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**The Relationship Between Parasocial Relationships and Chronic Ostracism
Among Differing Belongingness Needs**

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Abstract

Some media consumers are prone to developing parasocial relationships (PSRs)—one-sided attachments viewed as a reciprocal bond—with fictional characters. Study of parasocial relationships has linked this tendency to heightened belongingness needs. However, there is a lack of exploration of how chronic ostracism, a threat to belongingness, relates to PSRs. Thus, the current study examined whether belongingness needs moderated the relationship between forming PSRs and feelings of chronic ostracism. One hundred and eleven participants from a small historically women's university and the Twitter book community participated in a study which included a survey on tendency to form parasocial relationships, feelings of chronic ostracism, and need to belong. It was found that belongingness needs did not moderate a relationship between parasocial relationships and chronic ostracism. Among those displaying both higher and lower belongingness needs, there was a significant negative correlation between the measure of parasocial relationships and the measure of ostracism. Deviating from the literature, these results suggest that those with feelings of ostracism are not more likely to form PSRs and that PSRs do not compensate for lack of real-life social interaction.

Keywords: parasocial relationships, chronic ostracism, belongingness needs, fictional characters

The Relationship Between Parasocial Relationships and Chronic Ostracism Among Differing Belongingness Needs

The line between fiction and reality can blur not only during interactions with fictional media, but also beyond the pages of books or the light of television screens. Parasocial relationships (PSRs) with fictional characters are enduring attachments characterized by the illusion of a two-sided relationship between the media consumer and the character (Bond, 2018; Horton & Wohl, 1957; Stever, 2017). Some may have a higher tendency to form PSRs than others, such as those experiencing chronic ostracism, the feeling of generally being excluded from social groups (Iannone et al., 2018). Knowledge about the relationship between PSRs and ostracism may help inform strategies to mitigate psychological threats of social exclusion.

With minimal research examining parasocial relationships and chronic ostracism, insight into a possible relationship between these variables can be drawn from PSR studies involving groups at risk for ostracism. Bond (2018) found a significant positive correlation between PSRs and loneliness in lesbian, gay, and bisexual adolescents, but not in heterosexual adolescents. This suggests that PSRs mitigate psychological threats in groups at risk for chronic ostracism. Further evidence for a positive relationship between ostracism and PSRs comes from the finding that Black and Hispanic participants have stronger retroactive imaginative involvement with story worlds and PSRs than white participants (Silver & Slater, 2019). Social exclusion of racial and ethnic minorities can be conceptualized not only in terms of peer groups, but also in areas such as access to health care, justice system factors, and homeownership (Todman et al., 2009). Racial and ethnic minorities' demonstration of greater PSRs than white participants may be explained as a buffer against threats of social exclusion. A link between ostracism PSRs in adults can be speculated through examining groups that experience high rates of social exclusion.

Social costs of ostracism can be particularly troubling for those with high belongingness needs, a factor consistently linked to parasocial relationships. Need to belong is defined as one's level of desire for social acceptance and inclusion (Leary et al., 2013). Belongingness needs may activate desire to contemplate or interact with favorite media. One study compared two groups—one that wrote an essay on their home's contents, and one that had their need to belong aroused through writing about a fight they experienced with someone they were close to—and found that those who had their belongingness needs activated wrote about their favorite television show for a longer amount of time (Derrick et al., 2009). Associated with enthusiasm for favorite media, belongingness needs also relate directly to PSRs. In a study examining parasocial relationships and real-life relationship factors, a significant positive correlation was found between imagined intimacy with media figures and belongingness needs (Greenwood & Long, 2011). Further, a study examining dimensions of parasocial interaction found a significant positive relationship between social inclusion needs and desire to meet one's favorite character (Tsay & Bodine, 2012). A greater need to belong has been associated with stronger parasocial relationships.

