

INVESTIGATING BIAS TOWARD PEOPLE WITH PARASOCIAL RELATIONSHIPS

by  
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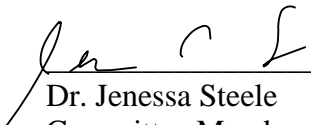
  
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### **Abstract**

The present study examined the potential biases that might exist toward individuals who have parasocial relationships (PSRs), which are defined as one-sided relationships with media figures. Alongside biases, we also examined other perceptions of these individuals, such as competence and warmth, social, physical, and task attraction, and behavioral intentions. Additionally, the present study tested whether any of these perceptions would be influenced by an individual's own self-identification of having a PSR. This was examined by presenting participants ( $N = 202$ ) with vignettes that were about either an individual with a real-life friend or an individual with a PSR. After reading the vignettes, participants were asked to answer questions assessing their perceptions of the individual they read about. Results showed that individuals with PSRs were viewed as less socially attractive. Results also showed that there was a significant interaction of condition and self-identification of having a PSR on ratings of competence and warmth, social and task attractiveness, and on behavioral intentions such that those with PSRs gave higher, more positive ratings toward those with PSRs. These findings suggest there is bias toward individuals with PSRs; however, self-identifying as having a PSR can reduce this bias and be related to more positive views toward others with PSRs.

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### **Investigating Bias Toward People with Parasocial Relationships**

Picture this: After years of following your favorite band or artist on social media, purchasing their albums and merchandise, and watching them on TV anytime they performed, you *finally* got tickets to see them live. Can you feel the excitement, the adrenaline? The feeling of “man, I hope they play my favorite song”? The feeling of your ears ringing and your heart pounding after it’s over? These characteristics are typical of an individual who has developed a parasocial relationship (PSR), or a one-sided relationship with a media figure (Horton & Wohl, 1956). Now, imagine this: You go to tell your friend the next day about the concert, hoping they would feign excitement for you, but then you remember that they think it is weird for someone to enjoy a band so much. Instead, you think to yourself, “Maybe I should avoid telling my friend; they might judge me for being so excited over these tickets.” This feeling is a direct result of your friend’s biases toward people with PSRs. They find people who adore celebrities weird; therefore, they might judge me for being so excited that I finally get to see this band live. This study will examine how people view those with parasocial relationships and the potential stereotypes associated with people who have parasocial relationships.

PSRs, although not investigated exclusively until the 1950s, have undoubtedly been around for a long time. Human beings are social in nature, and they have a strong, innate desire to establish relationships with other human beings (Baumeister & Leary, 1995). However, this desire is not limited to face-to-face relationships. Although the in-person companionship of an interpersonal relationship is something many people relish, it might not be ideal for everyone. Alternatively, PSRs may fulfill belonging needs for some individuals. Over the years, there have been two dominant theories as to why individuals develop PSRs—the substitution hypothesis (Tsao, 1996; Tukachinsky et al., 2020) and the Panksepp-Jakobson hypothesis (Stever, 2017).

The substitution hypothesis argues that individuals develop PSRs because they seek comfort in the fact that their favorite media figure would never reject them (Tukachinsky et al., 2020). Additionally, this hypothesis goes on to suggest that individuals who have insufficient social lives or perhaps struggle with the creation and maintenance of real-life relationships are more prone to forming PSRs (Tsao, 1996). Alternatively, the Panksepp-Jakobson hypothesis was formed somewhat as a rebuttal to the substitution hypothesis, and it argues that individuals form PSRs due to an innate ability to perceive media figures as though they exist within the individual's environment (Stever, 2017). Stever (2017) also stated that this innate ability exists because of an attraction that human beings feel toward the faces and voices of other human beings. Another widely accepted explanation for the inclination to form PSRs is simply that the individual may feel physical attraction to a media figure, or they may find that they have similar personality traits to the media figure (Tukachinsky et al., 2020).

PSRs can serve as points of social interaction for many individuals, fulfilling this innate need to connect with others, but without the burden of real interpersonal interaction (Aytulun & Sunal, 2020; Horton & Wohl, 1956). Although there can be several reasons that an individual develops a PSR, the process in which an individual selects and nurtures their pseudo relationship closely mimics the way in which individuals select real-life friends. After an individual consumes media featuring their favored media figure, it is then up to the individual to decide what they think of the media figure; are they up to their social standards? Is this a person they could see themselves befriending (Perse & Rubin, 1989; Skumanich & Kintsfather, 1998)? This process of selecting PSRs is similar to the process individuals use in real-life situations, and is potentially a very active and involved process.

### **Benefits of PSRs**

PSRs have been known to provide an individual with several benefits. First, as PSRs do not require a genuine, in-person social interaction, the individual has the ability to insert themselves into pseudo-social situations with their favored media figure, thus being able to escape the pressure and anxiety they might feel in a real social situation (Aytulun & Sunal, 2020). These relationships may also offer individuals a sense of belonging, once again, without the added stress of an in-person interaction. For example, when individuals think about their favorite television show, they experience a heightened sense of belonging as opposed to when they think about a television show that is not their favorite (Derrick et al., 2009). Similarly, Derrick (2012) found that individuals who completed a task that placed strain on their self-control (e.g., a writing task or regulating their emotions) would seek out their favorite television program afterward in an effort to combat their negative mood. This suggests that when an individual watches their favorite television program they can insert themselves into social situations that they control, thus replenishing feelings of self-control.

PSRs have also been shown to provide many intrapersonal benefits to an individual. For example, among low self-esteem individuals, having a PSR that the individual sees as close to their ideal self helps people to perceive themselves more positively (Derrick et al., 2008). Derrick and colleagues (2008) found that low self-esteem individuals perceived themselves as closer to their ideal self when primed with their favorite celebrity. On the same note, women who perceive their bodies as similar to a media figure or who have been exposed to a celebrity they share a PSR with and perceive as “thin” tend to feel better about their bodies. These reactions suggest not only that representation in media is important, but that having a PSR can help women have a better body image (Young et al., 2012). PSRs have been found to boost the body image and physical strength of men as well (Young et al., 2013). Young and colleagues (2013)

found that men who were exposed to a muscular superhero that they share a PSR with did not experience a blow to their self-esteem and, in fact, had a stronger performance on a handgrip test. These reactions suggest that men with PSRs are able to reap the same benefits to their body image and self-esteem that women do. Additionally, PSRs appear to provide benefits to individuals who have experienced trauma (Gabriel et al., 2017). Gabriel and colleagues (2017) found that individuals who experienced trauma were more likely to lean on PSRs when they felt lonely, particularly among individuals showing symptoms of post-traumatic stress disorder (PTSD; Gabriel et al., 2017). Similarly, individuals who suffered trauma, but did not have PTSD, felt stronger feelings of social connection after thinking about their PSR (Gabriel et al., 2017). These findings suggest that individuals who experience traumatic events may be inclined to turn to their favorite media figure for social support and to eliminate feelings of loneliness.

Because PSRs are an important part of many individuals' day-to-day lives, it is important to understand not only the benefits that individuals can derive from them, but also to understand the way that society perceives individuals who maintain PSRs. Individuals who believe they are viewed negatively because of their PSRs may avoid forming PSRs and, in turn, may miss out on the potential benefits PSRs provide.

### **Individual Differences in PSRs**

Much of the existing research on PSRs focuses on how personality relates to PSR experiences. When an individual has a PSR with a favored media figure, it makes sense that they might watch the media figure's television show or movie, attend their live shows, buy their merchandise, follow them on social media, etc. These are all stereotypical behaviors of someone who has a PSR. These behaviors may also be influenced by individual differences. For example, individuals higher in need to belong are more likely to form PSRs (Knowles, 2007). Tsay and



Bodine (2012) identified components of parasocial interactions (PSIs) that are differentially associated with separate personality traits. The components of PSIs include guidance, which is perceiving a favored media figure as a role model; desire for face-to-face contact, which is wanting to meet a favored media figure in person; closeness, which is sharing an intimate relationship with a favored media figure; and direct behaviors, which is seeking out information about or talking to a favored media figure. Tsay and Bodine (2012) found specifically that neuroticism was strongly positively associated with all of these components of PSIs. Further, individuals high in openness to new experiences and high in agreeableness were more likely to perceive their PSR as intimately close, those high in need to belong were less likely to seek out guidance from their PSR, but more likely to desire face-to-face contact from their PSR, and individuals high in need for control were more likely to seek guidance from, feel intimately close to, and participate in direct behaviors with their PSR (Tsay & Bodine, 2012).

Similarly, individuals who are high in perspective-taking, which is a component of empathy that allows individuals to easily adapt to the perspectives of others, are more likely to have more intense PSR experiences and more likely to seek enjoyment from these experiences (Hartmann & Goldhoorn, 2011). Finally, individual differences in attachment styles predict likelihood to form PSRs (Cole & Leets, 1999). Individuals who have anxious-ambivalent attachment styles are the most likely to have PSRs, and individuals who have avoidant attachment styles are the least likely to have PSRs. Additionally, individuals with secure attachment styles are only more likely to have PSRs if they are also high in distrust. This suggests that individual differences can change the way an individual forms and experiences their PSRs; this also suggests that individuals can form PSRs for different reasons. These

findings demonstrate that those with PSRs differ in many ways and these individual differences can lead to differences in PSR experiences.

Although there is much research on associations between personality and PSR experiences, there is little research on perceptions of people with PSRs. Often, the stereotype of a PSR is a teenage girl obsessing over the latest boyband or a hunky actor in the most recent romantic comedy, but, as past research has told us, this certainly is not the case. Although past literature on PSRs focused mostly on women, PSRs are not something only formed by teenage girls; PSRs are maintained by both men and women across a variety of age groups. There have been no significant differences found between men and women and their PSRs (Shedlosky-Shoemaker et al., 2014). Shedlosky-Shoemaker and colleagues (2014) tested whether gender of participants interacted with an individual's self-expansion through fictional worlds and concluded that gender did not play a role in the formation of PSRs.

Although much of the research done on PSRs has been with young adults and adults, research has shown that people of all ages can have PSRs. It has been found that children as young as 2 years old are able to have PSRs, which was measured by the child's ability to name their favored media figure (Richards & Calvert, 2017). In a participant pool including children ranging in age from 2 to 6 years old, Richards and Calvert (2017) also found that the older children became and the more complex their social interactions became, the more likely children were to view their favored media figure as a friend. Further, female participants were more likely than male participants to perceive their favorite character as "cute." These findings suggest that even at an early age, children can establish these relationships and they even use the same criteria as adults do. These findings looking at gender and age suggest that although people may

have stereotypes of people with PSRs, these stereotypes may not be accurate and, in turn, could result in bias toward people with PSRs.

### **Stereotyping and Bias**

Bias reflects prejudice or unwarranted judgements held by individuals. Bias is typically demonstrated when individuals allow their stereotypes, beliefs about a group of people that are portrayed often but are not always true, to overrule their personal experiences. These implicit feelings and outward reflections happen regardless of whether individuals' stereotypes contain negative connotations (Bielby, 2000). Bias and stereotyping have been seen in the perceptions of outgroup members. People are often stereotyped on two major dimensions: warmth and competence (Cuddy et al., 2007). Many factors, such as age or gender, can predict whether an individual is perceived as warm, which is whether a person is seen as kind or cold, or competent, which is whether a person is seen as incapable or intelligent (Fiske et al., 2002). Fiske and colleagues (2002) found that factors such as perceived social status of an outgroup and emotions felt toward an outgroup are correlated with warmth and competence perceptions of an outgroup. Additionally, individuals' emotions can influence the content of stereotypes and even encourage individuals to act in a stereotype consistent manner toward outgroup members (Cuddy et al., 2007). Cuddy and colleagues (2007) also found that the emotions felt toward stereotyped groups are related to potential behaviors, such as a general dislike or even disrespect, directed toward those groups.

Bias has also been found within attitudes toward fandoms, which is defined as a community of individuals who all admire the same show, movie, series, media figure, sport, etc., as well as attitudes toward certain individuals within fandoms (Cohen et al., 2017; Orme, 2016). Individuals who engage in PSRs and PSIs with media figures might claim to be a part of that

media figure's or that media's fandom. Although these fandoms may seem like a safe space for individuals who find comfort in their PSRs or PSIs, there are many stereotypes and a good deal of bias that surround fans and fandoms. This problem of negative stereotyping of fans has become such an issue in fandoms that many individuals choose not to disclose that they are part of a fandom, out of fear that they will be judged or be shown negative bias (Orme, 2016).

There is also a degree of bias regarding the type of fandoms individuals belong to. Research has compared levels of stigmatization regarding two different fandoms: sci-fi/fantasy and sports (Cohen et al., 2017). Cohen and colleagues (2017) provided participants with detailed descriptions of male and female fans who were involved in either a sci-fi fandom or a sports fandom and then asked the participants to rate their interpersonal attraction (social, physical, and task attraction) to the individuals in the descriptions. Overall, individuals were more likely to rate sci-fi fans as less physically attractive and less socially attractive than sports fans—however, sci-fi fans were rated higher on task attraction than sports fans (Cohen et al., 2017). Additionally, descriptions of males engaged in a sci-fi fandom were ranked even less physically attractive and less socially attractive than the descriptions of female sci-fi fans (Cohen et al., 2017).

