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Does engaging in social rejection heighten or diminish social processing?

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ABSTRACT

When people find themselves in the unenviable position of having to socially reject, do they have access to enhanced social sensitivity or does the role of rejector blunt their social sensitivity? This question has not received empirical attention, and there are competing hypotheses about the answer because of the paradoxical role of social rejectors. Social rejectors find themselves in a position of social power over rejectees but also fear for their own social reputations. On the one hand, power is associated with blunted social sensitivity, yet concerns about belonging can enhance social processing. Therefore, the present research examines the impact of the role of social rejector on social sensitivity. Participants performed a task in which they believed that they would either have to publicly explain their rationale for the social rejection or social acceptance of another individual before performing social sensitivity tasks. We tested whether the role of social rejector heightens or diminishes social sensitivity. The current study did not find strong support for either hypothesis but did suggest that rejectors who are men may experience diminished social sensitivity when considering other people's capacity to feel pain, and rejectors may generally experience diminished social memory about the target of rejection.

Will our social processing capabilities fail us when we need them most? In the case of social rejectors, the answer to this question is a point of contention because existing theories predict different answers and it has not been empirically tested. That is, finding oneself in the unenviable position of having to socially reject another person (i.e. social rejection taking place in a non-bullying context) can certainly lend itself to a fraught social interaction, yet very little is known about how the rejector role affects one's social processing. The shallow knowledge about social rejectors is in contrast to the large body of literature concerning the many social consequences of being rejected, which includes enhanced social processing (Gardner, Pickett, & Brewer, 2000; Gardner, Pickett, Jefferis, & Knowles, 2005; Pickett, Gardner, & Knowles, 2004).

Why try to understand the impact of social rejection on the rejector's social processing? Answers to this question are needed to aid individuals who want to lessen the blow of

their rejection: will they have the full force of their social capabilities at hand or will their abilities be undermined in the moment? Yet the answer to this question is unknown because it has never been tested and is not clear because of the paradoxical experience of social rejectors. On the one hand, their denial of a request for social acceptance gives them social power over the rejectee (whether wanted or not). On the other hand, social rejectors fear that their rejection of another person will damage their own reputation, and that they will experience a decreased sense of belongingness and relatedness (Baumeister, Wotman, & Stillwell, 1993; Folkes, 1982; Freedman, Williams, & Beer, 2016; Legate, DeHaan, Weinstein, & Ryan, 2013; Nezlek, Wesselmann, Wheeler, & Williams, 2015), which mirrors the concerns and decreased belongingness and relatedness of rejectees (e.g. Buckley, Winkel, & Leary, 2004; Williams, 2009; Wirth, Sacco, Hugenberg, & Williams, 2010). The experiences of having increased social power and decreased belongingness are likely to have different effects on the rejector's social processing. Social power can blunt sensitivity to others, that is, individuals who self-report higher levels of social power or are experimentally induced to feel powerful report lowered compassion towards others (e.g. Keltner, Gruenfeld, & Anderson, 2003; van Kleef et al., 2008). In contrast, individuals whose belongingness needs are threatened experience increased social processing abilities as measured by increased memory for social events, increased attention to vocal tone, and increased accuracy at identifying emotion from facial expressions (e.g. Gardner et al., 2000, 2005; Pickett et al., 2004). Therefore, the current research tests the competing predictions that the role of social rejector will either diminish or enhance social processing.

Social power

In contrast to social rejectees, social rejectors find themselves in a position of social power over another person despite their disinterest in dominating or hurting the rejectee (Baumeister et al., 1993; Folkes, 1982). Social power is defined as the extent to which one person exerts control over another person and is experienced as increased control, freedom, and agency (Fiske, 1993; Keltner et al., 2003). For example, social rejection (not motivated by bullying) may arise in everyday situations when a person finds himself or herself unable to include a friend in a weekly group lunch, uninterested in going on a date, or unable to attend more than one wedding of two close friends if they are held on the same day. The social rejector is in control of a resource (social acceptance) that is desired by the rejectee. In fact, research finds that even when people who are experimentally encouraged to ostracize another person (i.e. a form of social rejection), they report increased levels of control (Gooley, Zadro, Williams, Svetieva, & Gonsalkorale, 2015; Zadro, Williams, & Richardson, 2005). Therefore, research on social power and social sensitivity may be helpful when hypothesizing about the effect of the role of social rejector on social capabilities.

The Approach/Inhibition Theory of Power (Keltner et al., 2003) is specifically concerned with power's effect on social sensitivity, and evidence supports its perspective that individuals who are higher in social power show a range of social behaviors and cognitions that indicate that they are less in tune with social cues. Participants primed with social power exhibit diminished perspective-taking, are less likely to understand what others want in a particular social context, and are less able to accurately judge emotional expressions (Galinsky, Magee, Inesi, & Gruenfeld, 2006; Keltner et al., 2003; van Kleef et al.,

2008). These effects arise even when social power is randomly assigned to people on a temporary basis (e.g. Anderson & Berdahl, 2002; Gonzaga, Keltner, & Ward, 2008; Kleef, Van De Dreu, & Manstead, 2004) rather than sought out or show an association with a personality predisposition. For example, participants randomly assigned to a high power position are less likely to perceive the extent to which their interaction partner experienced negative emotions in reaction to the participant's actions (Study 2, Anderson & Berdahl, 2002). Women who are randomly assigned to a position of power are poorer at judging the emotions of their partners during a teasing interaction (Gonzaga et al., 2008). Furthermore, people who are randomly assigned power are less likely to adjust their behavior (i.e. concede in a negotiation) as a function of other people's emotions (Kleef et al., 2004). Therefore, the research on social power raises the hypothesis that the role of social rejector should be associated with diminished social sensitivity.

