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COPING WITH SOCIAL OSTRACISM: HOW DIFFERENCES IN COPING STRATEGIES AND ASPECTS OF THE SITUATION INFLUENCE OUTCOMES FOR TARGETS OF OSTRACISM

By

Joan Rose Poulsen

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ABSTRACT

COPING WITH SOCIAL OSTRACISM: HOW DIFFERENCES IN COPING STRATEGIES AND ASPECTS OF THE SITUATION INFLUENCE OUTCOMES FOR TARGETS OF OSTRACISM

By

Joan Rose Poulsen

Social exclusion often leads to negative outcomes for targets' emotions and self-esteem, yet individual differences in responses are observable. In two studies, the underlying reasons for these differences are explored. Differences in targets' personalities, aspects of the situation, and coping strategies employed are used to examine how each factor plays a role in determining responses to ostracism. Study 1 is an internet-based study in which participants imagine themselves in an ostracism scenario and report how they would respond. Study 2 involves face-to-face interactions with perpetrators. In each study participants are randomly assigned to one of three ostracism paradigms commonly used in the literature: ball-toss, conversation, or being last-picked by a group. The scenarios in Study 1 also manipulate whether or not participants have interacted briefly with perpetrators prior to experiencing ostracism. Results from both studies indicate that targets excluded by being told they were last-picked by other group members are most severely negatively affected. Additionally, coping strategies such as rumination, and personality attributes such as neuroticism may serve as vulnerabilities to ostracism, in that individuals who reported higher levels of these variables reported more intensely negative responses. Thus, although ostracism is generally a negative experience, this research suggests that the context in which a person is excluded, as well

as the personal strengths and vulnerabilities of the individual play important roles in determining outcomes for ostracized individuals.

To all victims of ostracism, especially those who endure it every day.

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A dissertation is an original work completed by one graduate student. I think anyone who has undertaken such an endeavor as this knows and understands that the work may be done primarily by the student, and the idea his or her own, but the implementation and completion of the project could never be done alone.

First, I would never have thought of this idea without the inspiration from my daughter, who coped with being ostracized on the playground one summer evening in 2004 in a way never described in the literature.

I wish to thank all of the SPA students, especially my officemates who put up with me talking to myself, and commenting on things they care nothing about. All of you have helped by giving me feedback, encouragement, necessary distractions, and at times comic relief. I wish all of you the best in your own endeavors here and when you depart. You have been dear friends and colleagues to me.

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I want to thank my parents for their hours and days of helping me by talking me though stressful times, listening to my ideas, successes and frustrations, being there while I walked across the stage at commencement as a new Ph.D., and for always encouraging me to pursue my education.

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INTRODUCTION

Being ignored and excluded by others, ostracism, is an often unpleasant experience that is familiar to most people (Williams, 2001). Although it is a widely experienced phenomenon, the ways that people respond to being excluded can vary greatly. For instance, the school shooters at Columbine high school exhibited a very aggressive response after being excluded for months, but in a case study of a woman who had been ostracized by her husband for decades the response was depression, withdrawal and hopelessness (Williams, 2001). Ostracism is a negative and stressful experience for targets, and one factor that could account for some differences in how people respond to being ostracized, is the coping strategy targets employ. Two studies are presented that begin to address how differences in coping with ostracism, personality of targets, and characteristics of the ostracism situation itself lead to different outcomes for the target of ostracism.

It can be argued that ostracism is a stressful experience for targets in that it impacts their well-being and psychological resources (Folkman & Lazarus, 1985). Several studies (Williams, Cheung, & Choi, 2000; Kerr, Seok, Poulsen, Harris, & Messé, 2006; Poulsen, 2003) suggest that being excluded increases targets' negative emotions, and decreases their experience of positive emotions. Additionally, evidence suggests that being excluded can lead to an increased cognitive load (with a corresponding decrease in self-regulation; Twenge, Catanese, & Baumeister, 2003). Williams (1997; 2001) posited a model of why ostracism is stressful in his need-threat hypothesis, which has been partially supported. His model suggests that ostracism threatens four psychological

needs: need to belong, need for self-esteem, need for control, and need for meaningful existence. Empirical support that both the need to belong and the need for self-esteem are threatened by ostracism has been consistently found (Williams et al., 2000; Williams, 2001). So, there is a consensus among researchers that ostracism threatens fundamental psychological needs and well-being. The challenge now is to better understand why some people are more affected by it than others, how and why people respond differently to ostracism, and how different types of ostracism can lead to different outcomes for targets.

Coping With Stress

Although research on targets' responses to ostracism suggests that it is almost universally a negative experience, research on coping with stressors suggests that how people respond to ostracism should vary (Carver, Scheier, & Weintraub, 1989; Folkman & Lazarus, 1988; Schwarzer & Schwarzer, 1996). Thus, when targets endorse certain coping strategies, certain responses should be associated with more positive outcomes for targets. Coping strategies are the mental and behavioral responses to a stressor (Folkman & Lazarus, 1985; Carver et al., 1989). The coping strategies people use are often categorized into two types. Emotion-focused coping strategies are ones for which the individual focuses on dealing with his or her emotions, but does not deal directly with the stressful event. Challenge or problem-focused coping strategies are ones for which the individual focuses on handling the stressor, not just the emotions (Carver et al,. 1989).

