

Examining Relational Maintenance in Parasocial Relationships

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This study investigates relational maintenance in parasocial relationships (PSRs) by applying an interpersonal model of friendships (the investment model) and an exploratory mediated model. Undergraduate students ($N = 490$) reported on their relationships with a close friend and a favorite mediated personality. Despite differences in the strengths of associations, the investment model largely predicted commitment in PSRs through similar processes as it did in friendships. Specifically, greater relational investment and satisfaction predicted relational commitment. Unlike in interpersonal relationships, though, attractiveness of alternatives was unrelated to commitment in PSRs. The study further found that parasocial strength was predicted by identification with and commitment to the character and by the character's integration within a larger social network. The findings extend past applications of interpersonal theories to the media context and support the importance of assessing relational commitment, investment, and network status in PSRs.

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INTRODUCTION

The creators and producers of TV shows have long appreciated the power of mediated personalities and pay careful attention to this when developing and casting their shows. They realize that it is the people at the center of the plot who grab viewers' attention, enhance viewing enjoyment, and increase viewers' dedication to the show. The relationships that viewers form with mediated personalities, in turn, impact their knowledge, attitudes, and behaviors in the real world (e.g., Brown & Basil, 1995). This article focuses on relationships that viewers form with mediated personalities and compares them with real-life ties with close friends. Specifically, the article assesses relational maintenance, a thus-far understudied aspect of mediated relationships. Extending past research that has employed interpersonal theories in the mediated context, this article tests the applicability of the investment model (Rusbult & Buunk, 1993) to parasocial relationships (PSRs). The study also tests an exploratory model based on the mediated literature. The current work provides a unique and direct comparison of PSRs and friendships to empirically test the similarities and differences that have been theorized between these relationships.

PARASOCIAL AND SOCIAL RELATIONSHIPS

The relationships that viewers form with mediated personalities play an important role in viewers' lives. Television is well suited for the establishment of such relationships, as viewers are repeatedly exposed to the personalities that make up its content (Nordlung, 1978). Termed parasocial interaction, viewers are thought to engage in a "seeming face-to-face relationship between spectator and performer" (Horton & Wohl, 1956, p. 215). Over time, viewers become increasingly familiar with the characters' appearance, behavior, attitudes, sense of humor, and other personality characteristics. Being the first to recognize the similarities between mediated relationships and real-world social ones, Horton and Wohl suggested that as uncertainty is reduced in both types of relationships, individuals develop greater intimacy, understanding, and appreciation of the other person or character. Although the mediated relationship is merely vicarious and one-sided, viewers may come to feel they know the characters as they know their friends; they form attributions about the characters' motives and depend on them for guidance (Rubin & Rubin, 1999).

Along with uncertainty reduction, research has established similarities between social relationships and PSRs in relational development. Friendship formation is facilitated by factors such as proximity, attraction,

similarity, and frequency of contact (Fehr, 1996). Similarly, PSRs develop as a result of increased social attraction, affinity, involvement, and perceived similarity with mediated personae (Perse, 1990; Rubin, Perse, & Powell, 1985; Tian & Hoffner, 2010; Turner, 1993). Over time, as information is learned about the other person, self-disclosure increases, and comfort deepens, so does the sense of friendship and closeness.

Considering the similarities in the development of friendships and PSRs, researchers have also examined if relational dissolution results in similar outcomes. Friendships dissolve for diverse reasons including friendship rules being broken (Argyle & Henderson, 1984) and disliked behaviors (Rose, 1984). Changes in life circumstances, such as moving away, switching jobs, or altering one's marital status, may also contribute to relational modification or termination (Fehr, 1999; Rawlins, 1994). Although the emotional outcomes of dissolution have been examined to a lesser extent in friendships, distress following romantic relationship dissolution is particularly high when commitment, satisfaction, and closeness are high and when perceptions of alternative partners and controllability of the dissolution are low (Simpson, 1987; Sprecher, Felmlee, Metts, Fehr, & Vanni, 1998).

In the mediated context, relationships are usually severed unilaterally by characters leaving shows or shows coming to an end. J. Cohen (2003) found that in PSRs, the stronger the friendship tie, the greater the negative emotional reaction experienced, or expected to be experienced, from the relationship's dissolution. Despite relatively low levels of distress at relational dissolution, Eyal and Cohen (2006) found that viewers reported feeling greater loss when they were more committed to the show and expressed more affinity to it. Factors associated with the character—specifically, perceiving the character to be more popular—and factors associated with the viewers themselves—specifically, the extent of their reported loneliness—also predicted parasocial breakup responses. Lather and Moyer-Guse (2011) similarly confirmed the link between relational closeness and parasocial breakup distress in the context of temporary relational dissolution, namely, a writer's strike that resulted in new episodes of television series not being aired.

In addition to development and dissolution, research on real-world relationships also focuses on the intermediary stage of maintenance, addressing the ongoing nature of interpersonal relationships. In general, friendships are maintained through spending time together, openness and self-disclosure, social support, and avoiding topics that might create conflict (Dainton, Zelley, & Langan, 2003; Fehr, 1996). Friends' breadth of interaction and intimacy are also positively related to friendship intensity (Hays, 1984). Further, positivity, supportiveness, openness, and time together positively predict friendship satisfaction and supportiveness, and time together

predicts relational commitment, which is an indicator of maintenance (Oswald, Clark, & Kelly, 2004). Research on PSRs also can benefit from assessing relational maintenance as these mediated relationships have important consequences for viewers' lives, impacting such domains as attitudes and perceived realism (e.g., Alperstein, 1991; Basil, 1996; Schiappa, Gregg, & Hewes, 2005; Wright et al., 1995). Moreover, as reported by Eyal and Cohen (2006), maintenance significantly predicts the depth of loss expressed at parasocial breakup. Examining maintenance in PSRs may help to explain the processes involved in such effects.