Belongingness

Whereas the social rejector differs from the rejectee in terms of social power, existing research shows that both the rejector and rejectee share concerns about their social reputation, that is, their opportunities for affiliation and future acceptance. People often fear socially rejecting others because they worry that their own social reputations will be marred in the process if they hurt the rejectee's feelings or word gets out that they have treated someone in a negative manner (Baumeister et al., 1993; Folkes, 1982; Freedman et al., 2016). For example, rejectors are concerned about losing existing friendships with those they have rejected (Baumeister et al., 1993) and choose to voice rejection in a way they believe is most likely to make future social interactions go smoothly (Folkes, 1982). Furthermore, individuals who engage in social rejection report lowered relatedness and feelings of belonging (Legate et al., 2013; Nezlek et al., 2015). For example, in a daily diary study on ostracism, participants who had ostracized another person reported that executing the ostracism lowered their feelings of belongingness regardless of who they ostracized or the reason for the ostracism (Nezlek et al., 2015). Concerns about reputation when engaging in rejection are valid: rejectors are generally viewed in a negative light – they are seen as less physically and interpersonally attractive by rejectees and these negative perceptions extend to individuals who are merely perceived to have excluded another person (e.g. Critcher & Zayas, 2014; Wirth et al., 2010; Zadro, Boland, & Richardson, 2006). Taken together, the existing research finds that people believe that their social rejection of others places their own chances of belonging, that is, acceptance and affiliation, in jeopardy (and the negative opinions of others suggest that this belief is warranted).

The Belonging Regulation Model (Gardner et al., 2000, 2005; Pickett et al., 2004) posits that concerns about belongingness, that is acceptance and affiliation with other people, heighten social sensitivity. This model is supported by research which finds that concerns about belongingness (i.e. reliving a rejection experience, being rejected by a potential lab partner, self-reported dispositional tendencies) are associated with heightened social processing abilities including more accurate recall of social information, better social memory, and more accurate interpretation of low-intensity emotional facial expressions (Gardner et al., 2000, 2005; Pickett et al., 2004). Furthermore, after writing about a time that they were rejected, individuals show a greater ability to differentiate between real and fake smiles (Bernstein, Young, Brown, Sacco, & Claypool, 2008). However, the impact of belongingness

concerns on social processing does not extend to all forms of social processing: reliving a rejection experience does not increase empathic accuracy (Pickett et al., 2004). Taken together, the research on social rejectors' fears and the Belonging Regulation Model raises the hypothesis that social rejectors should experience increased social sensitivity in the domains of interpreting facial expressions and social memory.

Hypotheses

The current study tests the competing hypotheses about how the perspective of a social rejector may influence social sensitivity. Social sensitivity is examined as in previous research: threshold for attributing a mind to an entity, judgments of facial expressions, attention to vocal tone over semantic content, and social memory (Gardner et al., 2000, 2005; Looser & Wheatley, 2010; Pickett et al., 2004). Furthermore, as in previous research (Pickett et al., 2004), a test of non-social cognitive processing is included to examine the possibility that changes in processing extended beyond the social domain.

Hypothesis testing will focus on the competing predictions from the Approach/Inhibition Theory of Power and the Belonging Regulation Model and also include a test of whether effects extend beyond social sensitivity to cognitive problem-solving in general. According to the Approach/Inhibition Theory of Power (Keltner et al., 2003), people who take a social rejector's perspective on a social rejection should show decreased social sensitivity as demonstrated by higher thresholds for attributing a feeling mind to an entity, lower performance on a facial expression judgment task, lowered attention to vocal tone, and decreased social memory. Alternatively, the Belonging Regulation Model (Gardner et al., 2000, 2005; Pickett et al., 2004) suggests that people who take the perspective of a social rejector should show increased social sensitivity as demonstrated by reduced thresholds for perceiving an entity has a mind, increased performance on a facial expression judgment task, increased attention to vocal tone, and increased social memory. Finally, if the role of social rejector generally impacts cognitive problem-solving, then people who take the perspective of a social rejector should also show poorer performance on a non-social memory task.

Methods

Participants

Participants were recruited through an online recruitment platform at the University of Texas at Austin for students in introductory psychology courses. Participants received course credit for their participation. Three hundred and fifty-two participants took part in the study. Forty-eight participants were excluded due to computer crashes ($n = 22$) or for failing a manipulation check presented shortly after the experimental manipulation (see below for description) ($n = 26$), leaving a final sample of 304 participants (202 women, 102 men, 0 other, $M_{age} = 18.75$ years, $SD_{age} = 1.82$ years; age missing for two participants).

A parallel set of analyses were conducted for participants who passed a second manipulation check presented later in the experimental session (note that the pattern of results is similar for the two sets of analyses; see Supplemental Materials). This sample consisted of 245 participants (158 women, 87 men, 0 other, $M_{age} = 18.71$ years, $SD_{age} = 2.18$ years, age missing

for 1 participant) who remained after 107 participants were excluded due to computer crashes ($N = 22$) or for failing the second manipulation check ($N = 85$).

Procedure overview

Participants came to the laboratory to participate in experimental sessions in exchange for course credit in their introductory psychology class (see Figure 1). Upon provision of consent, participants were instructed to rank their preference among five candidates who were vying to win a chance for a taco party with three of their friends (see Candidate Ranking Task). After they ranked the candidates, participants were randomly assigned to the Rejector or Non-Rejector condition (see Manipulation of Rejector vs. Non-Rejector Perspective) and then completed a manipulation check. Participants then completed two individual difference measures (Sense of Power scale: Anderson, John, & Keltner, 2012; the Need to Belong Scale: Leary et al., 2013), and measures of social sensitivity (see Social Sensitivity measures). Finally, participants completed a demographic questionnaire (age, race, gender). Afterwards, the participants were debriefed.