Emotion-focused coping involves managing the emotional reactions to a stressor, but not necessarily attempting to act on the stressor (Carver et al., 1989). A number of cognitions and/or behaviors are considered to be emotion-focused including: wishful thinking; distancing the self from the situation or stressor; emphasizing the positive in the

situation (perhaps seeing the stressor as a learning experience); self-blame; tension reduction (via exercise, drugs, or alcohol); self-isolation, rumination and seeking emotional social support (Folkman & Lazarus, 1985; Treynor, Gonzalez, & Nolen-Hoeksema, 2003). In the context of ostracism, targets have been observed to engage in such emotion-focused strategies as withdrawal from the group (based on non-verbal behaviors; Williams, 1997; 2001) and engaging in self-isolation by turning attention to another activity such as tying one's shoes (Williams, 1997).

Problem-focused coping involves acting and/or thinking in ways that would eliminate or reduce the stressor itself (Carver et al., 1989). Folkman and Lazarus (1985) conceptualize this coping strategy as trying to find ways to understand the problem, making and following a plan of action, or seeking social support with the goal of obtaining advice as to how to handle the problem. Within the context of ostracism, targets might use a problem-solving approach if they think about how they could re-gain inclusion, or try to understand why they are being excluded. Behaviorally, if targets were to attempt to obtain such information from perpetrators, it would be problem-focused. Other problem-focused responses in this situation may include planning and thinking about what to do to regain inclusion as well as thinking about what other people would do (or perhaps what others might advise the target to do) in this situation.

Some coping strategies should be more successful than others in terms of attenuating the psychological impact of ostracism on targets. Although all targets of ostracism should be initially distressed by their experience, the use of different coping strategies should be associated with how resilient targets are to the experience in terms of their self-esteem and emotions. In this sense, a successful coping strategy is defined here

as any strategy a target employs that is associated with reduced effects of ostracism on psychological outcomes (i.e., self-esteem, emotions).

Across several studies that examined how people cope with other stressors, it has been found that in situations where there is a higher level of perceived control, those who use active strategies (e.g., planning, actively trying to solve the problem) tend to cope more successfully than those who use emotion-focused strategies (Folkman and Lazarus, 1985). However, in situations with less perceived control, people who use emotion-focused strategies tend to cope more effectively (Folkman and Lazarus, 1985). Previous work by Williams (1997; 2001) suggests that being excluded lowers targets' sense of control, implying that for targets who use more emotion-focused strategies (e.g., rumination, denial, distancing) the effects of ostracism should be attenuated.

Targets' Responses to Ostracism

A major focus in the research on ostracism revolves around how targets react to being ostracized. In small group settings, when someone is ostracized they exhibit a number of reactions to being a target of ostracism, and generally show signs of distress (Williams et al., 2000; Twenge, Baumeister, Tice, & Stucke, 2001; Williams, 2001; Twenge et al., 2003). Williams and colleagues tend to find that when participants are excluded from a game of live or virtual catch, targets tend to show drops in self-esteem, sense of belonging, sense of control, and they tend to have more negative emotions (Williams et al., 2000; Williams, 2001). Twenge and colleagues have focused on how ostracism leads to aggression and have found that when targets experience rejection from a group of peers, they exhibit more signs of aggression relative to included participants (Twenge et al., 2001; 2003). These reactions, such as being more likely to aggress, or

withdrawing from the group interaction, are not typically discussed as coping responses to being excluded per se. However, it can be argued that they represent some of the mental and behavioral responses to the stressor of ostracism (the definition of coping, Folkman & Lazarus, 1985; Carver et al., 1989), and so they can be taken as evidence of some of the coping strategies that targets employ. It is important to note here that these responses to ostracism can be distinguished from psychological outcomes of exclusion in that outcomes such as self-esteem or emotions are gauges of well-being (alternatively they could be considered gauges of levels of distress), and indicate the impact a stressor has on a target.

One response to being ostracized that has been observed repeatedly is aggression. In its most extreme, Leary, Kowalski, Smith, and Phillips (2003) found that all but one of the school shooters in recent years had been excluded by their peers and/or romantic partners. It has been suggested that such peer rejection was one of several causes for these youths becoming extremely physically violent. Even in a more controlled setting Twenge et al. (2001) found that targets of ostracism were more likely to exhibit aggressive responses, suggesting a causal link between ostracism and aggression. Additionally, Warburton, Williams, & Cairns (2004) found that the level of perceived control moderated targets' response to being ostracized. Specifically, after being ostracized, if targets were subsequently allowed to control when they heard an annoying noise blast, they showed less aggression towards their perpetrators, but targets who were ostracized and then given noise blasts at random (they had no control over when the blasts occurred or how long they lasted) were more aggressive towards the perpetrators. This suggests that a target's ability to re-establish their sense of control after being

excluded may relate to the psychological impact that ostracism has. Such a prediction is consistent with the more general finding that perceived control is implicated in the choice of coping strategy such that individuals tend to use emotion-focused strategies when there is a low sense of control but tend to use problem-focused strategies when there is a higher sense of control (Folkman & Lazarus, 1985; Sandstrom, 2004).