The current study focuses on the maintenance of PSRs by directly comparing PSRs and friendships. Such comparisons have enriched theorizing in this area and should be afforded more empirical attention. PSRs are an especially well-suited venue in which to examine the intersection between media and interpersonal communication literatures (e.g., Boon & Lomore, 2001; J. Cohen, 2003). PSRs do not replace social ties; rather, the two types of relationships complement one another (Tsao, 1996). Yet direct comparisons between friendships and PSRs have been rare. As such, the current investigation provides a more comprehensive analysis of relational maintenance in PSRs.

AN INTERPERSONAL MODEL OF MAINTENANCE

The current study extends previous research by examining the application of a well-established relational maintenance model to PSRs: the investment model (Rusbult, 1980). This model builds on social exchange and interdependence theories (Thibaut & Kelley, 1959) suggesting that individuals are more committed to their relationships when satisfaction and investments are higher and the quality of alternatives is lower. Relational scholars suggest that commitment is particularly linked with maintenance (see, e.g., Canary & Stafford, 1992; Dainton & Aylor, 2002; Stafford, Dainton, & Haas, 2000) given that relational partners would not enact maintenance if they did not foresee a continuation of the relationship. As such, the investment model, which predicts commitment, is often employed as a means of generally assessing relational maintenance (Rusbult, Drigotas, & Verette, 1994).

According to the investment model, satisfaction is based on the degree to which partners' outcomes (i.e., rewards minus costs) exceed their expectations. Quality of alternatives is the attractiveness of available substitutions including spending time with other friends or greater independence. Investments are resources put into a relationship that cannot be regained if the relationship dissolves, such as time or emotional effort (Rusbult & Buunk,

1993). The investment model suggests these three components predict commitment—a psychological state including feelings of attachment and a long-term orientation toward the relationship (Rusbult & Buunk, 1993).

Interpersonal research has generally provided support for the investment model across relationship types (see Le & Agnew, 2003). Although this model has been predominantly tested in romantic relationships, it is also applicable to friendships. Rusbult's (1980) initial test of the model with best friends found that decreased alternatives, increased investments, and rewards and costs (i.e., a measure of satisfaction) predicted commitment. Branje, Frijns, Finkenauer, Engels, and Meeus (2007) also found that all three factors significantly predicted friendship commitment concurrently and over time.

The investment model is likely relevant in the context of PSRs as well (Boon & Lomore, 2001). As in all social relationships, satisfaction is certainly central to PSRs. The more satisfied one is with their relationship, the more likely they are to expose themselves to the media content and to enjoy it. With regard to alternatives, relationships may develop simultaneously with multiple characters available on a myriad of TV shows. In addition, TV viewers have opportunities to invest time and effort into their PSRs (Caughey, 1984), especially in the ever-evolving media environment. Viewers can repeatedly watch episodes of their favorite shows, purchase show-related DVDs, or download episodes (Knobloch & Zillmann, 2002); access considerable information about their favorite mediated characters using diverse media; engage in interpersonal discussion about TV characters (Lemish, 1985; Livingstone, 1998); connect with other show fans through discussion boards; and invest money in purchasing a mediated personality's music, attending their performances, or purchasing show-related merchandise. Although, to date, relatively low levels of online participation with certain television genres have been identified in some studies (e.g., Godlewski & Perse, 2010), researchers are increasingly examining investment in PSRs in new media contexts, such as the Internet (e.g., Kassing & Sanderson, 2009).

In terms of commitment, recent investigations into the nature of PSRs have suggested that the relationship's nature and quality significantly contribute to relational strength among viewers. Eyal and Cohen (2006) suggested that commitment to the show—defined as the extent to which the viewer feels dedicated to viewing the content—predicts the strength of the PSR and the extent of parasocial breakup distress and sorrow. Whereas their study examined commitment to the *program*, to what extent commitment to the PSR itself plays a role in determining its course and strength has not yet been examined. The current study examines this factor by applying the investment model to the parasocial context.

Thus, this study employs the investment model to compare commitment processes in mediated relationships and friendships. This model posits that satisfaction, investments, and alternatives simultaneously predict commitment. Specifically, we hypothesize the following:

- H1: Relational satisfaction positively predicts commitment in (a) friendships and (b) PSRs.
- H2: Investment size positively predicts commitment in (a) friendships and (b) PSRs.
- H3: Perceived attractiveness of alternatives negatively predicts relational commitment in (a) friendships and (b) PSRs.

It is important to note that, whereas the model is hypothesized to be similar in both types of relationships, previous research (e.g., Gleich, as cited by Giles, 2002) suggests the levels of the individual variables will differ. PSRs likely entail lower satisfaction but greater alternatives as compared to friendships. In addition, the strengths of the associations may differ between friendships and PSRs (see Eyal & Cohen, 2006). For example, the relationship between satisfaction and commitment may be stronger in friendships as compared to PSRs. Thus, we added the following research question and hypothesis:

- H4: As compared to friendships, PSRs are characterized by (a) less satisfaction, (b) less investment, (c) greater alternatives, and (d) less commitment.
- RQ1: Do the strengths of the associations among variables in the investment model vary between friendships and PSRs?

A PARASOCIAL MODEL OF MAINTENANCE

Another approach that can shed light on the process of relational maintenance in PSRs is the application of a model derived from recent work in the mediated context. Examining this newly conceptualized model with regard to both PSRs and real-life friendships can also better inform our comparison of the two types of relationships. Based on contemporary work regarding PSRs (Eyal & Cohen, 2006; Giles, 2002; Godlewski & Perse, 2010), we test a model that assesses the contribution of individuals' identification with the relational partner, commitment to the relationship, the extent to which this relationship is part of their larger social network, viewer's sex, and relationship duration to relational strength as an indicator of relational maintenance.

