p = .51$; Neuroticism: $\beta = -.09, p = .40$; Extraversion: $\beta = .09, p = .32$; $R^2 = .08$, F (6, 143) $= 2.08, p = .06$.

How does adult attachment relate to parasocial interaction?

We expected a positive relation between attachment anxiety and parasocial interaction, and no association between avoidance and parasocial interaction. Surprisingly, zero-order correlations revealed that both attachment anxiety and avoidance predict a tendency toward parasocial interaction (Table 2). This remains true even after shared variance is taken into account: both anxiety ($\beta = .16, p = .05$) and avoidance ($\beta = .22$, $p = .01$) were positive, and unique, predictors of parasocial interaction, with the former falling right on the threshold for statistical significance $R^2 = .10$, F (2, 145) $= 7.79$, $p = < .001$.[4]

Next, we tested whether these associations held after controlling for trait personality. Both anxiety and avoidance were unique predictors, Avoidance: $\beta = .21, p = .03$; Anxiety: $\beta = .24, p = .02$; Agreeableness: $\beta = -.01, p = .93$; Conscientiousness: $\beta = -.02, p = .82$; Neuroticism: $\beta = -.05, p = .61$; Extraversion: $\beta = .14, p = .11$; $R^2 = .11$, F (6, 142) $= 2.83, p = .01$.[2]

How does adult attachment relate to parasocial relationships?

In zero-order correlations we found that attachment anxiety was positively related to parasocial relationship tendencies, but not attachment avoidance (Table 2). A follow-up regression confirmed that anxiety was a unique predictor of parasocial relationship scores ($\beta = .22, p = .01$), whereas avoidance was unrelated ($\beta = .05, p = .56$); $R^2 = .06$, F (2, 147) $= 4.60, p = .01$.

We next controlled for the related trait domains. Anxiety, but not avoidance, was a unique predictor of parasocial relationships, Anxiety: $\beta = .27, p = .01$; Avoidance: $\beta = .16, p = .09$; Agreeableness: $\beta = .10, p = .27$; Conscientiousness: $\beta = -.05, p = .59$;

Neuroticism: $\beta = -.03$, $p = .75$; Extraversion: $\beta = .22$, $p = .01$; $R^2 = .11$, F (6, 142) = 3.05, $p = .008$.

Discussion

Study 1 explored whether anxiety and avoidance predict tendencies to engage in character identification, parasocial identification, and parasocial relationships with favorite TV characters. Attachment avoidance was a positive predictor of the tendency to identify with favorite characters, whereas attachment anxiety was unrelated. In contrast, both anxiety and avoidance were positive predictors of parasocial interaction. Lastly, higher levels of anxiety predicted stronger parasocial bonds, whereas attachment avoidance was unrelated. Importantly, these associations all persisted after controlling for the broad personality traits related to attachment, suggesting that the observed effects are unique to the relationship context. This finding for parasocial relationships is consistent with some past research (Greenwood, 2008; Greenwood & Long, 2011), but inconsistent with other reports of an association with either high avoidance (Silver & Slater, 2019) or low avoidance (Cole & Leets, 1999; Greenwood et al., 2008; Theran et al., 2010). These mixed findings might be tied to the fact that avoidant individuals have difficulty remembering or reporting content related to intimacy (Fraley et al., 1998; Simpson et al., 2010), or differences in study methodology (e.g., sample size, controlling for broader traits).

Taken together, this divergent pattern of results for the different forms of character engagement suggest that the way people engage with characters may be consistent with their interpersonal interactions in the real world. Anxiously attached individuals tend to seek proximity to others, whereas avoidantly attached individuals tend to maximize their distance from others. We found that higher attachment anxiety predicts a false sense of mutual awareness with favorite characters and forming strong emotional bonds with them. However, anxiety was not related to character identification. Greater avoidance was, however, associated with a tendency to identify with characters. It is possible that avoidantly attached individuals gravitate toward characters who embody traits that they find desirable, such as autonomy and independence. Identifying with such characters could help viewers feel more autonomous and independent. This would be especially attractive for avoidant individuals, who self-soothe by emphasizing their own autonomy. In Study 2 we directly explore this novel possibility by examining the traits of favorite characters in a high-powered and pre-registered design.