Targets do not always respond to ostracism aggressively, in fact, there is evidence that they may be more likely to display a very different behavior: withdrawal (Williams, 1997; 2001; Poulsen, 2003). In several studies, after being excluded for a few minutes targets have been observed to exhibit behaviors such as avoiding eye contact with perpetrators, refraining from speaking at all, looking down, and slumping back/down in their seat. In essence it appears as though targets are no longer attempting to be included in the group at all, that they have accepted (although perhaps unhappily) that they are not welcome in the group.

Between these extremes of aggressing and withdrawing in response to ostracism, several other responses of targets have been documented. One tendency that targets have is to derogate the sources of ostracism. In several studies, after a target has been ostracized, they tended to perceive the perpetrators less favorably (Bourgeois & Leary, 2001; Buckley, Winkel, & Leary, 2004; Geller, Goodstein, Silver, & Sternberg, 1974; Pepitone & Wilpizeski, 1960; Poulsen, 2003). Specifically, they viewed the perpetrators as less likeable fairly consistently (Bourgeois & Leary, 2001; Buckley et al, 2004; Pepitone & Wilpizeski, 1960; Poulsen, 2003). One reason targets may do this is to buffer their self-esteem. Perhaps by discounting the source of mistreatment, targets can maintain a positive view of themselves.

Another response to being ostracized is face-saving behavior. Actions that make the target appear to be unaffected or too busy to notice that they are being ostracized are considered to be face-saving behaviors. For instance, Williams (1997; 2001) notes that when he has observed targets interacting with sources, they occasionally do other things like tying their shoes, going through their wallet, or getting up and walking around the room. Perhaps targets use such distancing behaviors to genuinely distract themselves from the situation they are in, or perhaps they use them to try to send a message to the perpetrators that the ostracism does not affect them.

Many of these responses are ones that are unlikely to result in the target's reinclusion in the group. Indeed aggression and withdrawal seem as though they would serve to distance the target further from the perpetrators. There is some evidence that targets will, under some circumstances, attempt to gain inclusion with the group. For instance, Williams (2001) notes that before targets withdraw or disengage from the group, they often smile more and try to lock eyes with the sources. If they are unsuccessful in being re-included, targets then exhibit another response such as withdrawal. However, Williams and Sommer (1997) found that when participants were excluded and then asked to do a group task that typically produces social loafing effects, women actually worked harder at this task after being ostracized, whereas men were essentially unaffected by ostracism (i.e., they socially loafed much like controls).

Lastly, a minority of targets directly confront or antagonize the perpetrators about being ostracized. For instance, when targets were excluded from a conversation, about 10% of them asked the sources point-blank what was going on, and/or why they were being excluded (Poulsen, 2003). Additionally, Williams, Bernieri, Faulkner, Grahe, &

Gada-Jain. (2000) conducted a study in which participants were ostracized during their workday. The researchers reported that two of the participants seemingly antagonized the sources. One called the sources on the phone, knowing that they were not supposed to talk to him, the other put the letter "O" on his forehead during a meeting; both of these actions seemed to be aimed at getting attention or perhaps antagonizing the sources to make them feel uncomfortable.

In summary, ostracism is a stressful experience, and there is evidence that targets respond with different behaviors to being ostracized. In two studies, I will begin to examine how targets respond and cope with being ostracized. Importantly these studies investigate how coping is associated with the effects of ostracism on targets in terms of self-esteem and emotions.

Situational Differences in Ostracism

Another factor that plays a role in how targets respond to ostracism is the nature of the ostracism situation itself. In life, targets of ostracism may encounter any number of different types of exclusion. For instance, they may be excluded by different people (friends, family, strangers), for different reasons (as punishment, because they look or act differently), for different lengths of time, and in different contexts (from a party, from a conversation, from sitting at a certain table at lunch, from a sports game).

Previous laboratory studies have employed a variety of ostracism paradigms to explore the effects of ostracism on targets. Results from these studies indicate that the paradigms used tend to produce some different outcomes for targets. For example, studies in which participants are excluded using the ball-toss or cyberball paradigm (in which a target is left out of a game of catch by two confederates) consistently find that targets

have more negative mood, lowered self-esteem, threatened feelings of belonging, feelings of a lack of control, a lack of meaning in life, and they may be more likely to aggress against sources (Williams, 2001). However, studies in which participants are ostracized from a conversation in a lab setting do not necessarily find that self-esteem is threatened, nor do they find evidence that targets would be more likely to be aggressive, although they do find that targets have more negative mood (Twenge et al., 2003). Additionally, participants who are ostracized with procedures that lead them to believe that they were the last one picked (i.e., that none of the other group members want to interact further with them) tend to have inconsistent findings in terms of how ostracism impacts self-esteem, and mood, but do show that targets are more likely to become aggressive. These are some of the paradigms commonly used to examine exclusion.[1]

The differences between ostracism contexts are important to examine because they may potentially have different psychological effects on targets. The three paradigms of concern at present differ in terms of how the target is ostracized in a number of ways. For instance, in the last-picked paradigm, the target receives ostracism feedback while s/he is not even in the physical presence of the sources, in the ball-toss paradigm, the target is ostracized using purely non-verbal information, and in the conversation paradigm, the target is ostracized both verbally and non-verbally. Limiting the target's ability to communicate with perpetrators about ostracism (e.g., ostracism is only non-verbal, or done via false feedback), also limits the targets options of responding and coping with the situation. In a sense, it removes their ability to control the situation. Thus, targets should have the greatest sense of control in the conversation condition, less in the ball-toss condition, and least in the last-picked condition.

