To Comply or Not To Comply: Social Exclusion Increases Compliance in Cyberball but Only With the Non-Rejecters

**ABSTRACT:** Previous studies indicate that social exclusion reduction in prosocial behavior. However, ostracized participants tend to be more susceptible to social influence attempts. The current studies examined the effect of exclusion on compliance. In line with the need threat model of ostracism, the results indicate a decrease in mood and needs after being excluded. The compliance rate was generally greater among rejected participants (study 1). The tendency to engage in volunteering was, however, higher when participants were asked to engage in a collective (vs. individual) task, which was to be performed with other participants, than the source of ostracism (study 2). These results align with other findings indicating that people tend to respond aggressively rather than prosocially towards rejecters and tend to restore threatened needs by making new friends.

**KEYWORDS:** ostracism, exclusion, rejection, Cyberball, social influence, compliance, volunteering
Ostracism (being excluded, rejected, or ignored) is a hurting event that causes immediate negative consequences and influences behavioral responses (Gerber & Wheeler, 2009; Williams & Nida, 2017; Wesselmann et al., 2015). Excluded or rejected individuals experience hurt feelings (Smart Richman & Leary, 2009), threatened fundamental needs (belonging, self-esteem, control and meaningful existence), frustration (Williams et al., 2000; Zadro et al., 2004), drops in self-esteem (Baumeister & Leary, 1995), and social pain (Eisenberger et al., 2003). Ostracism is psychologically painful and distressing to a target; it is essential to investigate the conditions under which ostracized individuals strive to restore threatened needs and regain social bonds. One way to reconnect is by behaving in socially desirable manners. The purpose of the present studies is to focus on the conditions under which ostracized individuals respond prosocially in their attempts to restore needs and social bonds.

Social exclusion activates different mechanisms. Research on main behavioral strategies focuses on the paradox of conflicting motives: prosocial (i.e., directed at helping rather than harming others, see, e.g., Brief & Motowidlo, 1986) and aggressive responses to ostracism (Wesselmann et al., 2015). It is well documented that ostracized individuals respond more anti-socially than included individuals do (Leary et al., 2003; Leary et al., 2006; DeWall et al., 2009; Twenge, 2005). Aggression after exclusion occurs especially when ostracism is associated with a lack of control over an unpleasant situation (Gerber & Wheeler, 2009; Leary et al., 2006). On the other hand, research indicates that ostracized individuals respond more prosocially than included individuals. Individuals experiencing rejection display increased attention to social cues (Bernstein et al., 2008; Bernstein et al., 2010; Böckler et al., 2014; DeWall et al., 2011) and focus more on re-inclusion (Maner et al., 2007; Molden et al., 2009). Moreover, ostracized people, especially women, tend to engage in collective tasks rather than individual tasks (Williams & Sommer, 1997), conform to others (Williams, et al., 2000), comply with requests (Carter-Sowell et al., 2008), mimic oth-
er people's behaviors (Lakin & Chartrand, 2005), and obey direct commends (Riva et al., 2014). Therefore, motivation to re-affiliate increases rejected individuals' sensitivity to social cues, indicating belongingness opportunities. Individuals may cope with ostracism events by responding in a prosocial manner. However, little is known about the conditions under which ostracized individuals strive to regain social bonds.

Social exclusion is associated with a strong desire for acceptance. This may lead towards interacting with social actors with whom it is possible to affiliate. Rejected individuals further have enhanced abilities to determine real from false smiles (Bernstein et al., 2008) and prefer to work with people who smile sincerely (Bernstein et al., 2010). Moreover, ostracized individuals tend to find new connections (Maner et al., 2007) rather than engage in prosocial behavior with others who have ostracized them in the past (Balliet & Ferris, 2013). Even a threat of social exclusion produces an increased tendency to search for new friends, willingness to cooperate and reward new interaction partners, as well as forms positive self-impression of novel social targets (Maner et al., 2007; Twenge, 2005). We suggest that such prosocial behaviors are more likely after an experience of ostracism as it gives the possibility of restoring social connections.

Carter-Sowell et al., (2008) indicated that ostracized individuals in a Cyberball game were more compliant with requests. Cyberball is an experiment designed to induce ostracism (Williams et al., 2000) and is the predominant design for “inducing inclusion and exclusion in a computerized setting” (Vorderer & Schneider, 2017, p. 245). Cyberball induces large ostracism effects, can generalize across a number of players (i.e., structural aspects), gender (e.g., sampling aspects), and across different interpersonal, intrapersonal, fundamental need outcomes (Hartgerink et al., 2015). Compliance, agreeing with a direct request (Kenrick et al., 2010), is an important behavior that allows a rejected person to restore threatened needs. Cialdini and Goldstein (2004) identified three goals that lead people to respond to social influence: needs of accuracy, affiliation, and positive self-esteem maintenance. Complying with others serves fundamental needs. Compliance is an example of socially desirable behavior that gives the possibility of restoring frustrated needs. This led to the first hypothesis:

H1: Ostracized individuals will be more compliant with requests than included individuals.

