

Unfulfilled Romantic Needs: Effects of Relationship Status, Presence of Romantic Partners, and Relationship Satisfaction on Romantic Parasocial Phenomena

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The question whether parasocial phenomena are developed as a kind of social surrogacy has been much discussed—and mostly answered with “no.” However, former studies focused on amicable parasocial phenomena neglecting romantic facets. To close this research gap, this article investigated the effect of one’s unfulfilled romantic-related needs on romantic parasocial interactions (romantic PSIs) and relationships (romantic PSRs). The first quasi-experiment ($N = 96$) revealed that singles form stronger romantic PSIs than people that are in a romantic relationship and that the presence of the partner during reception decreased the intensity of romantic PSIs by tendency. The second quasi-experiment ($N = 358$) investigated the influence of relationship status and satisfaction on long-term romantic PSRs. Again, singles developed stronger romantic PSRs than people that are in a romantic relationship. Furthermore, the more satisfied people were with their current romantic relationship, the less intense romantic PSRs they developed. Briefly summarized, these results add to the social surrogacy hypothesis with regard to romantic parasocial phenomena.

Public Policy Relevance Statement

Dependent on their relationship status, the presence of their relationship partners, and their relationship satisfaction, people vary in the romantic attraction they experience toward a media character. Due to acute unfulfilled romantic needs, singles experience stronger so-called romantic parasocial interactions and relationships with media characters, whereas people who watch a movie with their partner or are generally satisfied in their relationship experience weaker romantic parasocial phenomena. These findings are new and add to the social surrogacy hypothesis, which assumes that people can use contact with media characters to compensate for lack of real-life social contacts to a certain degree.

Keywords: romantic parasocial phenomena, relationship status, coviewing, relationship satisfaction, unfulfilled needs

Ever since Horton and Wohl (1956) initially introduced the term *parasocial* to describe interactions and relationships between media users and media characters, one of the most discussed questions is whether parasocial phenomena are a functional alternative of social

contact for individuals with real-life social deficits (cf. Derrick et al., 2009; Eggermont & Vandebosch, 2001; Hartmann, 2016; Rubin et al., 1985). After 65 years of research, although the findings are heterogeneous, the predominant answer to the so-called *social surrogacy hypothesis* (cf. Derrick et al., 2009) is “no”: Lonely people do not engage more intensely with media characters than individuals with fewer social deficits (cf. Tukachinsky et al., 2020). However, this answer is not representative for all facets of parasocial phenomena, as previous research mainly focused on parasocial phenomena with an amicable nature resembling platonic interactions and relationships among friends (e.g., Chory-Assad & Yanen, 2005). This research focus neglected other more specific facets of parasocial phenomena, such as romantic parasocial phenomena, which are marked by intense emotional, physical, and sexual attraction (Tukachinsky, 2010). The strong bias toward the investigation of amicable parasocial phenomena is present in a wide range of different research subjects (e.g., Breves et al., 2021; Eyal & Cohen, 2006). However, it is especially critical when investigating the compensational function of parasocial phenomena, as the heterogeneity within the findings on the

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compensatory function of parasocial phenomena might be explained by the fact that only specific forms of parasocial phenomena can serve as social surrogacy for specific forms of social deficits (cf. Hartmann, 2016). Reflecting this reality, romantic parasocial phenomena might not be particularly beneficial for individuals that have social deficits in general but for individuals who have unfulfilled romantic needs.

The current article attempts to close this research gap by conducting two quasi-experimental studies on the role of unfulfilled romantic needs for the development of romantic parasocial interactions (PSIs) and relationships (PSRs).

Theoretical Background

Romantic Parasocial Phenomena: Definition of the Concept

Initially introduced by Horton and Wohl (1956), the term PSI describes a mediated form of social interaction between media characters and the audience that is one-sided. PSIs are quite similar to face-to-face interactions between two real individuals except that PSIs are missing mutuality, whereas real social interactions feature bidirectional communications (Klimmt et al., 2006). Moreover, PSIs are limited to the interactions between media characters and the audience and may therefore only occur during media reception (Schramm & Hartmann, 2008). However, the involvement of media users with media characters can also endure beyond watching a movie or reading a book. Reflecting this reality, the concept of PSIs was extended to PSRs (cf. Liebers & Schramm, 2019). PSRs can be described as cross-situational relationships between media users and characters that, unlike PSIs, can endure beyond reception (cf. Schramm & Hartmann, 2008).

To date, the majority of studies on parasocial phenomena have investigated amicable PSIs or PSRs (Liebers & Schramm, 2019). Nevertheless, real social interactions and relationships generally involve more facets than merely amicable ones. Reflecting this reality, a recent research trend extends beyond solely amicable parasocial phenomena to include other facets of parasocial phenomena such as romantic parasocial phenomena (Liebers & Schramm, 2017; Tukachinsky & Dorros, 2018). Whereas amicable parasocial phenomena primarily comprise feelings such as commitment and support, romantic parasocial phenomena are manifested by emotional, physical, and sexual attraction (Tukachinsky, 2010) as well as fantasizing about a media character (Erickson & Dal Cin, 2018).

Accordingly, romantic PSIs are defined as interactions between a media user and a media character that occur during a media reception and are marked by mental, physical, and sexual attraction toward the media character. Romantic PSRs are also marked by mental, physical, and sexual attraction toward the media character but endure beyond media reception (cf. Liebers & Straub, 2020).