Study 2

If avoidant individuals use character identification to self-enhance as a coping strategy, then their favorite characters should be independent and self-reliant, with little need for intimate relationships. Similarly, if anxious individuals use parasocial relationships as a proxy for emotional support from an intimate partner, then the characters they choose should demonstrate qualities consistent with providing undivided attention and support. In Study 2, we asked participants to rate their favorite TV characters on personality dimensions germane to these possibilities: competence and warmth (Fiske et al., 2002), autonomy and sociotropy (Beck, 1983), and attachment avoidance. We predicted that

avoidance would be correlated with higher levels of attachment avoidance (H1), autonomy (H2), and competence (H3) in favorite characters. In contrast, anxiety will predict less avoidance (H4) in favorite characters, as well as greater sociotropy (H5) and greater warmth in these characters (H6).

As in Study 1, we adopted a statistically conservative approach. First, we again controlled for broader traits. Second, we addressed the concern that any associations reflect a general tendency to perceive others by also having participants rate a character they neither liked nor disliked (i.e., felt neutral about; cf. Gardner & Knowles, 2008). We expected that the hypothesized associations would only be observed for favorite characters and not for neutral ones. Finally, we pre-registered our measures, hypotheses, and analysis plan: https://aspredicted.org/g4x28.pdf.

Methods

Procedure

Participants completed the study online in exchange for £5 and all questionnaires were presented in a randomized order. Participants were asked to name their favorite TV show and then identify two characters from this show: (1) their favorite character and, (2) a character they neither liked nor disliked (i.e., a neutral character). Subsequently, they completed measures of attachment, autonomy/sociotropy, and warmth/competence for these characters. Lastly, they answered questionnaires measuring attachment and trait personality with respect to themselves.[5]

Participants

A total of 509 participants were recruited through Prolific Academic, a crowd-sourcing platform. Prescreen items identified prospective participants who indicated that they have a favorite TV character and reside in North America. From this sample, 95 participants were removed for not identifying a favorite or neutral TV character ($N = 2$), or due to concerns regarding inattentive responding ($N = 93$). This included 61 participants with over 10% of their data missing and 32 participants who failed to correctly answer all 3 inattentive responding items (Marjanovic et al., 2014). All decisions regarding exclusions were made a priori before the data were analyzed. The final sample consisted of 414 participants (198 male), ranging in age from 16 to 66 ($M = 30.10$, $SD = 10.42$).

Materials

Attachment orientation. As in Study 1, the ASQ was used to assess attachment anxiety and avoidance (Feeney et al., 1994).

Character attachment orientation. Participants' perceptions of characters' attachment anxiety and avoidance was assessed using the Experiences in Close Relationship Scale-Short Form (ECR-SF; Wei et al., 2007). Employing a different measure here ensured that associations between self- and character-ratings would not be inflated due to shared measurement variance. The ECR-SF consists of 12 items, with 6 items measuring

anxiety (e.g., "[CHARACTER] needs a lot of reassurance that s/he is loved by his/her partner.") and 6 items measuring avoidance (e.g., "[CHARACTER] is nervous when partners get too close."). Participants were instructed to rate these items based on how the character generally experiences relationships, rather than what is happening in a current relationship. Responses were made on a 7-point scale ranging from 1 (*Disagree Strongly*) to 7 (*Agree Strongly*).

Character competence/warmth. Participants rated characters on warmth and competence using the Warmth and Competence scales developed by Fiske and colleagues (2002). Six items measured perceived warmth (e.g., "How friendly is [CHARACTER]?") and 6 items measured perceived competence (e.g., "How capable is [CHARACTER]?"). Responses were made on a scale from 1 (*Not at all*) to 7 (*Extremely*).

Character autonomy/sociotropy. Participants rated characters on autonomy and sociotropy using the Personal Style Inventory-II (PSI-II; Robins et al., 1994). A total of 48 items were used to rate target characters, with half measuring perceived concerns over autonomous achievement (i.e., autonomy) (e.g., "[CHARACTER] feels controlled when others have a say in his/her plans"), and the other half concerns over interpersonal relationships (i.e., sociotropy) (e.g., "[CHARACTER] judges himself/herself based on how [CHARACTER] thinks others feel about him/her"). Responses were made on a scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*).

Participant personality. As in Study 1, the BFI-44 (John & Srivastava, 1999) was used to assess broader traits related to attachment in order to control for them.

Results

Descriptive statistics are reported in Table 1 and correlations in Table 3. A three-step approach was adopted to examine the association between attachment and character traits. First, we examined associations using regression, with avoidance and anxiety both entered as predictors. If this yielded results in support of a hypothesized relationship, we conducted two additional follow-up tests to rule out alternative explanations: (1) controlling for broader traits; (2) replacing favorite character ratings with neutral character ratings. The latter allowed us to diagnose whether any results are truly unique to favorite characters and not some function of the rater.