Another study examined these same fandoms and expanded on the previous research. Seate and colleagues (2020) investigated the role social identity and outgroup perceptions played in perceptions of the interpersonal attractiveness of sci-fi and sports fans. They found that sci-fi fans were seen as more task attractive, thus guiding the assumption that sci-fi fans are perceived as more competent than sports fans (Seate et al., 2020). The authors also found positive correlations between ratings of social and task attraction and ratings of active facilitations, which are being likely to help someone and passive facilitations, which are being likely to associate with someone, with negative correlations with passive harm, which is being likely to exclude

someone; overall, this is suggesting that when an individual is perceived as highly social and task attractive, individuals will have more positive behavioral intentions toward them (Seate et al., 2020). Additionally, Seate et al. (2020) found that, within sci-fi fandoms, individuals were more likely to rate their ingroup as more socially attractive than the outgroup, which were sports fans. This provides additional evidence that individuals prefer other people who share parts of their social identities.

### **The Present Study**

The present study investigates the perception of individuals who have PSRs, and examines the degree, if any, of bias toward individuals with PSRs. Participants were given a brief description of a person with a PSR and a person without a PSR. They then rated the individual in the description on measures of warmth and competence as well as task, social, and physical attractiveness. Participants were also given a scale meant to assess stereotypes of people with PSRs (e.g., they do not have many friends) as well as behavioral intentions toward the person in the brief description. They also completed questions to assess who they imagined when reading the description (i.e., what gender, age, etc.). Participants also responded to items to assess their own self-identification of having a PSR. Based on the previous research on bias in general as well as bias toward people with fandoms, the following hypotheses were tested:

*Hypothesis 1:* Individuals will rate people with PSRs as less competent than people without PSRs.

*Hypothesis 2:* Individuals will rate people with PSRs as less warm than people without PSRs.

*Hypothesis 3:* Individuals will rate people with PSRs as less socially attractive than people without PSRs.

*Hypothesis 4:* Individuals will rate people with PSRs as less physically attractive than people without PSRs.

*Hypothesis 5:* Individuals will rate people with PSRs as less task attractive than people without PSRs.

*Hypothesis 6:* Individuals will rate people with PSRs higher in PSR stereotypes than people without PSRs.

*Hypothesis 7:* Individuals will express more positive behavioral intentions toward individuals without PSRs than individuals with PSRs.

*Hypothesis 8:* Individuals will be more likely to imagine a female than a male in the PSR condition.

*Hypothesis 9:* Individuals who self-identify as having a PSR will rate people with PSRs as higher in competence, warmth, social attractiveness, physical attractiveness, and task attractiveness and lower in PSR stereotypes, as well as have more positive behavioral intentions toward them than individuals who do not self-identify as having a PSR.

## **Method**

### **Participants**

We recruited 202 participants total after completing data screening through a convenience sample using Radford University's Psychology Department Participation Pool. Their ages ranged from 17 to 40 ( $M = 19.38$ ,  $SD = 2.16$ ). Participants were 146 females, 48 males, 7 that selected other, and 1 that preferred not to answer. The race/ethnicity of the participants was 62.9% White, 21.3% Black, 3.0% Hispanic, 1.5% Asian, and 10.9% selected other.

### **Design**

This study was a 2 (Condition: PSR vs. Friend) x 3 (Self-identification of a PSR: Yes vs. No vs. Maybe) level between-subjects quasi-experimental design where participants were randomly assigned to read a description of a person with a PSR or a person who does not have a PSR, but rather has a close, real-life friend.

### **Procedure**

Participants were recruited through Radford University's Psychology Department's participant pool (SONA; Sona Systems Ltd., Tallin, Estonia) and voluntarily signed up to participate; in exchange for participation, participants received course credit. Participants completed the study via Qualtrics (Qualtrics Inc., Provo, UT). Participants were first presented with an informed consent sheet (see Appendix A) that detailed the purpose of the study as how we perceive different types of people. After carefully reading over the informed consent, participants were told that if they would like to participate to click the arrow to continue or if they would not like to participate to click the x in the upper, right-hand corner.

Participants were randomly placed into one of two conditions describing either a scenario of an individual with a PSR or a scenario of an individual with a real-life friend, and participants were asked to thoroughly read the scenario on the screen. The continue arrow that appeared at the bottom of the page did not appear for 45 seconds to give participants time to imagine the scenario. Then they answered questions about the person they thought about in the scenario. First, participants completed ratings of warmth and competence (Landy et al., 2016; Ren & Evans, 2021) about the person they read about. Then, participants completed measures of task, social, and physical attractiveness (McCroskey & McCain, 1974). Following this, participants completed a behavioral-intentions measure about the person they read about (Strosser et al., 2016). Then, participants were asked items related to stereotypes of people with PSRs (adapted

from Scherer et al., 2022). Finally, participants responded to demographic items and questions about whether they have a PSR or not and the PSI scale (Rubin et al., 1985). Once they completed all measures, participants were debriefed, in which they were informed that the purpose of the study was to assess the degree to which they feel bias toward an individual who has a PSR (see Appendix B).

## **Materials**

**Scenarios.** Different scenarios were created to depict an individual with a PSR and an individual who does not have a PSR, but instead has a close, real-life friend. The scenarios did not include demographics such as age or gender—instead the participants were asked what gender and age range they pictured the individual to be based on the description (see description assessment below). Additionally, participants were prompted to write any other details they wished to disclose about the individual they pictured based on the description (see Appendix C for scenarios).

**Competence.** Participants' perceptions of the target person's competence were assessed using the competence subscale (Landy et al., 2016). The competence subscale assesses perceptions of competence by having individuals rank the degree to which they felt the individual in the description had a particular trait. This included six items, with traits such as “competent” and “capable.” Response options ranged from 1 (not at all competent) to 9 (competent), for example, with higher scores indicating higher competence ratings. All items were averaged together to create a composite scale. The scale was reliable with a Cronbach's alpha of .89 ( $M = 6.42$ ,  $SD = 1.48$ ; see Appendix D).

**Warmth.** Participants' perceptions of the person's warmth were assessed using three items (Ren & Evans, 2021). The warmth subscale assessed perceptions of warmth by having



individuals rank the degree to which they felt the individual in the description had a particular trait. This included the traits “kind,” “warm,” and “friendly.” Response options ranged from 1 (not at all kind/warm/friendly) to 9 (kind/warm/friendly) with higher scores indicating higher warmth ratings. All items were averaged together to create a composite scale. The scale was reliable with a Cronbach’s alpha of .85 ( $M = 7.24$ ,  $SD = 1.42$ ; see Appendix D).

**Social Attraction.** Participants’ likeliness to perceive an individual with a PSR as socially attractive was assessed using the social attraction subscale by McCroskey and McCain (1974). This measure included 10 items, such as “It would be difficult to meet and talk with them” and “I think they could be a friend of mine.” Response options ranged from 1 (strongly agree) to 7 (strongly disagree) with higher scores indicating higher social attraction. Items were reverse scored as necessary and all items were averaged together to create a composite. The scale was reliable with a Cronbach’s alpha of .86 ( $M = 4.52$ ,  $SD = 1.04$ ; see Appendix E).

**Physical Attraction.** Participants’ likeliness to perceive an individual with a PSR as physically attractive was assessed using the physical attraction subscale by McCroskey and McCain (1974). This measure included 10 items, such as “I think he (she) is quite handsome (pretty)” and “I find them very attractive physically.” Response options ranged from 1 (strongly agree) to 7 (strongly disagree) with higher scores indicating higher physical attraction. Items were reverse scored as necessary and all items were averaged together to create a composite. The scale was reliable with a Cronbach’s alpha of .89 ( $M = 4.69$ ,  $SD = 1.05$ ; see Appendix E).

**Task Attraction.** Participants’ likeliness to perceive an individual with a PSR as task attractive was assessed using the task attraction subscale by McCroskey and McCain (1974). This measure included 10 items, such as “I have confidence in their ability to get the job done” and “They would be a poor problem solver.” Response options ranged from 1 (strongly agree) to

7 (strongly disagree) with higher scores indicating higher task attraction. Items were reverse scored as necessary and all items were averaged together to create a composite. The scale was reliable with a Cronbach's alpha of .90 ( $M = 4.79$ ,  $SD = 1.09$ ; see Appendix E).

**Stereotypes Toward People with PSRs.** The degree to which individuals have stereotypes about people who have PSRs was assessed using an adapted version of Stereotypes Toward People with PSRs Scale (Scherer et al., 2022). This measure included eight items, such as "This person probably lacks good social skills" and "This person probably has lots of friends." Response options ranged from 1 (disagree completely) to 7 (agree completely) with higher scores indicating higher stereotypes. Items were reverse scored as necessary and all items were averaged together to create a composite. The scale was reliable with a Cronbach's alpha of .90 ( $M = 3.50$ ,  $SD = 1.22$ ; see Appendix F).

**Behavioral Intentions.** Participants' behavioral intentions were assessed using an adapted version of the Behavioral Intentions Scale (Strosser et al., 2016). The behavioral intentions scale assessed behavioral intentions by questioning individuals about the degree to which they would behave toward the person they were asked to imagine based on the description. This scale included 19 items with statements such as "What is the likelihood that you would study with this person?" and "What is the likelihood that you would be friends with this person?" Two additional items were added: "What is the likelihood that you would ignore/exclude this person in a social setting?" and "What is the likelihood that you would ignore/exclude this person in a work setting?" Response options ranged from 1 (extremely unlikely) to 7 (extremely likely).

We conducted an exploratory factor analysis on all 19 items of the Behavioral Intentions Scale (Strosser et al., 2016) and the two new items. To test the factor structure of the Behavioral

Intentions Scale, a principal components factor analysis with varimax rotation was conducted for the items (see Figures 1 and 2). The factor analysis identified three factors with an eigenvalue greater than one, which accounted for 70% of the variance, explaining 55%, 10%, and 5%, respectively. The final factors included General Socialization Behaviors: 14 items ( $\alpha = .96$ ), ( $M = 4.50$ ,  $SD = 1.37$ ); Trustworthy Behaviors: 3 items ( $\alpha = .74$ ), ( $M = 2.84$ ,  $SD = 1.46$ ); and Ignoring Behaviors: 2 items ( $r(200) = .81$ ), ( $M = 2.54$ ,  $SD = 1.47$ ). Three scales were created by averaging the items to represent these three factors (see Appendix G for original items and see Appendix H for breakdown of factors) (see Appendix I: Figure 1 for factor loadings, Figure 2 for Scree Plot). On the General Socialization and Trustworthy Behaviors scales, higher scores indicated more positive behavioral intentions, and on the Ignoring Behaviors scale, higher scores indicated more negative behavioral intentions. However, all three factors of the behavioral intentions scales correlated with all other dependent variables; general socialization behaviors and trustworthy behaviors correlated positively with dependent variables whereas ignoring behaviors correlated negatively. This suggests that convergent validity amongst the new factors

**Description Assessment.** Participants' interpretation of the description of the person was assessed using four items. "When reading the description, what gender did you imagine the person being?" with "male," "female," "other," and "I didn't imagine any particular gender" being the response options and "When reading the description, what age (in years) did you imagine the person being?" with a text entry response where participants typed the age they imagined. Participants were also asked "What type of celebrity did you imagine?" with response choices being "musician," "actor/actress," "athlete," and "other," which had a text entry box to allow participants to specify if necessary. Finally, this was assessed by asking participants "Is there anything else you would like to tell us about the person you imagined when reading the

scenario?” with a text entry response where participants typed any additional information they wished to share (see Appendix J).

**Self-identification of a PSR.** The degree to which participants believe they have a PSR was assessed using two items. But first, participants read a description of a PSR, which was defined as follows:

Many people have a favorite celebrity or media figure (e.g., a television character, actor/actress, news anchor, musician, etc.). The strength of an individual’s liking for a media figure can vary from mild to very strong. For some individuals, a favorite media figure can feel like a close friend. The figure may seem familiar and predictable – almost as if the individual knows and understands the media figure as one does a close friend. When an individual feels this degree of closeness with a favorite media figure, it is called a parasocial relationship.

After reading the definition, participants were then asked the following 2 items—“Do you believe you have a parasocial relationship with your favorite celebrity?” which required a yes/no/maybe response scale as well as a continuous measure, “Please indicate the degree to which you believe you have a parasocial relationship with your favorite celebrity,” which had response options that ranged from 1 (I definitely do not have a parasocial relationship) to 7 (I definitely have a parasocial relationship), ( $M = 2.86$ ,  $SD = 1.84$ ; see Appendix K).