Current Research State on the Compensational Function of Romantic Parasocial Phenomena

Although several studies focused on the (negative) consequences of romantic parasocial phenomena on the belief system and the worldview of media users in general and young women in particular

(Erickson & Dal Cin, 2018; Tukachinsky & Dorros, 2018), the potential compensatory function of romantic parasocial phenomena attracted barely attention in former research. However, Adam and Sizemore (2013) attended to the question of people's motivation to form romantic PSRs by conducting a survey comparing the perceived benefits and costs of real-life relationships and romantic PSRs and revealed relevant findings. Their results indicated that the benefits of romantic PSRs and real-life relationships are quite similar and include increased well-being, happiness, and decreased loneliness. Moreover, they find evidence that these perceived benefits increase with increasing intensity of the romantic PSR. When comparing costs, they further find that romantic PSRs involve lower costs than real-life relationships, as for example, with regard to the time to meet other people and worries about the relationship. Particularly the latter, fewer worries about the relationship, is a critical advantage as within romantic PSRs, the risk of getting rejected and emotionally hurt is much lower than in real-life relationships (cf. Erickson et al., 2018). From a social exchange perspective, this advantage makes the engagement in romantic parasocial phenomena an attractive alternative, as the benefits of the romantic bonding with a media character outweigh its costs (cf. Osborn, 2012).

Other studies in the broader context of nonromantic parasocial phenomena indicate compensational benefits of the romantic bonding with a media character, as well. Aubrey et al. (2018) and Greenwood and Long (2011), as an example, show that individuals that have no romantic relationship in their lives or are unsatisfied in their relationships develop stronger PSRs with media characters from the opposite gender. Assuming that the majority of their participants identifies their sexual orientation as straight, the authors imply a romantic component of these PSRs. Although these studies did not use a quantitative measure of a romantic parasocial phenomenon, their findings suggest that individuals with unfulfilled romantic needs form stronger PSRs.

Concluding, although former research in the context of amicable parasocial phenomena found (at best) mixed findings with regard to the social surrogacy hypothesis (cf. Hartmann, 2016; Tukachinsky et al., 2020), research on the benefits and personal motivations to form romantic parasocial phenomena allow the assumption that romantic parasocial phenomena may (up to a certain degree) indeed have a compensational function. Reflecting this reality, individuals with romantic-related social deficits or, more precisely, unfulfilled romantic needs in their real-lives should be particularly prone to engage in romantic parasocial phenomena. This should include both—romantic PSIs during media reception and, in the longer term, romantic PSRs with media characters. With the aim of a profound investigation, two studies were conducted to close this research gap, with Study 1 focusing on romantic PSIs and Study 2 investigating romantic PSRs.

Study 1

Study 1 focuses on the influence of unfulfilled romantic needs on the development of romantic PSIs. In line with the social surrogacy hypothesis (Derrick et al., 2009) and as outlined before, individuals with more unfulfilled romantic needs should develop more intense romantic PSIs during media reception. Reflecting this reality, singles that should, on average, have more unfulfilled romantic needs than people that are in a romantic relationship should be more prone to seek out romantic encounters with media characters. Hence:

Hypothesis 1: Singles experience more intense romantic PSIs than people that are in a romantic relationship.

However, individuals that are in a romantic relationship vary in their fulfillment of romantic needs as well. Besides the general fulfillment of romantic needs in the relationship (e.g., relationship satisfaction), one possible factor that might especially be important when investigating romantic PSIs, ergo the momentary romantic involvement with a media character, is the varying fulfillment of romantic needs due to the presence resp. absence of the romantic partner. The fulfillment of romantic needs might vary in the way that the need for emotional or sexual interaction, on average, should be more fulfilled if their partner were present than absent. In line with our first hypothesis and the assumed compensational nature of romantic parasocial phenomena, the hypothesis is:

Hypothesis 2: People that are in a romantic relationship and whose partner is absent during the media reception experience more intense romantic PSIs than people that are in a romantic relationship and whose partner is present.

Method

Procedure

To test the hypotheses, a 2 (Relationship Status) $\times$ 2 (Coviewing Partner) between-subjects quasi-experiment in a public cinema center in Germany was conducted. Participants were recruited after they had watched one of three possible movies (*Wonder Woman*, *Baywatch*, or *Transformers 5*). It was decided to include three different movies rather than just one in this study, so the results of the study are more generalizable. Those movies were selected because they all offered at least one female and one male main character with whom the audience might develop a romantic PSI. After the participants had watched one of those movies and left the theater, four recruiters waited for them and asked them to voluntarily fill out a short questionnaire about the movie they had watched. If they agreed to participate in the study, the recruiters handed them a leaflet with a QR code such that the participants could answer the questionnaire on their smartphones in private.

After participants had scanned the QR code, the participants were informed of the study and gave their informed consent by advancing the study. Then, they were asked to indicate which movie they had just watched. According to their answers, all female and male main characters in the movie were listed, and participants were requested to choose the media character to whom they felt the most sexually and emotionally attracted. After that, participants answered questions regarding the romantic PSI they experienced with this media character. Further, they responded to questions regarding with whom they had watched the movie, their relationship status, their sexual orientation, and several pieces of demographic information including age, gender, education, and current occupation.