Moreover, we anticipated that compliance would be greater if it was related to working with others rather than working alone (Williams & Sommer, 1997), as working alone does not provide an opportunity to support social connections. Hence the second hypothesis:

H2: Ostracized individuals would be more compliant with requests than the included individuals if fulfilling a request would be a collective rather than an individual task.

Finally, we predicted that compliance would be greater if fulfilling a request would be connected with making new friends (Maner et al., 2007) rather than working with rejecters, leading to the third and final hypothesis:
H3: Ostracized individuals would be less compliant with requests than the included individuals if fulfilling a request would mean working with rejecters.

**STUDY 1**

**Participants**

Thirty-six University of Lower Silesia undergraduates (30 women, aged 19 to 27, $M = 24.6$, $SD = 7.2$) recruited from introductory psychology and pedagogy courses participated in the study. The undergraduates did not obtain any credit, and their participation was voluntary. Participants were randomly assigned to either inclusion or exclusion conditions. None of the participants expressed suspicion about the Cyberball game (nobody guessed the hypothesis when asked at the end of the experiment what the study was about); thus, no one dropped from the analysis.

**Procedure and methods**

*Cyberball.* We used Cyberball (Williams & Jarvis, 2006; Zadro et al., 2003) to produce an episode of ostracism. Participants were taken to the lab and seated at a computer. They were informed that they were going to play an internet game of ball toss with two other students. The computer game, Cyberball, instructed participants not to worry about the game itself but to use it as a means to engage their mental visualization abilities. The Cyberball game depicted three players on a computer screen, of which two were positioned to the left and right of a figure that represented the participant, placed in the 6 o’clock position. The participants were told that there were two other actual players; however, the other two players were, in fact, computer-generated and pre-programmed. The game was programmed for 30 total throws and lasted approximately 5 minutes. When participants received the ball, they were instructed to choose, by mouse-clicking, one of the other players to whom they wished to throw the ball. The game continued until the designed number of throws was completed. Included participants received the ball on exactly one-third of the throws. Excluded participants received two throws at the beginning of the game, and then the two other players threw the ball exclusively between themselves.

*Self-reports following Cyberball (feelings of exclusion and fundamental needs and mood evaluation).* After the Cyberball game ended, participants were asked a series of questions. To check the extent to which participants felt excluded, they were asked three items on a 7-point scale to evaluate the extent to which they felt ostracized during the game (van Beest & Williams, 2006; $\alpha = .73$ in the current study). Participants were asked to provide self-report surveys concerning their satisfaction levels with belonging, self-esteem, meaningful existence, and control on 7-point scales (van Beest & Williams, 2006; $\alpha = .82$ in the present study). Next, they were asked to assess their emotional states during the game on 7-point scales. This mood index contained three items to assess positive emotions and three items to assess negative emotions (van Beest & Williams, 2006; $\alpha = .82$ in the present study). Negative emotions were reverse-scored.
Compliance request. Immediately after completing the self-report surveys, participants were asked to volunteer in an organized before-Easter fair selling hand-made decorations. A confederate explained that the aim of this event was “our University” undergraduates’ cooperation and integration, as well as helping children in need. The funds gathered during the fair were to be donated to children. Participants were to evaluate their level of willingness to engage on a 10-point scale (from 1=not willing to engage, to 10=extremely willing to engage). Next, the participants were asked questions about the experiment’s aim (to collect information on suspicion about the aims of the study) and were fully debriefed before being dismissed.

Results

Manipulation check. Taking the three-item exclusion feeling scale into consideration, participants in the ostracism condition reported they felt significantly less included and more rejected than participants in the inclusion condition did ($M_{\text{EXC}} = 14.44$, $SD_{\text{EXC}} = 5.78$ vs $M_{\text{INC}} = 4.28$, $SD_{\text{INC}} = 2.69$, $t = 6.76$, $p < .001$, Cohen’s $d = 2.25$).

Self-reported level of needs and mood. Participants in the ostracism condition reported they experienced more negative emotions ($M_{\text{EXC}} = 9.55$, $SD_{\text{EXC}} = 3.18$ vs $M_{\text{INC}} = 4.67$, $SD_{\text{INC}} = 1.99$, $t = 1.99$; $p < .05$, Cohen’s $d = 1.84$) and lower levels of the sum of four needs: belonging, self-esteem, control and meaningful existence ($M_{\text{EXC}} = 71.72$, $SD_{\text{EXC}} = 26.53$ vs $M_{\text{INC}} = 108.11$, $SD_{\text{INC}} = 13.67$, $t = 5.17$, $p < .001$, Cohen’s $d = 1.72$) that included participants had.

