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The power of superheroes: How parasocial relationships inspire self-efficacy

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ABSTRACT

Superheroes have maintained their presence as popular media characters for decades. This research examines their impact, particularly on parasocial relationships and downstream self-efficacy. In a survey of undergraduate student respondents ($N = 476$), when their favorite superhero's gender aligned with their own, they experienced greater parasocial relationships with that superhero. These parasocial relationships then facilitated greater feelings of self-efficacy, illustrating the impact of superheroes on young people's daily lives. However, parasocial relationships with superheroes were not linked to political self-efficacy, specifically, which places contextual boundaries on the link between parasocial relationships and forms of efficacy.

The ongoing popularity of superheroes, most notably across the Marvel and DC universes, has cemented their prominence in contemporary media culture (Bainbridge, 2009; Johnson, 2012). As consumers continue selecting superhero-based content across a range of media genres, the effects of this superhero-driven content should be considered. The impact of these depictions may be reflected in the parasocial relationships that media consumers form with their favorite superhero, bridging superheroes' on-screen heroics and the real-life self-efficacy of their fans.

Many media consumers report developing parasocial relationships, or 'socio-emotional connections' (Hoffner & Bond, 2022, p. 1), with the media figures they choose to encounter. Even beyond academic literature, these connections are frequently referenced in popular discourse, with fans noting how relationships with media personae ease loneliness and offer companionship (Haupt & Johnson, 2023). A key element of parasocial relationship research is the role of homophily, or perceived similarity between the audience member and the media personae (Eyal & Rubin, 2003). When the audience member feels a sense of connection with media personae, the parasocial relationship they build can help foster a sense of community (Hoffner & Bond, 2022). Similarity, perceived authenticity, group identification, and personality traits all contribute to these parasocial processes (Bond, 2021; Tukachinsky Forster et al., 2023). Superheroes may operate in the realm of parasocial processes as well, potentially depending on that particular superhero's characteristics.

In addition to offering a means of social escape, superhero-driven media often carries strong undertones around gender roles (e.g., Clarke & Hine, 2024; Dinella et al., 2017; Miller et al., 2016). Yet, how parasocial relationships are shaped by the potential gender (mis)match between the audience member and the superhero – and the effects of this content on the audience member's daily life – is underexplored. Prior research has shown that parasocial relationships, particularly those that are fueled by gender similarity, can increase *political* self-efficacy in specific contexts, where they facilitate political engagement after viewing woman-led political television shows (Hoewe & Sherrill, 2019;

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Hoewe et al., 2020). Helping to explain these findings, vicarious experiences, as stimulated through symbolic modeling, are some of the most effective ways to increase self-efficacy (Bandura, 1997; Bautista, 2011). However, it is unclear whether the findings related to self-efficacy and parasocial relationships can expand to include other, less explicitly political contexts and if the type of self-efficacy experienced can vary based on the type of media content consumed.

To that end, the current study investigates the relationship between parasocial relationships with superheroes and downstream feelings of self-efficacy, defined as the belief in one's ability to achieve a desired outcome (Bandura, 1997). It also seeks to understand if boundaries exist around how that self-efficacy is experienced, particularly if general self-efficacy and self-efficacy related specifically to politics may differ in their links to parasocial relationships based on domain specificity.

Superheroes and parasocial relationships

Beyond entertainment value, superheroes serve as vehicles for social and psychological influence, modeling perseverance and moral conviction – the hero's journey. Modern superheroes promulgate via expansive universes (e.g., Marvel and DC), and audiences can engage with them across platforms, including film, television, comics, and video games (T. Jenkins & Seckler, 2021). This persistent cultural relevance and cross-media presence suggests that superheroes' appeal could extend beyond simple admiration, fostering psychological and emotional connections with audiences.

Audience members may continue to think about a story even after it has ended. They may engage in ongoing cognitive involvement with a narrative and its characters and, thus, be impacted by them beyond their actual exposure to that narrative (Sethi et al., 2022). Relatedly, parasocial relationships are ongoing connections formed between media personae and members of the audience (Cohen, 1997). They last beyond the episodic exposure that the audience has with the media personae, and these parasocial relationships can then satisfy audience members' intrinsic needs of autonomy, competence, relatedness, and insight (Sherrick et al., 2022). That is, while parasocial relationships often lack a reciprocal nature, these relationships and their effects are typically maintained beyond exposure to that media content (Bond, 2021).