Candidate ranking task

Participants were instructed that five candidates were selected for a chance to win a taco party with three of their friends, and that the winner will be determined by popularity. That is, participants were ranking the candidates in terms of who they liked the most and wanted to award the opportunity to have a party with their friends. Tacos are well liked by the participant
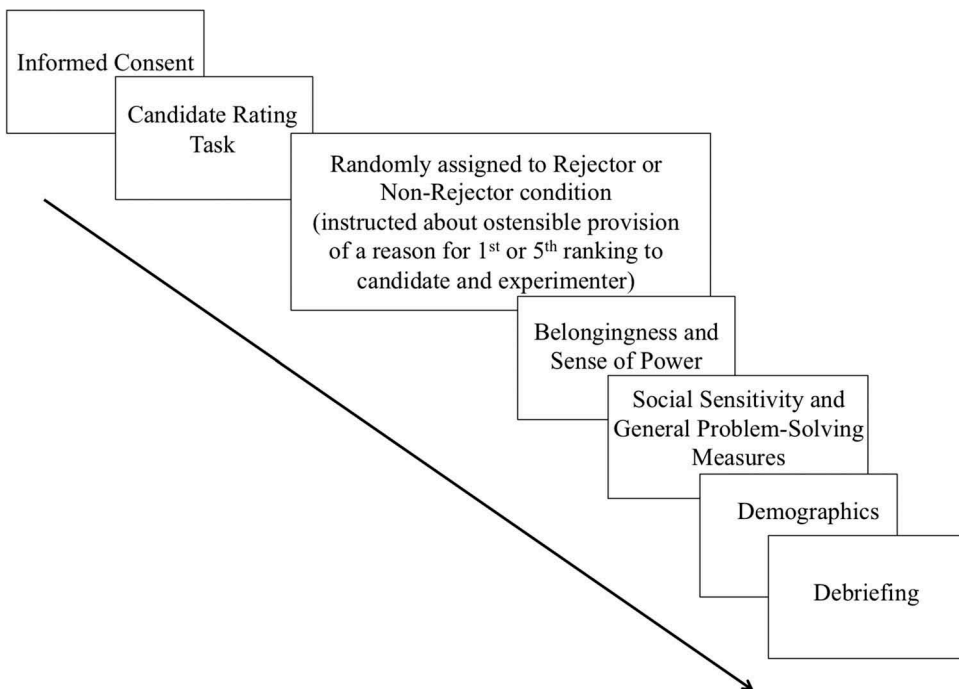
Figure 1. Task order for study.

Table 1. Candidate statements for the candidate ranking task.

Candidate	Statement
1	Hi guys. My name is Greg and I'm eighteen years old. I lived most of my life in San Antonio, but I was born in Austin. I like running and playing guitar. I think I'm going to be a Political Science major, but I'm still undecided. This is my first year at UT, and I've been enjoying most of my classes. I really want to have tacos with my friends!
2	Hi. My name is Andrew. I'm a freshman Chemistry major. I enjoy working out, playing basketball, and going to the movies, especially to see comedies. I grew up in California, but I moved to Texas when I was in middle school. My friends and I love tacos!
3	Hi everyone. I'm Taylor, and I just started at UT this semester. I like playing Frisbee and cooking in my free time. I also enjoy swimming, and I was on the swim team in high school. Right now I think I am going to major in English, but I also like Anthropology. It would be awesome to have some tacos with my friends!
4	Hey, I'm Gabrielle. I'm from outside Austin, and I'm a freshman at UT. I like martial arts, camping, and music. I think I'm going to major in Biology, but I'm also pre-med. In high school, I was in the band and played percussion. I want to have this taco party with my friends!
5	Hi. My name is Lauren, and I am a freshman at UT. I like riding bikes and watching sports. I am majoring in Economics and minoring in Spanish. I like learning about languages, and I have been involved in dance since I was in elementary school. We want a taco party!
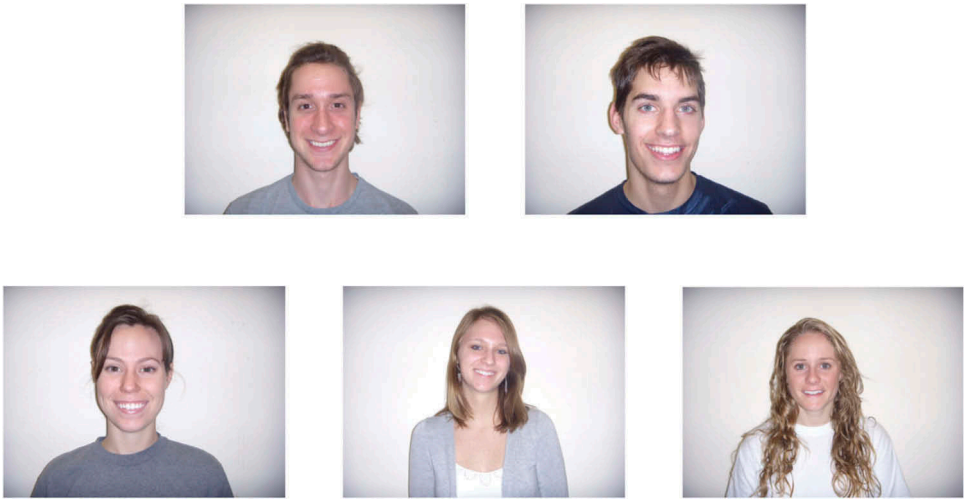
Figure 2. Photos of candidates.

pool and represent something that they can afford themselves, thus, this is more about candidates requesting a social opportunity with their friends than about a monetary reward. Participants read short descriptions (see Table 1) and saw a photograph of each of the five candidates (see Figure 2). After reading the descriptions, participants were instructed that they must rank all candidates in order from who they liked the most and feel should most get to have the taco party (first) to the candidate they liked the least and feel should be least likely to get the taco party (fifth). They were also told that candidates ranked as fifth had a very high likelihood that their request for having the party would be rejected.