Descriptive analyses were run in order to identify the number of participants who identified that yes, they do believe they have a PSR, that maybe they believe they have a PSR, and that no, they do not believe they have a PSR. Twenty-nine participants (less than 15%) self-identified as having a PSR, 133 participants self-identified as not having a PSR, and 40 participants self-identified as maybe having a PSR.

**PSI Scale.** Participants' own PSI (parasocial interaction, defined as the types of interactions with a favored media figure and the degree to which an individual wishes to have them) status was assessed using an adapted version of the 10-item PSI Scale (Rubin et al., 1985). The PSI scale assesses PSI by questioning individuals about the degree to which they interact with a favored media figure. Response options ranged from 1 (strongly disagree) to 5 (strongly agree) with higher scores indicating higher levels of PSI. This scale includes statements such as "I would like to meet my favorite celebrity in person." Items were reverse scored as necessary and all items were averaged together to create a composite. The scale was reliable with a Cronbach's alpha of .83 ( $M = 3.45$ ,  $SD = .64$ ; see Appendix L). This scale was included for future exploratory purposes.

See Table 1 for means and standard deviations of each dependent variable as well as correlations between all dependent variables.

## Results

### Data Screening

In order to clean the data set and ensure the best possible responses were analyzed, the following precautions were taken. In a step-wise order, 14 participants who failed two attention checks were removed, then 11 participants who did not complete at least 60% of the survey and 50% of each scale were removed first, then 13 participants who gave the same responses on reverse-coded items as non-reverse-coded items on two or more scales were removed, and zero participants who were three SDs below the mean time it takes to complete the survey were removed, leaving a final sample of 202 participants.

### Main Analyses

For Hypotheses 1 and 2, which stated that participants would rate those with PSRs as less competent and less warm, a one-way MANOVA was conducted to test the warmth and competence perceptions on individuals with PSRs. Multivariate tests revealed no significant main effect of PSR condition, Pillai's Trace = .001,  $F(2, 199) = 0.10$ ,  $p = .909$ , partial  $\eta^2 = .001$ . There was not a significant effect of condition on competence ratings,  $F(1, 200) = .001$ ,  $p = .969$ , partial  $\eta^2 < .001$ . Those rating a person in the PSR condition did not view the person as less competent ( $M = 6.43$ ,  $SD = 1.52$ ) than those rating a person in the friend condition ( $M = 6.43$ ,  $SD = 1.44$ ). There was not a significant effect of condition on warmth ratings,  $F(1, 200) = .10$ ,  $p = .748$ , partial  $\eta^2 = .001$ . Those rating a person in the PSR condition did not view the person as less warm ( $M = 7.21$ ,  $SD = 1.33$ ) than those rating a person in the friend condition ( $M = 7.30$ ,  $SD = 1.51$ ). This does not support Hypotheses 1 or 2.

For Hypotheses 3-5, which stated that participants would rate those with PSRs as less socially, physically, and task attractive, a one-way MANOVA was conducted to test the perceived social attractiveness, physical attractiveness, and task attractiveness of individuals with PSRs. Multivariate tests revealed a marginally significant effect of PSR condition, Pillai's Trace = .04,  $F(3, 198) = 2.55$ ,  $p = .057$ , partial  $\eta^2 = .037$ .

In examining the effect of the condition, there was a significant effect of social attractiveness. Analysis of the univariate tests showed that those rating a person in the PSR condition rated them as less socially attractive ( $M = 4.37$ ,  $SD = 1.04$ ) than those rating a person in the friend condition ( $M = 4.68$ ,  $SD = 1.01$ ),  $F(1, 200) = 4.77$ ,  $p = .030$ , partial  $\eta^2 = .023$ . This did support hypothesis 3. There was not a significant effect of condition on physical attractiveness ratings,  $F(1, 200) = .08$ ,  $p = .783$ , partial  $\eta^2 < .001$ . Those rating a person in the PSR condition did not view the person as less physically attractive ( $M = 4.71$ ,  $SD = 1.14$ ) than

those rating a person in the friend condition ( $M = 4.66$ ,  $SD = .95$ ). There was not a significant effect of condition on task attractiveness ratings,  $F(1, 200) = 0.91$ ,  $p = .340$ , partial  $\eta^2 = .005$ .

Those rating a person in the PSR condition did not view the person as less task attractive ( $M = 4.71$ ,  $SD = 1.09$ ) than those rating a person in the friend condition ( $M = 4.86$ ,  $SD = 1.10$ ). These findings did not support Hypotheses 4 or 5.

For Hypothesis 6, which stated that participants would rate those with PSRs higher in PSR stereotypes, an independent samples t-test was conducted to examine whether individuals rated people with PSRs higher in PSR stereotypes than individuals without PSRs. There was not a significant difference in the ratings of PSR stereotypes,  $t(200) = 0.44$ ,  $p = .664$ ,  $d = .07$ . Those in the PSR condition ( $M = 3.54$ ,  $SD = 1.24$ ) did not rate the person as higher in PSR stereotypes than those in the friend condition ( $M = 3.46$ ,  $SD = 1.19$ ). This did not support Hypothesis 6.

For Hypothesis 7, which stated that participants would show more positive behavioral intentions toward those without PSRs, three independent samples t-tests were conducted to examine whether individuals would express more negative behavioral intentions toward individuals with PSRs than those who do not have PSRs. These t-tests were conducted on all three factors that emerged from the factor analysis. There was not a significant difference in ratings for the general socialization behaviors factor,  $t(200) = 0.17$ ,  $p = .864$ ,  $d = .02$ , the trustworthy behaviors factor,  $t(200) = 1.04$ ,  $p = .298$ ,  $d = .15$ , or the ignoring behaviors factor,  $t(200) = -0.71$ ,  $p = .478$ ,  $d = .10$ . Across the general socialization behaviors factor, the trustworthy behaviors factor, and the ignoring behavior factor respectively, those in the PSR condition ( $M = 4.48$ ,  $SD = 1.39$ ), ( $M = 2.73$ ,  $SD = 1.28$ ), ( $M = 2.62$ ,  $SD = 1.50$ ), did not show more negative behavioral intentions ratings than those in the friend condition ( $M = 4.51$ ,  $SD =$

1.36), ( $M = 2.95$ ,  $SD = 1.63$ ), ( $M = 2.47$ ,  $SD = 1.44$ ; see Appendix M; see also Table 2). This does not support Hypothesis 7.

For Hypothesis 8, which stated that participants in the PSR condition would more often perceive the individual in the description as female than they would male, a one-sample t-test was conducted, comparing the responses of male and female to the midpoint number between these two within the PSR condition. Males were coded as “1” and females were coded as “2.” We compared these responses to a value of 1.5. If the mean is significantly different from 1.5 and closer to 2, this suggests that people were more likely to view the person as female. If the mean is significantly different from 1.5 and closer to 1, this suggests that people were more likely to view the person as male. If the mean does not significantly differ from 1.5, this will suggest that people were not more likely to view the person as any particular gender. For those in the PSR condition, individuals appeared to imagine the individual that they read about as male more often than they imagined the individual as female, with 72% of participants choosing male ( $M = 1.28$ ,  $SD = .45$ ),  $t(98) = -4.77$ ,  $p < .001$ ,  $d = .48$ . This did not support Hypothesis 8.

For Hypothesis 9, which stated that participants who self-identify as having PSRs would rate individuals with PSRs as more competent, warm, socially, physically, and task attractive, as well as demonstrate less PSR stereotypes and show more positive behavioral intentions, a series of 2(Condition: PSR vs. Friend) x 3 (Self-Identification of a PSR: Yes, Maybe, No) ANOVA analyses were conducted to examine whether self-identification of a PSR (using the categorical, three-choice measure) moderates people’s reactions toward those with PSRs (on all of our DVs). For these analyses, follow-up analyses were conducted by comparing the three levels of self-identification of having a PSR within the friend and PSR conditions. Tukey HSD tests were used to assess differences across the three categories of self-identification of having a PSR.



In examining competence, the two-way ANOVA revealed there was a significant main effect for self-identification of having a PSR,  $F(2, 196) = 3.26, p = .041$ , partial  $\eta^2 = .03$ . Participants who self-identified as having a PSR reported higher competence ratings ( $M = 6.97, SD = 1.51$ ) than participants who self-identified as not having a PSR ( $M = 6.26, SD = 1.45$ ),  $p = .047, d = .48$ . Participants who self-identified as maybe having a PSR did not report higher competence ratings ( $M = 6.59, SD = 1.46$ ) than participants who self-identified as not having a PSR ( $M = 6.26, SD = 1.45$ ),  $p = .424, d = .23$ . There was also no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .528, d = .26$ . There was not a significant main effect of condition on competence ratings,  $F(1, 196) = 2.32, p = .130$ , partial  $\eta^2 = .01$ .

There was a significant interaction between condition and self-identification of having a PSR on competence ratings,  $F(2, 196) = 3.42, p = .035$ , partial  $\eta^2 = .03$ . For those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 6.16, p = .003$ , partial  $\eta^2 = .11$ . Those who self-identified as having a PSR reported higher competence ratings ( $M = 7.26, SD = 1.48$ ) than those who self-identified as not having a PSR ( $M = 6.10, SD = 1.51$ ),  $p = .017, d = .78$ . Additionally, those who self-identified as maybe having a PSR also reported higher competence ratings ( $M = 7.14, SD = 1.05$ ) than those who self-identified as not having a PSR ( $M = 6.10, SD = 1.51$ ),  $p = .030, d = .80$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .971, d = .09$  (see Figure 2). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on competence ratings,  $F(2, 97) = 0.43, p =$

.653, partial  $\eta^2 = .01$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 6.67$ ,  $SD = 1.53$ ), and those who self-identified as not having a PSR ( $M = 6.45$ ,  $SD = 1.37$ ),  $p = .867$ ,  $d = .15$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 6.23$ ,  $SD = 1.60$ ), and those who self-identified as not having a PSR ( $M = 6.45$ ,  $SD = 1.37$ ),  $p = .801$ ,  $d = .15$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .640$ ,  $d = .28$  (see Figure 2).

There was a marginally significant main effect for self-identification of having a PSR on warmth ratings,  $F(2, 196) = 2.54$ ,  $p = .081$ , partial  $\eta^2 = .03$ . Participants who self-identified as having a PSR reported marginally higher warmth ratings ( $M = 7.72$ ,  $SD = 1.42$ ) than participants who self-identified as not having a PSR ( $M = 7.10$ ,  $SD = 1.37$ ),  $p = .080$ ,  $d = .44$ . However, participants who self-identified as maybe having a PSR did not report higher warmth ratings ( $M = 7.36$ ,  $SD = 1.51$ ) than participants who self-identified as not having a PSR ( $M = 7.10$ ,  $SD = 1.37$ ),  $p = .562$ ,  $d = .18$ . There was also no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .540$ ,  $d = .25$ . There was not a significant main effect for condition on warmth ratings,  $F(1, 196) = 1.02$ ,  $p = .313$ , partial  $\eta^2 = .01$ .

There was a marginally significant interaction between condition and self-identification of having a PSR on warmth ratings,  $F(2, 196) = 2.63$ ,  $p = .075$ , partial  $\eta^2 = .03$ . For those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 5.63$ ,  $p = .005$ , partial  $\eta^2 = .10$ . Those who self-identified as having a PSR reported higher warmth ratings ( $M = 7.91$ ,  $SD = 1.24$ ) than those who self-identified as not having a PSR ( $M = 6.93$ ,  $SD = 1.36$ ),  $p = .022$ ,  $d = .75$ . Additionally, those who self-identified as

maybe having a PSR also reported higher warmth ratings ( $M = 7.79$ ,  $SD = .77$ ) than those who self-identified as not having a PSR ( $M = 6.93$ ,  $SD = 1.36$ ),  $p = .043$ ,  $d = .78$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .963$ ,  $d = .12$  (see Figure 3). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on warmth ratings,  $F(2, 97) = 0.40$ ,  $p = .671$ , partial  $\eta^2 = .01$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 7.52$ ,  $SD = 1.62$ ) and those who self-identified as not having a PSR ( $M = 7.30$ ,  $SD = 1.37$ ),  $p = .871$ ,  $d = .15$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 7.08$ ,  $SD = 1.81$ ) and those who self-identified as not having a PSR ( $M = 7.30$ ,  $SD = 1.40$ ),  $p = .816$ ,  $d = .14$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .657$ ,  $d = .26$  (see Figure 3).

There was a significant main effect of self-identification of having a PSR on social attractiveness ratings,  $F(2, 196) = 6.14$ ,  $p = .003$ , partial  $\eta^2 = .06$ . Participants who self-identified as having a PSR reported higher social attractiveness ratings ( $M = 5.00$ ,  $SD = .96$ ) than participants who self-identified as not having a PSR ( $M = 4.35$ ,  $SD = 1.06$ ),  $p = .004$ ,  $d = .64$ . Participants who self-identified as maybe having a PSR reported marginally higher warmth ratings ( $M = 4.76$ ,  $SD = .87$ ) than participants who self-identified as not having a PSR ( $M = 4.35$ ,  $SD = 1.06$ ),  $p = .057$ ,  $d = .42$ . There was no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .575$ ,  $d = .26$ . There was not a

significant main effect of condition on social attractiveness ratings,  $F(1, 196) = 0.05, p = .820$ , partial  $\eta^2 < .01$ .