Even as media use evolves, seeking companionship and a sense of belonging through media persists (Tukachinsky et al., 2020). When individuals see media personae as similar to themselves, they are more likely to interact with that media content (Hutchinson, 1982). Social cognitive theory likewise supports homophily's role in media exposure and interactions, as similarity shapes attitudes, expectations, and behaviors (Bandura, 2008). Higher perceived similarity (i.e., homophily) and wishful identification both work to strengthen connections with media personae, such that fictional characters can impact audiences' career aspirations (Aley & Levine, 2022).

The role of gender-based similarity, in particular, in the context of parasocial relationships has been well established, including among fictional characters (Kokesh & Sternadori, 2015), celebrities (Bui, 2017), and superheroes (Hall, 2022). As other examples, gender is influential in this dynamic in the context of sports fans' motivations (Wann, 1995) and streaming fanship (Kneisel & Sternadori, 2023). Yet, contradicting findings leave room for continued exploration. For instance, McLaughlin and Wohn (2021) found no relationship between gender and live streamer parasocial relationships; although, prior research highlights gender differences in attachment styles and relationship building (Kneisel & Sternadori, 2023). Other research emphasizes both the gender of the audience member as well as the gender of the media persona in shaping parasocial processes (e.g., Hoewe & Sherrill, 2019; Hoewe et al., 2020).

Historically, male superheroes have dominated the superhero genre, often embodying masculine traits (Baker & Raney, 2007), while female superheroes were either rare or overtly sexualized, limiting their relatability (McGrath, 2007; Miller et al., 2016). However, recent shifts toward more diverse and multidimensional representations of superheroes, including women and/or those from underrepresented groups, have created the potential for connections across gender and racial/ethnic lines (Women's Media Center and BBC America, 2018). These representations could foster more parasocial

relationships and even increased self-efficacy among traditionally underrepresented and/or misrepresented audiences. These shifts also have sociopolitical implications; when superheroes represent diverse heroism, they may reinforce collective efficacy – the belief that a group has the power to enact change and potentially facilitate collective action (H. Jenkins, 2020). While past research has explored many contexts of parasocial relationships – from influencers (McLaughlin & Wohn, 2021) to television characters (Tian et al., 2024) to celebrities (Nisbett & Schartel Dunn, 2021) – the ubiquity and persistence of superheroes in media culture make their unique dynamics worthy of closer and continued attention.

H1: A match between media consumers' gender and their favorite superheroes' gender will facilitate greater parasocial relationships.

Parasocial relationships and self-efficacy

These audience and character connections may have meaningful impacts on self-perception. Superheroes function as powerful exemplars of self-efficacy, such that the individual believes in their ability to achieve a desired outcome (Bandura, 1997). These vicarious experiences can be even more impactful in parasocial relationships due to their potential to amplify shared attitudes, expectations, and behaviors through homophily (Aley & Levine, 2021; Bandura, 2008). Bandura (2001) highlighted the role of symbolic models (i.e., those found in media, such as books and movies) as a primary source for observational learning. The likelihood for fashioning behavior after such a model is increased if the viewer perceives the model as similar to themselves and also sees the model as having a quality they wish to possess.

Superheroes, by definition, are unattainably dissimilar from viewers in their skill set (i.e., the average viewer cannot replicate Superman's ability to 'leap tall buildings in a single bound') in ways that might be demoralizing and limit perceived similarity (Lockwood & Kunda, 1997). However, similarity can be derived from both shared identities, such as race/ethnicity or gender (Tajfel & Turner, 2004), and shared attributes, such as interests, values, or backgrounds (Marx & Ko, 2012; Wood, 1989). A viewer might not have the same skills as Superman but might place similar values in truth or justice. Witnessing superheroes triumph over adversity could, thus, vicariously bolster the audience member's own self-confidence, particularly when parasocial relationships are present (Young et al., 2013). This effect is likely amplified when audiences imagine modeling such behavior in their own life when they may be presented with a conflict where some choices would violate those shared values. For example, Superman might protect Lois using his superpowers, but a viewer might model that behavior by similarly watching out for a friend in an ordinary situation (i.e., at a bar or at work).

Broader similarity to the character may amplify this effect (Eyal & Rubin, 2003), reinforcing the internalization of heroic attributes. The extent of this impact is likely shaped by similarities in gender identity. Research suggests that gender congruence – alignment between a viewer's gender and their favorite superhero – deepens parasocial bonds (Hall, 2022), as that particular attribute can be shared by a superhero and an audience member. A match between an audience member's and a media character's gender can increase the desire to become more like that character, particularly in the case of wishful identification (Hoffner & Buchanan, 2005), or the 'desire to be like or act like' a media character (p. 325), which is likely applicable in the case of superheroes.