How does viewer attachment avoidance relate to perceived character traits?

We first examined if the characters favored by avoidantly attached individuals tend to be more independent. Viewer avoidance was hypothesized to predict greater character attachment avoidance, character competence, and character autonomy. Anxiety was not expected to have the same associations.

Character avoidance. As predicted, viewer avoidance was a positive predictor of character avoidance, whereas viewer anxiety was unrelated, Avoidance: $\beta = .12, p = .02$; Anxiety:

Table 3. Study 2 correlations with confidence intervals.

Variable	1	2	3	4	5	6	7	8	9
1. Anxiety									
2. Avoidance	.45** [.37, .52]								
3. Agreeableness	-.29** [-.37, -.20]	-.50** [-.57, -.43]							
4. Conscientiousness	-.47** [-.54, -.39]	-.21** [-.30, -.12]	.40** [.32, .48]						
5. Extraversion	-.38** [-.46, -.29]	-.46** [-.53, -.38]	.25** [.16, .34]	.27** [.18, .36]					
6. Neuroticism	.68** [.62, .73]	.35** [.27, .43]	-.42** [-.50, -.34]	-.44** [-.52, -.36]	-.37** [-.45, -.28]				
7. Character Avoidance	.04 [-.06, .13]	.12* [.02, .21]	-.14** [-.24, -.05]	-.09 [-.18, .01]	-.04 [-.14, .05]	.06 [-.04, .16]			
8. Character Warmth	-.05 [-.15, .04]	-.12* [-.21, -.02]	.18** [.09, .28]	.13** [.03, .22]	.14** [.04, .23]	-.10* [-.19, -.00]	-.42** [-.50, -.34]		
9. Character Sociotropy	.19** [.09, .28]	.08 [-.02, .17]	-.03 [-.13, .06]	-.01 [-.11, .08]	.05 [-.05, .15]	.11* [.01, .20]	-.31** [-.39, -.22]	.38** [.30, .46]	
10. Character Autonomy	.07 [-.03, .17]	.18** [.08, .27]	-.08 [-.18, .02]	-.02 [-.12, .07]	-.00 [-.10, .09]	.11* [.02, .21]	.54** [.47, .61]	-.39** [-.47, -.31]	-.03 [-.13, .07]

Note. Values in square brackets indicate the 95% confidence interval for each correlation. * $p < .05$. ** $p < .01$.

$\beta = -.02$, $p = .75$; $R^2 = .01$, F (2, 411) = 2.88, $p = .06$. When predicting ratings of neutral characters, viewer avoidance was unrelated to neutral character avoidance ($\beta = .01$, $p = .75$), demonstrating that the association between viewer avoidance and character avoidance is specific to favorite characters, Anxiety: $\beta = .03$, $p = .56$; $R^2 = .002$, F (2, 411) = 0.37, $p = .69$. However, after taking into account broader personality traits, viewer avoidance no longer predicted favorite character avoidance, Avoidance: $\beta = .09$, $p = .19$; Anxiety: $\beta = -.05$, $p = .48$; Agreeableness: $\beta = -.09$, $p = .15$; Conscientiousness: $\beta = -.06$, $p = .33$; Neuroticism: $\beta = .01$, $p = .92$; Extraversion: $\beta = .02$, $p = .74$; $R^2 = .03$, F (6, 407) = 1.82, $p = .09$.

Character competence. Counter to our predictions, viewer avoidance did not predict character competence. Instead, greater viewer anxiety predicted lower ratings for character competence, Anxiety: $\beta = -.17$, $p = .003$; Avoidance: $\beta = .06$, $p = .27$; $R^2 = .02$, F (2, 408) = 4.62, $p = .01$.[6]

Character autonomy. As we predicted, viewer avoidance was a positive predictor of character autonomy, whereas viewer anxiety was unrelated, Avoidance: $\beta = .19$, $p < .001$; Anxiety: $\beta = -.01$, $p = .81$; $R^2 = .03$, F (2, 411) = 6.86, $p = .001$. This association remained, even after controlling for broader personality traits, Avoidance: $\beta = .24$, $p < .001$; Anxiety: $\beta = -.08$, $p = .30$; Agreeableness: $\beta = .05$, $p = .43$; Conscientiousness: $\beta = .00$, $p = .93$; Neuroticism: $\beta = .15$, $p = .04$; Extraversion: $\beta = .12$, $p = .04$; $R^2 = .05$, F (6, 407) = 3.59, $p = .002$. However, viewer avoidance was positively related to the autonomy scores of neutral characters, although this association was weak and fell just above threshold for statistical significance, Avoidance: $\beta = .10$, $p = .06$; Anxiety: $\beta = .07$, $p = .22$; $R^2 = .02$, F (2, 411) = 4.42, $p = .01$.

