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Rejection via video: The impact of observed group and individual rejection

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Wanting to be included is rooted in the human evolution as a social animal, dependent on the group for survival. Rejection, ostracism, or exclusion threaten fundamental psychological needs (Williams, 2009). Sensitivity to even the slightest cues of ostracism is theorized to be adaptive (Spoor & Williams, 2007) and can explain psychological distress responses to seemingly trivial instances of non-inclusion (e.g., by a computer program; Zadro, Williams, & Richardson, 2004), even when only observing somebody being ostracized (Wesselmann, Williams, & Hales, 2013, for a review). Here, we tested a new video-based rejection manipulation that is easy-to-administer, controlled and engaging for participants.

The terms rejection, ostracism, and exclusion are often used interchangeably, however, there are critical differences. *Rejection* involves an explicit declaration that a person or a group does not want to interact or be in the company of a target individual and follows interaction and separation (Leary, Kelly, Cottrell, & Schreindorfer, 2005). *Ostracism*, the state of being ignored and excluded, typically concerns a sequence of behaviors, without explicit negative attention (Williams, 2007). *Social exclusion* refers to being kept apart from others after interaction and separation or as hypothetical consequence in the future and can involve explicit declarations of dislike (Twenge, Baumeister, Tice, & Stucke, 2001). Research supports the distinctiveness of these three terms: Ostracism, as opposed to anticipated exclusion, results in decreased needs satisfaction and mood (Bernstein & Claypool, 2012a). Being rejected produces a sense of social loss and prevention-focused responses whereas being ignored produces more promotion-focused responses (Molden, Lucas, Gardner, Dean, & Knowles, 2009).

The current research focuses on *rejection*, specifically we look at the case of observing and taking the perspective of another being actively denied access to a desired interaction with others.

Inducement of ostracism by observation

Cyberball (Williams et al., 2000), the most prominent ostracism manipulation in the literature (Hartgerink, Wicherts, van Beest, & Williams, 2015), is high in internal and external validity.

Participants are led to believe they are being ostracized by real other participants represented as players in an online ball tossing game who are in fact computerized. It provides a real experience of ostracism and is engaging, while being versatile regarding the situational frame in which it is presented. It has also been successfully adapted to induce *vicarious* ostracism (Wesselmann, et al. 2009): Participants, who merely watched a Cyberball game, showed the psychological reactions usually found when experiencing actual exclusion during Cyberball, especially when instructed to empathize with the excluded player. Children who watch a Cyberball game with abstract shapes show more imitation of affiliative behavior when observing a shape being ostracized (Over & Carpenter, 2009).

Development of a video-based rejection paradigm

In this study, we add a novel paradigm to the arena of reflected experiences of denied interactions, in particular rejection by observation. In the past, researchers have used the established *Get-Acquainted* paradigm to induce rejection, which involves getting acquainted to others who later reject the participant for further interaction (e.g. Nezlek, et al., 1997). This engaging paradigm is lab-based and requires at least one confederate who gives the rejection feedback.

Here, we strove to create a simpler yet controlled, vivid and functional paradigm. Similar to the O-Cam paradigm (Goodacre & Zadro, 2010) where participants are led to believe that they are being ostracized by previously video-graphed others in real time, we intended to take advantage of a video-based manipulation to induce a rejection experience. Video-based manipulations of psychological states usually reveal large effect sizes in inducing mood and have been proven more effective than reliving experiences, scenarios, and social interaction studies, especially when combined with an instruction to deliberately enter the depicted emotional experience (see Westermann, Spies, Stahl, & Hesse, 1996). Therefore, we produced a video clip about a protagonist who gets explicitly rejected. Participants are instructed to empathize with this protagonist and vividly imagine what they might think and feel themselves in this situation. This

manipulation has several advantages: First, unlike the Get-Acquainted paradigm, it can easily be administered online. Second, unlike the vicariously reliving experiences, it represents an experimentally controlled perspective-taking experience for each participant. Third, unlike scenario descriptions, it is vivid and pictorial, eliciting an engaging experience. Compared to an observed experience in Cyberball, it is more specific to rejection rather than ostracism and it refers to an ecologically valid context. Testing the effectiveness of this rejection manipulation, we investigated the typically measured basic psychological needs of belonging, self-esteem, control, and meaningful existence (Williams, 2009) that have been shown to be frustrated by direct (for a meta-analysis, see Hartgerink et al., 2015) and vicarious (Wesselmann et al., 2009) ostracism experiences, as well as by exclusion (Tuscherer et al. 2015) and rejection experiences (Wirth, Bernstein, Wesselmann, & LeRoy, 2015).