Those displaying high feelings of ostracism may be inclined to form PSRs to guard against threats to belonging. Research has found that belongingness needs are threatened when a conversation partner diverts all of their attention to their phone (Hales et al., 2018) and when participants are socially excluded from completing tasks with a partner versus when they are randomly selected to work alone (Pickett et al., 2004). This link between social exclusion and belongingness suggests that belongingness needs may moderate a relationship between ostracism and PSRs. Parasocial relationships have been shown to reduce feelings of exclusion, which may be greater in those with a higher need to belong. This was seen in a second study by Derrick et al. (2009), which found that parasocial priming led participants to write fewer words associated

with exclusion on a word completion task than did generic television or academic priming (Derrick et al., 2009). Further, Iannone et al. (2018) found that those high in both need to belong and chronic ostracism followed more PSR targets on Twitter. Conversely, no significant effect of need to belong was found for those who were low in chronic ostracism (Iannone et al., 2018). These findings suggest that PSRs formed by those who experience chronic ostracism may be maintained due to an activation of high belongingness needs. Studies linking exclusion and PSRs propose that a connection between ostracism and PSRs may be a factor of one's need to belong.

A positive relationship between chronic ostracism and parasocial relationships would suggest that PSRs compensate for a lack of positive social interaction. However, conflicting findings have led to debate over whether PSRs compensate for or reflect real-life interaction. Lesbian, gay, and bisexual adolescents ranked media personae higher as socialization agents in areas such as social life, romantic relationships, and sex than did heterosexual participants (Bond, 2018). This suggests that PSRs compensate for a lack of real-life relationships through providing social guidance. Further evidence for PSRs serving social compensatory roles comes from the finding that the functions of rehearsing real-life interactions and self-understanding predicted parasocial compensation (Madison et al., 2016). However, this study also found that the function of relationship maintenance did not predict parasocial compensation, suggesting that PSRs reflect one's actual social life (Madison et al., 2016). Likewise, Bernhold and Metzger (2018) found that among older adults with greater attachment anxiety and lower quality relationships with their children, there was a positive relationship between depression and PSRs. With conflicting results within and between studies, there is not yet a conclusion on whether PSRs compensate for or reflect social factors in one's life. Study of chronic ostracism and PSRs can help address this lack of consensus, as a positive relationship between these variables would

suggest that PSRs compensate for social inadequacies, while a negative relationship would suggest PSRs are merely reflective of such inadequacies.

The current study investigates whether belongingness needs moderate a relationship between parasocial relationships with fictional characters and chronic ostracism in adults. This addresses two gaps in parasocial relationship research. First, it will be the second study to investigate the relationship between PSRs and chronic ostracism, and the first to examine this relationship specifically in regards to PSRs formed with fictional characters. Second, the results can be applied as evidence toward either view that parasocial relationships compensate for or reflect real life social factors. Three inventories were administered online to adult participants, measuring tendency to form parasocial relationships, feelings of chronic ostracism, and belongingness needs. Based on Iannone et al.'s (2018) and Derrick et al.'s (2009) findings, the first hypothesis predicted that among those who score higher in need to belong, there will be a positive relationship between tendency to form parasocial relationships and feelings of chronic ostracism. Based on Iannone et al.'s (2018), Greenwood and Long's (2011), and Tsay and Bodine (2012)'s findings, the second hypothesis predicted that among those who score lower in need to belong, there will not be a relationship between tendency to form parasocial relationships and feelings of chronic ostracism

Method

Participants

A volunteer sample of convenience was recruited from psychology courses at a small historically women's university as well as through participants in the online book community on Twitter. Of the initial 123 participant sample, 12 participants were removed from analysis due to incomplete responses. Additionally, one outlying response from the ostracism measure and five

outlying responses from the belongingness measure were removed. The final sample included 111 adults ranging in age from 18 to 36 years ($M = 23.62$, $SD = 4.64$). Descriptive statistics pertaining to gender, race and ethnicity, and college status can be found in Table 1. American participants made up 80.2% of the sample. Of the 68 participants in college, 14.7% were first years, 33.8% were sophomores, 22.1% were juniors, 26.5% were seniors, and 3.0% were graduate students. Of the 66 undergraduate participants, 44% were psychology majors.