Additionally, Williams (1997) has previously suggested that one aspect of ostracism that may affect targets is how clear or vague the experience is. Williams (1997) has previously suggested that targets who are not certain that they are being excluded, and are unsure as to the perpetrators' motives for excluding them should be more negatively affected because they begin to find potential reasons for being ostracized and blame themselves more than perhaps they ought. Thus, if targets are uncertain about whether or not they are actually being excluded, and/or if they have little information concerning why the exclusion is occurring, they should in turn have lower self-esteem and experience more negative emotions than they would in clearer cases of exclusion.

Another difference between the three commonly used ostracism paradigms is that participants interact casually for five minutes before they are excluded in the last-picked paradigm, are included in a game of catch for one minute in the ball-toss paradigm (prior to being excluded for a 4 minute period), and have no interaction with sources prior to being ostracized in the conversation paradigm. This prior interaction may be sufficient to establish the norm that group members will all be included, and may essentially make the target feel as though they have been betrayed in paradigms in which there is more prior interaction. Having had some contact with sources prior to being excluded is also likely to lead targets to feel a greater loss of belonging because they lose whatever sense of inclusion that they had already established. Prior contact may also prompt targets to blame themselves for being excluded. Targets may think that they did something wrong or did not try hard enough to remain included in the group. Such thoughts are not as strong of a possibility for targets excluded without prior contact because perpetrators in this instance have no information about the target to use as a reason to exclude him or

her. So, targets excluded without prior interaction with perpetrators should logically attribute exclusion largely to the perpetrators rather than themselves. And, targets of exclusion after an interaction with perpetrators should be relatively more likely to blame themselves and attribute exclusion to something they did. Thus, targets in the last-picked paradigm should have higher levels of self-blame, a lower sense of belonging, greater feelings of loss, and view the situation as being less normative than targets in the conversation paradigm. These potential differences in belongingness may affect targets' self-esteem as well (Leary & Baumeister, 2000).

Personality of Targets Predicts Their Responses to Ostracism

Another set of factors that may help to explain how and why targets respond as they do to ostracism is individual differences. Rather surprisingly, there has been relatively little research examining how personality may predict how targets respond to being excluded. The trait of sensitivity to rejection has been explored as it pertains to relationships, but only recently has it been examined in the context of group-level ostracism (Downey and Feldman, 1996). In the present studies, the effects of individual differences, personality traits (especially extroversion, agreeableness, conscientiousness, neuroticism, and openness) will be explored. Additionally, participants' sensitivity to rejection, level of optimism, and experience with childhood ostracism will be examined to see how they predict targets' responses to an ostracism situation.

Targets higher in extroversion may suffer in terms of their affect, sense of belonging, and self-esteem because sociability and social behavior is more strongly linked to their personality (McCrae & Costa, 1999). People higher in extroversion also tend to cope with problems more actively, suggesting that their normal coping strategy

may be less effective when they encounter ostracism (Costa, Somerfield, & McCrae, 1996). Targets higher in agreeableness may react with less anger and be more severely affected by exclusion because agreeable people tend to seek pleasant interactions with others (McCrae & Costa, 1999), and exclusion may be one type of interaction they are not used to coping with. Targets who are higher in neuroticism should be more likely react to ostracism more strongly, especially in terms of their affect. Individuals higher in neuroticism, by definition (McCrae & Costa, 1999), are emotionally labile, and subject to being moody, suggesting that when they encounter a stressor such as ostracism, they should react more strongly than targets who are lower in neuroticism. Costa et al. (1996) also suggest that people higher on neuroticism tend to cope with stress using hostility, self-blame, escapist fantasy, withdrawal, indecisiveness. Generally, these strategies are considered ineffective in dealing with stress, and the use of self-blame and hostility seem to be particularly poor ways of coping effectively with ostracism (Folkman and Lazarus, 1985). Conscientiousness and openness round out the constellation of the big five factors of personality, and although there is no strong existing evidence to suggest that these traits influence how targets respond to ostracism, they will be examined for exploratory purposes.

The trait of optimism has been explored in terms of its role in helping people cope with stress. Optimists tend to expect more positive outcomes in uncertain situations, whereas pessimists tend to expect negative outcomes in similar contexts (Scheier, Carver, & Bridges, 1994). Particularly interesting are the data which suggest that people who are more optimistic tend to recover from a range of stressors (including physical health problems) more quickly than those who are more pessimistic (Fitzgerald, Tennen,

Affleck, & Pransky, 1993; Scheier, Matthews, Owens, Magovern, Lefebvre, Abbott, & Carver, 1989; Taylor, & Aspinwall, 1990). It follows then that the negative impact of ostracism on targets' self-esteem and affect would be attenuated for targets who are more optimistic.