How does viewer attachment anxiety relate to perceived character traits?

The second goal of Study 2 was to assess the types of characters favored by anxiously attached individuals. We predicted that viewer anxiety, and not avoidance, would positively predict character warmth and sociotropy, and negatively predict character avoidance

Character warmth. Counter to our predictions, viewer attachment anxiety was unrelated to character warmth, controlling for viewer avoidance. Instead, we found that viewer avoidance was a negative predictor of character warmth, Avoidance: $\beta = -.12$, $p = .03$; Anxiety: $\beta = .00$, $p = .96$; $R^2 = .01$, F (2, 409) = 2.79, $p = .06$.[7]

Character sociotropy. As predicted, viewer anxiety was a positive predictor of character sociotropy, whereas viewer avoidance was unrelated, Anxiety: $\beta = .19$, $p < .001$; Avoidance: $\beta = -.01$, $p = .91$; $R^2 = .04$, F (2, 411) = 7.52, $p < .001$. Viewer anxiety also remained a unique predictor of sociotropy even after controlling for broader traits, Anxiety: $\beta = .26$, $p < .001$; Avoidance: $\beta = .05$, $p = .49$; Agreeableness: $\beta = .00$, $p = .94$; Conscientiousness: $\beta = .08$, $p = .19$; Neuroticism: $\beta = .00$, $p = .98$; Extraversion: $\beta = .15$, $p = .009$; $R^2 = .06$, F (6, 407) = 4.22, $p < .001$. Lastly,

this association was not present when rating neutral characters, suggesting that this association is unique to favorite characters, Anxiety: $\beta = .07$, $p = .21$; Avoidance: $\beta = .08$, $p = .17$; $R^2 = .02$, $F (2, 411) = 3.18$, $p = .04$.

Character avoidance. Viewer attachment anxiety was unrelated to character avoidance, as reported above.

Discussion

Study 2 extends the findings of Study 1 by demonstrating that attachment orientation not only determines how people engage with favorite characters, but also with *whom* viewers tend to engage. We predicted that avoidant viewers would be more likely to engage in character identification (Study 1) because they are attracted to characters who embody autonomous characteristics. Identifying with these types of characters allows for one to temporarily assume these traits, allowing avoidant individuals to feel more independent in order to self-enhance and self-soothe. Thus, in Study 2, we predicted that viewer avoidance would be positively related to three traits of favorite TV characters: avoidance, competence, and autonomy. As expected, we found that viewer avoidance was a predictor of character avoidance and autonomy. Unexpectedly, however, viewer avoidance was unrelated to character competence.

Our prediction that viewer avoidance would predict higher competence in favorite characters was based on the assumption that high levels of competence reflect self-reliance and self-direction, qualities that should appeal to the avoidantly attached. However, a close examination of the items used to assess character competence revealed that this scale primarily focuses on level of skill, knowledge, and ability. In other words, the items were largely non-social in nature and did not measure how characters' competence plays out in an interpersonal context. In hindsight it is possible that proficiency and skillfulness bears little influence on one's willingness or tendency to rely on others. In contrast, our measures of character avoidance and autonomy largely focused on how the character relates to others, and we did observe an association for these constructs. It therefore seems that avoidant viewers seem especially sensitive to characters' attitudes and behaviors in a social context. Taken together, the results are consistent with the idea that more avoidant viewers favor characters who eschew emotional intimacy with others. Importantly, the same associations did not emerge for viewer anxiety, which provides evidence that avoidant and anxious viewers do gravitate toward different types of characters.

We predicted that anxiously attached viewers would be attracted to higher levels of warmth and sociotropy in their favorite characters, and not at all interested in avoidant characters. Surprisingly, viewer anxiety only predicted character sociotropy. One approach to understanding these mixed results is to examine what distinguishes sociotropy from warmth and low attachment avoidance. Although all three traits are characterized by being interpersonally oriented and having a high tolerance for intimacy, sociotropy is unique in that it emphasizes pleasing others and prioritizing their needs (Beck, 1983). Individuals who are high in sociotropy are concerned about avoiding disapproval from others, which leads them to be overly affectionate, protective, and