The current study was conducted with approval from the Hollins University Human Research Review Committee. Endorsement of an online informed consent form was required to access the survey. This form included a shortened study title, the investigators, an overview of the procedures including the age requirement and a sample question, possible risks and benefits, a confidentiality statement, and contact information. After study completion, participants were debriefed with the true purpose of the study, asked to keep their participation confidential, and given the contact information for the Human Research Review Committee at Hollins University, the principle investigator, Hollins Health, and an international therapist directory. Participants were also given the option to access a second survey to enter into a drawing for a \$25 Amazon gift card and, if a Hollins University student, receive extra credit in a psychology course.

Instruments

Participants completed three online surveys issued through Qualtrics in a randomized order. The Parasocial Relationships Measure (PSR-C; Slater et al., 2018b) measures tendency to form PSRs on the basis of viewing a character as a part of one's social life and attachment which endures beyond the viewing or reading experience (e.g. "I like to imagine my favorite fictional characters as people I know personally."). Ten items are presented on a nine-point Likert-type scale ranging from 1 (*very strongly disagree*) to 9 (*very strongly agree*) and scored through

summation. Higher scores indicate greater tendency to form parasocial relationships. The original six-question measure demonstrates very good reliability ($\alpha = .92$) as well as significant convergent validity with inventories assessing engagement with narrative (Slater et al., 2018a). The measure was expanded for the current study to include four additional items relevant to engagement with fictional characters. A newer measure, the PSR-C is just beginning to be used in research (Aguilar et al., 2019; Hu et al., 2019). This measure can be found in Appendix A.

Next, the Ostracism Experience Scale for Adolescents (OES-A; Gilman et al., 2013a) measures perceptions of feeling socially rejected and ignored by peers (e.g. “In general, others physically turn their backs to me when in my presence.”). The current study revised the OES-A to represent adult experiences with ostracism. Sixteen questions are scored through summation and presented on a five-point Likert-type scale ranging from 1 (*never*) to 5 (*always*). Higher scores indicate higher levels of perceived ostracism. The original scale demonstrates construct, convergent, and discriminate validity, and its ignored and exclusion scales demonstrate high internal reliability ($\alpha = .93$) (Gilman et al., 2013b). This scale has been widely used in ostracism research (Li et al., 2019; Taş, 2018; Zhang et al., 2019). Items 2 and 15 were found to not correlate with the scale total and were removed, yielding a final Cronbach’s alpha value of .88, demonstrating good internal consistency. This measure can be found in Appendix B.

Finally, the Need to Belong Scale (NTBS; Leary, 2013) measures desire for social acceptance and inclusion (e.g. I try hard not to do things that will make other people avoid or reject me.”). Ten items presented on a five-point Likert-type scale ranging from 1 (*not at all true of me*) to 5 (*extremely true of me*) are scored through summation. Higher scores indicate higher belongingness needs. Interim reliability was generally above $\alpha = .80$ and test-retest reliability was $r = .87$ (Leary et al., 2013). The scale demonstrates good construct validity (Leary et al.,

2013). Several studies have utilized this scale in the study of belongingness and PSRs (Escalas & Bettman, 2017; Greenwood & Long, 2011; Iannone et al., 2018). The current study's test of reliability indicated poor internal consistency ($\alpha = .563$). Items 1, 3, and 7 were removed, yielding a good reliability ($\alpha = .833$). This measure can be found in Appendix C.

Procedure

Participants were provided with a link to the current online correlational study to be completed on a personal device. Upon following the link, they were presented with an informed consent form, which included the instructions to complete the survey in one sitting. If they gave consent, they were then provided a demographics survey which collected information on age, race and ethnicity, nationality, gender, and whether they were a college student. If they indicated they were a college student, they were then asked whether they attended Hollins University, their year in college, and their area of study. After completing the demographics section, participants were then given three surveys in a randomized order to control for order effects: a survey on parasocial relationships, a survey on chronic ostracism, and a survey on belongingness needs. Once participants completed these surveys, they were debriefed. From the debriefing page, they were able to click a link to access a second survey if they wished to enter into a raffle for a \$25 Amazon gift card and, if they were a student at Hollins University apply extra credit to a psychology course.

Results

Skew and Normality

The PSR-C and OES-A displayed positively skewed bimodal distributions and met significance in the Shapiro-Wilk and Kolmogorov-Smirnov tests of normality, indicating non-normal distributions. A possible reason for non-normality on the PSR-C was its 9-point Likert-

type scale which may have encouraged extreme responses. Data transformations did not correct non-normality; thus, the non-parametric Spearman rank correlation was used.