Dependent on their relationship status (single vs. currently in a romantic relationship) and their coviewing partner (romantic partner [e.g., boyfriend, wife, etc.] vs. nonromantic partner [e.g., platonic friend, sibling, etc.]), participants were assigned to the experimental groups. Moviegoers that went alone to the cinema were not included in the study as the general presence/absence of

coviewing partners compared with watching a movie alone is known to influence the involvement (e.g., transportation) of a media user and would have distorted our findings (cf. Tal-Or, 2016). Although there are generally four experimental groups when using a 2 $\times$ 2 between-subjects design, only three experimental groups for the current study were created because two states were mutually exclusive: being single and watching the movie with a romantic partner. Accordingly, the three experimental groups of this study were (a) singles who watched the movie with a nonromantic partner, (b) people who were currently in a relationship but watched the movie with a nonromantic partner, and (c) people who were currently in a relationship and watched the movie with their romantic partner.

Participants

A total of 121 moviegoers completed the questionnaire; several participants were excluded from further analysis because of one of several limitations. Moviegoers were eliminated for selecting a media character that did not fit their sexual orientation, such as the woman who indicated she was straight and chose a female media character. Another exclusion criterion was watching the movie alone as already described in the procedure of the study.

After excluding the participants as explained above, the final sample consisted of $N = 96$ participants. The majority of participants were male (62.50%), and their ages ranged from 18 to 53 ($M = 27.65$, $SD = 9.41$)¹. Most participants had received a high school diploma (59.38%), and the rest had a formal lower education degree. At the time of the study, approximately half of the sample were employed (52.08%), followed by students (25.00%) and trainees (13.54%). The vast majority of participants were straight (92.71%); others were gay, bisexual, or did not elect to indicate their sexual orientation. With regard to relationship status, $n = 37$ were single, and $n = 59$ were currently in a relationship (intimate romantic relationship with or without marriage). Of the participants who were currently in a relationship, $n = 40$ watched the movie with their partner, and $n = 19$ watched the movie with someone else. Accordingly, they were assigned to one of the three experimental groups.

Measurement

Currently, there are two measurement instruments to identify romantic PSRs (Erickson & Dal Cin, 2018; Tukachinsky, 2010) but no measurement instrument to identify romantic PSIs, which should focus on the processes during media consumption rather than on long-term relationships between media characters and the audience. To not only measure romantic attraction but also capture the specific process of PSI and following the procedure of Liebers and Straub (2020), items from two different scales were used: eight items of the PSI-Process Scales (Schramm & Hartmann, 2008) and 10 items of the Multiple Parasocial Relationships Scale (MPRS; Tukachinsky, 2010). Although the items of the MPRS originally were developed to capture romantic PSRs instead of romantic PSIs, the items themselves do not refer to a specific time-frame. Consequently, although designed to capture long-term

¹ Assuming no differences in the experience of romantic PSIs between different cultures or ethnic groups, neither of these variables was measured in the current study.

romantic attachment of a media user, they principally can also be used to measure the romantic attraction of a media user to a media character during reception. Moreover, to make sure that the measurement captures romantic PSIs, a short instruction was inserted that explicitly asked participants to think about their feelings and thoughts related to the media character during the reception while answering the items.

In the next step, an exploratory factor analysis was conducted to investigate the underlying subdimensions of the romantic PSI². The factor analysis revealed a three factors structure (see Appendix for more information on the analysis). In line with Tukachinsky (2010), the first factor resembles Emotional Love and includes items like "For me, my movie character could be the perfect romantic partner." (eight items; Cronbach's $\alpha = .86$; $M = 2.48$, $SD = 1.00$). The second factor resembles Tukachinsky's (2010) Physical Love and includes items like "My movie character is very sexy looking." (four items; Cronbach's $\alpha = .86$; $M = 4.88$, $SD = 0.83$). In addition, a third factor was extracted that resembles immediate interaction and parasocial responses to the media character during the reception and includes items like "I watched closely how my movie character behaved." (six items; Cronbach's $\alpha = .76$; $M = 3.80$, $SD = 0.96$).

Results

All descriptive results of the participants depending on their relationship status and the presence/absence of the partner are summarized in Table 1. Because the current study followed a quasi-experimental design and there was no randomized assignment to the experimental groups, differences between the groups other than the independent variables were possible. With regard to demographics, the experimental groups differed in age and gender (see Table 2), which is why these variables, as well as educational degree and the specific movie that the participants watched, were inserted as covariates in the following analyses.

To test the first hypothesis, a multivariate analysis of covariance (MANCOVA) with the relationship status as the independent variable and participants' age, gender, and educational degree, as well as the movie participants watched as covariates, was conducted. The three subdimensions of the romantic PSI (*emotional love*, *physical love*, and *interaction and response*) were inserted as outcome variables. Using Hotelling's trace statistic, there was a significant effect of the relationship status on the romantic PSI, $T = 0.11$, $F(3, 88) = 3.33$, $p = .023$, $\eta^2 = .102$. Separate univariate tests on the subdimensions of romantic PSIs revealed significant effects of relationship status on the subdimensions *emotional love*, $F(5, 90) = 9.17$, $p = .003$, $\eta^2 = .092$, and *interaction and response*, $F(5, 90) = 5.26$, $p = .024$, $\eta^2 = .055$, but not on the subdimension *physical love*, $F(5, 90) = 0.84$, $p = .361$, $\eta^2 = .009$. With regard to the covariates, participant's age positively predicted *physical love*, and men experienced stronger *physical love* than women. All results of the MANCOVA, including the effect of the covariates, are summarized in Table 3.