Manipulation of Rejector vs. Non-Rejector perspective

After the rankings were made, participants were randomly assigned to a perspective condition. Participants were instructed that they would be asked to write out a rationale

for why they chose to rank a particular candidate as their top choice to receive the taco party (Non-Rejector perspective) or why they rejected a particular candidate's request by ranking them as their lowest choice to receive the taco party (Rejector perspective). More specifically, participants were instructed to "Please write out your rationale for why [candidate's name] was your most popular choice to receive the taco party" (Non-Rejector perspective) or "Please write out your rationale for why you chose to reject [candidate's name] for the taco party" (Rejector perspective). Participants were also told that in addition to writing out their rationale, their rationale would be sent to the candidate but the participant would not be identified to the candidate. Furthermore, participants were told that they would need to discuss their rationale with the experimenter. This manipulation was intended to emphasize that participants were socially accountable for their decision: the decision would be known to the candidate and would also be publicly discussed with the experimenter. Participants learned about the accountability portion after the rankings were already made to ensure that the task was not structured in a manner that favored the social power perspective. That is, the exclusion manipulation boosts social power whereas a forewarning of the accountability may function to minimize concerns about the effect of the rejection on social reputation because participants could strategize their ranking on the basis of how their rationale might make them look good. Therefore, learning about the accountability after the ranking ensured that the task itself manipulated both increased social power and increased concerns about accountability. Participants were then told that they would complete some other tasks before the rationale would be written and discussed.

Manipulation check

This study contained two manipulation checks. The first manipulation check occurred immediately after the manipulation of Rejector vs. Non-Rejector perspective. In this manipulation check, participants read through the condition manipulation (i.e. learned they would provide a rationale for why they chose either their first or last choice) and, on the same screen, had to indicate which candidate they had previously selected for the condition relevant ranking (i.e. their last choice in the Rejector condition and their first in the Non-Rejector condition). To be included in the analyses, participants had to indicate the same first or last choice that they had indicated in the candidate ranking task.

The second manipulation check was presented after participants had completed two-thirds of the dependent measure tasks. Participants selected from multiple choices to complete the statement, "I was asked to write a rationale for why I chose [blank for candidate's name] to [blank for choosing receive or not receive] the opportunity to throw a taco party with their friends" with completion stems of each candidate's name and the phrase "receive" or "not receive" to ensure that participants understood that they would either be accountable for explaining why they chose someone to receive the opportunity for socializing or not. To be included in analyses, participants had to identify their candidate choice that was relevant to their condition and to identify whether their candidate was likely to receive or not receive the taco party as a result of their ranking. Specifically, if the participants were in the Rejector condition, the correct answer was the candidate they previously ranked as last and the phrase "not receive". If the participants

were in the Non-Rejector condition, the correct answer was the candidate they previously ranked as first and the phrase "receive".

The pre-registered design proposed to examine data on the basis of the second manipulation check; we approached the editor about a new plan after an inclusion check on 168 participants (no dependent variables were analyzed at this time). We observed a striking mismatch between answers to the first and second manipulation check (i.e. over three times as many participants failed the second manipulation check compared to the first manipulation check). Furthermore, a 2 (Condition: Rejector, Non-Rejector) × 2 (Manipulation Check: Question 1, Question 2) ANOVA on an analysis of failure rates as a function of condition and manipulation check questions (failed manipulation checks were coded as "0" and passed manipulation checks were coded as "1") through data collected on the day we contacted the editor showed an interaction between condition and manipulation check ($F(1, 183) = 14.92$, $p < .001$, $\eta_p^2 = .08$). Specifically, significantly more participants in the Rejector condition failed the second manipulation check ($M = .59$, $SD = .49$) than participants in the Non-Rejector condition ($M = .81$, $SD = .40$), $t(183) = 3.30$, $p < .01$), yet there were no significant differences in failing the first manipulation check across conditions (in the Non-Rejector condition ($M = .88$, $SD = .33$) compared to the Rejector condition ($M = .88$, $SD = .33$), $t(183) = -.03$, $p = .98$). In consultation with the editor, the plan was revised to complete data collection on the basis of the first manipulation check and to include analyses using the second manipulation check in a supplement. Note that the pattern of findings was generally the same across the two inclusion approaches.

Belongingness and power measures

To test whether the rejection manipulation decreased self-reported belongingness and increased self-reported social power, participants completed belongingness and social power measures immediately after the ranking task.

Self-reported belongingness
As in previous research on the Belonging Regulation Model (e.g. Gardner et al., 2000), participants completed the Need To Belong Scale (NTBS: Leary et al., 2013), which consists of 10 statements that participants respond to on a 5-point scale (1 = strongly disagree, 5 = strongly agree; $\alpha = .80$).

Self-reported social power
Participants completed the Sense of Power Scale (Anderson et al., 2012) which consists of 8 statements that participants respond to on a 7-point scale (1 = strongly disagree, 7 = strongly agree; $\alpha = .80$).

Social sensitivity measures

Participants completed a battery of social cue reading dependent measures described in more detail below: a Mind Perception Task, the Diagnostic Analysis of Nonverbal Accuracy 2 (DANVA-2; Nowicki & Duke, 1994), the Vocal Emotional Stroop, and a Social and Non-Social Memory Task.

Mind Perception Task

The Mind Perception Task asked participants to decide the tipping point at which morphed images of a human face and a doll face seem capable of feeling pain (Looser & Wheatley, 2010). There were 20 images of inanimate faces, which are each morphed with matching human faces at 11 different morphing percentages. This created a set of 220 images for participants to view and rate. The participants rated whether each face can feel pain on a 7-point Likert scale ranging from "definitely cannot feel pain" to "definitely can feel pain". This task has been used in prior research to understand animacy and mind perception (Looser & Wheatley, 2010). The outcome measure for the Mind Perception task is the threshold (i.e. percentage of human vs. doll face) at which participants perceived the face could feel pain. As in prior research, the data were transformed from a 1–7 to 0–1 scale, collapsed across morph, and then fit to a cumulative normal function. The measure is the morph percentage at the point at which participants' perception is .5 (Looser & Wheatley, 2010).