There was a significant interaction between condition and self-identification of having a PSR on social attractiveness ratings,  $F(2, 196) = 3.10, p = .047$ , partial  $\eta^2 = .03$ . For those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 9.63, p < .001$ , partial  $\eta^2 = .16$ . Those who self-identified as having a PSR reported more social attractiveness ( $M = 5.17, SD = .92$ ) than those who self-identified as not having a PSR ( $M = 4.10, SD = .96$ ),  $p < .001, d = 1.14$ . Additionally, those who self-identified as maybe having a PSR also reported more social attractiveness ( $M = 4.81, SD = .98$ ) than those who self-identified as not having a PSR ( $M = 4.10, SD = .96$ ),  $p = .025, d = .73$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .551, d = .38$  (see Figure 4). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on social attractiveness ratings,  $F(2, 97) = .24, p = .784$ , partial  $\eta^2 = .01$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 4.83, SD = .99$ ) and those who self-identified as not having a PSR ( $M = 4.63, SD = 1.10$ ),  $p = .794, d = .19$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 4.73, SD = .80$ ) and those who self-identified as not having a PSR ( $M = 4.63, SD = 1.10$ ),  $p = .917, d = .10$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .956, d = .11$  (see Figure 4). There was a significant main effect of self-identification of having a PSR on physical attractiveness ratings,  $F(2, 196) = 5.07$ ,

$p = .007$ , partial  $\eta^2 = .05$ . Participants who self-identified as having a PSR reported higher physical attractiveness ratings ( $M = 5.19$ ,  $SD = 1.12$ ) than participants who self-identified as not having a PSR ( $M = 4.54$ ,  $SD = 1.04$ ),  $p = .007$ ,  $d = .60$ . Participants who self-identified as maybe having a PSR did not report higher social attractiveness ratings ( $M = 4.81$ ,  $SD = .90$ ) than participants who self-identified as not having a PSR ( $M = 4.54$ ,  $SD = 1.04$ ),  $p = .327$ ,  $d = .28$ . There was no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .280$ ,  $d = .37$ . There was not a significant main effect of condition on physical attractiveness ratings,  $F(1, 196) = 1.42$ ,  $p = .235$ , partial  $\eta^2 = .01$ .

There was not a significant interaction between condition and self-identification of having a PSR on physical attractiveness ratings,  $F(2, 196) = 1.13$ ,  $p = .324$ , partial  $\eta^2 = .01$ . However, for those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 4.70$ ,  $p = .011$ , partial  $\eta^2 = .09$ . There was a significant difference between those who self-identified as having a PSR ( $M = 5.38$ ,  $SD = 1.18$ ) and those who self-identified as not having a PSR ( $M = 4.49$ ,  $SD = 1.13$ ),  $p = .016$ ,  $d = .77$ . There was not a significant difference between those who self-identified as maybe having a PSR ( $M = 5.01$ ,  $SD = .90$ ) and those who self-identified as not having a PSR ( $M = 4.49$ ,  $SD = 1.13$ ),  $p = .211$ ,  $d = .51$ . Additionally, there was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .629$ ,  $d = .35$  (see Figure 5). This partially supports Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on physical attractiveness ratings,  $F(2, 97) = 0.99$ ,  $p = .375$ , partial  $\eta^2 = .02$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 4.99$ ,  $SD = 1.05$ ) and those who self-identified as not having a

PSR ( $M = 4.59$ ,  $SD = .94$ ),  $p = .341$ ,  $d = .40$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 4.67$ ,  $SD = .89$ ) and those who self-identified as not having a PSR ( $M = 4.59$ ,  $SD = .94$ ),  $p = .942$ ,  $d = .09$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .577$ ,  $d = .33$  (see Figure 5).

There was not a significant main effect of self-identification of having a PSR on task attractiveness ratings,  $F(2, 196) = 2.16$ ,  $p = .118$ , partial  $\eta^2 = .02$ . However, participants who self-identified as having a PSR reported marginally higher task attractiveness ratings ( $M = 5.16$ ,  $SD = 1.19$ ) than participants who self-identified as not having a PSR ( $M = 4.69$ ,  $SD = 1.10$ ),  $p = .082$ ,  $d = .41$ . Participants who self-identified as maybe having a PSR did not report higher task attractiveness ratings ( $M = 4.83$ ,  $SD = .97$ ) than participants who self-identified as not having a PSR ( $M = 4.69$ ,  $SD = 1.10$ ),  $p = .773$ ,  $d = .14$ . There was no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .395$ ,  $d = .30$ . There was not a significant main effect of condition on task attractiveness,  $F(1, 196) = 1.10$ ,  $p = .295$ , partial  $\eta^2 = .01$ . There was a significant interaction between condition and self-identification of having a PSR on task attractiveness ratings,  $F(2, 196) = 5.02$ ,  $p = .007$ , partial  $\eta^2 = .05$ . For those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 7.04$ ,  $p = .001$ , partial  $\eta^2 = .13$ . Those who self-identified as having a PSR reported more task attractiveness ( $M = 5.44$ ,  $SD = .91$ ) than those who self-identified as not having a PSR ( $M = 4.47$ ,  $SD = 1.08$ ),  $p = .004$ ,  $d = .97$ . Additionally, those who self-identified as maybe having a PSR also reported marginally more task attractiveness ( $M = 5.13$ ,  $SD = .84$ ) than those who self-identified as not having a PSR ( $M = 4.47$ ,  $SD = 1.08$ ),  $p = .059$ ,  $d = .68$ . There was not a significant difference between those who self-identified as having

a PSR and those who self-identified as maybe having a PSR,  $p = .675$ ,  $d = .35$  (see Figure 6).

This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on task attractiveness ratings,  $F(2, 97) = 0.75$ ,  $p = .474$ , partial  $\eta^2 = .02$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 4.87$ ,  $SD = 1.41$ ) and those who self-identified as not having a PSR ( $M = 4.95$ ,  $SD = 1.06$ ),  $p = .968$ ,  $d = .06$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 4.63$ ,  $SD = 1.01$ ) and those who self-identified as not having a PSR ( $M = 4.95$ ,  $SD = 1.06$ ),  $p = .441$ ,  $d = .31$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .786$ ,  $d = .20$  (see Figure 6).

There was not a significant main effect of self-identification of having a PSR on stereotypes of individuals with PSRs,  $F(2, 196) = 2.33$ ,  $p = .100$ , partial  $\eta^2 = .02$ . However, participants who self-identified as having a PSR reported marginally lower stereotype ratings ( $M = 3.09$ ,  $SD = 1.27$ ) than participants who self-identified as not having a PSR ( $M = 3.62$ ,  $SD = 1.25$ ),  $p = .086$ ,  $d = .42$ . Participants who self-identified as maybe having a PSR did not report lower stereotype ratings ( $M = 3.39$ ,  $SD = 1.01$ ) than participants who self-identified as not having a PSR ( $M = 3.62$ ,  $SD = 1.25$ ),  $p = .551$ ,  $d = .20$ . There was no significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .566$ ,  $d = .26$ . There was not a significant main effect of condition on stereotypes of individuals with PSRs,  $F(1, 196) = 0.83$ ,  $p = .365$ , partial  $\eta^2 = .004$ .

There was not a significant interaction between condition and self-identification of having a PSR on stereotypes of individuals with PSRs,  $F(2, 196) = 2.13$ ,  $p = .122$ , partial  $\eta^2 =$

.02. However, for those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 4.54, p = .013$ , partial  $\eta^2 = .08$ . There was a significant difference between those who self-identified as having a PSR ( $M = 2.79, SD = .98$ ) and those who self-identified as not having a PSR ( $M = 3.76, SD = 1.31$ ),  $p = .015, d = .84$ . However, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 3.25, SD = .83$ ) and those who self-identified as not having a PSR ( $M = 3.76, SD = 1.31$ ),  $p = .282, d = .47$ . There was not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .541, d = .51$  (see Figure 7). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on stereotypes of individuals with PSRs,  $F(2, 97) = .02, p = .985$ , partial  $\eta^2 < .001$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 3.42, SD = 1.50$ ) and those who self-identified as not having a PSR ( $M = 3.46, SD = 1.16$ ),  $p = .993, d = .03$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 3.49, SD = 1.12$ ) and those who self-identified as not having a PSR ( $M = 3.46, SD = 1.16$ ),  $p = .995, d = .03$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .984, d = .05$  (see Figure 7).

A 2 x 3 two-way ANOVA was conducted to examine whether self-identification of a PSR moderated general socialization behavioral intentions toward individuals with PSRs. There was a significant main effect of self-identification of having a PSR on general socialization behavior ratings,  $F(2, 196) = 4.81, p = .009$ , partial  $\eta^2 = .05$ . Participants who self-identified as having a PSR reported more positive general socialization behavior ratings ( $M = 5.22, SD =$



1.33) than participants who self-identified as not having a PSR ( $M = 4.35$ ,  $SD = 1.42$ ),  $p = .005$ ,  $d = .63$ . Participants who self-identified as maybe having a PSR did not report more positive general socialization behavior ratings ( $M = 4.45$ ,  $SD = 1.06$ ) than participants who self-identified as not having a PSR ( $M = 4.35$ ,  $SD = 1.42$ ),  $p = .907$ ,  $d = .08$ . There was a significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .048$ ,  $d = .64$ . There was not a significant main effect of condition on general socialization behaviors,  $F(1, 196) = 1.98$ ,  $p = .161$ , partial  $\eta^2 = .01$ .

There was a significant interaction between condition and self-identification of having a PSR on general socialization behaviors,  $F(2, 196) = 3.55$ ,  $p = .031$ , partial  $\eta^2 = .04$ . For those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 8.06$ ,  $p = .001$ , partial  $\eta^2 = .14$ . Those who self-identified as having a PSR reported more positive general socialization behavior intention ratings ( $M = 5.60$ ,  $SD = 1.12$ ) than those who self-identified as not having a PSR ( $M = 4.17$ ,  $SD = 1.38$ ),  $p = .001$ ,  $d = 1.14$ . There was not a significant difference between those who self-identified as maybe having a PSR ( $M = 4.80$ ,  $SD = 1.09$ ) and those who self-identified as not having a PSR ( $M = 4.17$ ,  $SD = 1.40$ ),  $p = .196$ ,  $d = .51$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .202$ ,  $d = .72$  (see Figure 8). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on general socialization behavioral intentions,  $F(2, 97) = 0.93$ ,  $p = .397$ , partial  $\eta^2 = .02$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 4.82$ ,  $SD = 1.46$ ) and those who self-identified as not having a PSR ( $M = 4.56$ ,  $SD = 1.45$ ),  $p = .796$ ,  $d = .18$ . Additionally, there was not a significant

difference between those who self-identified as maybe having a PSR ( $M = 4.22$ ,  $SD = 1.00$ ) and those who self-identified as not having a PSR ( $M = 4.56$ ,  $SD = 1.45$ ),  $p = .562$ ,  $d = .27$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .398$ ,  $d = .48$  (see Figure 8).

There was not a significant main effect of self-identification of having a PSR on trustworthy behavior ratings,  $F(2, 196) = 1.44$ ,  $p = .240$ , partial  $\eta^2 = .01$ . Participants who self-identified as having a PSR did not report more positive trustworthy behavior ratings ( $M = 3.22$ ,  $SD = 1.63$ ) than participants who self-identified as not having a PSR ( $M = 2.72$ ,  $SD = 1.40$ ),  $p = .227$ ,  $d = .33$ . Participants who self-identified as maybe having a PSR did not report more positive trustworthy behavior ratings ( $M = 2.94$ ,  $SD = 1.51$ ) than participants who self-identified as not having a PSR ( $M = 2.72$ ,  $SD = 1.40$ ),  $p = .688$ ,  $d = .15$ . There was not a significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .718$ ,  $d = .15$ . There was not a significant main effect of condition on trustworthy behaviors,  $F(1, 196) = 0.03$ ,  $p = .863$ , partial  $\eta^2 < .001$ .