Creating Belongingness Needs Groups

Before conducting correlations between chronic ostracism and parasocial relationships, the median of the NTBS ($Md = 20$, $SD = 4.94$) was used to divide participants into high ($M = 24.22$, $SD = 3.19$) and low ($M = 16.34$, $SD = 2.77$) belongingness needs groups, with the median score placed in the lower group. Fifty-five participants displayed higher belongingness needs and 56 displayed lower belongingness needs. Total number of responses for each inventory as well as means and standard deviations before conducting the median split can be found in Table 2.

Correlation Between Ostracism and PSRs in High Belonginess Needs Group

The first hypothesis predicted that among those who demonstrated higher belongingness needs, there would be a positive correlation between PSRs and chronic ostracism. A Spearman's rank correlation found a significant weak negative correlation between tendency to form parasocial relationships ($M = 47.24$, $SD = 17.39$) and feelings of chronic ostracism ($M = 32.09$, $SD = 9.35$) in those with higher belongingness needs, $r_s(53) = -.296$, $p = .028$. Among those with higher belongingness needs, a higher tendency to form parasocial relationship is associated with lower feelings of chronic ostracism, failing to support hypothesis 1.

Correlation Between Ostracism and PSRs in Low Belonginess Needs Group

The second hypothesis predicted that among participants who demonstrated lower belongingness needs, there would be no correlation between PSRs and chronic ostracism. A weak to moderate but significant negative correlation was found between tendency to form parasocial relationships ($M = 38.34$, $SD = 15.92$) and feelings of chronic ostracism ($M = 32.29$, $SD = 7.67$) in those with lower belongingness needs, $r_s(54) = -.399$, $p = .003$. Among those with

lower belongingness needs, a higher tendency to form parasocial relationships is associated with lower feelings of chronic ostracism, failing to support hypothesis 2.

Correlation Between PSRs and Belongingness Needs

A secondary analysis was run to examine the relationship between the tendency to form parasocial relationships and participants' need to belong. A weak but significant positive correlation between the measure of PSRs and the measure of belongingness needs was found, $r_s(104) = .265, p = .006$. A higher tendency to form parasocial relationships is associated with a higher need to belong.

Discussion

The current study examined the relationship between one's tendency to form parasocial relationships with fictional characters and feelings of chronic ostracism in those with high and low belongingness needs. The first hypothesis predicted a positive correlation between the measures of PSRs and ostracism among those with a higher need to belong, as ostracism poses a threat to belongingness needs (Hales et al., 2018; Pickett et al., 2004). A significant negative correlation between the tendency to form PSRs and feelings of chronic ostracism among those with higher belongingness needs was found, failing to support hypothesis 1. This finding is inconsistent with two main findings in the literature on parasocial relationships and ostracism.

The first inconsistency our failure to support hypothesis 1 raises pertains to Iannone et al.'s (2018) finding that among those with both high belongingness needs and feelings of ostracism, there was higher motivation to form and sustainment of PSRs on Twitter. While the variables studied in Iannone et al.'s (2018) study and the current study were similar, there are two differences which may have contributed to the different results. First, Iannone et al. (2018) examined PSR formation and maintenance only on social media. Second, the current study

focused specifically on PSRs with fictional characters, while Iannone et al. (2018) largely examined PSRs with celebrities. Perhaps the relationship between ostracism and PSRs differs by maintenance medium and type of media figure the parasocial relationship is with.

Our results for hypothesis 1 also deviate from Derrick et al.'s (2009) findings. In one of their experiments, it was found that belongingness threat priming led to longer time spent composing an essay about a favorite television show (Derrick et al., 2009). Whereas this suggests that threats to belongingness evoke more time spent with favorite media, the current study found that the threat of chronic ostracism is not related to form PSRs in those with high belongingness needs. Further, another experiment found that exclusion-associated words were generated less on a word completion task after being primed with PSRs (Derrick et al., 2009). The current study was correlational, and so did not utilize priming. Further, all three inventories were presented in a randomized order for each participant to avoid order effects. Derrick et al.'s (2009) utilization of both belongingness threat priming and PSR priming suggests that the current study may have found different results if we had presented our inventories in a specific order. For example, presenting the ostracism measure before the PSR measure may have primed participants with high feelings of ostracism to indicate a higher tendency to form PSRs.