DANVA-2

The DANVA-2 (Nowicki & Duke, 1994) asks participants to identify facial expressions of emotion. For each image of an adult face, participants indicated whether the face is happy, sad, angry or fearful. Twenty-four faces were presented and the percentage of accurate responses was calculated as the outcome measure. As in previous research, only the low-intensity stimuli were analyzed because of ceiling performance rates on the high-intensity stimuli (Gardner et al., 2005).

Vocal Emotional Stroop

As in previous research (Pickett et al., 2004), participants completed the Vocal Emotional Stroop task (Ishii, Reyes, & Kitayama, 2003) which tests how much emotional vocal tone is prioritized in social cue processing. Participants listen to audio recordings of 32 words. Each word was spoken with an angry tone and a joyful tone. Participants listened to all 64 word-tone pairings in a random order and were instructed to judge the valence of the meaning (not the tone). As in previous research (Pickett et al., 2004), the outcome measure for this task is the mean reaction time for incongruent items (e.g. negatively valenced word spoken joyfully) minus the mean reaction time for congruent items (e.g. negatively valenced word spoken angrily) for all items answered correctly.

   We originally hoped to use the Vocal Emotional Stroop (e.g. Roux, Christophe, & Passerieux, 2010) test which includes a larger number of stimuli (80 negatively valenced adjectives and 80 positively valenced adjectives). However, it was later learned that this task is only available in a language that is non-native to our subject pool and, therefore, in agreement with the editor before any data collection began, the protocol was changed to include the Vocal Emotional Stroop stimuli set used in previous research on social rejection (Ishii et al., 2003).

Memory tasks

Finally, the social and non-social memory task used the same procedure from previous research on rejection and memory (Gardner et al., 2000, 2005; Pickett et al., 2004). In the memory task, participants were asked to recall events they read about in a diary (Gardner et al., 2000). The diary, ostensibly written by a same-sex college student, depicted seven types of events varying on valence (positive, negative, neutral) and sociality (individual,

interpersonal, collective; Gardner et al., 2000). After reading the diary and prior to the recall task, participants completed a 4-minute word search as an unrelated filler task. Two subscores were created from the recall task: social memory was operationalized as the number of correctly recalled social events (i.e. interpersonal and collective events); non-social memory was operationalized as the number of correctly recalled individual events.

Debriefing

After completing the social sensitivity measures, the participants were debriefed on why it was necessary to instruct them to consider the prospect of having to write out a rationale to test our hypotheses.

Results

The Rejector condition did not significantly affect social sensitivity. A multivariate analysis of variance (MANOVA) was conducted to predict the effects of condition (Rejector and Non-Rejector) on the five social sensitivity measures (DANVA-2 performance, mind perception, Vocal Emotional Stroop performance, social memory, and non-social memory). Data screening revealed 1 participant response in the Vocal Emotional Stroop that was more than 3 SDs away from the mean and 17 instances (9 Non-Rejector, 8 Rejector) where participants' point of subjective equality in the mind perception task could not be computed due to data that did not conform to our curve fitting algorithm (adapted from Looser & Wheatley, 2010). These cases were removed from subsequent analyses. There were no statistically significant differences in social sensitivity measures as a function of condition ($F(5, 280) = 1.16$, $p = .33$; $\eta_p^2 = .02$).

Table 2 provides means, SDs, and intercorrelations between variables as a function of condition. No *a priori* hypotheses were made about condition effects on variable intercorrelations but they are included for completeness. Both conditions showed significant positive relationships between social and non-social memory (Rejector condition: $r(151) = .47$, $p < .001$; Non-Rejector condition: $r(153) = .52$, $p < .001$) such that the more social items that participants

Table 2. Summary of intercorrelations, means, and SDs for power, need to belong, DANVA-2, mind perception, Vocal Emotional Stroop Task, social and nonsocial memory as a function of condition.

	1	2	3	4	5	6	7	M	SD
1. Power	–	.01	.10	−.07	−.02	−.01	.02	4.71	.77
2. NTBS	−.20*	–	.11	.00	.08	.05	.02	3.57	.68
3. DANVA-2	.00	.12	–	−.17*	−.08	.05	−.02	.57	.14
4. MP	.03	−.17*	.06	–	.06	−.04	−.03	.64	.13
5. VES	.01	.14	.12	.04	–	−.10	.03	.14	.15
6. SM	.11	.01	.07	−.11	−.03	–	.47*	7.17	3.40
7. NSM	.11	.01	.09	.00	.03	.52*	–	2.75	1.50
M	4.81	3.44	.57	.62	.17	7.16	2.58		
SD	.88	.71	.14	.14	.14	3.41	1.63		

Intercorrelations for participants in the Non-Rejector condition ($n = 153$) are presented below the diagonal, and intercorrelations for participants in the Rejector condition ($n = 151$) are presented above the diagonal. Means and SDs for the Non-Rejector condition are presented in the horizontal rows. Means and SDs for the Rejector condition are presented in the vertical rows. NTBS = need to belong scale; MP = mind perception task; VES = vocal emotional Stroop task; SM = social memory; NSM = nonsocial memory.
*$p < .05$
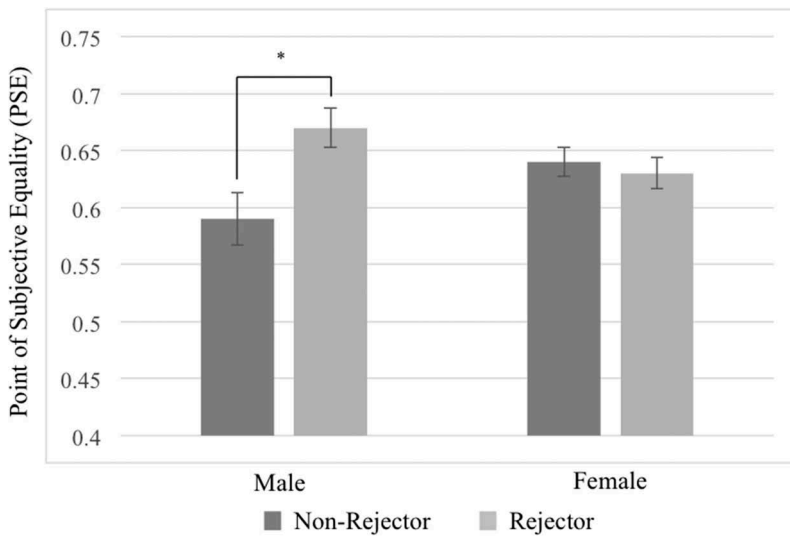
Figure 3. Performance on mind perception task as a function of gender and condition. Men show a significantly higher point of subjective equality (PSE) in the Rejector condition compared to the Non-Rejector condition. In other words, men need the human-doll morph to exhibit more human features before they are willing to say that the target is capable of feeling pain in the Rejector condition compared to the Non-Rejector condition. There is no significant difference in PSE for women in the Rejector condition compared to the Non-Rejector condition. *p < .05, d = .55.