As mentioned, another individual difference that seems to be a prime candidate for predicting targets' responses to ostracism is rejection sensitivity. Downey and Feldman (1996) suggest that some people are more sensitive to social exclusion and anticipate its occurrence more than others. She and her colleagues have found that more rejection sensitive people tend to more readily perceive rejection in ambiguous social situations, perceive rejection when a new romantic partner is insensitive, and be less satisfied with their romantic relationships (Downey and Feldman, 1996). Given this research, it seems likely that targets who are more rejection sensitive may respond more strongly to ostracism in terms of having lower self-esteem, more negative affect, and perhaps more self-blame.

Finally, another individual difference that may impact how targets perceive exclusion is their previous experience with being a target. Some research suggests that people, especially children and adolescents, experience ostracism at different levels and frequencies (Sandstrom, 2004). It may be the case that people who have more experience being excluded cope more efficiently with it and have in some sense habituated to being excluded. If this is the case, then people with more experience being excluded in the past should be less affected by ostracism (e.g., higher self-esteem, less negative affect). However, it seems reasonable that the opposite may be true. That is, people with more experience being excluded may become more sensitive to it. Evidence from a study of

ostracism in late childhood suggests that people who are excluded sometimes lack the social interaction skills to fend off perpetrators, and become repeated targets. It may be that these people become increasingly sensitive to cues of rejection, and yet lack an effective way to cope with exclusion. Thus, the studies presented here will be used to explore which alternative can be supported empirically.

The two studies presented in this dissertation examine whether situational differences in how targets are ostracized, as well as individual differences targets bring with them to a given situation, lead to different responses from targets. These studies also address the question of how participants cope with being excluded, and how coping may be associated with the effects of exclusion on targets. The first is a preliminary study that uses a scenario paradigm to examine how major ostracism procedures differ on important variables, and how these differences impact targets of ostracism psychologically. The second study uses the three most common ostracism paradigms to ostracize research participants in the lab. This second study also investigates associations between outcomes of exclusion for targets with individual differences, contextual differences, and coping strategies.

STUDY 1

In this study, participants were asked to make judgments about one of three ostracism scenarios in order to understand the important differences between these situations that would impact targets. The scenarios participants read are descriptions of the three commonly used laboratory paradigms used to manipulate feelings of ostracism: the ball-toss, conversation, and last-picked situations. Participants were asked to imagine themselves in each scenario and reported on the degree to which each scenario affected their perceptions of control over the situation, their investment in relationships with the sources, and their desire or willingness to interact in the future with the sources. Thus, one of the key goals in Study 1 was to determine the key psychological elements that differentiate three of the standard manipulations in ostracism research.

Overview

This study is a 3 (scenario: ball-toss; last-picked; conversation) x 2 (previous interaction or not) between-subjects design in which participants were presented with one scenario, describing an ostracism situation: the ball-toss paradigm; conversation; or last-picked. In each scenario, one aspect of the situation was varied: participants read that either they had interacted with sources prior to being ostracized, or that they had had no interaction prior to being ostracized. This study provides a preliminary examination of 1) how different situational variables lead to different psychological outcomes for targets of exclusion, and 2) how targets may cope differently with different situations when accounting for certain individual differences (e.g., personality, coping style). Participants completed several pretest items before reading the scenarios and several post-test items

after the scenario was presented, including two manipulation checks. This study was conducted completely on-line.

Method

Participants

Participants were 307 undergraduates (71 men and 228 women), ranging in age from 18 – 25 years old, with an average age of $M = 19.25$, $SD = 1.26$. Participants were drawn from the Psychology subject-pool. Of the original 307 participants, 277 (213 women, and 64 men) answered the manipulation check about how many people were in their group with reasonable accuracy, and were retained for analyses. Specifically, when asked how many people were in their group, they answered that there were a total of between three and five people.[2]

Procedure

Participants visited the Michigan State University Department of Psychology: Human Participation in Research website (www.psychology.msu.edu) and completed this study online. Participants completed several measures of individual differences including measures of social state self-esteem, coping style, Big Five personality traits, and sensitivity to rejection. Next, they were presented with one of six scenarios in which they imagined being part of a class group project. The scenarios described how members of their group excluded them in one of three ways. Participants read that the group either: 1) selected him/her to be removed due to group-size limitations imposed by the project; 2) ignored him/her during a spontaneous game of catch; or 3) would not listen or talk to him/her during a group discussion. In each of these conditions, participants either read that they had interacted for five minutes with their group members prior to being

excluded or that they hadn't interacted at all prior to experiencing ostracism. After reading the scenario, participants were asked several questions about their momentary social self-esteem, emotions, sense of belonging, control, ambiguity of the situation, and attributions they made as to why this may have happened to them.

Materials

Scenarios 1.1-1.2: Last one picked. In these scenarios, participants were presented with a situation in which they were assigned to be part of a group for a class project. Due to an odd class size, the instructor put four people in the participant's group, and three in all of the other groups. Then, the instructor told the participant's group to choose one member to remove from the group in order to keep each group the same size, and the group unanimously chose to remove the participant. Additionally, participants either read that they had interacted with their group for a few minutes prior to being left out, or that they had not interacted yet at all prior to being removed from the group. The scenario that participants read is available in Appendix A.