To test the second hypothesis, a second MANCOVA was conducted with the presence/absence of the romantic partner as the independent variable and participants' age, gender, and educational degree, as well as the movie participants watched as covariates. Thus, only participants who were in a relationship were included in the analyses. Again, the three subdimensions of the romantic PSI (*emotional love*, *physical love*, and *interaction and response*)

were inserted as outcome variables. Using Hotelling's trace statistic, there was a marginal significant effect of the partner's presence on the romantic PSI, $T = 0.15$, $F(3, 51) = 2.61$, $p = .062$, $\eta^2 = .133$. Separate univariate tests on the subdimensions of romantic PSIs revealed significant effects of the partner's presence on the subdimensions *emotional love*, $F(5, 53) = 5.26$, $p = .026$, $\eta^2 = .090$, and *physical love*, $F(5, 53) = 4.15$, $p = .047$, $\eta^2 = .073$, but not on the subdimension *interaction and response*, $F(5, 53) = 0.26$, $p = .615$, $\eta^2 = .005$. All results of the MANCOVA, including the effect of the covariates, are summarized in Table 4.

Discussion

Whereas previous studies presented evidence that relationship status influenced the intensity of parasocial phenomena with opposite-gender media characters and explained this by romantic and sexual attraction (Greenwood & Long, 2011), this study identified explicit evidence of singles having more intense romantic PSIs than people who were currently in a relationship. Thus, the current research, for the first time, empirically supports theoretical interpretations of previous findings. Moreover, the nuanced investigation of the underlying subdimensions of romantic PSIs offers greater insight, as they show that singles form stronger emotional connections to media characters and interact more intensely with them but do not feel significantly greater physical attraction.

Besides, the current study presented evidence of the influence not only of personal social circumstances in general but also the specific social situations during media consumption on the intensity of romantic PSIs. The results suggest by tendency but not at a significant level that the romantic PSIs of people who were in a relationship and watching a movie with their romantic partners were overall less intense than the romantic PSIs of people who were in a relationship but watched the movie with someone else. More nuanced analyses revealed a significant effect of the presence/absence of the partner on emotional and physical love but not the interaction with the media character.

Reflecting this reality under the perspective of the social surrogacy hypothesis (cf. Derrick et al., 2009), these findings suggest that people with unfulfilled romantic needs develop enhanced romantic PSIs and experience, in particular, more emotional love toward the media character. However, a potential methodological issue resulting from the quasi-experimental design is that the situation during the answering of the online questionnaire and, therefore, the social desirability of the experimental groups may have differed. Although participants were encouraged to answer the questions privately on their smartphones, people who watched the movie with a romantic partner may have felt more reluctant to indicate their sexual and emotional attraction to a media character when their romantic partner stood right beside them than people whose romantic partners were not present while answering the questionnaire. Moreover, comparing the absence versus presence of a romantic partner during a cinema visit is a highly external valid setting but also a very specific scenario, which is why the

² Tukachinsky (2010) already presented two subdimensions (emotional love and physical love). However, since the measurement instrument is used to measure romantic PSIs here and was combined with the items by Schramm and Hartmann (2008) in the current study, conducting a separate factor analysis seemed adequate.

Table 1*Romantic PSIs According to Relationship Status and Presence/Absence of the Partner (N = 96)*

Subdimensions of romantic PSIs	In a relationship (n = 59)					
	Single (n = 37)		Partner absent (n = 19)		Partner present (n = 40)	
	M	SD	M	SD	M	SD
Love emotional	2.96	0.93	2.57	0.88	1.99	0.91
Love physical	5.01	0.83	5.17	0.75	4.61	0.80
Interaction and response	4.11	0.84	3.62	1.14	3.60	0.92

Note. PSIs = parasocial interactions.

generalized conclusion that individuals with unfulfilled romantic needs engage more actively in romantic parasocial phenomena is in doubt. With the aim for more generalization, a second study on the influence of unfulfilled romantic needs on the development of romantic parasocial phenomena was conducted.

Study 2

The second study aimed to generate more generalizable findings with regard to the extent that unfulfilled romantic needs foster the development of romantic PSRs. Romantic PSIs, as they were investigated in Study 1, are limited to the experience of romantic attraction toward a media character during media reception (while watching a movie, reading a book, etc.). However, romantic bonding with a media character can also proceed beyond media reception and manifest in rather long-term romantic PSRs. In line with the findings of Greenwood and Long (2011) on stronger PSRs with opposite-gender media characters and the results of the first study on more intense romantic PSIs dependent on the relationship status of individuals, single should form more intense romantic PSRs than individuals that are in a romantic relationship:

Hypothesis 3: Singles experience more intense romantic PSRs than people that are in a romantic relationship.

Broadly spoken, it was assumed that singles form stronger romantic parasocial phenomena due to unfulfilled romantic needs. In Study 1, this hypothesis was investigated among others by testing if individuals

that watched a movie together experienced less romantic PSIs than individuals whose partner was absent during the movie. However, the absence/presence of a romantic partner is a very specific and momentary effect, whereas people that are in a relationship might also vary greatly in their fulfillment of romantic needs, in general, depending on their relationship satisfaction (cf. Prager & Buhrmester, 1998). Again, reflecting the reality that individuals with more unfulfilled social needs in real-life should be in particular prone to develop intense romantic parasocial phenomena, the intensity of romantic PSRs should increase with decreasing relationship satisfaction:

Hypothesis 4: The less satisfied an individual is with his/her current romantic relationship, the more intense this individual's romantic PSR.