Compliance. In general, ostracized participants agreed more often to volunteer in a fair (11 out of 18 participants complied) than included participants (5 out of 18 participants complied) ($\chi^2 = 4.05$, $p = .04$, Cohen’s $d = .71$). Moreover, ostracized participants were marginally more willing to engage in volunteering than included participants ($M_{\text{EXC}} = 1.67$, $SD_{\text{EXC}} = 2.28$ vs $M_{\text{INC}} = .61$, $SD_{\text{INC}} = 1.09$, $t = 1.77$; $p = .09$, Cohen’s $d = .59$).

Discussion

We replicated earlier studies’ results that showed Cyberball-induced ostracism threatened the four needs and increased negative affect. The Cyberball procedure was successful in producing feelings of exclusion. Moreover, as predicted in H1 and in line with Carter-Sowell and colleagues (2008), we found that people were more compliant after being ostracized than those who were included. This result is consistent with other findings, suggesting that people behave in more socially appealing ways after being ignored or rejected (Lakin & Chartrand, 2005; Williams & Sommer, 1997). Therefore, we provided further evidence that ostracism potentially can increase susceptibility to conformity (Williams et al., 2000), compliance (Carter-Sowell et al., 2008), mimicry (Lakin & Chartrand, 2005), and obedience (Riva et al., 2014) in actual working life and other life arenas.

In our study, the request to volunteer (and potentially reconnect) was associated with both – volunteering and engaging in a collective task. Participants were to cooperate with other in-group undergraduates (not necessarily with rejecters). Com-
Compliance with such a request allowed ostracized participants to restore social bonds. In the second study, we sought to verify two predictions: that compliance with a request being a collective task would be greater than in the case of an individual task, and that compliance would be greater when given an opportunity to make new friends than when working with rejecters.

STUDY 2

Participants

One hundred and sixty University of Lower Silesia and University of Opole undergraduates (123 women, aged 18 to 54, \( M = 22.62, SD = 4.67 \)) recruited from introductory psychology and pedagogy courses participated in the study. The undergraduates did not obtain any credit, and their participation was voluntary. Participants were randomly assigned to a 2 (inclusion or exclusion) \( \times \) 3 (volunteer to work alone vs. to work with rejecters vs. work with non-rejecters) between-participants design. None of the participants expressed suspicion about the Cyberball game; thus, no one dropped from the analysis.

Procedure and methods

Cyberball. We used Cyberball to produce an episode of ostracism.

Self-reports following Cyberball. After the Cyberball game ended, participants were asked a series of questions, as they had been in the first study (feelings of exclusion and fundamental needs and mood evaluation).

Task manipulation. Immediately after fulfilling the self-report surveys, participants were asked to take part in an action of promoting the “volunteering idea.” A confederate explained that the aim was to gather people to work on a project on volunteering. Participants were randomly assigned to one of three conditions. In a “work alone” condition, participants were told they would work on the project individually and independently of other participants. In “work within groups,” participants were told they would cooperate with other undergraduates they know from the University, but not with those who played the Cyberball game with them. Finally, in “work with rejecters,” participants were told they would cooperate with exactly those people with whom they played the Cyberball game.

Compliance request. Participants were asked to evaluate how much time they would contribute to promoting the “volunteering idea” on a 13-point scale (from no time, 15 minutes, 30 minutes, 45 minutes, 60 minutes, 1 hour and 15 minutes, 1.5 hours, 1 hour and 45 minutes, 2 hours, 2 hours and 15 minutes, 2.5 hours, 2 hours and 45 minutes, to 3 hours). Participants were then asked questions about the aim of the experiment (to collect information on suspicion) and were fully debriefed before being dismissed.
Results

Manipulation check. Ostracized participants reported lower levels of being included than participants in the inclusion condition did ($M_{\text{exc}} = 14.68, SD_{\text{exc}} = 5.61$ vs $M_{\text{inc}} = 7.75, SD_{\text{inc}} = 4.59$, $t = 8.48, p < .001$, Cohen’s $d = 1.35$).

Self-reported level of needs and mood. Participants in the ostracism condition reported that they experienced more negative emotions ($M_{\text{exc}} = 21.48, SD_{\text{exc}} = 8.35$ vs $M_{\text{inc}} = 16.39, SD_{\text{inc}} = 6.02$, $t = 4.36, p < .001$, Cohen’s $d = .69$) and lower levels of the four needs ($M_{\text{exc}} = 67.53, SD_{\text{exc}} = 24.34$ vs $M_{\text{inc}} = 102.09, SD_{\text{inc}} = 19.98$, $t = 9.39, p < .001$, Cohen’s $d = 1.55$) than those who had not been ostracized.