Further justifying the connection between parasocial relationships and self-efficacy, task attractiveness, which is the character's competence in accomplishing their goals, plays a significant role in parasocial relationships (Rubin & McHugh, 1987). Watching beloved characters successfully execute tasks may lead media consumers to ask themselves, 'how would I respond in this situation?' and, in some cases, may even lead them to imitate the behaviors of those characters (Giles, 2002). This process – forming a parasocial relationship with media characters based in part on task competence

and internalizing that perceived competence through hypothetical scenarios – may translate parasocial bonds into greater self-efficacy around one's own task competence. This idea is likewise supported by the concept of vicarious experiences, such that one's perceived ability to succeed in a task, which can be informed through symbolic modeling, has a substantial influence on self-efficacy (Bautista, 2011).

The connection between parasocial relationships and self-efficacy has been tested in various contexts, though results are mixed. Parasocial relationships with YouTube influencers impacted audiences' self-efficacy (Chauvin et al., 2024), paralleling previous studies that have shown relationships with role models or other vicarious experiences (Bandura, 1997). While parasocial relationships with reality television characters on *The Biggest Loser* did not affect weight loss self-efficacy for viewers (Siegenthaler et al., 2023), parasocial relationships with health communicators increased feelings of self-efficacy around enacting infection prevention behaviors (Liebers et al., 2024). Extending these results, this study considers whether self-efficacy implications hold in the context of parasocial relationships with superheroes.

H2: Greater parasocial relationships will facilitate greater self-efficacy.

Turning to politics as a vital dimension of social life, prior research has illustrated the connection between parasocial processes and political self-efficacy, specifically. Female lead characters in political TV shows can foster parasocial relationships and interactions that then boost political self-efficacy (Hoewe & Sherrill, 2019; Hoewe et al., 2020). In these studies, audience members' connections with the lead fictional characters, who were featured in TV shows that focused on politics, led to increases in political self-efficacy. In this way, audience members internalized the political leadership that they had witnessed, found it aspirational, and then took inspiration from it. However, these studies stop short of being able to determine if these effects are based on the political nature of the TV show, or if the effects could occur with any form of leadership portrayed in media content with which the viewer relates. Thus, this study seeks to determine the potential parameters around which political self-efficacy can be drawn from parasocial relationships established through fictional media content.

Specific to this study's context, superhero stories that emphasize lone-hero narratives or reinforce traditional power hierarchies may contribute to the valorization of individualistic action over collective effort (Miller et al., 2016). Thus, while forming connections with superheroes may enhance general self-efficacy, it is less clear whether this relationship would spread into domains like politics – an arena that often requires collective action. Some superheroes do engage with broader political systems, but the emphasis on individual heroism in many superhero narratives may not readily translate to fostering civic participation or reshaping perceptions of leadership. In other words, although one might expect the internalization and emulation of heroic characteristics to foster a greater sense of self-confidence, this effect might be domain specific and may not extend to self-evaluations in these broader public areas (i.e., the individual self as part of a collective system).

Accordingly, this study examines not only whether parasocial relationships with superheroes foster self-efficacy, but also whether these gains have limits by specifically considering whether they extend to political self-efficacy in the same way as prior studies that focused on political TV shows.

RQ1: Do parasocial relationships facilitate political self-efficacy in a nonpolitical context?

Method

Respondents and procedure

Undergraduate students from a large Midwestern university were recruited and offered extra credit for their participation in this study. A total of 476 respondents completed the survey. Respondents' ages ranged from 18 to 36 ($M = 19.31$, $SD = 1.70$). In terms of gender, 208 self-identified as men,

259 self-identified as women, and 9 self-identified as something else. (For the nine cases where respondents did not identify as men or women, their responses could not be categorized within the variable creation process discussed below and, thus, were excluded from the data presented in the Results section.) Respondents also reported their race/ethnicity (selecting as many options as applied); 60.1% reported being White or Caucasian, 33.6% as Asian or Pacific Islander, 9.9% as Hispanic, 7.1% as African American or Black, 1.1% as Native American, and 3.6% indicated some other category.