Method

Procedure

To test the hypotheses of the second study, a quasi-experiment with a two-level between-subjects design was conducted with relationship status being the experimental factor (single vs. currently in a romantic relationship). Unlike the first study, the second study took place online and did not include a specific reception situation or specific movies. Instead, participants were asked to name a media character they feel sexually and romantically attracted to from a movie they recently watched. There were no limitations on

Table 2*Overview of the Experimental Groups (N = 96)*

Demographics and movies	Experimental groups			Significant difference ^a
	Single (n = 37)	In a relationship, partner absent (n = 19)	In a relationship, partner present (n = 40)	
Gender				Yes
Male	28	14	18	
Female	9	5	22	
Age	24.41	31.37	28.88	Yes
Education				No
High school diploma	20	14	23	
Lower degree	17	5	17	
Movie watched				No
Wonder Woman	16	8	9	
Baywatch	5	4	14	
Transformers 5	16	7	17	

^a Adequate tests dependent on the scale level of the dependent variable were chosen (chi-square tests as well as *t* test).

Table 3
MANCOVA Results for the Influence of Relationship Status on Romantic PSIs ($N = 96$)

Predictors	Love emotional		Love physical		Interaction and response	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Relationship status	9.17	.003	0.84	.361	5.26	.024
Age	0.01	.906	4.40	.039	0.18	.676
Gender	1.54	.219	10.20	.002	0.05	.819
Educational degree	9.41	.003	2.84	.095	1.38	.242
Movie	0.02	.902	0.37	.543	1.49	.226

Note. MANCOVA = multivariate analysis of covariance; PSIs = parasocial interactions.

which movie or character the participants were allowed to choose, resulting in a wide range of reported characters and movies. Examples include *Debora* from the movie *Baby Driver*, *George* from the movie *Erin Brockovich*, *Princess Jasmine* from the movie *Aladdin*, and *Magic Mike* from the movie *Magic Mike XXL*. Asking participants to name a media character that they already had contact with before the participation in the study resulting in a wide range of characters and greater generalizability of the results is a common practice within research on parasocial phenomena (e.g., Cohen, 2004; Liebers & Schramm, 2017; Tukachinsky, 2010).

At the beginning of the online questionnaire, the participants were informed of the study and gave their informed consent by advancing the study. Then, they were asked to answer questions on their demographics, including relationship status. After that, those that indicated to be in a relationship were asked to rate their relationship satisfaction, whereas singles went directly to the next page. Each participant was then asked to name a media character he/she feels sexually and romantically attracted to from a movie he/she recently watched (as described above) and to indicate the romantic PSR the participant experienced since watching the movie.

Participants

Participants were recruited with the help of an online panel (SoSci Panel; Leiner, 2016). A total of 650 volunteers participated in the study. However, a great number of participants had to be excluded from further analyses as they could not remember a specific media character they felt attracted to, or they chose a media character not matching their sexual orientation (for a more detailed description of this criterion, see Study 1).

After excluding the participants as explained above, the final sample consisted of $N = 358$ participants. The majority of participants were female (62.85%), and their ages ranged from 18 to 81 ($M = 39.31$, $SD = 14.06$)³. Most participants had received a high school diploma (89.94%), and the rest had a formal lower education degree. At the time of the study, approximately half of the sample were employed (60.61%), followed by students (18.72%). The vast majority of participants were straight (89.11%); others were gay, bisexual, or did not elect to indicate their sexual orientation. With regard to relationship status, $n = 122$ were single, and $n = 236$ were currently in a relationship (intimate romantic relationship with or without marriage).

Measurement

Although Study 1 employed 5-point Likert scales, the current study employed 7-point Likert scales with the aim to decrease ceiling effects and increase variance.

Romantic PSRs were measured with 11 items from the MPRS by Tukachinsky (2010), reflecting the two subdimensions *love emotional* and *love physical*. In opposition to Study 1, this study focusses on rather long-term romantic PSRs (instead of romantic PSIs) and includes no specific media reception situation, which is why the measurement of Tukachinsky (2010) reflects this understanding well without the need to combine it with PSI-specific items like the PSI-Process Scales (cf. Schramm & Hartmann, 2008). Consequently, *emotional love* was measured with eight items (e.g., "I idealize my movie character." Cronbach's $\alpha = .86$; $M = 2.26$, $SD = 1.18$), and *physical love* was measured with four items (e.g., "My movie character is very sexy looking." Cronbach's $\alpha = .93$; $M = 4.42$, $SD = 1.68$).

The measurement of relationship satisfaction was based on Hendrick (1988). Hendrick (1988) measures relationship satisfaction with the help of seven items reflecting different key aspects of intimate relationships. Examples include "How much do you love your partner?" and "How well does your partner meet your needs?" All seven items were employed in the current study to reflect relationship satisfaction (Cronbach's $\alpha = .88$; $M = 5.84$, $SD = 0.90$).

Results

All descriptive results of the participants depending on their relationship status are summarized in Table 5. Because the current study followed a quasi-experimental design and there was no randomized assignment to the experimental groups, differences between the groups other than the independent variables were possible. With regard to demographics, the experimental groups differed neither in age, gender, nor educational degree (see Table 6) at a significant level. For good measure, the demographic variables were nonetheless inserted as covariates in the following analyses.