Role of social impact

Our primary hypothesis was that participants who empathized with being rejected in the video would report lower need fulfilment compared to participants who empathized with being accepted.

Additionally, we examined whether this manipulation conveys the nuance of situational factors: social context moderating reactions to rejection. Williams and Nida (2011) theorized that ostracized groups in comparison to ostracized individuals provide their members with a sense of belonging, self-esteem, control, and meaning. According to social impact theory, an increase in the number of targets can decrease social impact (Latané, 1981). Sharing experiences with others can help establish connection (Echterhoff, Higgins, & Levine, 2009), e.g. the shared experience of discrimination can provide a sense of inclusion (Branscombe, Schmitt, & Harvey, 1999), and physical presence of a co-target resulted in less negative effects of ostracism (Van Beest, Carter-Sowell, Van Dijk, & Williams, 2012). Transferring these considerations and results to the state of rejection, we hypothesized that empathizing with individual rejection would lead to lower need fulfilment than group rejection.

Method

Participants and Design

Two hundred and thirty eight people (mean age = 32.07, *SD* = 11.84; 105 male, 124 female, 9 did not indicate gender; 173 European American, 46 African American, Asian, Latino or Native American, 7 indicated a mixture of European and another American background, 12 did not specify ethnic group) from the United States completed the study online through Amazon.com's Mechanical Turk (MTurk) for $0.25. Examining the validity of a new paradigm, based on participants empathizing with actors in an online study, we expected small to medium sized effects and stopped the MTurk data collection just after the G*Power-recommended (Faul, Erdfelder, Lang, & Buchner, 2009) sample size of 210 had been reached.

Participants were randomly assigned to a 2 (status: rejection vs. acceptance) x 2 (context: individual vs. group) between-subjects design.

Procedure

After indicating consent, participants completed a measure of individualism and collectivism. Then, they watched the video clip instructed to empathize with the protagonist and to imagine as specifically as possible what they might think and feel in this situation. This was followed by a 5-sec instruction: "Now ask yourself: What would I think? What would I feel? What would I do?" Subsequently, a manipulation check and basic need fulfilment were measured. Finally, participants were asked to give demographic information and were thanked and debriefed.

Materials

Ind-col. To conceptually examine cultural differences previously found in ostracism research (Over & Uskul, 2016; Pfundmair et al. 2015a; Pfundmair, Graupmann, Frey, & Aydin, 2015b), participants responded to 32 statements from the Horizontal and Vertical Individualism and Collectivism scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995; *1 = not at all* to 7 = *very much).* All individualism items (α=.76) and all collectivism items (α=.86) were aggregated.

Status. In the video clip (http://www.unipark.de/uc/videorejection/)[1] a female college student walks through a hallway towards the door of an apartment; in the background, there is party music and distant voices talking. The student rings the doorbell. The male host opens the door, looks at her, and says, 'Sorry, you're not invited.' (rejection) or 'Hey, come in!' (acceptance). In the rejection condition, the host closes the door and the person walks back looking disappointed; in the acceptance condition, the person cheerfully walks into the apartment and the host closes the door. Each video clip takes 27 seconds.

Context. In the individual context condition, the video clip is as described above. In the group context condition, the female student is accompanied by two female students in both the acceptance and the rejection scenario, suggesting that all three are either accepted or rejected.

Manipulation check. Perception of rejection and acceptance was assessed by one item ("Imagining yourself as a person in the video, to what extent did you feel excluded?"; 1= *not at all*, 7 = *very much*) to capture the general sentiment of exclusion as used in everyday language.[2]

Basic needs. Participants responded to 20 items assessing the fulfilment of four basic needs (Jamieson, Harkins, & Williams, 2010; Van Beest & Williams, 2006), by indicating how much they agreed with statements like "*Imagining myself as a person in the video*, I felt 'disconnected'"[recoded] (belonging), "…I felt good about myself"(self esteem), "…I felt powerful"(control), "…I felt invisible" [recoded](meaningful life), scaled 1= *not at all*, 7 = *very much*. All items were aggregated to an overall needs scale (α=.94), higher values indicating higher need fulfilment.

Results

For descriptive statistics, see Table 1.