The second hypothesis predicted there would be no relationship between parasocial relationships and chronic ostracism in those with a lower need to belong. Again, a significant negative correlation was found, failing to support hypothesis 2. This result was surprising given the amount of literature linking belongingness needs to the formation of PSRs, such as the findings of parasocial intimacy (Greenwood & Long, 2011) and one's desire to physically interact with a character (Tsay & Bodine, 2012) being positively correlated with one's need to belong. These results suggested that if one has a low need to belong, formation of PSRs should

not relate to variables that pose a threat to belongingness needs. Our finding is also inconsistent with Iannone et al.'s (2018) study, which found that the significant effect of belongingness needs disappeared when participants expressed low feelings of chronic ostracism. This suggested that low feelings of ostracism deactivate belongingness needs which, in turn, should reduce formation of PSRs. Given that chronic ostracism poses a threat to those with high belongingness needs, which are related to formation of PSRs, our finding of a negative relationship between ostracism and PSRs in those with low belongingness needs is inconsistent with the literature.

Given that the relationship between tendency to form PSRs and chronic ostracism did not differ between the higher and lower belongingness groups, the current study suggests that belongingness needs do not moderate a relationship between parasocial relationships and chronic ostracism. Thus, the significant negative relationship found between chronic ostracism and PSRs should be compared against the literature independently of belongingness needs. It was inferred that the positive relationship between PSRs and loneliness in LGB but not heterosexual adolescents (Bond, 2020) and stronger PSRs in racial and ethnic minorities (Silver & Slater, 2019) were indicative of a positive correlation between PSRs and chronic ostracism. Our finding of a negative relationship between PSRs and ostracism in both belongingness groups challenges this inference. It may be that being a member of a socially marginalized group is linked to higher tendency to form PSRs rather than simply experiencing feelings of ostracism.

As several studies have shown a positive correlation between parasocial relationships and belongingness needs, we ran a secondary analysis to determine the correlation between PSRs and need to belong. A significant positive relationship was found, consistent with experimental findings by Derrick et al. (2009) as well as correlational findings by Greenwood and Long (2011) and Tsay and Bodine (2012).

This study has implications for the debate on whether PSRs compensate for or reflect one's real-life social experiences. The negative correlation found between PSRs and ostracism fails to support the view that parasocial relationships compensate for a lack of meaningful real-life relationships. This is consistent with the finding that parasocial compensation was not predicted by relationship maintenance (Madison et al., 2016) and that among those with poor parent-child relationships, PSRs and depression were positively correlated (Bernhold & Metzger, 2018). Given the current study's evidence that PSRs are merely reflective of one's real-life social interactions, inferences drawn from studies supporting parasocial compensation can be reframed. For example, findings that PSRs serve as socialization agents for LGB adolescents (Bond, 2018) or as rehearsal agents (Madison et al., 2016) may suggest that PSRs exhibit a social guidance function but do not compensate for a lack of real-life social interaction. However, given that the current study was correlational, no causal explanations can be made.

The current study had several limitations in terms of our design, measures, sample, and the data collection. In terms of design, our correlational study does not allow inference of a causal relationship between PSRs and chronic ostracism. The first limitation of our measures was the failure of the PSR-C and OES-A to reach normality with data transformation, thus requiring a non-parametric correlation. The second limitation was that our chronic ostracism scale was adapted from a scale for adolescents. In addition, two main limitations arise from our self-report PSR measure. First, participants may have under-reported their tendency to form PSRs due to embarrassment about attachment to a fictional character. Second, the PSR-C measures tendency to form PSRs rather than strength of PSRs, as others have studied via essays (Derrick et al., 2009) or strength inventories (Bond, 2018; Bernhold & Metzger, 2020). Limitations of our sample include that it was gathered via convenience, was limited in size, and was not strongly

representative in terms of gender, race, and nationality. Finally, data collection was limited both through the outlying scores that had to be left out of analysis and the study being conducted during the COVID-19 pandemic. Social distancing and isolation during the pandemic may influence belongingness needs, feelings of ostracism, and parasocial relationships in ways that have not yet been studied. For example, it is not known whether isolation has led to an increase or a decline in one's need to belong. Next, if one has been sick with COVID-19, they may experience heightened feelings of ostracism compared to those who have not. Finally, with more time spend in the home, perhaps parasocial relationships are becoming more common.