To test the third hypothesis, another MANCOVA with the relationship status as the independent variable and participants' age, gender, and educational degree as covariates was conducted. The two subdimensions of the romantic PSR (*emotional love* and *physical love*) were inserted as outcome variables. Using Hotelling's trace statistic, there was a significant effect of the relationship status on the romantic PSR, $T = 0.03$, $F(2, 358) = 5.56$, $p = .004$, $\eta^2 = .031$. Separate univariate tests on the subdimensions of romantic PSRs revealed significant effects of relationship status on the subdimensions *emotional love*, $F(4, 353) = 9.04$, $p = .003$, $\eta^2 = .025$, and *physical love*, $F(4, 353) = 6.30$, $p = .012$, $\eta^2 = .018$.

³ Assuming no differences in the experience of romantic PSRs between different cultures or ethnic groups, neither of these variables was measured in the current study.

Table 4*MANCOVA Results for the Influence of the Partner's Presence on Romantic PSIs (n = 59)*

Predictors	Love emotional		Love physical		Interaction and response	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Presence of the partner	5.26	.026	4.15	.047	0.26	.615
Age	0.18	.675	1.20	.279	2.53	.118
Gender	0.00	.973	1.63	.207	0.51	.479
Educational degree	2.76	.103	2.64	.110	0.62	.435
Movie	1.24	.271	0.09	.767	0.00	.978

Note. MANCOVA = multivariate analysis of covariance; PSIs = parasocial interactions.

With regard to the covariates, participant's age negatively predicted *physical love*, and men experienced stronger *physical love* than women. All results of the MANCOVA, including the effect of the covariates, are summarized in Table 7.

The last hypothesis was tested with the help of two multiple regression analyses with the relationship satisfaction, gender, age, and educational degree as independent variables and *emotional love* (Analysis 1) and *physical love* (Analysis 2) as outcome variables. Thus, only participants that were in a relationship were included in the analyses. The first analysis revealed a significant negative effect of relationship satisfaction on *emotional love* ($b = -.21$, $p = .012$), and none of the covariates had a significant effect, $F(4, 231) = 2.55$, $p = .042$, $R^2 = .04$. The second analysis revealed a marginal significant negative effect of relationship satisfaction on *physical love* ($b = -.22$, $p = .086$). Moreover, gender had a significant effect, with men scoring higher on *physical love* than women but none of the other covariates, $F(4, 231) = 4.40$, $p = .002$, $R^2 = .07$.

Discussion

In line with the results of Study 1, the findings of Study 2 support the assumption that singles experience stronger romantic parasocial phenomena than individuals that are in a romantic relationship. Moreover, a more nuanced analysis revealed that singles score higher on both *emotional love* and *physical love* toward a media character. This finding stands partly in contrast to the findings of Study 1 that reported an enhanced emotional love but not physical love toward a media character for singles.

With regard to the influence of relationship satisfaction on romantic PSRs, the analysis supports the predicted negative effect of relationship satisfaction on the subdimension emotional love of the romantic PSR. Thus, the less satisfied an individual is with his/her relationship, the more intense is this person's romantic emotional bonding with a media character. With regard to the subdimension *physical love*, there is a trend in the data but no support

at a significant level of the hypothesis that less satisfied individuals experience stronger physical love with media characters.

General Discussion and Implications

Contribution to the Current State of Research

With the help of two studies in different settings (cinema vs. at home), this article found evidence that singles develop more intense romantic PSIs and PSRs than individuals with a romantic relationship across a wide range of different movies and characters. Moreover, results on the influence of the presence resp. absence of the romantic partner during media reception and the relationship satisfaction on the development of romantic parasocial phenomena reinforce the theoretical assumption that individuals use romantic parasocial phenomena to compensate for unfulfilled romantic needs. While doing so, the findings of the current studies suggest that emotional closeness with the media character is more important than physical attraction toward the media character. The tendency of emotional aspects being more relevant than physical aspects within romantic parasocial phenomena is interesting because it resembles former findings on the influence of romantic PSRs on romantic socialization by Tukachinsky and Dorros (2018). Whereas the findings by Tukachinsky and Dorros (2018) revealed that particularly adolescents' emotional love for a media character impacts individuals' adult romantic beliefs and perception of the partner, the current studies found that individuals with a romantic deficit (singles or individuals with low relationship satisfaction) predominantly develop stronger emotional but not necessarily physical love for a media character. Tukachinsky and Dorros (2018) explain their findings, among others, by romantic love being a substantially stronger human drive than the sex drive (cf. Fisher, 2006). This explanation can be transferred to the current studies: With individuals having a stronger drive for romantic love in the form of an emotional connection than for sexual gratification, it should be more important to compensate for the lack of emotional closeness one experiences in real-life than the potential lack of

Table 5*Romantic PSRs According to Relationship Status (N = 358)*

Subdimensions of romantic PSRs	Single (n = 122)		In a relationship (n = 236)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Love emotional	2.52	1.26	2.12	1.11
Love physical	4.75	1.56	4.25	1.71

Note. PSRs = parasocial relationships.

physical closeness. This, in turn, should translate in a stronger influence of individuals' romantic deficits in real-life on emotional aspects than physical aspects of romantic parasocial phenomena, as it was found within the current studies. This explanation seems promising, and future studies can use the findings on the relevance of emotional closeness compared with physical closeness in their investigation of romantic parasocial phenomena. This might be particularly fruitful when potential gratifications of romantic parasocial phenomena (e.g., feeling less lonely) are investigated.