There was not a significant interaction between condition and self-identification of having a PSR on trustworthy behavior ratings,  $F(2, 196) = 0.74$ ,  $p = .478$ , partial  $\eta^2 = .01$ . However, for those in the PSR condition, there was a marginally significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 2.51$ ,  $p = .086$ , partial  $\eta^2 = .05$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 3.22$ ,  $SD = 1.38$ ) and those who self-identified as not having a PSR ( $M = 2.55$ ,  $SD = 1.15$ ),  $p = .149$ ,  $d = .53$ . There was also not a significant difference between those who self-identified as maybe having a PSR ( $M = 3.08$ ,  $SD = 1.56$ ) and those who self-identified as not having a PSR ( $M = 2.55$ ,  $SD = 1.15$ ),  $p = .279$ ,  $d = .39$ . Additionally, there was not a significant difference

between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .949$ ,  $d = .10$  (see Figure 9). This did not support Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on trustworthy behavioral intentions,  $F(2, 97) = 0.24$ ,  $p = .790$ , partial  $\eta^2 = .01$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 3.21$ ,  $SD = 1.91$ ) and those who self-identified as not having a PSR ( $M = 2.92$ ,  $SD = 1.63$ ),  $p = .822$ ,  $d = .16$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 2.85$ ,  $SD = 1.51$ ) and those who self-identified as not having a PSR ( $M = 2.92$ ,  $SD = 1.63$ ),  $p = .979$ ,  $d = .04$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .784$ ,  $d = .21$  (see Figure 9).

There was not a significant main effect of self-identification of having a PSR on ignoring behavioral intentions ratings,  $F(2, 196) = 2.33$ ,  $p = .100$ , partial  $\eta^2 = .02$ . However, participants who self-identified as having a PSR reported marginally more positive trustworthy behavior ratings ( $M = 2.05$ ,  $SD = 1.16$ ) than participants who self-identified as not having a PSR ( $M = 2.68$ ,  $SD = 1.58$ ),  $p = .090$ ,  $d = .45$ . Participants who self-identified as maybe having a PSR did not report more positive trustworthy behavior ratings ( $M = 2.44$ ,  $SD = 1.24$ ) than participants who self-identified as not having a PSR ( $M = 2.68$ ,  $SD = 1.58$ ),  $p = .617$ ,  $d = .17$ . There was also not a significant difference between those who self-identified as having a PSR and those who maybe have a PSR,  $p = .525$ ,  $d = .32$ . There was not a significant main effect of condition on ignoring behavioral intentions ratings,  $F(1, 196) = 0.22$ ,  $p = .637$ , partial  $\eta^2 = .001$ .

There was not a significant interaction between condition and self-identification of having a PSR on ignoring behavioral intentions,  $F(2, 196) = 1.78$ ,  $p = .171$ , partial  $\eta^2 = .02$ .

However, for those in the PSR condition, there was a significant difference across different levels of self-identification of having a PSR,  $F(2, 99) = 3.61, p = .031, \text{partial } \eta^2 = .07$ . There was a marginally significant difference between those who self-identified as having a PSR ( $M = 1.93, SD = 1.05$ ) and those who self-identified as not having a PSR ( $M = 2.87, SD = 1.59$ ),  $p = .067, d = .70$ . There was not a significant difference between those who self-identified as maybe having a PSR ( $M = 2.13, SD = 1.15$ ) and those who self-identified as not having a PSR ( $M = 2.87, SD = 1.60$ ),  $p = .161, d = .53$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .930, d = .18$  (see Figure 10). This partially supported Hypothesis 9.

For those in the friend condition, there was not a significant interaction between condition and self-identification of having a PSR on ignoring behavioral intentions,  $F(2, 97) = 0.46, p = .634, \text{partial } \eta^2 = .01$ . There was not a significant difference between those who self-identified as having a PSR ( $M = 2.18, SD = 1.30$ ) and those who self-identified as not having a PSR ( $M = 2.47, SD = 1.54$ ),  $p = .780, d = .20$ . Additionally, there was not a significant difference between those who self-identified as maybe having a PSR ( $M = 2.65, SD = 1.28$ ) and those who self-identified as not having a PSR ( $M = 2.47, SD = 1.54$ ),  $p = .867, d = .13$ . There was also not a significant difference between those who self-identified as having a PSR and those who self-identified as maybe having a PSR,  $p = .606, d = .36$  (see Figure 10).

### Discussion

The present study examined bias and other attitudes toward individuals with PSRs. Results revealed that there is a small trend of bias toward these individuals and that there is also a component of support within those who identify as having a PSR. Nine main hypotheses were tested. We found that there was not a significant effect on warmth and competence ratings,

physical or task attractiveness ratings, PSR stereotype ratings, or behavioral intentions. There was, however, a small significant effect on social attractiveness ratings. Additionally, we found a significant interaction between the condition and self-identification of a PSR on competence and warmth ratings, social and task attractiveness ratings, and behavioral intentions. These interactions suggested that people rating a person with a PSR viewed them more positively if they themselves self-identified as having a PSR (and sometimes as maybe having a PSR) compared to when they self-identified as not having a PSR. There was never a significant difference for those rating a person with a real-life friend. However, we did not find a significant interaction of self-identification of a PSR on physical attractiveness ratings, PSR stereotype ratings, trusting behaviors, or ignoring behaviors.

Hypotheses 1 and 2 investigated whether individuals would rate those with PSRs as less competent and warm than those without PSRs. There was no support found for Hypotheses 1 or 2. This could be that it is difficult to assess these types of traits via description or through online formats—perceptions of if a person fits competent or warm characteristics are easier in person or when provided with more detail. Additionally, it is possible that the PSR versus friend manipulation did not work.

Hypotheses 3, 4, and 5 investigated whether individuals would rate those with PSRs as less socially, physically, and task attractive than those without PSRs. There was a small bit of support found for Hypothesis 3, but there was no support found for Hypotheses 4 or 5. These findings partially align with a previous study that found that individuals were more likely to rate sci-fi fans as less socially and physically attractive than sports fans, but as more task attractive (Cohen et al., 2017). Although support was found for the social attractiveness component, it is possible that support was not found for physical and task attractiveness ratings since there were

no specific details provided on the type of PSR the person had in our vignettes, unlike the previous research.

Hypothesis 6 investigated whether individuals would agree with more stereotypes of those with PSRs than those without PSRs. There was no support found for Hypothesis 6. This could be due to the normalization of individuals having PSRs and the idea of sharing that bond with a media figure being less taboo in recent years. Previous research (Scherer et al., 2022) demonstrated that people do view those with PSRs in a biased manner. However, with Covid-19 essentially forcing some individuals to spend much more time online and with media, it is likely that PSRs have become not only more frequent, but also more normalized, thus making bias toward and stereotypes of these individuals less likely to occur.

Hypothesis 7 investigated whether individuals would show more negative behavioral intentions toward those with PSRs than those without PSRs. There was no support found for Hypothesis 7. Although the behavioral intentions scales and its factors were reliable, it is likely that the questions were a bit too in depth for participants to answer when they were provided so little information about the person in the vignette; it is also likely that college students simply do not have prejudice toward people with PSRs.

Hypothesis 8 investigated whether individuals would be more likely to imagine a female rather than a male when reading the vignette in the PSR condition. There was no support found for Hypothesis 8. Instead results showed that individuals more often imagined the person they were reading about in the PSR condition to be male, suggesting that individuals may perceive those with PSRs to be male more often than they do to be female. These findings are the opposite of what was predicted. This could be because when reading the vignette, participants thought about individuals they know personally or of fandoms they are in themselves. Additionally,

within the PSR vignette, we mentioned that the person may be attached to an athlete or musician. Participants may have honed in on this particular type of celebrity and made their assessments of the individuals in the vignette based purely on the stereotypic idea that males often share this type of relationship with members of their favorite sports teams or bands.

Hypothesis 9 investigated whether individuals who self-identified as having a PSR would rate other individuals with PSRs as higher in competence, warmth, social attractiveness, physical attractiveness, and task attractiveness as well as endorse stereotypes less and demonstrate more positive behavioral intentions toward those with PSRs than those who self-identified as not having a PSR. There was some support found for Hypothesis 9. We found a significant interaction between our condition and self-identification of a PSR on competence, warmth, social attractiveness, task attractiveness, and behavioral intentions ratings. In these cases, people who identified as having a PSR reported more positive views of individuals with a PSR than those who did not identify as having a PSR. Additionally, sometimes those who maybe had a PSR reported more positive views than those who did not identify as having a PSR. There was no interaction on physical attractiveness and stereotypes. Across all significant interactions, there was never a significant effect within those who rated someone with a real-life friend. These findings suggest that in some scenarios, individuals who have PSRs themselves are more likely to show positive attitudes toward others with PSRs.

Overall, these findings suggest that individuals who have PSRs are viewed as less socially attractive than individuals who have a real-life friend, which supports previous findings that individuals in sci-fi fandoms were perceived as less physically and socially attractive (Cohen et al., 2017). These findings also suggest that those who identify as definitely having a PSR and sometimes those who identify as maybe having a PSR hold more positive views of an individual

who has a PSR than those who identify as not having a PSR, which supports previous research that individuals have a higher tendency to like individuals in their ingroup (Seate et al., 2020). This also supports previous research that those who self-identified as having a PSR endorsed stereotypes of individuals with PSRs less (Scherer et al., 2022).

There were several hypotheses that were not supported by our findings. Often it was the case that individuals with PSRs were not viewed as negatively as we initially thought they would be. One reason for this finding could be that the individuals described in the vignette were not described in much detail—this was done to analyze how individuals would perceive the person in the vignette. However, this lack of detail in the vignettes may have hindered some participants from truly imagining a person when they read the description. Another reason for our lack of support could be due to the normalization of having PSRs and knowing individuals with PSRs—due to the ongoing Covid-19 pandemic, individuals may be spending more time online and thus building PSRs themselves or being in more frequent contact with individuals with PSRs/individuals in fandoms. Finally, our sample was relatively young, and younger individuals may be more aware of PSRs, thus it is likely that this higher subjectivity and awareness could have made our participants less likely to show bias toward individuals with PSRs.

A major strength of our study was the novelty—bias toward individuals with PSRs has not been explored in-depth. The only study to examine bias toward those with PSRs was correlational (Scherer et al., 2022), and the current study provides the first experimental test of this idea. Our study was also strengthened by the use of reliable measures, however the number of measures included in our survey may have also limited our findings due to the possibility of individuals getting bored or tired while participating.



Additionally, the present study sampled undergraduate students enrolled in psychology courses at a university, which serves as both a strength and a limitation. The sample is on the younger side, which provides a strength in that most of these individuals are more familiar with the concept of PSRs and thus can provide their accurate and truthful opinions, but this sample also limits the study in that we could not properly assess the opinions of those across the lifespan, nor can results be generalized outside of a university setting. The age of participants may have also been an issue if younger people are more comfortable with the idea of PSRs compared to the general population. In the future, it would help to test this idea in a broader population.

Our lack of description in our vignettes was also both a strength and a limitation such that it provided participants with a clean slate so that any implicit gender, age, or race biases did not influence their responses. However, this lack of detail may have also made responding to our measures more difficult for some participants. This strategy to provide very little details about the person and their PSR may have also led participants to be more likely to imagine a specific person they know, thus biasing the results. Maybe in the future an image of a person could be shown to participants when they are asked to imagine someone with a PSR or a real-life friend in order to create a more concrete idea of who this person is.

One limitation of our study is the low number of people who self-identified as having a PSR (29) or maybe having a PSR (33) compared to those who did not have a PSR (133). This could have led to issues with our interaction effects. However, as we found significant interactions on almost every dependent variable between condition and self-identification, this might suggest the effect of self-identification is quite strong.

As the present study is one of the first to examine bias toward parasocial relationships, there is much to build on. Future studies could investigate specific types of PSRs, such as those with fictional characters or those with nonfictional characters, to see if there is a higher degree of bias or more negative stereotypes surrounding particular types of PSRs. Similar to the research on sci-fi versus athletic fandoms (Cohen et al., 2017), perhaps people with PSRs with a “geeky” person might be viewed more negatively than people with PSRs with athletes or “cooler” people. In addition, it is important to try to reduce any bias that does exist toward individuals with PSRs. People with PSRs are prone to be viewed more negatively in a social aspect than those with real-life friends, and individuals who do not have PSRs view those with PSRs more negatively in a variety of ways. Examining these perceptions more and figuring out how to improve perceptions of those with PSRs, particularly within those who do not have a PSR, is important.

In conclusion, PSRs are becoming more significant within our daily lives and with the rise of the internet and social media, they are likely to only continue to become more normalized and shared by more individuals. Due to the number of benefits that they can provide to individuals on both intrapersonal and interpersonal levels, it is important to monitor the attitudes that individuals have toward those who have these pseudo relationships. The implications of the present study are that bias toward these individuals may exist, particularly within those who do not identify as having such a relationship or simply maintain neutrality toward the topic. Thus, if PSRs are to continue to amass over the next several years, steps need to be taken in order to reduce these biases so that individuals who reap benefits from their PSRs can continue to do so without fear of bias.

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## Appendix A

### Informed Consent

You are invited to participate in a research study, entitled “Perceptions of People.” The study is being conducted by Dr. Nicole Iannone of the Psychology department of Radford University, P.O. Box 6946, Radford, VA 24141, niannone@radford.edu, (540) 831-5514.

The purpose of this study is to examine how we perceive different types of people. Your participation in the study will contribute to a better understanding of how we perceive people differently. We estimate that it will take approximately 15-20 minutes of your time to complete the questionnaire. You are free to contact the investigator at the above email address to discuss the survey.