Identification refers to an emotional connection formed with the character, taking on their perspective and sharing and understanding their motivations and experiences (J. Cohen, 2001, 2006). In the mediated communication literature, identification has been distinguished from PSRs. Identification is thought to be a transitory and fleeting experience, taking place during the time of media exposure, whereas PSRs are thought to continue beyond the moment of viewing (Tian & Hoffner, 2010). Identification is often predicted by perceived background or attitude similarity between viewer and character (Cohen, 2006). Similarity is also a cornerstone of real-life friendship development and maintenance (Fehr, 1996) and contributes to closeness (Ledbetter, Griffin, & Sparks, 2007).

As previously discussed, commitment has been suggested to be an important aspect of PSRs. In the investment model, commitment is considered an outcome of relational characteristics. The current mediated model provides a different view of commitment as a potential antecedent of relational strength, contributing to feelings of intimacy and, ultimately, to maintaining the relationship. Similar notions have been suggested in the interpersonal communication literature as well; specifically, Rusbult et al. (1994) suggested that commitment leads to accommodating behaviors such as derogating alternatives or making sacrifices for the relational partner to preserve the relationship.

This study examines an additional factor suggested to be the central to PSRs—the idea that relationships are stronger when they are intertwined in a network of other ties. Giles (2002) posited that the context within which a relationship takes place is crucial. No longer considered a solitary figure, the TV viewer engages in a constellation of social ties, not merely mediated ones. These myriad ties are likely to exert an influence on perceptions of the PSR and its quality. Eyal and Cohen (2006) found that viewers' perceptions of the popularity of their favorite mediated personalities were positively associated with feeling anxiety at the breakup of their PSR. Whereas their study did not find perceived character popularity to predict PSR, other aspects within the social network—such as friends' evaluations or comments regarding the mediated relationship—may fuel or inhibit the maintenance of PSRs. Similarly, friends' and family members' approval of relationships is related to greater relational stability in interpersonal relationships (e.g., Sprecher & Felmler, 1992).

Finally, sex differences have been identified both in interpersonal and mediated relationships. Women tend to achieve closeness or intimacy in friendships through the use of self-disclosure more so than do men (Caldwell & Peplau, 1982; Fehr, 2004), and they also experience stronger PSRs than men (J. Cohen, 1997; Lather & Moyer-Guse, 2011). In addition, relationship duration may be important. Models of interpersonal relational

development suggest that intimacy increases over time (Altman & Taylor, 1973), with friendships becoming stronger and more intimate with time in the developing stages of the relationship (Hays, 1984).

In sum, this study tests an exploratory model of relational strength that is based on, and combines, aspects from previous research on PSRs. This model posits that identification with the other, commitment, social network embeddedness, sex, and relationship length all predict relational strength, and, thus, relational preservation. Thus, the following hypotheses are posed:

- H5: Identification positively predicts relational strength in (a) friendships and (b) PSRs.
- H6: Relational commitment positively predicts relational strength in (a) friendships and (b) PSRs.
- H7: The extent to which the relational partner is integrated into a larger network of social ties positively predicts relational strength in (a) friendships and (b) PSRs.
- H8: Female individuals report greater relational strength than male individuals in (a) friendships and (b) PSRs.
- H9: The duration of the relationship positively predicts relational strength in (a) friendships and (b) PSRs.

Again, whereas the contributors to relational strength are predicted to be similar for both relationships, the levels of the individual predictors are hypothesized to vary. In addition, the strength of the associations may vary between friendships and PSRs.

- H10: As compared to friendships, PSRs have (a) lower identification, (b) lower closeness, (c) lower network status, and (d) less relationship length.
- RQ2: Do the strengths of the associations among the variables in the relational strength model vary between friendships and PSRs?

Overall, this study reports on a comprehensive investigation of relational maintenance in PSRs by applying two models: one taken from the interpersonal literature and one from the mediated realm. Together, these models enable the examination of newly conceptualized aspects thought to be important for PSRs, which serve as important ties within people's network of social relationships and play important roles in their lives. In addition, the current study allows for a direct comparison between the two types of relationships. Such a comparison is often evoked in the PSR literature but rarely tested directly.

METHOD

Participants

Participants were recruited from two southwestern universities ($n_1 = 299$, 61%; $n_2 = 191$, 39%). Both samples were approximately two thirds female ($n = 312$, 64%). The ages ranged from 18 to 47 years ($M = 20.36$, $SD = 2.33$). Despite a significant age difference between the sites, $t(487) = 8.65$, $p < .001$ ($M_1 = 19.69$, $SD_1 = 1.42$; $M_2 = 21.43$; $SD_2 = 3.00$), age was not related to any of the variables of interest. Bivariate correlations showed that site was related to only two of the variables, with small correlations ($r_s < .18$). Thus, age and site were excluded in the main analyses.

Procedures

Participants were offered extra credit in communication courses for their participation through an online survey program. The survey contained two sections that were counterbalanced in two versions to which participants were randomly assigned.¹ One section referred to a close friend and the other to a favorite mediated personality (e.g., a character on a TV show, a newscaster, a reality TV show contestant).² Similar designs have been employed in previous research in which participants were asked to respond to identical questions about two or more socializing agents, including media characters, best friends, or parents (e.g., E. L. Cohen, 2010; DiIorio, Kelley, Hockenberry-Eaton, 1999; Hur & Baran, 1979; Thompson & Spanier, 1978; Wood, Senn, Desmarais, Park, & Verberg, 2002). Within

¹Comparison of the survey's two versions revealed some differences. For example, participants who answered about a mediated character first rated the friend variables higher. Perhaps participants rated their relationships with mediated characters as fairly positive but felt they needed to rate their friendships as even more positive when completing the section second. Yet the effect sizes of these differences were rather low, with most partial eta-squares at .03 or less, suggesting the significant differences may be at least partially a factor of the sample size. Counterbalancing was used to negate these effects and rerunning the ANOVA analyses while controlling for the survey order did not alter the results.