After completing the consent form, the study began with an open-ended item asking respondents to type the name of their favorite superhero. They then completed another open-ended prompt that asked them to briefly describe why that superhero was their favorite. Following this, they answered questions assessing parasocial relationships with their favorite superhero, followed by questions about self-efficacy, political self-efficacy, and political interest (to serve as a control variable). Finally, respondents completed demographic questions. Data were collected between May and October of 2024. This study received IRB approval from the respective university.

Variables

To begin, respondents were asked to 'please write the name of your favorite superhero' in order to maximize ecological validity and ensure that respondents answered the subsequent questions about a superhero with whom they were familiar. The superhero they listed was coded for gender, where 426 respondents identified a male superhero, 48 listed a female superhero, and two did not clearly identify one superhero. A single coder completed this coding process, as there was no ambiguity in the gender of the superheroes that respondents listed. Respondents' self-identified gender was then considered alongside their favorite superhero's gender. Specifically, 205 men and 212 women selected a male superhero, and two men and 46 women selected a female superhero. Then, a crosstabs analysis produced a variable indicating a match between the superhero's gender and that of the respondent ($N = 251$) or a mismatch between their genders ($N = 214$).

Respondents addressed all subsequent statements using scales that ranged from 1 *Strongly Disagree* to 7 *Strongly Agree*. Each respondent's answer to the initial prompt about their favorite superhero was piped into the subsequent questions about parasocial relationships. The scale developed by Bocarnea and Brown (2007) was used to assess parasocial relationships because it was 'designed to measure how media consumers form parasocial relationships with celebrities or popular fictional characters' (p. 309), and it was recommended for use by Tukachinsky et al. (2020). Respondents addressed 20 prompts specific to the superhero they listed, three of which were reverse coded ($M = 4.32$, $SD = 0.94$, $\alpha = .91$). For example, respondents were asked if '[Superhero's name] understands the kinds of things I want to know' and '[Superhero's name] makes me feel as if I am with someone I know well.'

Then, respondents assessed items regarding their feelings of self-efficacy, including statements such as 'I can solve most problems if I invest the necessary effort.' These 10 items were developed by Schwarzer and Jerusalem (1995) and performed reliability in this study ($M = 5.42$, $SD = 0.69$, $\alpha = .86$).

Next, respondents answered questions about their political self-efficacy using a four-item scale from Kushin and Yamamoto (2010) ($M = 4.64$, $SD = 1.37$, $\alpha = .90$). These statements included: 'My vote makes a difference,' 'I have a real say in what the government does,' 'I can make a difference if I participate in the election process,' and 'Voting gives people an effective way to influence what the government does.'

Political interest, which was included as a control variable, was assessed using two items from Knobloch-Westerwick and Meng (2011) that asked whether respondents planned to follow news

Table 1. Zero-order correlation matrix.

		1	2	3
1	Parasocial relationships	–		
2	Self-efficacy	.16***	–	
3	Political-self efficacy	.07	.18***	–
4	Political interest	.09*	.22***	.38***

Note: Values are Pearson's *r* correlation coefficients. $N = 476$.
*$p < .05$; **$p < .01$; ***$p < .001$.

and information about elections, government, and public affairs closely in the lead up to the 2024 U.S. elections ($M = 5.17$, $SD = 1.46$, $r = .92$).

Zero-order correlations between the continuous variables are reported in Table 1.

Results

Using the SPSS PROCESS macro (v4.3: model 4; Hayes, 2017) with 5,000 bootstrapped samples and 95% bias adjusted confidence intervals, a mediation analysis was conducted. In this model, parasocial relationships mediated the relationship between superhero gender (mis) match and self-efficacy, as illustrated in Figure 1 (model summary: $R = .18$, $R^2 = .03$). The results indicate that gender match significantly increased parasocial relationships, $b = 0.23$, $t(463) = 2.64$, $p = .009$. That is, when respondents self-identified gender matched the gender of their favorite superhero, they experienced stronger parasocial relationships with that superhero.

Furthermore, parasocial relationships were positively and significantly related to self-efficacy, $b = 0.11$, $t(462) = 3.21$, $p = .001$. That is, higher levels of parasocial relationships predicted greater feelings of self-efficacy. The full moderated mediation model was used to test for indirect effects, and the bootstrapped confidence intervals did not include zero (LLCI: .01, ULCI: .08). These results provide support for H1 and H2.