Scenario 2.1-2.2: Ball-toss. Participants read that they were assigned to a four-person group for a class project, and that they were scheduled to meet with their instructor as a group. When the participant arrived to meet with the instructor, the instructor asked the group to wait for her and the group was seated in a Child Play Study waiting room. One group member then initiated an impromptu game of catch with a ball from a toybox in the room, supposedly for the Child Play Study. After a short time, the participant was left out of the game for several minutes until the instructor came to get the group for the meeting. Also, participants either read that they had no prior interaction

with their other group members, or that they had interacted for a few minutes prior to the game of catch in which they were excluded (see Appendix A).

Scenario 3.1-3.2: Conversation. In this scenario, participants read that they were assigned to complete a five-minute long in-class discussion in a group of four people they were unacquainted with. They then read that they were ignored (not spoken to, and no one made eye contact with them) during the group discussion. Participants additionally read that they either had no past interaction with the sources beyond this conversation, or that they had briefly chatted prior to being excluded during the interaction (see Appendix A).

Self-esteem. A seven-item scale was intended to measure social state self-esteem, and is the social subscale from the Heatherton & Polivy (1991) State Self-Esteem Scale. It was used both as a pre- and post-scenario measure of participants' momentary self-esteem in the social domain. Items were measured using a 1 (I feel this very little) through 5 (I feel this a great deal) Likert-type scale, with higher values indicating higher levels of social self-esteem.. The full-scale is available in Appendix B (Study 1 pre-test questionnaire) and C (Study 1 post-test questionnaire). The means, standard deviations, and reliabilities for this and all pre-test measures are available in Table 1. The same descriptive statistics for the post-test measures are available in Table 2.

Coping Style. Participants' overall coping style (trait-level) was measured in the pretest phase of study 1 using the 26-item Brief COPE (Carver, 1997). The Brief COPE measures the extent to which participants tend to use each of 13 different coping strategies in the problems they encounter in daily life. Participants responded using a 1 (I do this very little) to 5 (I do this a great deal) scale, with higher values indicating that

participants tended to use a certain strategy more. Reliabilities of the two items in each of the 13 subscales ranged from α = .50 - .90, with a mean reliability of α = .72. All items are available in Appendix B, and means, standard deviations, and reliabilities between items for each strategy are available in Table 1.

The Big Five Factors of Personality. To measure participants' standing on the Big Five personality traits, participants completed the 20-item Mini IPIP measure (Donnellan, Oswald, Baird, & Lucas, in press). This measure includes four items per subscale: extraversion (e.g., "Am the life of the party," "Don't talk a lot"), agreeableness (e.g., "Sympathize with other' feelings.", "Am not interested in people's problems"), conscientiousness (e.g., "Get chores done right away," "Often forget to put things back in their proper place"), neuroticism (e.g., "Have frequent mood swings," "Am relaxed most of the time"), and openness to experience (e.g.,"Have a vivid imagination," "Am not interested in abstract ideas"). Participants responded using a 5-point scale, with endpoints ranging from 1 (strongly disagree) to 5 (strongly agree), with higher values indicating a stronger endorsement of the personality trait. This scale is available in its entirety in Appendix B, and descriptive statistics (i.e., means, standard deviations, and reliability coefficients) are available in Table 1.

Sensitivity to Rejection. To measure participants' sensitivity to rejection cues (pre-test), participants completed Downey & Feldman's (1996) 36-item Rejection Sensitivity Questionnaire. In this measure, participants were presented with 18 brief scenarios, and a pair of questions about each scenario, the first about anticipated rejection, and the second about anticipated acceptance/success in the situation. The full scale can be found in Appendix B, and descriptive statistics about it are available in Table 1.

Childhood Ostracism Experiences. To assess the degree to which participants had experienced past exclusion, specifically being excluded growing up, participants completed a 12-item measure of relational aggression obtained from the Iowa Personality Questionnaire (Conger & Conger, 2002). This measure asks participants to rate how often they were victims of exclusion and rejection by their peers. This scale was modified slightly so that instead of asking about current peer victimization, participants were asked to rate about victimization when they were growing up, and one item was added asking how frequently they were the last one picked to be on a team. Participants completed the measure on a 1 (almost never or never) to 5 (almost always or always). The full scale is available in Appendix B.[3]

After doing an exploratory factor analysis with Varimax rotation to determine if there were any subscales in this measure, a two-factor solution emerged. The first factor included items related to being physically rejected or victimized such as, "A kid your age pushed you around or hit you.". The second factor included items related to being socially rejected or excluded such as, "Growing up, a kid your age did not invite you to a party or other social event even though he or she knew that you wanted to go." These sub-scales were strongly correlated ($r = 0.60$, $p < .001$) and there was no theoretical reason for dividing the full scale into subscales, therefore, the full scale is used for data analysis.