²Of the designated favorite mediated personalities, 193 were classified as fictional and 270 were classified as "real" personalities. In comparing the two groups on all study variables, only two revealed significant differences. Identification was greater for fictional characters ($M = 3.88$, $SD = 0.89$) than for personalities ($M = 3.71$, $SD = 1.01$), $t = 1.99$, $p = .047$. Investment was greater for fictional characters ($M = 2.40$, $SD = 0.85$) than for personalities ($M = 2.19$, $SD = 0.91$), $t = 2.53$, $p = .012$. Therefore, the two types of mediated personae were collapsed for the analyses.

each of the sections in the current study, participants completed the measures detailed next.

Measures

Unless otherwise noted, measures employed 5-point Likert scales, with options ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). When necessary, item wording was slightly modified so that they would be applicable to both friendships and mediated characters.

Investment model variables. Participants completed Rusbult, Martz, and Agnew's (1998) investment model scale, which includes subscales for relational satisfaction, attractiveness of alternatives, investment size, and commitment. The Satisfaction subscale included five items such as "This relationship makes me very happy" ($\alpha_{\text{friend}} = .86$, $\alpha_{\text{mediated}} = .84$). The Alternatives subscale includes four items such as "Other [friends][mediated personalities] with whom I might become involved are very appealing" ($\alpha_{\text{friend}} = .77$, $\alpha_{\text{mediated}} = .78$). The items capture both access to these alternatives and their frequency, recognizing that alternatives can be one person, being alone, or multiple other friends/mediated characters. Items were adapted to reflect alternatives in the mediated context while maintaining the essence of these statements.

The Investment Size subscale included eight items (e.g., "I have put a great deal into our relationship that I would lose if the relationship were to end," "My sense of personal identity [who I am] is linked to this person and our relationship," "I have many memories with this person" ($\alpha_{\text{friend}} = .83$, $\alpha_{\text{mediated}} = .88$). To best capture the concept of investment, the eight items used included Rusbult et al.'s (1998) five global investment items as well as three of the facet items that are most applicable to both friendships and mediated relationships. The Commitment subscale included seven items such as "I want our relationship to last for a very long time" ($\alpha_{\text{friend}} = .75$, $\alpha_{\text{mediated}} = .77$). Items for each of the subscales were averaged to create a Satisfaction, Alternatives, Investment, and Commitment score for both friends and PSRs.

Parasocial relational strength model variables. Several variables, compiled from previous research and theoretical predictions, as detailed next, were included to test this exploratory model. We used a measure based on Rubin et al.'s (1985) parasocial interaction scale to assess *relationship strength*. It was relabeled in this study as *relational strength* to avoid confusion with the relationship type itself—the PSR. Participants responded

to 14 items, including, "This person makes me feel comfortable" and "I see this person as a natural, down-to-earth person." Rubin et al.'s original 20-item scale has been adapted extensively in previous investigations to fit the specific examination target (e.g., Auter, 1992; Brown & Basil, 1995). The measure has also been criticized for assessing related relational constructs, such as identification (J. Cohen, 2001). Thus, here, we chose the items that are most relevant for the current investigation. Items were averaged together for each of the two targets ($\alpha_{\text{friend}} = .88$, $\alpha_{\text{mediated}} = .84$). *Identification* with a close friend/favorite mediated personality was assessed by having participants respond to five items adapted from J. Cohen (2001) and Eyal and Rubin (2003). A sample item was, "I think I have a good understanding of this person." The measures were reliable ($\alpha_{\text{friend}} = .82$, $\alpha_{\text{mediated}} = .85$), and items were averaged. *Network status* was assessed by participants' responses to seven items representing the extent to which the target person was integrated into their larger social network and fit into it well. Items included "Most people close to me do not understand what I find appealing in this person." Items were averaged into two reliable scales ($\alpha_{\text{friend}} = .73$, $\alpha_{\text{mediated}} = .70$). Relationship length was assessed by participants' estimations of how many years they have known their close friend/favorite mediated personality. Participants reported knowing their friends between 0 and 21 years ($M = 5.98$, $SD = 4.56$) and their favorite mediated personalities between 0 and 20 years ($M = 4.88$, $SD = 3.39$). Finally, the same commitment measure as previously assessed was utilized in the analyses of the relational strength model.

Plan of Analyses

To enable comparisons between the models for friendships and the models for PSRs, the sample was randomly split in half ($n_s = 245$) so that one half of the sample's responses about friendships were used and the other half's responses about characters were used. To test H1 to H3, we tested models in which satisfaction, investments, and alternatives were modeled to predict commitment. In addition, although the models may be similar, differences may exist in certain parts of the model, such as the strength of the relationship between a predictor and the outcome variable. Hence, to test RQ1, we employed multigroup analyses to test if models significantly differed between the two groups (see Byrne, 2001; Kline, 1998). For the model of relational strength, we similarly tested H5 to H9 by modeling identification, commitment, social network embeddedness, sex, and relationship length as predictors of relational strength. Again, we tested separate path models with multigroup analyses to determine if the predictors of relational strength differed between the two models (RQ2).