Risks to participants are considered minimal. There will be no costs for participating, however, you will earn 1 SONA credit for participating. No IP addresses will be collected from our data. Any data that you provide will be strictly confidential and will be stored in a secure database. Your responses will be encrypted using the same technologies businesses use when handling credit card information on-line. Identifying information will not be collected.

Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. If you wish to withdraw from the study or have any questions, contact the investigator listed above.

If you have any questions, please send an email to [niannone@radford.edu](mailto:niannone@radford.edu). You may also request a hard copy of the survey from the contact information above. You will receive one (1) SONA credit for participation.

This study was approved by the Radford University Committee for the Review of Human Subjects Research. If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact Ben Caldwell, Institutional Official and Dean of the College of Graduate Studies and Research, [bcaldwell@radford.edu](mailto:bcaldwell@radford.edu), 1.540.831.5723.

If you agree to participate, please press the arrow button at the bottom right of the screen. Otherwise use the X at the upper right corner to close this window and disconnect.

Thank you.

## **Appendix B**

### Debriefing

Thank you for your participation in this survey!

Before you provided data for the study we told you the purpose of the study was to examine how we perceive different types of people. That statement was accurate, but we can now tell you that we are particularly interested in how people perceive people who have parasocial relationships (one-sided relationships with media figures) compared to people who do not have these relationships. We did not reveal this more specific purpose of the study because of the chance that our participants' responses to questions in the study might have been different if they knew we were particularly interested in perceptions of people who have parasocial relationships.

If you'd like to know more about our research and what we have learned so far, you are welcome to contact Dr. Nicole Iannone, Assistant Professor of Psychology, Radford University for additional information ([niannone@radford.edu](mailto:niannone@radford.edu)).

If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact Dr. Ben Caldwell, Institutional Officer for Research and Dean of the Arts College of Science and Technology, Radford University, [bcaldwell13@radford.edu](mailto:bcaldwell13@radford.edu), 1-540-831-5724.

Please click the bottom right arrow to complete the study.

## **Appendix C**

### Scenarios

C.1 PSR Condition: This person has a celebrity that they feel like they are very close to – as if the celebrity is a friend. The celebrity could be an actor, musician, athlete, or any other major media figure. The celebrity feels familiar and predictable to them and the person feels like they know and understand them like they would a close friend. They follow them on social media, buy their merchandise (e.g., an album or a movie), watch them on television when they can (e.g., during interviews), and read about them on the internet when they can.

C.2 No PSR, Real-life friend Condition: This person has a friend that they feel like they are very close to. The friend feels familiar and predictable to them and the person feels like they know and understand them like a close friend. They follow them on social media, buy similar products as them, watch television with them when they can, and keep up with them on the internet when they can.

## Appendix D

Competence and Warmth (Landy et al., 2016; Ren & Evans, 2021)

### D.1 Competence Items:

1 – Not at all competent 9 – Competent

1 – Not at all capable 9 – Capable

1 – Not at all intelligent 9 – Intelligent

1 – Not at all effective 9 – Effective

1 – Not at all skillful 9 – Skillful

1 – Not at all talented 9 – Talented

### D. 2 Warmth Items:

1 – Not at all kind 9 – Kind

1 – Not at all warm 9 – Warm

1 – Not at all friendly 9 – Friendly

## Appendix E

### Interpersonal Attractiveness Scale (McCroskey and McCain, 1974)

All items were answered on the following scale:

1 – Strongly Disagree      2      3      4      5      6      7 – Strongly Agree

#### E.1 Social Attraction

I think they could be a friend of mine.

I would like to have a friendly chat with them.

It would be difficult to meet and talk with them.\*\*

We could never establish a personal friendship with each other.\*\*

They just wouldn't fit into my circle of friends.\*\*

They would be pleasant to be with.

I feel I know them personally.

They are personally offensive to me.\*\*

I don't care if I ever get to meet them.\*\*

I sometimes wish I were more like them.

#### E.2 Physical Attraction

I think they are quite attractive.

They are very sexy looking.

I find them very attractive physically.

I don't like the way they look.\*\*

They are somewhat ugly.\*\*

They wear neat clothes.

The clothes they wear are not becoming.\*\*

They are not very good looking.\*\*

They are well groomed.

They are repulsive to me.\*\*

### E.3 Task Attraction

I couldn't get anything accomplished with them.\*\*

They are a typical goof-off when assigned a job to do.\*\*

I have confidence in their ability to get the job done.

If wanted to get things done I could probably depend on them.

They would be a poor problem solver.\*\*

I think studying with them would be impossible.\*\*

You could count on them getting a job done.

I have the feeling they are a very slow worker.\*\*

If we put our heads together I think we could come up with some good ideas.

They would be fun to work with.

\*\* indicates reverse-coded items.

**Appendix F**

## Stereotypes Toward People with PSRs (Scherer et al., 2022)

All items were answered on the following scale:

1 – Disagree Completely    2    3    4    5    6    7 – Agree Completely

This person probably struggles to make friends.

I would think negatively about this person.

This person probably lacks good social skills.

This person probably does not have fulfilling friendships.

This person is probably mentally healthy.\*\*

This person probably has a lot of friends.\*\*

This person is probably awkward.

This person probably avoids social settings.

\*\* indicates reverse-coded items.



**Appendix G**

## Behavioral Intentions (Strosser et al., 2016)

All items were answered on the following scale:

1 – Extremely Likely      2      3      4      5      6      7 – Extremely Unlikely

What is the likelihood that you would vote for this person?

What is the likelihood that you would be friends with this person?

What is the likelihood that you would allow this person to babysit your child?

What is the likelihood that you would marry this person?

What is the likelihood that you would work on a project with this person?

What is the likelihood that you would allow this person to teach your child?

What is the likelihood that you would help this person?

What is the likelihood that you would talk to this person?

What is the likelihood that you would negotiate business deals with this person?

What is the likelihood that you would hang out with this person?

What is the likelihood that you would go to dinner with this person?

What is the likelihood that you would hire this person as an employee?

What is the likelihood that you would promote this person?

What is the likelihood that you would ask this person to take you to an important appointment?

What is the likelihood that you would confide a secret to this person?

What is the likelihood that you would have this person as your personal physician?

What is the likelihood that you would have this person perform surgery on you?

What is the likelihood that you would ignore/exclude this person in a social setting?\*\*\*

What is the likelihood that you would ignore/exclude this person in a work setting?\*\*\*

\*\* indicates reverse-coded items.

## Appendix H

### Behavioral Intentions Factors

#### H1: General Socialization Behaviors

What is the likelihood that you would vote for this person?

What is the likelihood that you would be friends with this person?

What is the likelihood that you would allow this person to babysit your child?

What is the likelihood that you would work on a project with this person?

What is the likelihood that you would allow this person to teach your child?

What is the likelihood that you would help this person?

What is the likelihood that you would talk to this person?

What is the likelihood that you would negotiate business deals with this person?

What is the likelihood that you would hang out with this person?

What is the likelihood that you would go to dinner with this person?

What is the likelihood that you would hire this person as an employee?

What is the likelihood that you would promote this person?

What is the likelihood that you would ask this person to take you to an important appointment?

What is the likelihood that you would confide a secret to this person?

#### H2: Trustworthy Behaviors

What is the likelihood that you would marry this person?

What is the likelihood that you would have this person as your personal physician?

What is the likelihood that you would have this person perform surgery on you?

#### H3: Ignoring Behaviors

What is the likelihood that you would ignore/exclude this person in a social setting?

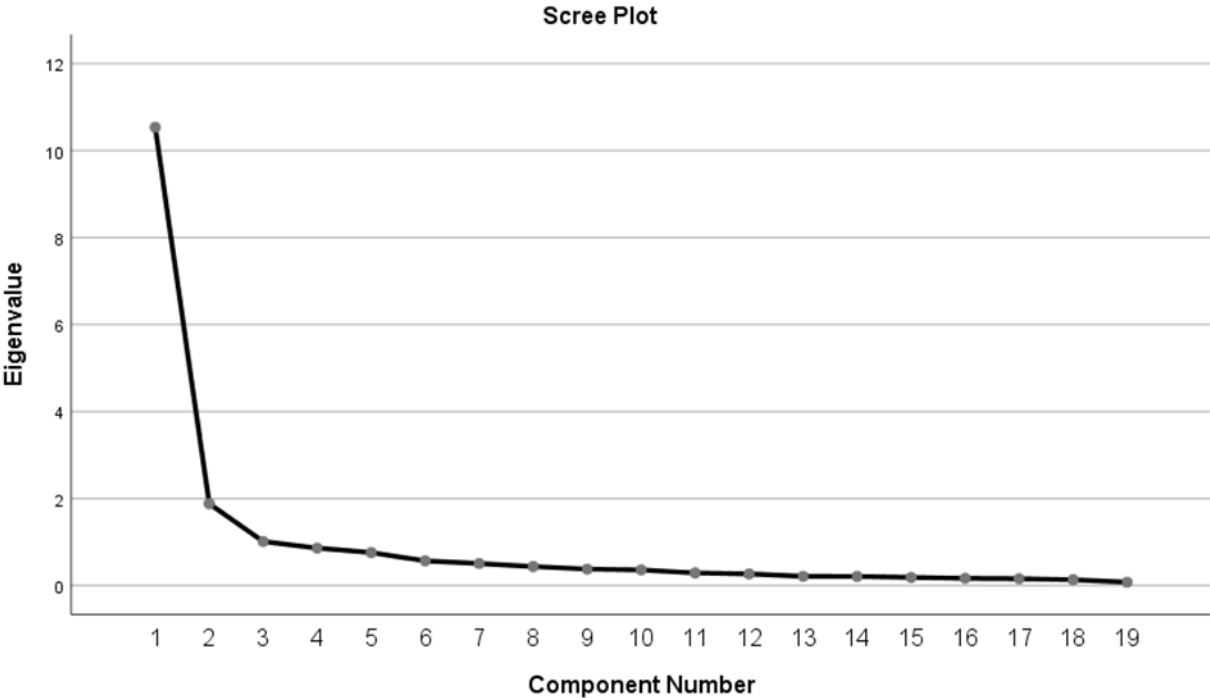
What is the likelihood that you would ignore/exclude this person in a work setting?