Emotions. In order to measure the emotions that participants were feeling just after reading the scenario, they were given 17 emotion-items selected from two sources: Poulsen (2003) and several items aimed specifically at measuring feelings of exclusion. The items were: angry, isolated, hostile, lonely, rejected, hurt, excluded, energetic, upset,

resentful, pleasant, left-out, happy, sad, anxious, warm, and embarrassed. Participants were asked to rate how intensely they had felt these emotions while they were reading the scenario using a 1 (very little/none) to 5 (a great deal) scale.

An exploratory principal components factor analysis with Varimax rotation suggested there were three factors within the emotion measure. Using this solution, the emotion items were grouped into Rejection Emotions, Positive Emotions, Anger Emotions, and a single item measuring Anxiety that did not fit well in any other factor. The Rejection Emotion subscale contains the items: isolated, lonely, rejected, hurt, excluded, upset, left-out, sad, and embarrassed. The Positive Emotion factor included the four items: energetic, pleasant, happy, and warm. The Anger Emotions subscale included the three items angry, hostile, and resentful. The complete measure is available in Appendix C, and descriptive statistics for this scale are available in Table 2.

Belonging. A six-item scale was created to measure the degree to which participants felt a sense of belonging with the group just after they had read about being excluded. All items are available in Appendix C, and include such items as, "I felt a sense of belonging to my group", and "I felt rejected by the group members". Participants rated items on a 1 (Not at all) to 7 (Very much) scale, with higher values indicating a greater sense of belonging (descriptive statistics also available in Table 2).

Manipulation Checks. To ensure that participants were paying attention to important details of the scenario, two manipulation checks were given (available in Appendix C). First, participants were asked how many people were in their group in an open ended format. The correct answer in all conditions is four people. Participants were also asked if they had interacted with the other group members prior to being excluded.

They were given the response options of Yes, No, or I don't know. As mentioned previously, these were used to remove participants who did not understand (or were not paying attention to) the main aspects of the scenario they read.

Control. Three items were created to assess the degree to which participants felt they would have had a sense of control in the scenario (see Appendix C). Two items measured the participant's sense of personal control: "You could influence how the other group members treated you", and "You could control how the other group members perceived you." The personal control subscale was negatively correlated with the one item measuring other control: "The other group members controlled your ability to participate in the group", $r = -0.15$, $p < .05$. All items were measured on a 1 (Not at All) to 7 (Very Much) scale, with higher values indicating a greater sense of control. Descriptive statistics for these measures are available in Table 2.

Self-Blame. The degree to which participants blamed themselves for being excluded was measured using three items created for this study. Participants rated the items using a 1 (Not at all) to 7 (Very much) scale with higher values indicating that the participant blamed him or herself more for being excluded. The self-blame scale included items such as, "The behavior of the other group members might have been different if you had changed the way you acted." The complete measure can be found in Appendix C, with descriptive statistics available in Table 2.

Attributions. The degree to which participants made internal and external attributions about why they were excluded in the scenario was assessed using six items. Three of these items measured internal (self) attributions, including items like, "You must have done something wrong to get treated as you did." The remaining three items

measured external (other) attributions, and included the item, "The other group members left you out because of something about them (perhaps their personalities) and NOT something about you.". The self-attribution and other-attribution subscales were negatively correlated, $r = -0.34$, $p < .001$. All items were measured using a 1 (Not at all) to 7 (Very Much) scale with higher values indicating stronger endorsement of that attribution. The complete scale is available in Appendix C, and descriptive statistics are presented in Table 2.

Clarity/Ambiguity. To measure how clear it was to participants that they were being excluded, seven items were created and assessed using a 1 (Not at all) to 7 (Very much) scale. After doing a principal components exploratory factor analysis with a Varimax rotation, two factors emerged, one containing four items measuring the extent to which participants felt exclusion was a violation of social norms. This Norm Violation subscale included items such as, "You felt that most people would not behave like the other group members did in this situation.". Higher values on this scale indicate a greater sense that a norm had been violated. The other scale had three items which assessed the degree to which the participants thought they had clearly experienced exclusion, or if the experience was more vague. This Clarity subscale included items like, "The members of the group clearly intended to leave you out". Higher values on this subscale indicate that the ostracism was clearer. This measure can be found in Appendix C, and the descriptive statistics for it are available in Table 2.

Other questions. Participants were asked several exploratory questions about their experience being ostracized (available in Appendix C). All responses were on a 1 (Not at all) to 7 (Very Much) scale. To assess how much participants expected to be ostracized in

the future (Future Ostracism), they were asked, "How likely do you think that how you were treated in this situation might happen again in the future?" On this question higher values indicated a greater expectation of being excluded in the future. Participants were also asked if they thought they had been excluded because of their performance on the group task using the item, "To what extent to you think that you were left out of the group because of your performance on the project task?", again with higher values indicating that they more strongly thought they were ostracized because of what they had done during the group task. To examine how much participants thought being excluded would negatively affect their grade on the group task (Evaluation Outcome), they were asked, "Do you think that being left out of the group would negatively impact your grade on the project?" For this question higher values indicating participants thought being ostracized would more negatively impact their grade. The descriptive statistics for these measures are available in Table 2.