Summarizing these findings, the current studies offer additional evidence for the much-discussed question if parasocial phenomena may serve as a kind of social surrogacy (for an overview, see Hartmann, 2016). Although many studies found no support of a compensational function of parasocial phenomena (cf. Tukachinsky et al., 2020), the results on the influence of relationship status, satisfaction, and absence of the romantic partner add to the assumption that contact with media characters might—to a certain degree—compensate for social deficits in real-life (cf. Derrick et al., 2009). One possible reason for the contrary findings in the current article is (as outlined in the theoretical background of this article) the investigation of a specific form of social deficit (unfulfilled romantic needs) and parasocial phenomena that match this social deficit well (romantic PSIs and PSRs). From a theoretical perspective, Hartmann (2016) already assumed that the heterogeneity within the findings on the much-discussed compensational function of parasocial phenomena might be attributed to the fact that only specific forms of parasocial phenomena might be beneficial for specific forms of social deficits. As of now, the vast majority of research on parasocial phenomena in general as well as their compensational function focused on a very broad understanding of parasocial closeness, mostly resembling friendship (cf. Liebers & Schramm, 2019). Hence, prior research on the compensational function of parasocial phenomena often investigated if general loneliness comes along with a rather nonspecific positive relationship to a media character (Perloff & Krevans, 1987). The work of Tukachinsky (2010) is slowly shifting this tendency by theoretically emphasizing the need for a separation of different facets of parasocial phenomena and also providing a measurement tool to capture amicable versus romantic parasocial phenomena. The findings of the current studies provide additional evidence that this separation is needed as they suggest that romantic parasocial phenomena might indeed be used to cope with social deficits, whereas the current state of research predominantly suggests that this is not true for amicable parasocial phenomena. By doing so, the findings not only advance our understanding of social surrogacy by interactions and

Table 7

MANCOVA Results for the Influence of Relationship Status on Romantic PSRs (N = 358)

Predictors	Love emotional		Love physical	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Relationship status	9.04	.003	6.30	.012
Age	1.69	.194	6.50	.011
Gender	3.11	.079	22.68	<.001
Educational degree	1.43	.233	1.32	.251

Note. MANCOVA = multivariate analysis of covariance; PSRs = parasocial relationships.

relationships with media characters but the nature of parasocial phenomena in general.

Limitations and Future Research

With the aim to investigate the influence of unfulfilled needs on the development of romantic parasocial phenomena as it occurs naturally in everyday life, the current article used quasi-experimental research designs within its studies. Despite the advantages with regard to external validity, this methodological approach led to a decrease in the internal validity of the results. To cope with this weakness, several potential confounding variables such as age or educational degree of the participants were included as covariates within the statistical analyses of both studies. The inclusion of these covariates thereby revealed an influence of several demographical variables on the development of romantic parasocial phenomena that was not discussed in detail up until now because the influence of demographical variables is not the focus of this article. Nevertheless, the findings are interesting and offer prospects for future research on romantic parasocial phenomena. One finding that might be particularly relevant in the future is that men were more prone to develop romantic PSIs and PSRs than women. This finding is surprising as previous research had a strong focus on women suggesting that they had a particular strong tendency to engage in romantic parasocial phenomena (Aubrey et al., 2018; Erickson & Dal Cin, 2018). The results of this article stand in contrast to the former assumptions and indicate that a change of thinking and a switch toward a broader investigation of romantic parasocial phenomena beyond young females is necessary.

Although several covariates were carefully considered within the measurements and analyses of the studies, other potential confounding variables were not given adequate attention. One of these variables is the prior exposure to the media character resp. his*her actor*actress. Having no leads that prior exposure should vary across the experimental groups and therefore assuming no systematical distortion of the findings, prior exposure received no consideration in this article. However, parasocial phenomena develop over time (cf. Tukachinsky & Stever, 2019), and future studies should measure and statistically control for this variable—especially when using a quasi-experimental design. In line with this, another potential confounding variable when incorporating a coviewing situation (as Study 1 did) is the general closeness of the coviewing partners. Within Study 1, the separation between *romantic partner* and *not romantic partner* is very simplified—especially because coviewing can shape one's reception experience in various ways (cf. Tal-Or, 2019). Future studies should measure the relationship and closeness of the coviewing partners in more detail to be able to control for unwanted effects.

Table 6

Overview of the Experimental Groups (N = 358)

Demographics	Single (<i>n</i> = 122)	In a relationship (<i>n</i> = 236)	Significant difference ^a
Gender			No
Male	47	85	
Female	75	150	
Diverse	0	1	
Age	38.55	39.70	No
Education			No
High school diploma	110	212	
Lower degree	12	24	

^a Adequate tests dependent on the scale level of the dependent variable were chosen (chi-square tests as well as *t* test).

Moreover, the current studies assume that being single, having an absent partner, or experiencing low relationship satisfaction comes along with a deficit, which, in turn, individuals try to compensate by engaging more actively in romantic parasocial phenomena. However, this is only a theoretical assumption, and the explanation is not empirically validated yet. As to now, alternative explanations cannot be ruled out, as illustrated by the following example. It might also be possible that the individuals that were presented as having romantic deficits within the current studies actually do not experience deficits or are unsatisfied but rather have more emotional capacity for romantic parasocial phenomena as they do not have to put their romantic effort into real-life relationships at this very moment. To validate the deficit framing of the current article, future studies on the topic should include an explicit measurement of the romantic deficit that individuals experience, for example, the subjective romantic loneliness. By doing so, these studies would be able to include this deficit in their subsequent analyses in the form of a mediation variable, which might help to explain the underlying mechanisms.