Appendix I

Figures

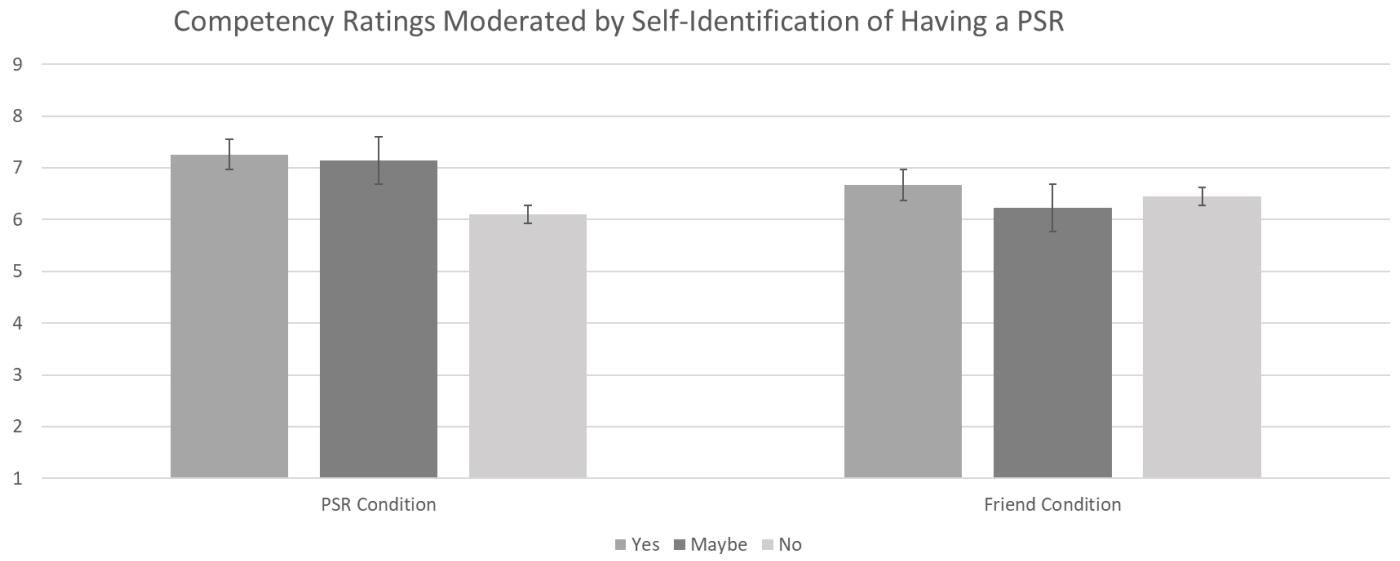
Figure 1

Scree Plot for Behavioral Intentions



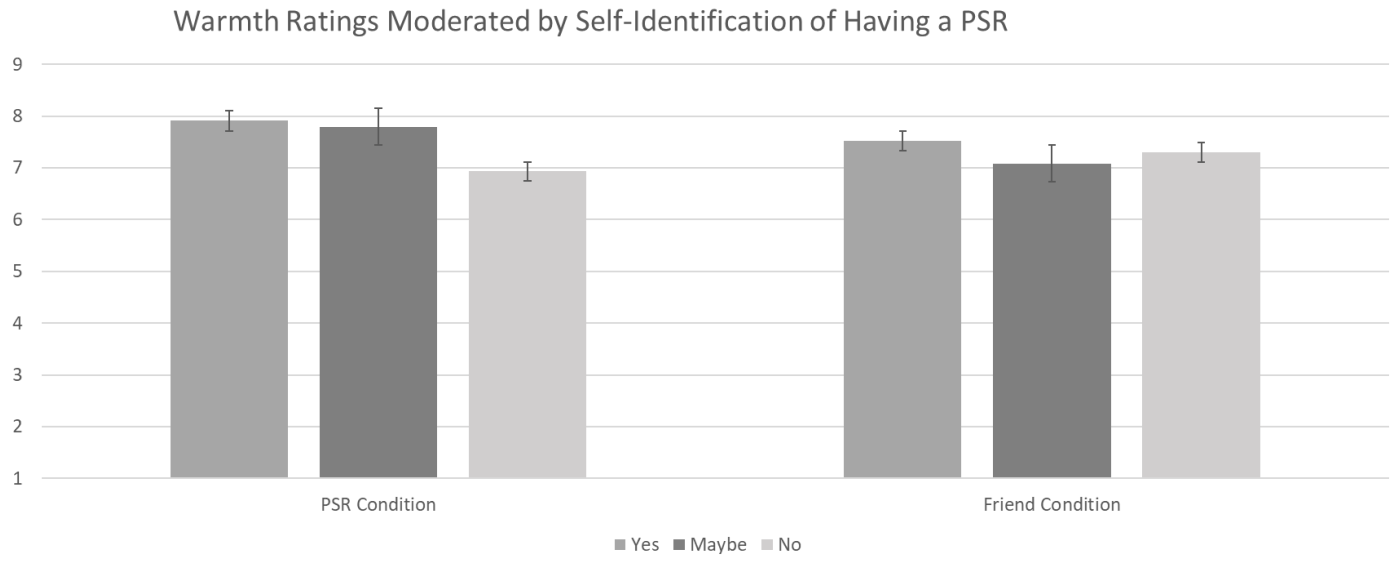
**Figure 2**

*Competency Ratings Moderated by Self-Identification of Having a PSR*



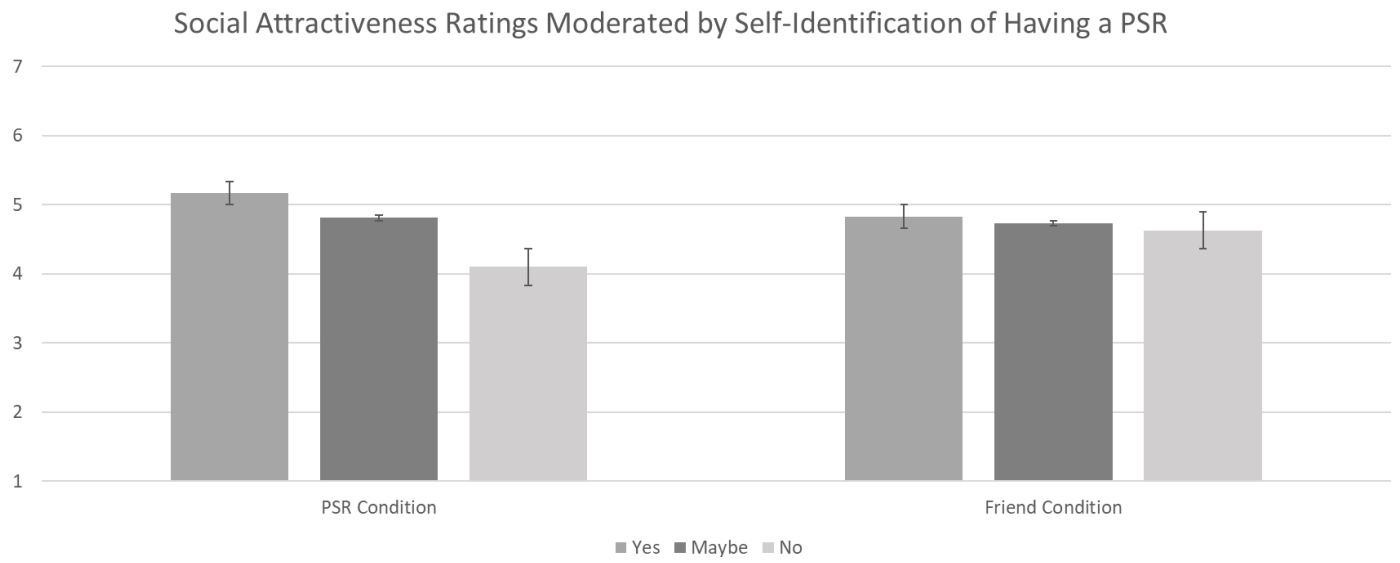
**Figure 3**

*Warmth Ratings Moderated by Self-Identification of Having a PSR*



**Figure 4**

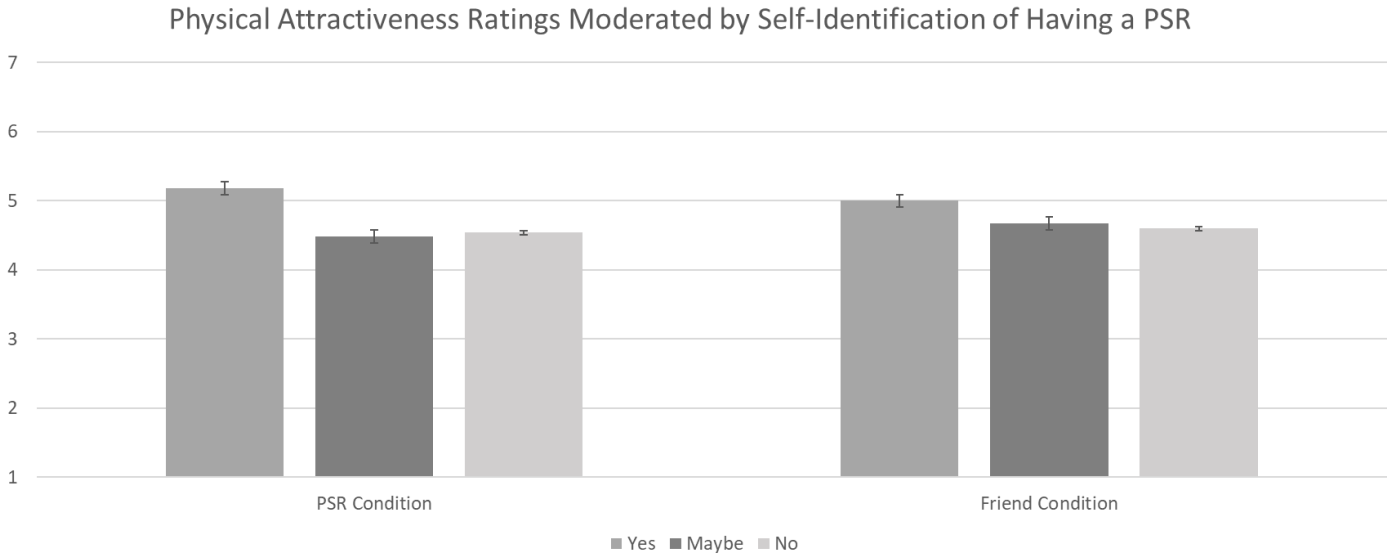
*Social Attractiveness Ratings Moderated by Self-Identification of Having a PSR*





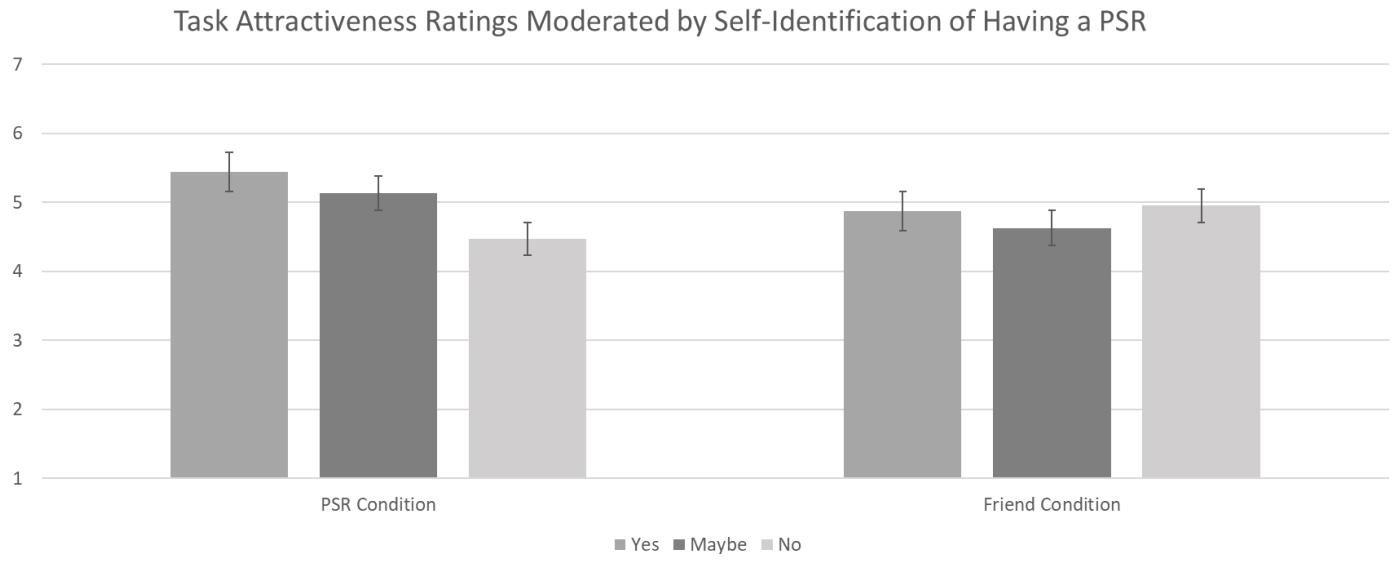
**Figure 5**

*Physical Attractiveness Ratings Moderated by Self-Identification of Having a PSR*