To address RQ1, political self-efficacy was included as the dependent variable (model summary: $R = .10$, $R^2 = .01$). In this case, the relationship between parasocial relationships and political self-efficacy was not statistically significant ($b = 0.11$, $t(462) = 1.54$, $p = .13$), and the bootstrapped confidence intervals for the full moderated mediation model included zero (LLCI: −.01, ULCI: .07). Recognizing that political interest might play a role in these relationships, the model was rerun with political interest included as a control variable. The relationship between gender match and parasocial relationships remained statistically significant, illustrating the robustness of this relationship, $b = 0.23$,

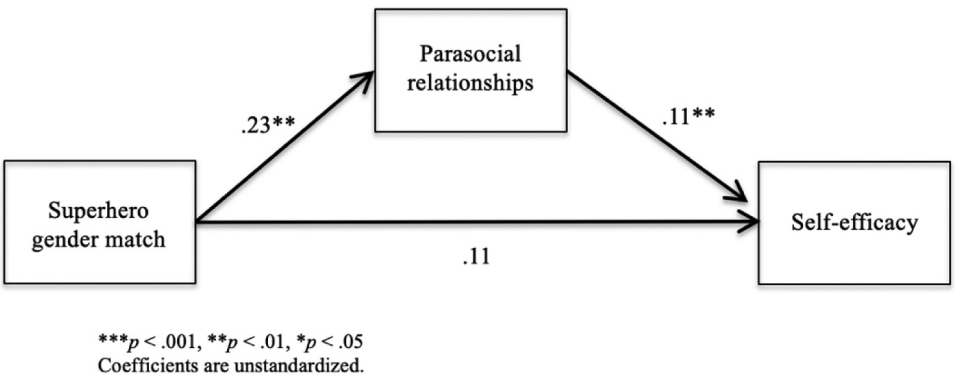


Figure 1. Mediation model.

$t(461) = 2.72$, $p = .007$. However, the relationship between parasocial relationships and political self-efficacy still was not statistically significant, $b = 0.05$, $t(460) = 0.79$, $p = .43$.[1]

Given that respondents within the gender mismatch category were mostly women (because most men selected a male superhero), additional analyses were conducted using only those respondents whose self-identified gender matched the gender of their favorite superhero ($N = 251$). Among these respondents, parasocial relationships were positively correlated with self-efficacy ($r = .20$, $p < .001$), but they were not correlated with political self-efficacy ($r = .03$, $p = .64$). These results maintained when controlling for political interest as well. Thus, this analysis shows similar relationships between the key dependent variables among the primary group of interest in this study.

To better understand the impact of these superheroes, respondents were asked to briefly describe why the superhero they identified was their favorite. This question was asked immediately after they wrote down that superhero's name (i.e., before any other questions were asked). In the open-ended responses from respondents whose gender matched that of their favorite superhero, the roles of connection and self-efficacy were apparent. For example, one respondent wrote, 'Wonder Woman has been … an inspiration to me in learning to grapple and overcome my personal struggles with life.' Other respondents used the words 'empowering,' 'role model,' 'inspiring,' 'relatable,' and 'admirable' to describe their favorite superhero. Another respondent wrote, 'Batman is my favorite superhero because he represents the idea of being a normal person yet exemplifies the fact that anyone can be a superhero. Anyone can be what they want to be, given they put their mind to it.'

Discussion

Superheroes have long been a global cultural force, and modern blockbusters have cemented their prominence across media platforms and social spaces. Given superheroes' continued relevance, this study tested their potential influence on media consumers by way of parasocial relationships. Because homophily can be a powerful force in parasocial relationships (Aley & Levine, 2022), respondents' self-identified gender was assessed in accordance with the gender of their favorite superhero. When the two matched, respondents reported a stronger parasocial relationship with their favorite superhero. Then, when that parasocial relationship with their favorite superhero was stronger, respondents felt more self-efficacy.

These findings demonstrate that gender alignment between a media consumer and their favorite superhero fosters a parasocial bond, which then contributes to increased self-efficacy. For example, the questions in the self-efficacy scale used in this study included items such as 'I am confident that I could deal efficiently with unexpected events' and 'I can usually handle whatever comes my way.' Thus, the impact of someone's favorite superheroes can be felt within their everyday lives, through their bond with that superhero translating into feelings of self-efficacy. In this way, vicarious experiences and the symbolic modeling that facilitates them (e.g., Bandura, 1997; Bautista, 2011) are able to spur an increase in efficaciousness among superhero audiences. From a practical standpoint, this study highlights that entertainment media, beyond its intended purpose of entertainment (Bryant & Miron, 2002), can have additional psychological effects, including the formation of parasocial connections that can boost people's confidence in their own abilities.