TABLE 1
Correlations Among the Variables

	1	2	3	4	5	6	7	8	9
1. Participant sex	—	-.23**	.15*	-.22*	-.10	-.17*	-.04	-.15*	-.13*
2. Satisfaction	.14*	—	.19*	.55**	.49**	.54**	.48**	.01	.64**
3. Alternatives	-.18*	-.13*	—	.06	.04	.25**	.23**	.06	.19*
4. Investment size	.24**	.52**	-.29**	—	.51**	.41**	.33**	.19*	.55**
5. Commitment	.21**	.50**	.33**	.51**	—	.29**	.33**	.07	.50**
6. Identification	.13*	.53**	-.16*	.50**	.39**	—	.33**	.05	.64**
7. Network	.21**	.38**	-.18*	.34**	.29**	.43**	—	.09	.58**
8. Relationship length	-.07	.04	-.06	.08	.06	.08	.13*	—	-.04
9. Relational strength	.30**	.57**	-.29**	.64**	.56**	.69**	.52**	.04	—

Note. Correlations for friendships are below the diagonal; correlations for parasocial relationships are italicized above the diagonal.

* $p < .05$. ** $p < .001$.

To assess whether the ratings of the separate relational variables differed for friendships and PSRs (H4 and H10), we conducted repeated measures analyses of variance (ANOVAs) for each variable. In these analyses, we used the full sample ($N = 490$), testing the within-subjects ratings of the variables (i.e., comparing each participant's reports on both a friend and a mediated character). Correlations among the variables for friends and characters are presented in Table 1. Means and repeated measures ANOVA results are presented in Table 2. Before conducting analyses, the random missing data were replaced with the mean of respective variables.

TABLE 2
Repeated Measures Analyses of Variance to Compare Friendships and Parasocial Relationships (PSRs)

	<i>Friendships</i>	<i>Parasocial</i>	<i>F</i>	η^2
Investment model				
Satisfaction	4.23 (0.72)	2.69 (0.86)	1026.44	.68
Alternatives	3.16 (0.80)	3.49 (0.91)	41.02	.08
Investment	4.06 (0.62)	2.25 (0.72)	2070.92	.81
Commitment	4.35 (0.62)	2.95 (0.77)	1096.72	.69
PSR model				
Identification	4.35 (0.62)	3.19 (0.91)	601.81	.55
Network	4.15 (0.60)	3.36 (0.67)	454.68	.48
Relationship length	5.93 (4.38)	4.91 (3.40)	19.09	.04
Relational strength	4.32 (0.57)	2.98 (0.67)	1422.92	.74

Note. All F tests are significant at $p < .001$. The degrees of freedom are 1 and 489 for all analyses.

RESULTS

Investment Model

Using the split sample to test H1 to H3, separate path models were conducted for friendships and PSRs. In line with the investment model, investment size, satisfaction, and alternatives were modeled to predict commitment. Although sex differences are not directly theorized in the model, Le and Agnew's (2003) meta-analysis showed that women reported greater satisfaction, investments, and commitment as well as lower perceived alternatives. Our data also show that sex was related to the investment model components. As such, we modeled sex with paths to investment size, satisfaction, and attractiveness of alternatives. (Sex was not significantly related to commitment when simultaneously assessed with the paths from sex to the three predictors of commitment.) The proposed models for both the friends group, $\chi^2(1) = 1.90$, $p = .168$, $CMIN/df = 1.90$, comparative fit index (CFI) = .99, root mean square error of approximation (RMSEA) = .06, and characters group, $\chi^2(1) = 2.27$, $p = .132$, $CMIN/df = 2.27$, CFI = .99, RMSEA = .07, showed good fit. See Figures 1a and 1b for the path coefficients in each model.

For friendships (H1-H3a), women reported significantly more investment and satisfaction, and less attractive alternatives, than did men. Aligning with the model, investment size, satisfaction, and alternatives significantly predicted commitment. For PSRs (H1-H3b), the models showed the opposite pattern for sex. Men reported greater investment size and satisfaction as well as fewer alternatives. Although investment and satisfaction significantly predicted commitment, alternatives did not ($p = .764$).

A multigroup analysis was performed comparing the fully unconstrained and fully constrained models to determine if the groups significantly differed (RQ1).³ The unconstrained model showed good fit, $\chi^2(2) = 4.17$, $p = .124$, $CMIN/df = 2.09$, CFI = .99, RMSEA = .05. The fully constrained model, however, did not show good fit, $\chi^2(16) = 98.38$, $p < .001$, $CMIN/df = 6.15$, CFI = .82, RMSEA = .10. A comparison of the change in chi-square values relative to the change in degrees of freedom, $\Delta\chi^2(14) = 93.93$, $p < .001$,

³To assess whether models differ, a model in which the parameters (structural paths, covariances, variances) are constrained to be equal across groups (i.e., fully constrained) is compared to a model in which the parameters are allowed to vary for each group (i.e., fully unconstrained). The chi-square values of the constrained and unconstrained models are compared to determine which model yields a better fit. A significant chi-square reduction (relative to the change in degrees of freedom) when parameters are unconstrained suggests model differs for the two groups. If the groups significantly vary, additional models with increasing constraints are conducted to determine where the specific differences exist.