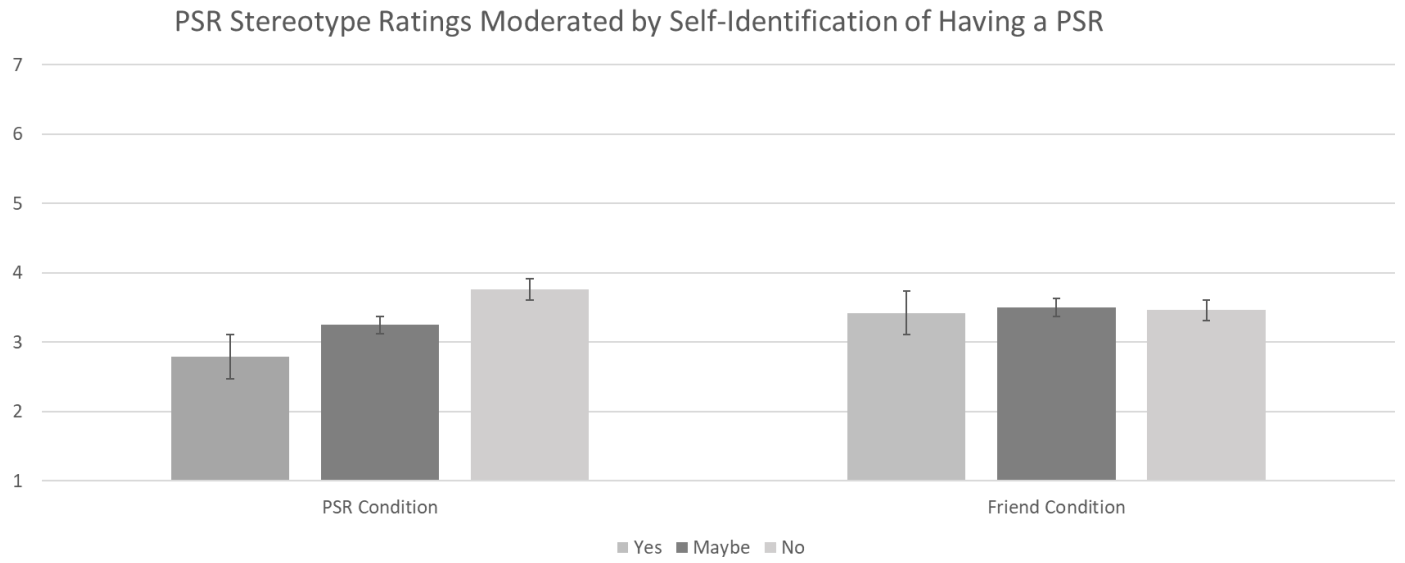
**Figure 6**

*Task Attractiveness Ratings Moderated by Self-Identification of Having a PSR*



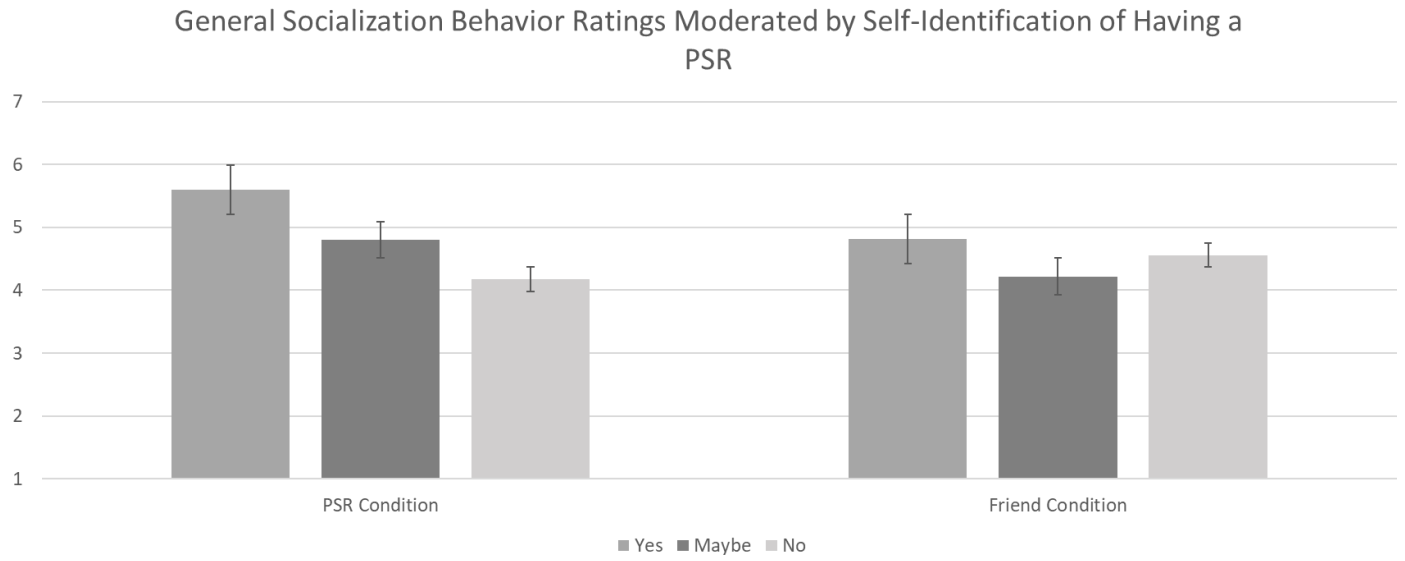
**Figure 7**

*PSR Stereotype Ratings Moderated by Self-Identification of Having a PSR*



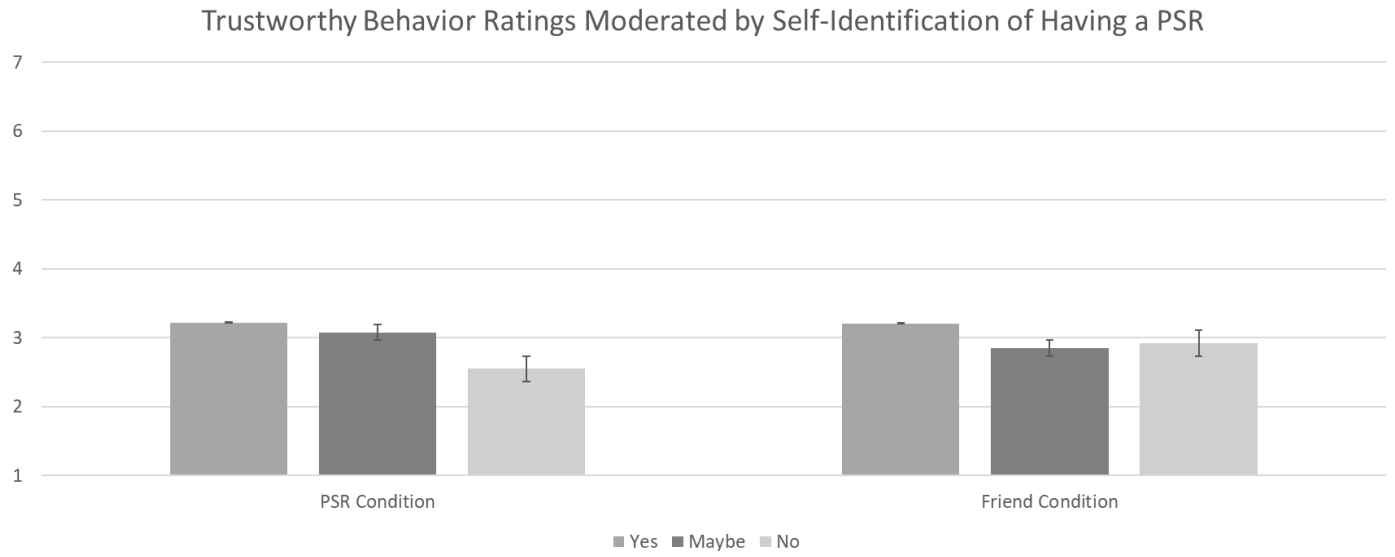
**Figure 8**

*General Socialization Behavior Ratings Moderated by Self-Identification of Having a PSR*



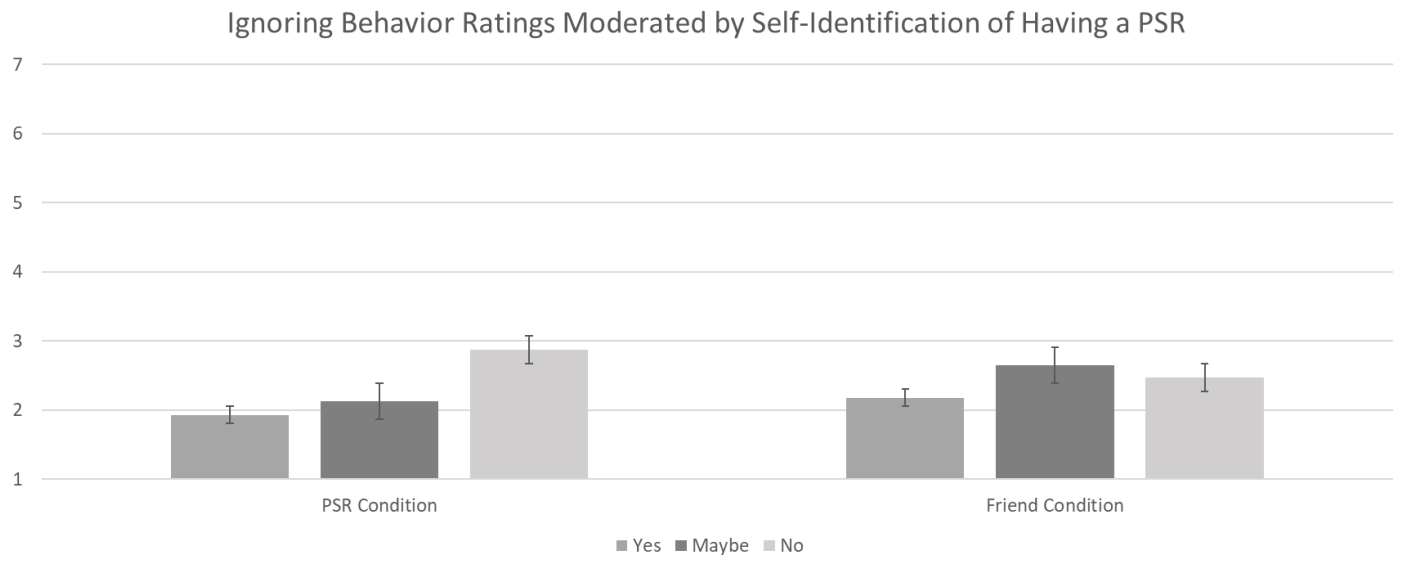
**Figure 9**

*Trustworthy Behavior Ratings Moderated by Self-Identification of Having a PSR*



**Figure 10**

*Ignoring Behavior Ratings Moderated by Self-Identification of Having a PSR*



**Appendix J**

## Description Assessment

When reading the description, what gender did you imagine the person being?

- Male
- Female
- Non-binary/third gender
- I did not imagine any particular gender

When reading the description, what age did you imagine the person being? (fill in the blank)

What type of celebrity did you imagine? (only participants in the PSR condition will see this question)

- Musician
- Actor/Actress
- Athlete
- Other, please specify

Is there anything else you would like to tell us about the person you imagined when reading the scenario? (fill in the blank)

## Appendix K

### Self-Identification of a PSR

“Many people have a favorite celebrity or media figure (e.g., a television character, actor/actress, news anchor, musician, etc.). The strength of an individual’s liking for a media figure can vary from mild to very strong. For some individuals, a favorite media figure can feel like a close friend. The figure may seem familiar and predictable – almost as if the individual knows and understands the media figure as one does a close friend. When an individual feels this degree of closeness with a favorite media figure, it is called a parasocial relationship.”

Do you believe you have a parasocial relationship with your favorite celebrity?

- Yes
- No
- Maybe

Please indicate the degree to which you believe you have a parasocial relationship with your favorite celebrity.

1 – I definitely do not have a parasocial relationship

2

3

4

5

6

7 – I definitely do have a parasocial relationship



**Appendix L**

## PSI Scale (Rubin et al., 1985)

All items were answered on the following scale

1 – Strongly Disagree    2        3        4        5 – Strongly Agree

My favorite celebrity makes me feel comfortable, as if I am with a friend.

I see my favorite celebrity as a natural, down-to-earth person.

I look forward to following my favorite celebrity whenever I am next able to.

If my favorite celebrity appeared in another media outlet, I would follow that as well.

My favorite celebrity seems to understand the kinds of things I want to know.

If I saw a story about my favorite celebrity in a newspaper or magazine, I would read it.

I miss seeing my favorite celebrity when they are ill or on vacation.

I would like to meet my favorite celebrity in person.

I feel sorry for my favorite celebrity when they make a mistake.

I find my favorite celebrity to be attractive.

**Appendix M**

## Demographic Questions

What is your gender?

- Male
- Female
- Other
- Prefer not to answer

What is your age?

What is your race/ethnicity? Select all that apply.

- White/Caucasian
- Black/African American
- Hispanic/Latino
- Native American
- Asian/Pacific Islander
- Other
- Choose not to answer

## Appendix N

## Tables

Table 1

*Correlations of Self-Identification and all Dependent Variables*

Variables	1	2	3	4	5	6	7	8	9	10
1. Competence										
2. Warmth	.62**									
3. Social Attractiveness	.57**	.45**								
4. Physical Attractiveness	.50**	.32**	.53**							
5. Task Attractiveness	.57**	.37**	.63**	.61**						
6. PSR Stereotype	-.52**	-.38**	-.54**	-.53**	-.53**					
7. General Socialization	.62**	.49**	.70**	.67**	.78**	-.61**				
8. Trustworthy Behaviors	.26**	.16*	.27**	.36**	.37**	-.24**	.53**			
9. Ignoring Behaviors	-.37**	-.37**	-.51**	-.48**	-.54**	.45**	-.55**	-.12		
10. PSR Self-Identification	-.05	-.06	-.04	-.08	-.07	.05	-.14*	-.04	.06	
Mean	6.43	7.24	4.52	4.69	4.79	3.50	4.50	2.84	2.54	2.05
SD	1.48	1.42	1.04	1.05	1.09	1.22	1.37	1.46	1.47	.58
<i>n</i>	202	202	202	202	202	202	202	202	202	202

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

**Table 2***Behavioral Intentions Scale Factor Loadings for Principal Components*

Items	Factor 1 (General Socialization)	Factor 2 (Trustworthy Behaviors)	Factor 3 (Ignoring Behaviors)	
1. Talk To	.83			
2. Hangout	.81			
3. Promote	.78			
4. Go to Dinner	.76			
5. Help	.75			
6. Work on Project	.74			
7. Negotiate Deals	.73			
8. Hire	.72			
9. Friends	.68		.43	
10. Babysit	.68		.47	
11. Take to Appointment	.68			
12. Allow to Teach Child	.66	.43		
13. Vote	.45	.44	.51	
14. Perform Surgery		.83		
15. Physician		.74		
16. Marry		.69	.45	
17. Confide Secret				
18. Ignore Social			.84	
19. Ignore Work			.72	
	Eigen Value	10.53	1.88	1.01
	% Variance Accounted For	55.44%	9.91%	5.33%
	<i>M (SD)</i>	4.50 (1.37)	2.84 (1.46)	2.54 (1.47)