remembered, the more non-social items they were likely to remember as well. The correlation between need to belong and power showed a trend toward a condition effect. That is, need to belong was significantly negatively correlated with power ($r(153) = -.20$, $p = .01$) in the Non-Rejector condition yet a non-significant correlation was observed in the Rejector condition ($r(151) = .01$, $p = .92$; a Fisher r-to-z transformation and test of the correlation differences was marginally significant, $z = -1.8$, $p = .07$). Furthermore, significant negative correlations were found between need to belong and the point of subjective equality in the mind perception task (Non-Rejector condition: $r(144) = -.17$, $p = .04$) and DANVA-2 performance and mind perception performance (Rejector condition: $r(143) = -.17$, $p = .04$).

When gender effects were explored, there was partial support for the hypothesis that the Rejector role blunts social sensitivity. It was men who showed the blunting effects of the Rejector condition on their mind perception (Figure 3). Men in the Rejector condition showed significantly less social sensitivity on the mind perception task (than men in the Non-Rejector condition). A 2 (Condition: Non-Rejector versus Rejector) × 2 (Gender: women versus men) MANOVA tested effects on social sensitivity. There was a marginally significant interaction between condition and gender ($F(5, 278) = 2.14$, $p = .06$, $\eta_p^2 = .04$); neither condition ($F(5, 278) = 1.65$, $p = .15$; $\eta_p^2 = .03$) nor gender showed significant main effects ($F(5, 278) = .90$, $p = .48$; $\eta_p^2 = .02$). This interactive effect was partly driven by effects on mind perception (Figure 3: $F(1, 282) = 5.90$, $p = .02$, $\eta_p^2 = .02$). That is, men in the Rejector condition ($M = .67$, $SD = .11$) showed an average higher threshold for perceiving the capability to feel pain in the human-doll morphs than men in the Non-Rejector condition ($M = .59$, $SD = .17$, $t(92) = -2.61$, $p = .01$, $d = .55$). In other words, men needed more human features in the human-doll morph before they began to see the image as being able to feel pain at a point of subjective equality.
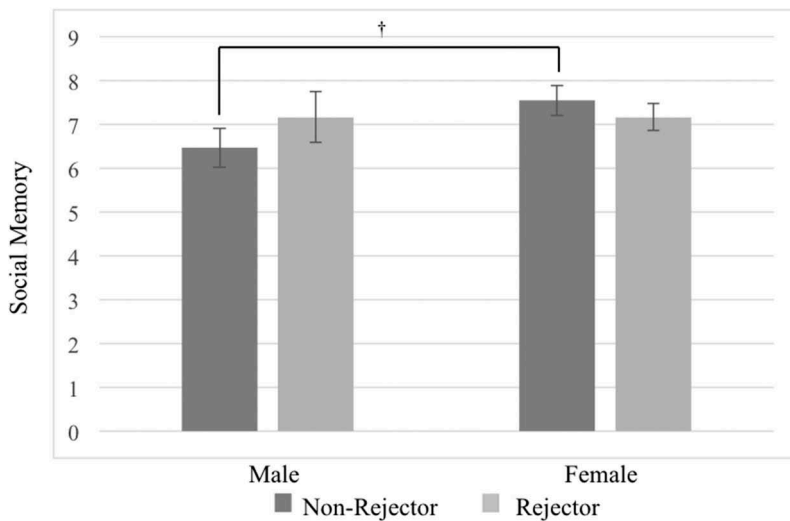
Figure 4. Social memory as a function of gender and condition. Women have marginally significantly enhanced social memory compared to men in the Non-Rejector condition. $^{†}p = .06$, $d = .32$.

The condition effects were observed in men; no significant differences were found for women across condition (Rejector condition: $M = .63$, $SD = .14$; Non-Rejector condition: $M = .64$, $SD = .12$, $t(191) = .38$, $p = .70$). Additionally, women's mind points of subjective equality were not significantly different than men within condition (Rejector condition: men ($M = .67$, $SD = .11$) and women ($M = .63$, $SD = .14$), $t(141) = 1.76$, $p = .08$; Non-Rejector condition: men ($M = .59$, $SD = .17$) and women ($M = .64$, $SD = .12$), $t(142) = -1.78$, $p = .08$).

The significant interaction effect from the MANOVA also suggested that there are gender differences in social memory in the Non-Rejector condition which are not observed in the Rejector condition (Figure 4; $F(1, 282) = 3.76$, $p = .05$, $\eta_p^2 = .01$). In the Non-Rejector condition, men showed marginally lower social memory ($M = 6.47$, $SD = 3.33$) compared to women in the ($M = 7.55$, $SD = 3.40$, $t(151) = -1.90$, $p = .06$, $d = .32$: Figure 4). However, in the Rejector condition, there was no significant difference in social memory between men ($M = 7.17$, $SD = 3.98$) and women ($M = 7.17$, $SD = 3.12$, $t(149) = -.01$, $p = .99$).There was no significant difference within men (Rejector: $M = 7.17$, $SD = 3.98$, Non-Rejector: $M = 6.47$, $SD = 3.33$, $t(100) = -.96$, $p = .34$) and within women participants (Rejector ($M = 7.17$, $SD = 3.12$, Non-Rejector: $M = 7.55$, $SD = 3.40$, $t(200) = .82$, $p = .41$).