Future studies examining the relationship between chronic ostracism and parasocial relationships with fictional characters should address the several limitations of the current study's design, sample, and timing. An experimental design wherein participants are primed with either ostracism or parasocial relationships, as utilized in Derrick et al.'s (2009) belongingness and exclusion studies, would allow causal conclusions to be drawn. For example, an experiment could show whether the negative relationship observed between PSRs and ostracism is a result of PSRs reducing feelings of ostracism. Further, an ostracism scale for adults should be developed and validated rather than relying on a modified scale. In terms of sample, future studies should seek larger and more representative samples, as well as examine the relationship between PSRs and ostracism in socially marginalized groups. Future studies should also consider studying ostracism and PSRs with fictional characters in adolescents to note differences in how this relationship manifests in adolescence and adulthood. Finally, further studies should be conducted after the COVID-19 pandemic, or should control for possible alternative explanations for results brought on by the pandemic. For example, a study may ask participants to compare their experiences with ostracism and PSRs both before and during the pandemic.

The current study suggests that those who experience feelings of chronic ostracism do not have a higher tendency to form PSRs than those without such feelings. The negative association between these variables further suggests that parasocial relationships do not compensate for social exclusion. In addition, despite the supported link between belongingness needs and PSRs, one's need to belong does not moderate a relationship between chronic ostracism and PSRs with fictional characters. Our study is among the first to examine the relationship between chronic ostracism and PSRs, thus necessitating more research on this topic. However, the results of the current study provide preliminary evidence that threats to belongingness are not associated, as thought, with a higher tendency to develop parasocial relationships.

References

- Auguiar, N. R., Richards, M. N., Bond, B. J., Brunick, K. L., Calvert, S. L. (2019). Parents' Perceptions of Their Children's Parasocial Relationships: The Recontact Study. *Imagination, Cognition and Personality, 38*(3), 221-249. <http://dx.doi.org/10.1177/0276236618771537>
- Bernhold, Q. S., & Metzfer, M. (2020). Older adults' parasocial relationships with favorite television characters and depressive symptoms. *Health Communication, 35*(2), 168-179. <https://doi.org/10.1080/10410236.2018.1548336>
- Bond, B. J. (2018). Parasocial relationships with media personae: Why they matter and how they differ among heterosexual, lesbian, gay, and bisexual adolescents. *Media Psychology, 21*(3), 457-485. <https://doi.org/10.1080/15213269.2017.1416295>
- Derrick, J. L., Gabriel, S., & Hugenberg, K. (2009). Social surrogacy: How favored television programs provide the experience of belonging. *Journal of Experimental Social Psychology, 45*(2), 352-362. <https://doi.org/10.1016/j.jesp.2008.12.003>
- Escalas, J. E., & Bettman, J. R. (2017). Connecting with celebrities: How consumers appropriate celebrity meanings for a sense of belonging. *Journal of Advertising, 46*(2), 297-308. <http://dx.doi.org/10.1080/00913367.2016.1274925>
- Gilman, R., Carter-Sowell, A., DeWall, C. N., Adams, R. E., & Carboni, I. (2013). *Ostracism Experience Scale for Adolescents* [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t29695-000>
- Gilman, R., Carter-Sowell, A., DeWall, C. N., Adams, R. E., & Carboni, I. (2013). Validation of the ostracism experience scale for adolescents. *Psychological Assessment, 25*(2), 319-330. <https://dx.doi.org/10.1037/a0030913>