Compliance. The conducted UNIANOVA 2 (inclusion or exclusion) × 3 (volunteer to work alone vs to work with rejecters vs to work with non-rejecters) questions about time declared for volunteering with the Bonferroni correction revealed the main effect of ostracism, showing that ostracized participants were more willing to engage in volunteering than included participants ($F(1, 154) = 4.09; p = .045, \eta^2 = .03$). The main effect of volunteering condition was marginally significant ($F(2, 154) = 2.82; p = .06, \eta^2 = .04$) and the interaction was insignificant ($F(5, 159) = .99; p = .37, \eta^2 = .01$) (Fig. 1). The pairwise comparisons revealed that only in the case of working with non-rejecters was the compliance rate significantly higher in the exclusion condition than in the inclusion condition ($F(1, 154) = 5.34; p = .02, \eta^2 = .03$). The effect was insignificant in the case of both working alone ($F(1, 154) = .29; p = .59, \eta^2 = .002$) and working with rejecters ($F(1, 154) = .43; p = .51, \eta^2 = .003$).

Discussion

The present study aimed to identify the conditions under which ostracized individuals are motivated to regain social bonds and to respond according to social expectations, despite being socially excluded. First, we replicated the findings obtained in the first study and previous patterns of results (Carter-Sowell et al., 2008). Ostracized individuals are susceptible to social influence attempts and respond more prosocially than included individuals. Whenever there is the possibility of restoring social connections, rejected or excluded individuals display an increased tendency to engage in prosocial behavior.
Moreover, in line with H2 and H3, the results indicate that ostracized individuals’ compliance rate is higher when fulfilling a request when the behavior includes engaging in collective action and working with people who were not perpetrators of ostracism. These results are consistent with other findings. Ostracized individuals choose collective rather than individual tasks (Williams & Sommer, 1997) and are interested in making new friends (Maner et al., 2007). In line with Maner et al. (2007), excluded individuals did not seek reconnection with perpetrators of rejection. Therefore, ostracism may not make people susceptible to social influence in all instances, but rather, only when coupled with an opportunity to restore threatened needs and a chance to re-affiliate with new social actors. Compliance serves fundamental needs (Cialdini & Goldstein, 2004), and as such, complying with requests to volunteer might have fortified participants’ needs of affiliation and positive self-esteem maintenance.

As ostracism is painful, people are motivated to support social reconnection. Coping strategies may occur immediately in the form of unconscious positive emotional responses (DeWall et al., 2011). Ostracized individuals express enhanced interest in face-to-face interactions (Maner et al., 2007) and identify other people’s facial expressions (Bernstein et al., 2008). Ostracism is a form of “social death” (Williams & Sommer, 1997). Based on this study, an adaptive coping strategy, therefore, seems to include withdrawal from perpetrators (rejecters, e.g., bullying and/or retaliation after whistleblowing) and seeking new social actors in an attempt to restore a sense of belonging.

REFERENCES


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ULEGAĆ CZY NIE ULEGAĆ: WYKLUCZENIE SPOŁECZNE ZWIĘKSZA POZIOM ULEGŁOŚCI GRACZY W CYBERBALL ALE TYLKO WOBEC OSÓB NIEWYKLUCZająCYCH

ABSTRAKT: Poprzednie badania wykazały, że wykluczenie społeczne ogranicza zachowania prospołeczne. Aczkolwiek ludzie doświadczeni ostracyzmem są bardziej podatni na próby oddziaływania nacisku społecznego. Obecne badania sprawdzały wpływ wykluczenia na poziom uległości. Zgodnie z modelem ostracyzmu, u osób wykluczonych następuje spadek nastroju i potrzeb. Poziom uległości był generalnie wyższy wśród badanych dotkniętych odrzuceniem (badanie 1). Tendencja do angażowania się w działania wolontaryjne była jednak wyższa kiedy uczestnicy proszeni byli o wzięcie udziału w zadaniu wymagającym zaangażowania grupowego (w stosunku do zaangażowania indywidualnego), które mieli wykonać z innymi uczestnikami niebędącymi osobami wykluczającymi (badanie 2). Otrzymane wyniki są zgodne z innymi badaniami wskazującymi, iż ludzie mają raczej tendencję do zachowań agresywnych niż prospołecznych w stosunku do osób wykluczających, oraz do odbudowania zagrożonych potrzeb poprzez starania rozwijania nowych relacji społecznych.

SŁOWA KLUCZOWE: ostracyzm, wykluczenie, odrzucenie, Cyberball, wpływ społeczny, uległość, wolontariat