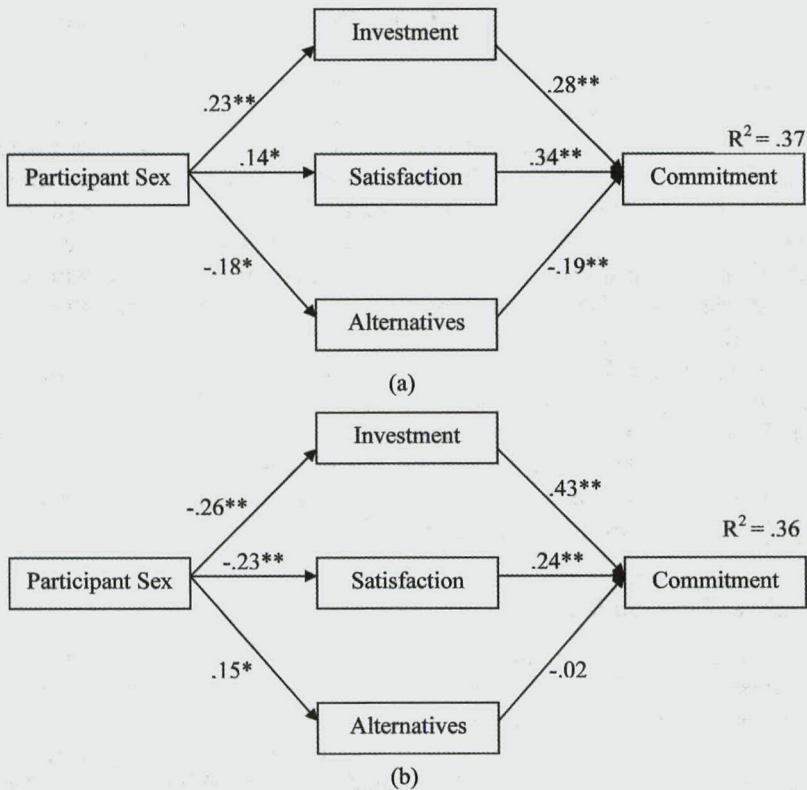


FIGURE 1 Investment model: (a) Friendships. (b) Parasocial relationships.
 Note. For participant sex, 1 = male, 2 = female. $^*p < .05$. $^{**}p < .001$.

showed the unconstrained model yielded better fit, and thus, the two groups' models significantly differed.

To determine where the specific differences were located, increasingly constrained models were compared to the unconstrained model. Although certain variances and covariance terms were significantly different, only the differences among the structural paths are presented.⁴ The analyses show that the paths from participant sex to investment size, $\Delta\chi^2(2) = 31.84$, $p < .001$; satisfaction, $\Delta\chi^2(2) = 19.26$, $p < .001$; and alternative attractiveness, $\Delta\chi^2(2) = 16.14$, $p < .001$, significantly differed between groups.

⁴Full tables with test for all variances, covariances, and structural paths can be obtained from the authors.

For the predictors of commitment, only the path from attractiveness of alternatives significantly differed, $\Delta\chi^2(2)=7.28$, $p < .05$. In friendships, alternatives was a stronger predictor of commitment than in PSRs.

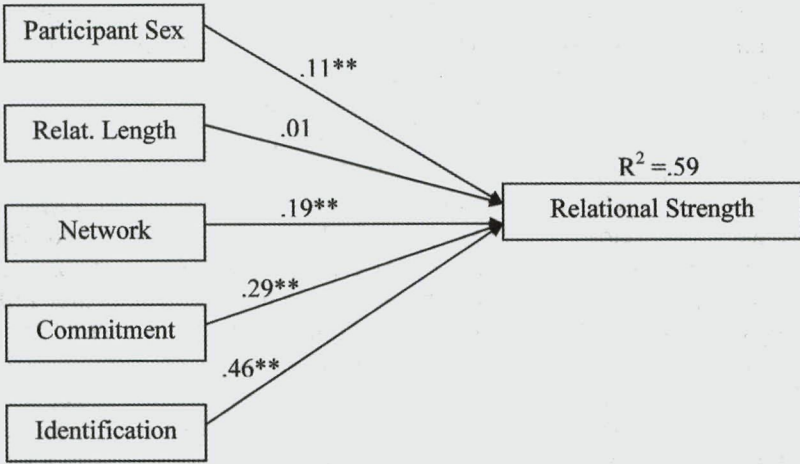
Repeated measures ANOVAs using the combined sample (i.e., comparing each participant's ratings of both a friend and a mediated character) showed that ratings of friendships and ratings of PSRs varied significantly for all variables (H4; Table 2). Participants reported greater satisfaction, investment size, and commitment in friendships but greater alternatives in PSRs than in friendships. The effect sizes suggest large differences in participants' views of their friendships and PSRs for these variables, with perhaps the exception of alternatives.

In sum, H1 and H2 were supported with satisfaction and investment positively predicting commitment in both relationships. H3 was partially supported; attractiveness of alternatives predicted commitment in friendships but not in PSRs. H4 was fully supported with participants reporting more satisfaction, investment, and commitment, but less attractive alternatives, with their friendships as compared to PSRs.