- Greenwood, D. N., & Long, C. R. (2011). Attachment, belongingness needs, and relationship status predict imagined intimacy with media figures. *Communication Research, 38*(2), 278-297. <https://doi.org/10.1177/0093650210362687>
- Hales, A. H., Dvir, M., Wesselmann, E. D., Kruger, D. J. (2018). Cell phone-induced ostracism threatens fundamental needs. *The Journal of Social Psychology, 158*(4), 460-473. <https://doi.org/10.1080/00224545.2018.1439877>
- Horton, D., & Wohl, R. R. (1957). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry, 19*(3), 215-229. <https://doi.org/10.1080/00332747.1956.11023049>
- Hu, M., Cotton, G., Zhang, B., Jia, N. (2019). The influence of apology on audiences' reactions toward a media figure's transgression. *Psychology of Popular Media Culture, 8*(4), 410-419. <http://dx.doi.org/10.1037/ppm0000195>
- Iannone, N. E., McCarty, M. K., Branch, S. E., & Kelly, J. R. (2018). Connecting in the Twitterverse: Using Twitter to satisfy unmet belonging needs. *The Journal of Social Psychology, 158*(4), 491-495. <https://doi.org/10.1080/00224545.2017.1385445>
- Leary, M. R. (2013). *Need to Belong Scale* [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t27154-000>
- Leary, M. R., Kelly, K. M., Cottrell, C. A., Schriendorfer, L. S. (2013). Construct validity of the Need to Belong Scale: Mapping the nomological network. *Journal of Personality Assessment, 95*(6), 610-624. <https://doi.org/10.1080/00223891.2013.819511>
- Li, S., Zhao, F., & Yu, G. (2019). Ostracism and aggression among adolescents: Implicit theories of personality moderated the mediating effect of self-esteem. *Children and Youth Services Review, 100*, 105-111. <http://dx.doi.org/10.1016/j.childyouth.2019.02.043>

- Madison, T. P., Porter, L. V., & Greule, A. (2016). Parasocial compensation hypothesis: Predictors of using parasocial relationships to compensate for real-life interaction. *Imagination, Cognition, and Personality: Consciousness in Theory, Research, and Clinical Practice*, 35(3), 258-279. <https://doi.org/10.1177/0276236615595232>
- Pickett, C. L., Gardner, W. L., & Knowles, M. (2004). Getting a cue: The need to belong and enhanced sensitivity to social cues. *Personality and Social Psychology Bulletin*, 30(9), 1095-1107. <https://doi.org/10.1177/0146167203262085>
- Silver, N., & Slater, M. D. (2019). A safe space for self-expansion: Attachment and motivation to engage and interact with the story world. *Journal of Social and Personal Relationships*, 36(11-12), 3492-3514. <https://doi.org/10.1177/0265407519826345>
- Slater, M. D., Ewoldsen, D. R., & Woods, K. W. (2018). Extending conceptualization and measurement of narrative engagement after-the-fact: Parasocial relationship and retrospective imaginative involvement. *Media Psychology*, 21(3), 329-351. <https://dx.doi.org/10.1080/15213269.2017.1328313>
- Slater, M. D., Ewoldsen, D. R., & Woods, K. W. (2018). *Parasocial Relationships Measure* [Database record]. Retrieved from PsychTESTS. doi: <https://dx.doi.org/10.1037/t75741-000>
- Stever, G. S. (2009). Parasocial and social interaction with celebrities: Classification of media fans. *Journal of Media Psychology*, 14(3), 1-39.
- Stever, G. S. (2017). Evolutionary theory and reactions to mass media: Understanding parasocial attachment. *Psychology of Popular Media Culture*, 6(2), 95-102. <http://dx.doi.org/10.1037/ppm0000116>
- Taş, B. (2018). Predictability of internet addiction with adolescent perception of social support

- and ostracism experiences. *TOJET: The Turkish Online Journal of Educational Technology*, 17(4), 32-41.
- Todman, L. C., Taylor, S., Cochrane, K., Arbaugh-Korotko, J., Burt, E., Caponi, M., Houston, E., Hahn, A. K., & Mandeleew, D. (2009). Social Exclusion Indicators for the United States. *The Journal of Individual Psychology*, 65(4), 330-359.
- Tsay, M., & Bodine, B. M. (2012). Exploring parasocial interaction in college students as a multidimensional construct: Do personality, interpersonal need, and television motive predict their relationships with media characters. *Psychology of Popular Media Culture*, 1(3), 185-200. <https://doi.org/10.1037/a0028120>
- Tukachinsky, R., & Stever, G. (2019). Theorizing development of parasocial engagement. *Communication Theory*, 29(3), 297-318. <https://doi.org/10.1093/ct/qty032>
- Zhang, D., Li, S. Shao, L., Hales, A. H., Williams, K. D., Teng, F. (2019). Ostracism increases automatic aggression: The role of anger and forgiveness. *Frontiers in Psychology*, 10. <http://dx.doi.org/10.3389/fpsyg.2019.02659>