There was no significant support for interactions with social power. A Condition (Non-Rejector versus Rejector) × Power MANOVA tested effects on social sensitivity. There were no statistically significant differences based on condition ($F(5, 220) = 1.05$, $p = .39$, $\eta_p^2 = .02$), perceived power ($F(180, 1120) = 1.11$, $p = .17$; $\eta_p^2 = .15$), or their interaction ($F(120, 1120) = .79$, $p = .95$, $\eta_p^2 = .08$).

Data sharing

The materials, data, and analysis scripts are available online through the Open Science Framework at https://osf.io/658ah/?view_only=57cc107918aa49e58194b05262bc9d5a

Discussion

Can rejectors count on enhanced or diminished social sensitivity after rejecting someone? The current study did not find strong support for the enhanced sensitivity predicted by the Belonging Regulation model nor the diminished sensitivity predicted by models of Social Power. However, trends in the data raised the possibility that future research may find that social rejectors experience diminished sensitivity under certain circumstances. That is, sensitivity to the minds of others tended to be diminished for men who rejected the candidate (planned analyses), and memory about the target of the rejection (but not social memory in general) tended to be diminished for participants who rejected the candidate (exploratory analysis). A separate future direction is raised by an exploratory analysis, which found that the Non-Rejector condition was associated with a negative relation between power and need to belong, whereas the Rejector condition showed no significant relation between power and need to belong.

The current findings raise the possibility that there may be gender differences in how the rejector role affects aspects of social sensitivity. More specifically, it may be men who show diminished capability of perceiving pain in others. For men who were asked to focus on why they rejected their lowest ranking candidate (compared to men who were asked to focus on accepting their top candidate), the human-doll morphs needed to include a higher percentage of human features on average before they were perceived to be capable of feeling pain. It is possible that a gender difference arises because men feel they can afford to experience diminished sensitivity to another person's capacity for feeling more than women who find themselves faced with rejecting someone. When women socially reject another person they violate the prescriptive norm that assigns an expectation of warmth to women and reserves agentic behavior for men (Prentice & Carranza, 2002). In comparison to male rejectors, female rejectors are viewed in a more negative light and are more likely to expect some form of penalization for engaging in social rejection (Freedman, Fetterolf, & Beer, 2018). Women's perception that they are subject to increased social pressure to be sensitive to others' needs may lead women to sustain social sensitivity when they reject someone. However, men feel less social pressure to attend to others' needs (Rudman, Moss-Racusin, Phelan, & Nauts, 2012) and, therefore, may feel more freedom to couple their rejection of another person with a lowered concern about the person's capacity for pain. If our interpretation is correct, then we would expect to see that men's sensitivity to others' capacity for pain is significantly driven down when in a rejector role compared to situations in which neither social rejection nor social acceptance is salient. However, the current study did not include a measure of sensitivity to others' capacity for pain when social acceptance and rejection dynamics were not present. Future work would benefit from research designed to examine whether perceptions of gendered norms around warmth and agency affect the extent to which rejectors exhibit diminished social sensitivity.

One exploratory analysis from the current study also raises the possibility that social rejectors experience diminished social sensitivity but the impairment is specific to memory about the target of rejection. Participants did not show social memory effects as a function of rejector role when social memory was measured in relation to a hypothetical person who was not involved in the rejection (i.e. the person who ostensibly wrote the

diary entries). However, an exploratory analysis with the second manipulation check painted a different picture. When participants were told that they would eventually write a letter stating the reasons for their rejection of a candidate, they were less likely to remember which candidate would receive the letter as the time to write the letter drew nearer. Therefore, future research may benefit from paradigms that specifically investigate the effect of the social rejector role on memory about the person who has been rejected rather than social memory in a broader sense.

Finally, another exploratory analysis raises the possibility that the social rejector role affects the association between need to belong and power. In the current study, need to belong was negatively associated with feelings of power in the Non-Rejector condition. However, there was a null association between need to belong and power in the Rejector condition (which was marginally different from the association found in the Non-Rejector condition). Why would the social rejector role affect the association between need to belong and power? The role of rejector has been theorized to increase concerns about one's belongingness (e.g. reputation) as well as increase feelings of power (Zadro & Gonsalkorale, 2014). However, very little is known about how increased belongingness concerns and feelings of power operate together when people are faced with socially rejecting someone. If all social rejectors experienced a systematic heightening of their concern about belongingness and feelings of power, then individual differences in need to belong and power might have been expected to show a positive association in the Rejector condition. The current findings raise the possibility that not all rejectors experience coordinated increases in reputational concerns and feelings of power. Future work may benefit from studies that are designed to understand how the rejector role may differentially affect concerns about belongingness and power as a function of individual differences and elements of the rejection interaction. Once the effect of the rejector role on belongingness and power is better understood, it may be possible to proceed with more robust hypotheses about when and for whom the role of social rejector is associated with enhanced or diminished social sensitivity.

While the current study did not find strong support that social rejectors experience significant changes in their social sensitivity, some planned and exploratory analyses raise avenues that may be fruitful in future research. It is possible that rejecting another person is associated with certain kinds of diminished social sensitivity. A planned analysis suggested a marginal trend for men in the social rejector role to experience less sensitivity to others' ability to feel pain (than men in a non-rejector role). An exploratory analysis also raised the possibility that the social rejector role may impair social memory but only for memories about the target of the rejection. Finally, an exploratory analysis suggested that more research is needed to understand when and for whom the role of social rejector influences concerns about one's own belongingness and feelings of social power.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

Anderson, C., & Berdahl, J. L. (2002). The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, *83*(6), 1362–1377.

Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, *80* (2), 313–344.

Baumeister, R. F., Wotman, S. R., & Stillwell, A. M. (1993). Unrequited love: On heartbreak, anger, guilt, scriptlessness, and humiliation. *Journal of Personality and Social Psychology*, *64*(3), 377–394.

Bernstein, M. J., Young, S. G., Brown, C. M., Sacco, D. F., & Claypool, H. M. (2008). Adaptive responses to social exclusion: Social rejection improves detection of real and fake smiles. *Psychological Science*, *19*(10), 981–983.

Buckley, K. E., Winkel, R. E., & Leary, M. R. (2004). Reactions to acceptance and rejection: Effects of level and sequence of relational evaluation. *Journal of Experimental Social Psychology*, *40*, 14–28.

Critcher, C. R., & Zayas, V. (2014). The involuntary excluder effect: those included by an excluder are seen as exclusive themselves. *Journal Of Personality and Social Psychology*, *107*, 454–474.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist*, *48*(6), 621–628.

Folkes, V. S. (1982). Communicating the reasons for social rejection. *Journal of Experimental Social Psychology*, *18*, 235–252.

Freedman, G., Fetterolf, J. C., & Beer, J. S. (2018). Engaging in social rejection may be riskier for women. *The Journal of Social Psychology*. doi:10.1080/00224545.2018.1532388

Freedman, G., Williams, K. D., & Beer, J. S. (2016). Softening the blow of social exclusion: The responsive theory of social exclusion. *Frontiers in Psychology*, *7*, 1–17.

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, *17*(12), 1068–1074.

Gardner, W. L., Pickett, C. L., & Brewer, M. B. (2000). Social exclusion and selective memory: How the need to belong influences memory for social events. *Personality and Social Psychology Bulletin*, *26*, 486.

Gardner, W. L., Pickett, C. L., Jefferis, V., & Knowles, M. (2005). On the outside looking in: Loneliness and social monitoring. *Personality and Social Psychology Bulletin*, *31*(11), 1549–1560.

Gonzaga, G. C., Keltner, D., & Ward, D. (2008). Power in mixed-sex stranger interactions. *Cognition and Emotion*, *22*(8), 1555–1568.

Gooley, S. L., Zadro, L., Williams, L. A., Svetieva, E., & Gonsalkorale, K. (2015). Ostracizing for a reason: A novel source paradigm for examining the nature and consequences of motivated ostracism. *The Journal of Social Psychology*, *155*(5), 410–431.

Ishii, K., Reyes, J. A., & Kitayama, S. (2003). Spontaneous attention to word content versus emotional tone: Differences among three cultures. *Psychological Science*, *14*, 39–46.

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, *110*(2), 265–284.

Kleef, G. A., Van De Dreu, C. K. W., & Manstead, A. S. R. (2004). The interpersonal effects of emotions in negotiations: A motivated information processing approach emotions in negotiation. *Journal of Personality and Social Psychology*, *87*(4), 510–528.

Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the need to belong scale: mapping the nomological network. *Journal Of Personality Assessment*, *95*(6), 610–624.

Legate, N., DeHaan, C., Weinstein, N., & Ryan, R. M. (2013). Hurting you hurts me too: The psychological costs of complying with ostracism. *Psychological Science*, *24*(4), 583–588.

Looser, C. E., & Wheatley, T. (2010). The tipping point of animacy: How, when, and where we perceive life in a face. *Psychological Science*, *21*(12), 1854–1862.

Nezlek, J. B., Wesselmann, E. D., Wheeler, L., & Williams, K. D. (2015). Ostracism in everyday life: The effects of ostracism on those who ostracize. *The Journal of Social Psychology*, *155*(5), 432–451.

Nowicki, S., & Duke, M. P. (1994). Individual differences in the nonverbal communication of affect: The diagnostic analysis of nonverbal accuracy scale. *Journal of Nonverbal Behavior*, *18*(1), 9–35.

Pickett, C. L., Gardner, W. L., & Knowles, M. (2004). Getting a cue: The need to belong and enhanced sensitivity to social cues. *Personality and Social Psychology Bulletin*, *30*(9), 1095–1107.

Prentice, D. A., & Carranza, E. (2002). What women and men should be, shouldn't be, are allowed to be, and don't have to be: The contents of prescriptive gender stereotypes. *Psychology of Women Quarterly*, *26*(4), 269–281.

Roux, P., Christophe, A., & Passerieux, C. (2010). The emotional paradox: Dissociation between explicit and implicit processing of emotional prosody in schizophrenia. *Neuropsychologia*, *48*, 3642–3649.

Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, *48*, 165–179.

van Kleef, G. A., Oveis, C., van Der Lö We, I., Luokogan, A., Goetz, J., & Keltner, D. (2008). Power, distress, and compassion: Turning a blind eye to the suffering of others. *Psychological Science*, *19* (12), 1315–1322.

Williams, K. D. (2009). Ostracism: A temporal need-threat model. In M. Zanna (Ed.), *Advances in experimental social psychology* (pp. 279–314). New York, NY: Academic Press.

Wirth, J. H., Sacco, D. F., Hugenberg, K., & Williams, K. D. (2010). Eye gaze as relational evaluation: Averted eye gaze leads to feelings of ostracism and relational devaluation. *Personality and Social Psychology Bulletin*, *36*(7), 869–882.

Zadro, L., Boland, C., & Richardson, R. (2006). How long does it last? The persistence of the effects of ostracism in the socially anxious. *Journal of Experimental Social Psychology*, *42*, 692–697.

Zadro, L., & Gonsalkorale, K. (2014). Sources of ostracism: The nature and consequences of excluding and ignoring others. *Current Directions in Psychological Science*, *23*(2), 93–97.

Zadro, L., Williams, K. D., & Richardson, R. (2005). Riding the "O" train: Comparing the effects of ostracism and verbal dispute on targets and sources. *Group Processes & Intergroup Relations*, *8*(2), 125–143.