Effectiveness of paradigm. Status was perceived as expected: Participants in the rejection condition indicated feeling significantly more excluded (M=5.56, SD=1.72) than participants in the acceptance condition (M=2.55, SD=1.86), $t(236)$=-12.97, p<.001, d=-1.68, 95%CI=[-1.98, -1.38]. This could also be observed on the basic needs level: Participants who had observed the

rejection showed significantly lower need fulfilment (M=2.74, SD=1.14) than participants who had observed acceptance (M=4.47, SD=1.06), $t(236)=12.11$, $p<.001$, d=1.57, 95%CI=[1.28, 1.86].

Social impact. To investigate the manipulation's sensitivity to the impact of an individual or group context, we calculated a 2 (status) x 2 (context) ANOVA on basic need fulfilment. The ANOVA revealed a significant main effect of status, $F(1,234)=154.24$, $p<.001$, $\eta^2=.40$, 95% CI=[.30, .48], but no main effect of context, $F(1,234)=0.76$, $p=.385$, $\eta^2=.003$. Notably, a significant status x context interaction emerged, $F(1,234)=7.34$, $p=.007$, $\eta^2= .03$, 95%CI=[.002, .08]. Analyses of simple effects revealed that both participants in the individual context condition, $F(1,234)=108.00$, $p<.001$, $\eta^2=.32$, 95%CI= [.22, .40], and participants in the group context condition, $F(1,234) = 50.13$, $p < .001$, $\eta^2 = .18$, 95% CI = [.10, .26], showed significantly lower need fulfilment when empathizing with the observed rejection than when empathizing with the observed acceptance. Participants faced with individual and group acceptance indicated similar need fulfilment, $F(1,234)=1.72$, $p= .191$, $\eta^2=.01$. However, participants faced with individual rejection showed lower need fulfilment than participants faced with group rejection, $F(1,234)=6.29$, $p=.013$, $\eta^2=.03$, 95%CI=[.001, .08].

Exploratory analyses of individual level factors. Neither individualism nor collectivism and their interactions with status were significantly related to the dependent variable, ps>.204. Investigating participants' ethnic background, we calculated a 2 (status) x 2 (ethnicity) ANOVA on basic need fulfilment. The ANOVA revealed a significant main effect of status, $F(1,215)=76.21$, $p<.001$, $\eta^2=.26$, 95%CI=[.17, .35], but no main effect of ethnicity, $F(1,215)=1.38$, $p=.241$, $\eta^2=.01$. Importantly, a marginally significant status x ethnicity interaction emerged, $F(1,215)=3.77$, $p=.054$, $\eta^2=.02$, 95%CI=[.00, .07]: Analyses of simple effects revealed that both European Americans, $F(1,215)=135.54$, $p<.001$, $\eta^2=.39$, 95%CI=[.29, .47], and participants who did not identify as European American (African, Asian, Latino, or Native American), $F(1,215)=14.59$, $p<.001$, $\eta^2=.06$, 95%CI=[.02, .13], showed lower need fulfilment in response to observed rejection than acceptance. All participants indicated similar need fulfilment

empathizing with the observed acceptance (M_{ind}=4.50, SD=1.05; M_{col}=4.36, SD=1.07), $F(1,215)=0.29$, p=.594, η^2=.001. When empathizing with the observed rejection, however, European American participants reported lower need fulfilment (M=2.59, SD=1.05) than the other participants (M=3.15, SD=1.30), $F(1,215)=4.98$, p=.027, η^2=.02, 95%CI=[.00, .08].

Since a female actor encounters a male rejecter in this paradigm, we investigated whether this manipulation was differentially effective for men and women, including gender as a covariate in our main analyses. The ANCOVAs did not alter the main effect of status and only slightly changed the observed interaction effects (status x context: p=.022; status x ethnicity: p=.053). We moreover calculated a 2 (status) x 2 (gender) ANOVA on need fulfillment which showed a significant main effect of status, p<.001, no main effect of gender, p=.804, and a significant interaction effect, p=.042. Analyses of simple effects, however, did not reveal differences between male and female participants with regard to rejection, p=.108, or acceptance experiences, p=.202. Therefore, we conclude that gender did not have a bearing on participants' reactions.

Discussion

Compared to participants in the acceptance condition, participants in the rejection condition reported feeling more rejected and demonstrated lower fulfilment of basic needs—a variable typically affected in established ostracism manipulations (see Williams, 2009). This suggests that the video-based observed rejection manipulation tested in this study leads to an experience clearly distinguishable from the acceptance manipulation. The effect size of the manipulation was large (manipulation check: d = -1.68; need fulfilment: d = 1.57; Cohen, 1988) and comparable to the average Cyberball effect (d = -1.36; Hartgerink et al., 2015), importantly, it was also comparable to the vicarious Cyberball effect (need fulfilment when instructed to empathize: d = 2.10; Wesselmann et al., 2009).