Appendix A

Parasocial Relationships Measure

1. I like to imagine my favorite fictional characters as people I know personally.
2. I often feel like characters from my favorite fictional media are people I know and care about.
3. I like to talk to others about what my favorite fictional characters are like as people.
4. Seeing or reading about my favorite characters is like seeing or reading about good friends.
5. I like to talk to others about what we would have done if we were our favorite fictional characters.
6. I'm often fascinated by my favorite fictional characters as people.
7. I seek out interaction with my favorite fictional characters through reading or writing fan fiction or following social media accounts or blogs dedicated to the characters.
8. I like to imagine myself in various scenarios with my favorite fictional characters.
9. When I am watching or reading about my favorite fictional characters, I feel lonely. (R)
10. I feel that my favorite fictional characters would accept me as a friend.

Note. (R) indicates reverse scored questions.

Appendix B*Ostracism Experience Scale*

1. In general, others treat me as if I am invisible.
2. In general, others treat me as an equal. (R)
3. In general, others look through me as if I do not exist
4. In general, others give me the silent treatment
5. In general, others have ignored my greetings when we are walking by one another
6. In general, others ignore me during conversation
7. In general, others invite me to join them for weekend activities, hobbies, or events. (R)
8. In general, others leave the area when I enter a room.
9. In general, others ignore me.
10. In general, others make an effort to get my attention. (R)
11. In general, others spread rumors about me.
12. In general, others physically turn their backs to me when in my presence
13. In general, others do not call, text, or direct message me.
14. In general, others do not answer my calls, texts, or direct messages.
15. In general, others accept me for who I am. (R)
16. In general, others look at their phones when I am speaking to them.

Appendix C*Need to Belong Scale*

1. If other people don't seem to accept me, I don't let it bother me. (R)
2. I try hard not to do things that will make other people avoid or reject me.
3. I seldom worry about whether other people care about me. (R)
4. I need to feel that there are people I can turn to in times of need.
5. I want other people to accept me.
6. I do not like being alone.
7. Being apart from my friends for long periods of time does not bother me. (R)
8. I have a strong "need to belong."
9. It bothers me a great deal when I am not included in other people's plans.
10. My feelings are easily hurt when I feel that others do not accept me.

Table 1*Demographic Characteristics of Participants*

Demographic	Hollins student participants		Non-Hollins participants		Total participants	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Number of participants	40	36.0	71	64.0	111	100.0
Gender						
Woman	36	90.0	37	52.1	73	65.8
Man	1	2.5	27	38.0	28	25.2
Non-binary	3	7.5	7	9.9	10	9.0
Other	0	0.0	0	0.0	0	0.0
Race/ethnicity						
American	1	2.5	8	11.3	9	8.1
Indian/Alaska Native						
Asian	4	10.0	4	5.6	8	7.2
Black	7	17.5	9	12.7	16	14.4
Latinx	2	5.0	8	11.3	10	9.0
Native Hawaiian or other Pacific Islander	0	0.0	2	2.8	2	1.8
White	21	52.5	35	49.3	56	50.5
More than one	5	12.5	5	7.0	10	9.0
College students	40	100.0	28	39.4	68	61.3

Note. This table contains demographic information for the total sample, as well as the differences between participants recruited from Hollins University and through Twitter.

Table 2*Total number, mean, and standard deviation for inventories*

Inventory	<i>N</i>	<i>M</i>	<i>SD</i>
Parasocial Relationships	111	42.75	17.18
Chronic Ostracism	110	32.19	8.51
Belongingness Needs	106	20.06	4.94

Note. This table contains the number of responses, the mean, and the standard deviation for the three inventories before the median split was applied.