This study also considered whether parasocial relationships with superheroes extend beyond general self-efficacy to a more specific form of self-efficacy – political self-efficacy. Prior research found that exposure to powerful female characters in a political context increased parasocial relationships, particularly among participants who identified as more feminine, which then boosted political self-efficacy (Hoewe & Sherrill, 2019; Hoewe et al., 2020). In the realm of superheroes, where content is not explicitly political but still shows powerful characters, parasocial relationships did not translate to

[1]Controlling for political interest did not impact the results of the model with general self-efficacy as the dependent variable. The relationship between gender match and parasocial relationships remained statistically significant, $b = 0.23$, $t(461) = 2.08$, $p = .007$, as did the relationship between parasocial relationships and self-efficacy, $b = 0.09$, $t(460) = 2.78$, $p = .006$.

political-self efficacy. These results suggest that political self-efficacy is likely better facilitated by more overtly political media content. Thus, this illustrates a potential limitation in the effects of parasocial relationships; they may be context dependent.

The connection between superheroes, parasocial relationships, and general feelings of self-efficacy underscores the importance of who is depicted as a hero. Although recent efforts have sought to diversify superheroes on the big screen (e.g., Black Panther, Wonder Woman), gender and/or racial parity has not been achieved, and many female superheroes are still hypersexualized and/or portrayed in stereotypical ways (Clarke & Hine, 2024; Miller et al., 2016). Underrepresentation and hypersexualization of superheroes who are women and/or from underrepresented groups may limit opportunities for some audience members to see themselves reflected in a superhero's courage, competence, and agency. This was illustrated in this study's data, as most respondents listed a male superhero as their favorite. Given that the number of superheroes who are women is still quite disproportionate compared to superheroes who are men (Miller et al., 2016), this was not an unexpected finding. However, these results should spur the creation of more female superheroes and/or more media content that includes female superheroes. Considering that a match between the gender of audience members and that of their favorite superheros facilitated greater parasocial relationships and then greater self-efficacy, women (and members of other underrepresented groups) are afforded less of this opportunity due to the lack of representation among superheroes.

As the adage goes, 'with great power comes great responsibility.' Media creators have the power (and responsibility) to present diverse and inclusive heroism, potentially enhancing self-efficacy for currently underrepresented viewers. Scholars and media creators alike should not overlook the potential consequences of the current and historic uses of superheroes in popular culture. Presently, there is a great pull toward male superheroes, likely to due to the prominence through recent decades. Increasing the representation offered in superhero depictions could spur greater parasocial relationships with those characters among specific groups of people. Importantly, these connections with characters may lead these individuals to feel greater self-efficacy in their own lives. Superhero narratives, thus, may be helpful in increasing self-efficacy among specific groups of people, but more prominently when they share some characteristic with the media consumer. The power of superheroes can function as a force for good – even off screen – in their potential to promote positive views of oneself via vicarious internalization of heroic characteristics. These caped crusaders may do more than save the day; they may help fans feel like they can, too.

Limitations and future research

Like all research, this study had limitations. First, it included a sample of undergraduate students, limiting the generalizability of these results. Although this age group is likely a large consumer of superhero-driven media content, future research should reexamine these findings with a more diverse sample. Second, most respondents listed a male superhero. It is possible that zooming in on the effects of female superheroes, specifically, could produce more nuanced results. Along these lines, respondents within the gender mismatch category were mostly women (because most men selected a male superhero), which could have impacted the results particularly regarding the impact of that mismatch. Future research should test these possibilities. Third, although parasocial relationships are closely related to fanship (i.e., Park et al., 2025), this study did not explicitly measure superhero fanship. Instead, this study used prior research on parasocial relationships to form the foundation for this work. However, future research should consider both parasocial relationships and fanship to provide a more complete picture of this superhero effect. Fourth, the scale of parasocial relationships used in this study was developed for celebrity-persona parasocial interactions. In this context, it is applied to parasocial relationships with superheroes. While this application fits within the scope of the item wordings for this scale, future research should explore the applicability of other measures of parasocial relationships in the context of superheroes. Finally, this research used a mediation analysis with cross-sectional data where temporal ordering cannot be fully established. While parasocial relationships

likely follow the establishment of a superhero as one's favorite, this assumption was not tested. Therefore, future experimental research is needed to establish the causal direction of these relationships more firmly.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The data underlying this paper will be made available by the corresponding author upon reasonable request.

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