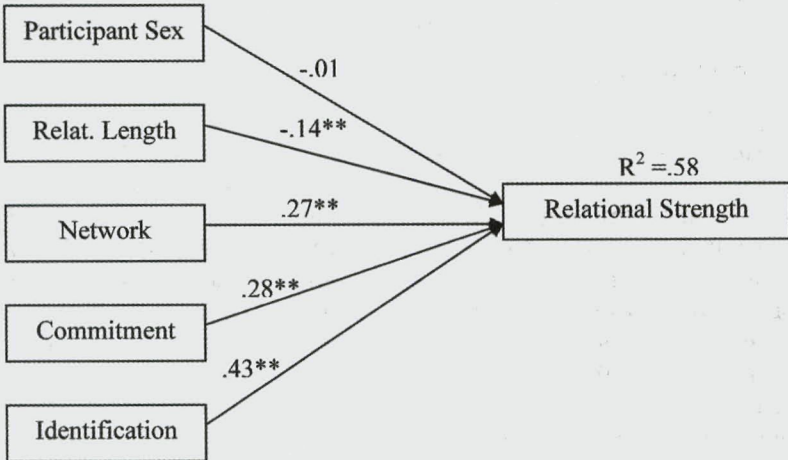
Relational Strength Model

We applied the same method as earlier to assessing differences between friendships and PSRs with the relational strength model. The proposed model predicted that participant sex, relationship length, network embeddedness, commitment, and identification would predict the perceived strength of the relationship. The proposed models for both friends, $\chi^2(2)=1.65$, $p = .439$, $\text{CMIN}/df=0.83$, $\text{CFI}=.1.00$, $\text{RMSEA}=.00$, and characters, $\chi^2(2)=1.04$, $p = .596$, $\text{CMIN}/df=0.52$, $\text{CFI}=1.00$, $\text{RMSEA}=.00$, showed good fit. When responding about friends (H5-9a; see Figure 2a), all predictors were significantly associated with relational strength with the exception of relationship length ($p = .913$). Greater commitment, network inclusion, and identification were related to greater strength; further, women reported stronger PSRs than did men. When responding about characters (H5-H9b; see Figure 2b), all predictors were significantly associated with strength with the exception of participant sex ($p = .862$). Hence, greater commitment, network inclusion, and identification were related to stronger relationships; in contrast, relationship length was negatively associated with it.

To assess whether these models significantly differed (RQ2), a multigroup analysis was performed comparing the fully unconstrained and fully constrained models. The unconstrained model showed good fit, $\chi^2(4)=2.68$, $p = .612$, $\text{CMIN}/df=1.34$, $\text{CFI}=1.00$, $\text{RMSEA}=.00$. The constrained model, however, did not show good fit, $\chi^2(23)=126.97$, $p < .001$, $\text{CMIN}/df=5.52$, $\text{CFI}=.83$, $\text{RMSEA}=.10$. A comparison of the change in



(a)



(b)

FIGURE 2 Parasocial relational strength model: (a) Friendships. (b) Parasocial relationships. Note. For participant sex, 1 = male, 2 = female. * $p < .05$. ** $p < .001$.

chi-square values relative to the change in degrees of freedom, $\Delta\chi^2(19) = 124.29$, $p < .001$, showed the unconstrained model yielded better fit suggesting that the two groups' models significantly differed. Increasingly constrained models were compared to the unconstrained model to determine where the specific differences were located. Only the path from relationship

length, $\Delta\chi^2(9) = 17.91$, $p < .05$, to its strength significantly varied between groups. Although relationship length was not associated with strength for friends, it was negatively associated with it for PSRs.

To determine if participants' ratings of the separate relational variables significantly differed (H10), we again conducted repeated measures ANOVAs using the full sample (Table 2). As compared to reports of PSRs, participants reported they had known their real-life friends longer, identified more with them, embedded them more in their social network, and felt a stronger bond with them. Hence, H10 was supported. The effect sizes suggest large differences in participants' views of their friendships and PSRs for these variables, with perhaps the exception of relationship length.

In sum, H5, H6, and H7 were supported as identification, commitment, and the extent to which the friend/character was part of their larger social network were significantly and positively associated with strength in both relationships. H8 was supported only for friendships as sex was unrelated to relational strength in PSRs. H9 was not supported for either relationship type: Relationship length was not related with its strength for friendships and was negatively related with it in PSRs. H10 was supported as participants scored higher on all constructs in the context of friendships than in PSRs.

DISCUSSION

This study sought to compare PSRs to friendships in order to further elucidate relational maintenance in PSRs. To best inform our understanding, the study tested both an interpersonal model—the investment model (Rusbult, 1980)—and an exploratory model derived from media research (i.e., termed the parasocial relational strength model). The findings show that the process of these relationships operated similarly, supporting previous evidence that PSRs, though fictional and one-sided, are experienced much like real-world social relationships (Horton & Wohl, 1956). As expected, friendships seemed to be more significant in people's lives in that participants reported greater relational commitment, investment, satisfaction, and identification in their real-life friendships as well as fewer relational alternatives as compared with their relationships with favorite mediated personalities. Yet, as engaging in PSRs has important implications for people's beliefs, attitudes, and behaviors, and considering the persuasive role of mediated personalities in people's lives (e.g., Brown, Basil, & Bocarnea, 2003; Rubin & Step, 2000), it is important to understand the role of these relationships. In addition, for writers and producers of TV shows, who are interested in increasing viewer commitment to and investment in shows, it is important to understand how processes of relational commitment and maintenance operate in the mediated world.

Similar to previous PSR research (e.g., Eyal & Cohen, 2006), applying a theory from the interpersonal realm again proved to be useful in the context of mediated relationships. The investment model (Rusbult & Buunk, 1993) largely received support in the context of PSRs. Viewers' greater contentment with their mediated relationship and the more time and effort they felt they put into it, the more they felt faithful to the mediated personality.

In contrast to friendships, in which the existence of attractive relational alternatives was associated with a lowered sense of relational commitment, perceived alternatives were not found to be related to commitment in PSRs. Perhaps in the case of PSRs, the abundance and availability of mediated personalities with whom viewers may choose to parasocially engage is not related to relational maintenance with any one particular character. This aligns with previous research employing the investment model in which the quality of alternatives played a smaller role in predicting commitment in casual relationships as compared to close friendships (Branje et al., 2007) as the latter typically entail more exclusivity.

Although the investment model does not focus on sex differences, we found sex differences in participants' reports of satisfaction, investment size, and alternatives between friendships and PSRs. Whereas we might expect men and women to differ in reports of commitment predictors for the two relationships, we did not expect to find *opposite* patterns for friendships and PSRs. Specifically, women reported more satisfaction and investment, and lower alternatives in friendships, whereas men reported more satisfaction and investments, and lower alternatives in PSRs. Females may be placing greater emphasis on social relationships where they can have mutual interaction. This aligns with research showing that women engage in more self-disclosure in friendships, whereas men engage in more shared activities to achieve intimacy (Fehr, 2004). Yet this contradicts research that suggests women form stronger PSRs than men (J. Cohen, 1997).