Past research has shown that sensitivity to belonging threats is high enough to impact basic needs satisfaction by merely observing ostracism (Wesselmann, et al., 2013). The current study shows these effects also for rejection. The work by Wesselmann and colleagues (2009) suggests

that people, especially when appropriately instructed, vicariously experience ostracism when observing somebody not being included in an ongoing Cyberball game. Here, we asked participants to take the perspective of a target person being rejected in a video, finding that observing rejection in a video similarly leads to the experience of thwarted need fulfilment.

The new manipulation was sensitive to known situational factors. Participants faced with individual rejection indicated lower need fulfilment than participants faced with group rejection. It mirrors the result pattern in another ostracism study showing that being united in a victim position can be beneficial when ostracized (Van Beest et al., 2012) and supports the idea of social impact being mitigated when an ingroup shares the experience of rejection.

Furthermore, our exploratory analyses revealed that participants with a European American background indicated lower need fulfilment in response to rejection compared to American participants with other ethnic backgrounds. Assuming that a European American background is associated with more individualism, this finding could be interpreted as in line with recent evidence showing that individualistic cultural backgrounds are associated with more psychological impact of social exclusion and ostracism (Pfundmair, et al., 2015a; Ren et al., 2013). On the other hand, we do not find these differences reflected with regard to participants' variation in ind-col levels. It is plausible that due to the within-culture nature of the ind-col distinction in our sample the explicit cultural norms and values in the ethnic groups are less predictive in this context (Fiske, 2002).

Although explicitly manipulating rejection, our findings were analogous to findings for both ostracism and exclusion regarding perspective taking and group contexts. Thus, even though some empirical findings support the distinctiveness of these three states (Bernstein & Claypool, 2012; Molden et al., 2009), our results suggest that they might also overlap to some extent.

Some limitations to our study should be addressed: The interaction effect of status and ethnicity only yielded a small effect. This might be due to the uneven sample sizes in the ethnic groups caused by the quasi-experimental design. Also, ostracism has been shown to hurt more

when it is implemented by same-race ostracizers (Sacco, Bernstein, Young, & Hugenberg, 2014). Could the observed status x ethnicity interaction mirror intensified feelings due to rejection by a fellow in-group rather than due to the known cultural reasons? The rejecter in our video was Latino, the targets were all white, however, European American participants showed the most pronounced reactions. Therefore, our results do not support the findings of Sacco et al.'s (2014) study but instead support the known cultural effects. On the other hand, it might also be that European American participants could more easily empathize with the white targets. This possibility should be investigated in future research. However, not finding an effect for gender suggests, that the observers' group membership might not play a role here (see Footnote 3).

Finding group-level observed rejection to be psychologically less threatening has practical implications in contexts of media representation of people suffering rejection, e.g. refugees in a host country: If a refugee being denied access to a society as a member of a group is perceived as less grave by the observer, it could affect willingness to support efforts to integrate refugees. This suggests that contextualizing and individuating information about refugees might be beneficial for integration not only because it can enhance empathy, but also because being presented as a group member could decrease the impact of perceived rejection on empathetic reactions.

In the current study, we introduced a video-based rejection paradigm that can be considered valid and sensitive to situational factors. The advantages lie in its easy employment, the exposure to the same amount and type of information allowing for more experimental control, and its vividness and effectiveness. It moreover taps into the less studied area of group rejection and therefore allows for testing novel theoretical predictions.

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Table 1

Means and standard deviations (in parentheses) of variables as a function of status (rejection vs. acceptance) and context (individual vs. group)

	Rejection		Acceptance	
	Individual context (n = 54)	Group context (n = 63)	Individual context (n = 58)	Group context (n = 63)
Need fulfilment	2.47 (1.21)	2.98 (1.03)	4.60 (0.99)	4.34 (1.11)

[1] All actors in the video gave consent to having the video shown online.

[2] Since our main dependent variable, the established Need-threat scale (Jamieson, Harkins, & Williams, 2010; Van Beest & Williams, 2006) contains the item "I felt rejected." we decided to leave the scale intact while not repeating the item in the manipulation check by using "excluded" here.