helpful. This characteristic appears to be absent in attachment avoidance and warmth. Specifically, our measure of attachment avoidance operationalizes low avoidance as being at ease with relying on others for help and intimacy. It does not assess whether one reciprocates the help they receive from others. Similarly, the items measuring character warmth primarily focus on having a friendly and good-natured demeanor. This measure mainly assesses whether someone is affable and welcoming, as opposed to being explicitly helpful and supportive of intimate peers. It would seem that the needs of anxiously attached viewers in the context of parasocial relationships are more nuanced than we had previously believed. These individuals may attempt to maximize their sense of emotional safety by only bonding with characters who behave in an overly nurturant manner. This association between anxiety and sociotropy also demonstrates that our findings are not solely a result of homophily (Schiappa et al., 2007), as anxiously attached individuals do not prioritize the needs of others (like someone high in sociotropy).

It is important to note, however, that our follow-up analyses raise some doubts regarding the robustness of our findings involving avoidantly attached viewers. Specifically, we found that viewer avoidance was no longer a predictor of character avoidance after controlling for broader traits. Furthermore, we found that in addition to predicting autonomy in favorite characters, viewer avoidance also predicted autonomy in neutral characters. This suggests that the association between viewer avoidance and autonomy could be a function of a third variable (e.g., a rating bias). Overall, these statistically conservative analyses suggest that the phenomenon we are attempting to capture with respect to avoidant viewers is rather subtle and complex, and that further work is required to better understand underlying mechanisms and potential outcomes.

Limitations and future directions

These two studies provide novel insight into how attachment shapes both how people engage with characters and which characters they favor. However, both studies suffer from limitations. In Study 1, we measured trait tendencies for two forms of online engagement with characters: character identification and parasocial interaction. Future research should investigate these as momentary states, during or directly after narrative presentations (e.g., Rain et al., 2017). Additionally, increasing the sample size for investigations of this sort might permit the detection of smaller effects, such as a potential interaction between anxiety and avoidance (Silver & Slater, 2019).

With respect to Study 2, we learned that specificity is required when investigating the attractive traits of a fictional character. In the context of attachment, these traits should specify how the character relates to other people and not just their general tendencies. A search for other traits that attract viewers based on attachment should take this into account.

These studies also lay the groundwork for exciting future work, such as direct investigations into the cognitive and emotional outcomes of engaging with a favorite character. For example, one could design an experiment to determine whether identifying with a favorite character facilitates feelings of independence, self-reliance, and safety in those with high levels of avoidance. Similarly, future research should

investigate if those higher in anxiety feel soothed when they are permitted to engage with a favorite character who embodies their selflessly supportive ideal.

Conclusions

Combined, these two studies demonstrate that attachment orientation clearly influences the many different ways we engage with story characters, in addition to stories themselves. Moreover, the role of attachment in our interactions with fictional characters mirrors its influences on real-world relationships in many ways. Some ways that characters are clearly unique, however, lie in the overwhelming abundance of choice we have in seeking out different characters and the protection we have from being rejected by them. Characters would seem to be an important aspect of how and why attachment orientation influences media consumption, and how this consumption might affect our well-being.

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Open research statement

As part of IARR's encouragement of open research practices, the author(s) have provided the following information: This research was pre-registered. The aspect of the research that was pre-registered is the data-collection and analysis plan for Study 2. The registration was submitted to aspredicted.org and can be found at this link: https://aspredicted.org/g4x28.pdf. The data used in the research cannot be publicly shared but are available upon request. The data can be obtained by emailing: mar@yorku.ca. The materials used in the research are publicly posted. The materials can be obtained at: https://osf.io/9756b/

Notes

1. In addition, participants completed questionnaires not immediately relevant to the purpose of the current study. These include measures of the need to belong, the need for affect, trait transportation, and perceived interpersonal closeness with favorite characters. Data available upon request.
2. The predicted variable was Box-Cox transformed to address heteroscedasticity.
3. For all regressions, the interaction between anxiety and avoidance was examined but it was almost always statistically nonsignificant (with two exceptions, both $p = .04$). Consequently, we report the simplified model, as the main effects for anxiety and avoidance remained practically unchanged when this interaction term is removed. Full results available on request.
4. One influential outlying residual was removed.

5. In addition to these measures, participants completed measures of relationship status and relationship quality. Participants also rated their favorite and neutral character's personality using a Big Five personality questionnaire, and completed a parasocial relationship and identification measure in relation to each character. Data available upon request.
6. Three influential outlying residuals were removed. This model suffers from heteroscedasticity that could not be corrected and should be interpreted cautiously.
7. Two influential outlying residuals were removed.

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