An interesting contribution of the current study pertains to the importance of commitment in relational maintenance. The greater the relational commitment, the stronger connection individuals feel to the other—be it a friendship or a PSR. This finding extends recent research which has suggested that psychological aspects play a role in PSRs. Eyal and Cohen (2006) identified commitment to the TV show as important in viewer relationships with the show's characters; now it is clear that dedication to the *character* is also central to PSRs.

Another contribution of the study is that it examined the importance of relational context regarding people's feelings of friendship. In both relationship types, the extent to which the larger social circle appreciated the relationship and validated its importance was a significantly positive predictor of relational strength, an indicator of relational maintenance. This

finding supports Giles's (2002) notion that PSRs do not happen in a vacuum and that viewers share their mediated experiences with others who are likely to then impact the PSR. Being a part of, or validated by, the larger social network actually proved to be more significant for PSRs than for friendships.

Of interest, the construct of relationship duration did not play the hypothesized role in either relationship. For friendships, the length of time participants reported knowing their close friends was unrelated to relational strength. Although relational length may be associated with intimacy at the beginning stages of relationships (e.g., Altman & Taylor, 1973), intimacy may level off after a certain period (Hays, 1984). Previous research in the context of PSRs has been less consistent with regard to the role of relational duration. Whereas a positive relationship between duration and PSR is often hypothesized based on interpersonal communication models, several studies have found, surprisingly, no relationship between the two (e.g., Eyal & Cohen, 2006; Rubin et al., 1985). In this study, however, PSR duration negatively predicted the strength of the relationship. It may be that, over time, viewers reach a ceiling effect in the progress taking place in relationships with mediated characters. Perhaps the one-sided nature of the relationship becomes more salient to viewers over time, leading to lowered perceived closeness with the character. Consistent with the idea that PSRs serve primarily positive functions for individuals, once such disillusionment is experienced, it may impact the PSR and individuals move on to new relationships, reflecting lowered relational maintenance. In contrast, in real-life friendships, where investment and commitment are greater and alternatives are fewer, more effort may be placed on repairing the relationship or regaining the closeness.

Overall, with a few exceptions, both models showed that friendships and PSRs operate similarly, suggesting that the same factors that facilitate commitment or closeness in friendships facilitate these relational characteristics in PSRs. The large differences in the majority of the individual variables (e.g., friendships were rated as much more satisfying, friends were more integrated into one's social network, etc.), however, indicates that friendships are perceived as offering higher quality relationships. As such, although PSRs may serve similar functions as friendships, they likely do not replace the important role friendships play in individuals' quality of life (see Fehr, 1996; Hays, 1988).

LIMITATIONS AND FUTURE RESEARCH

Several limitations of this study should be noted. The sample consists of college students, but maintenance in and strength of relationships may vary depending on life stage. In addition, we allowed participants to name any

mediated character, fictional or real; as such, a wide range of characters were reported, whereas the reported close friends were likely more homogenous on a variety of aspects (e.g., age). Although our analyses revealed minimal differences between fictional and "real" mediated personalities, future research should examine each group separately (see Giles, 2002), as viewers may relate to them in different ways. Third, to enable direct comparisons, we asked participants to complete the same measures for a close friend and a mediated character. Although large differences were found in the variables between friendships and PSRs, this method may have resulted in a certain degree of shared variance. Further, this may have constrained participants to think about the two relationships in similar ways. Still, it is believed that friendships and PSRs involve many inherent differences that likely still operated in the current investigation. Fourth, despite the focus on relational maintenance, this study assessed relationships at one point in time. Thus, causality is not possible to determine. To more fully assess how friendships and PSRs form, maintain, and dissolve, longitudinal investigations are needed. Such investigations can also shed light on the outcomes of relational maintenance in PSRs by examining whether they mirror those in friendships or even impact real-world relationships (e.g., by derogating alternatives).

Finally, the study examined only one type of relationship in each relational context, focusing on the closest companion in both real life and the media. These specific targets are important as they play a central role in many people's lives, serve as role models, and are important references for people's life choices. In the mediated context, it has even been suggested that favorite television characters can serve as shields of sorts against sensitive or stereotypical patterns of media portrayals, in what has been termed the "drench" hypothesis (Aubrey & Harrison, 2004). At the same time, it is important to remember that both best friends and favorite mediated personalities exist within a constellation of different relationships, all of which exert influences on the individual. In the mediated context, this has sometimes been referred to as the "drip drip" hypothesis (Reep & Dambrot, 1989), whereby the overall experience with patterns of mediated portrayals and representations immerses the viewer and determines media effects. Future research would benefit from examining the larger context of social relationships and PSRs, both weak and strong, liked and disliked, and how these ties interrelate and impact one another and the individual.

CONCLUSION

Through a direct comparison of PSRs and friendships, this study finds the two are similar with respect to relational maintenance. Both models of

interpersonal and mediated communication applied nearly equally well to both types of relationships, despite differences in the strength of associations with close friends and favorite mediated personalities. It appears people experience their PSRs relatively similarly to their real-life relationships. Where differences were identified, they could largely be attributed to the fact that PSRs, after all, do serve primarily positive functions for individuals and are more easily discarded than friendships once they cease to fulfill these roles. It is important to note that the study established support for an exploratory model of parasocial relational strength by identifying several factors (e.g., relational commitment, investment, and the integration of these relationships within larger social contexts) that have thus far been largely unexplored in mediated relationships yet seem to be important for the maintenance of PSRs.

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