Despite the investigation of covariates or the inclusion of additional mediating variables, another critical limitation of the current research is the missing of causal relations. This, particularly, applies to Study 2, which used a solely correlational design. Within this study, it was assumed that individuals with low relationship satisfaction have unfulfilled romantic needs in real-life, which they try to compensate for by forming stronger romantic parasocial phenomena. Despite the theoretical background of this hypothesis, which is rooted within the social surrogacy hypothesis (Derrick et al., 2009), the effect of the relationship status (singles reporting stronger romantic parasocial phenomena) supports this approach. However, an alternative explanation for the correlation between relationship satisfaction and intensity of romantic PSRs is also possible: Individuals might have formed unrealistic standards on romantic relationships by engaging in romantic PSRs and might therefore experience lower satisfaction in their real-life relationships (cf. Tukachinsky & Dorros, 2018). Future research, for example, in the form of a long-term longitudinal study, is needed to clarify the causal relation (if any exists) between the variables.

In addition, future research could extend the approach of the current study in several other manners by considering new questions that arise from the current research. One question that inevitably emerges is whether the influence of the relationship status, presence/absence of a partner, and relationship satisfaction are limited to romantic PSIs and PSRs. Neither the influence of romantic parasocial phenomena on enjoyment, pleasure, and resulting mood nor the direct influence of the romantic related needs on these variables was investigated but appear to be promising. Beyond that, the current study attended solely to romantic PSIs and PSRs after watching a single movie and therefore investigated momentary effects, whereas past research identified evidence that parasocial phenomena become enhanced with time (Eyal & Dailey, 2012). The extent to which the influence of unfulfilled romantic needs emerge when longer-term media content such as a TV series is watched is currently unclear. According to the findings of the current article, one may assume that people would develop less intensive romantic PSRs with a serial character if that person is satisfied with her/his love life.

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Appendix

Exploratory Factor Analysis of Romantic PSIs With Media Characters

A principal axis factor analysis on the 18 items measuring romantic parasocial interactions was conducted using oblique rotation (direct oblimin). All KMO values for individual items were at least .60 or greater, which is above the acceptable limit of .50, and the sampling for the analysis was adequate, as verified by the Kaiser–Meyer–Olkin value of

.80 (cf. Kaiser & Rice, 1974). Before the factors were extracted, an initial analysis was conducted to obtain the eigenvalues for each factor. Four factors had an eigenvalue over 1.00 (Kaiser's criterion), but the inflections of the scree plot advert to a three-factor solution. Accordingly, three factors were retained.

Table A1

Exploratory Factor Analysis Results for Romantic PSIs (N = 96)

Item	Rotated factor loadings ^a			Original source of the item
	Love emotional	Love physical	Interaction and response	
In the longer term, I think that my movie character and I are just meant for each other.	0.80	0.19	–0.04	Tukachinsky (2010)
I wish my movie character could know my thoughts, my fears, and my hopes.	0.79	–0.14	–0.17	Tukachinsky (2010)
I adore my movie character.	0.76	0.09	0.13	Tukachinsky (2010)
My movie character influences my mood.	0.66	0.06	0.10	Tukachinsky (2010)
I want my movie character physically, emotionally, and mentally.	0.63	0.34	0.02	Tukachinsky (2010)

(Appendix continues)

Table A1 (*continued*)

Item	Rotated factor loadings ^a			Original source of the item
	Love emotional	Love physical	Interaction and response	
I pondered whether I know people who resemble my movie character.	0.60	−0.03	−0.02	Schramm and Hartmann (2008)
For me, my movie character could be the perfect romantic partner.	0.56	0.34	0.17	Tukachinsky (2010)
Sometimes, I have thought about whether my movie character is similar to me.	0.55	−0.20	0.28	Schramm and Hartmann (2008)
I find my movie character very attractive.	0.05	0.84	0.05	Tukachinsky (2010)
I think my movie character is quite handsome/pretty.	−0.09	0.82	0.24	Tukachinsky (2010)
My movie character is very sexy looking.	0.06	0.81	0.10	Tukachinsky (2010)
My movie character fits my ideal standards of physical beauty.	0.33	0.64	−0.25	Tukachinsky (2010)
I watched closely how my movie character behaved.	−0.21	0.13	0.75	Schramm and Hartmann (2008)
I reacted rather matter-of-factly and emotionally unfazed toward my movie character. ^b	−0.13	0.17	0.73	Schramm and Hartmann (2008)
I have noticed characteristics about my movie character, which I like or dislike.	0.26	0.04	0.61	Schramm and Hartmann (2008)
When my movie character was doing badly, I was also doing badly; when my movie character was doing well, I was also doing well.	0.25	−0.06	0.58	Schramm and Hartmann (2008)
Occasionally, I downright loved my movie character for what he/she has done.	0.37	−0.02	0.56	Schramm and Hartmann (2008)
I intensely thought about why my movie character behaved as he/she did.	0.22	−0.36	0.52	Schramm and Hartmann (2008)
Eigenvalue	5.83	2.55	1.90	
% of variance explained	32.38	14.17	10.55	

Note. PSIs = parasocial interactions. Table A1 shows the factor loadings after rotation, with factor loadings over .40 in bold.

^a Please note that in explorative factor analyses, the signs of the factor loadings are indeterminate. Accordingly, you can change all the signs in a column of the factor loading matrix, and this would not affect the correlation matrix. ^b Inverse item that was recoded.

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