Target responses. Participants were asked about how they thought they would cope with the situation posed to them in the scenario. They were given a (non-exhaustive) list of 11 potential responses (see Appendix C for the full list): "I would ask the others why they were treating me this way", "I would think about what other people would do in this situation", and "I would keep playing the situation in my head over and over." This list of responses was created based on the COPE (Carver, 1997), and on previously observed responses to being excluded (Poulsen, 2003; Twenge et al., 2001; Williams, 2001). Participants were presented with one potential response at a time, and then asked four questions about the response. They were asked first, "How likely/much would you be to do this?" and responded using a 1 (Very unlikely) to 7 (Very likely) scale. Second,

were asked, "How would responding in this way make you feel?", to which they responded using a 1 (This would NOT help me feel better) to 7 (This would help me to feel better) scale. Third, participants were asked, "How would responding in this way make the other group members feel?" Participants responded to these items using a 1 (This would make the other group members feel bad) to 7 (This would make the other group members feel good) scale. Fourth, participants were asked, "What effect would this response have on your ability to reconnect with this group?" and answered using a 1 (This would NOT help me to reconnect with the group) to 7 (This would help me to reconnect with the group). The complete questionnaire is available in Appendix C.

A principle components factor analysis with a Varimax rotation revealed no clear factor structure, and all Eigenvalues were near 1. Descriptive information (means and standard deviations) is available in Table 3. Thus, these items were used individually, and not grouped into scales.

Results

Results for this study aim to address two types of questions: how do targets experience ostracism differently due to the condition to which they were assigned and how do situational factors (such as perceived control, attribution, and clarity of the context) and personal factors (e.g., rejection sensitivity and coping style) relate to how targets respond to being excluded. To these ends, data were analyzed using factorial analysis of variance (ANOVA) treating type of ostracism participants read about and prior interaction as independent variables. Pearson correlations were used to examine the potential relationships between outcomes (anxiety, positive emotions, anger, feelings of rejection, self-esteem, belonging) and situational and personal variables. An initial

analysis of mean differences was conducted that included gender as well as ostracism type and prior interaction, and several main effects of gender, as well as interaction between gender, scenario, and prior interaction emerged. The main effects for gender are presented in Table 4. As can be seen in Table 4, when gender differences emerged, they generally indicated that women thought they would be more severely affected by the ostracism described in the scenario than did men (i.e., more intense feelings of rejection, less intense positive emotions, lower self-esteem and lower sense of belonging). Additionally, women were more likely than men to think that they would internalize their experience of ostracism by making more self-attributions, fewer other-attributions, and blamed their own performance for why they were ostracized. Finally, women perceived that if they encountered ostracism like the scenario they read about, it would be more likely to happen again to them in the future compared to men.

Additionally, there were several interactions of gender with the scenario participants read, as well as with prior interaction. As seen in Figure 1, women reported that they would feel more rejected than men in the conversation and last-picked conditions, but men reported equally intense feelings of rejection as women in the ball-toss condition. In a similar vein, women reported that they would make more self-attributions about why they were excluded in the conversation and last-picked conditions compared to men, but men reported making similar levels of self-attributions as women in the ball-toss condition (see Figure 2). The patterns of these interactions suggest that men respond as strongly as women do to exclusion in the context of a game of catch, but they do not respond as strongly in other conditions in terms of their feelings of rejection or self-attributions.

Additionally, there was an interaction between prior contact and gender in terms of how much participants blamed their own performance for the reason they were excluded (see Figure 3). Men and women tended to blame their own performance as the reason they were excluded about equally when there was no prior interaction, but men tended to blame their own performance less when there had been prior interaction relative to women.

Differences by Condition

In order to examine the differences in how targets experienced reading about different types of ostracism scenarios, 3 (scenario) x 2 (prior interaction) ANOVA's were used. Main effects for type of scenario, and prior interaction were examined, as were interactions between scenario and prior interaction.

The main effects means for type of scenario are presented in Table 5. As can be seen in this table, there were numerous differences in how participants responded depending on the type of scenario they read. The last-picked and conversation scenarios seemed to have the most negative impact on targets relative to the ball-toss condition. Targets in the last-picked condition reported more intense feelings of rejection, lower levels of self-esteem, made more self-attributions, and found it to be the less of a norm violation relative to participants in the ball-toss and conversation conditions. Those who read about exclusion from a conversation reported that they would have the lowest sense of personal control, self-blame the least, make the most other-attributions, be more likely to think this form of exclusion would lead to a lower grade, and thought that it was the clearest form of ostracism. Targets who read the ball-toss vignette reported being the least angry.

Reviewing the results to this point, there is evidence that relative to being excluded in a game of catch or in a conversation, being the last-picked member of a group is seen as a more severe form of ostracism for targets. Participants in the last-picked condition anticipated more intense feelings of rejection and lower self-esteem, two of the key outcome variables, relative to the other two groups. It is interesting to note, however, that participants felt that being excluded from a game of catch would result in relatively low levels of anger. On the other hand, the conversation condition differed from the other two in terms of their perceptions of the situational variables.

Differences by Prior Interaction

Participants had been randomly assigned to read one of three scenarios (ball-toss, conversation, or last-picked), and had read that they either had interacted with their group members before they had been ostracized, or that they had no prior interaction with their group members. Means and standard deviations for the prior or no-prior main effect are available in Table 6. There was one main effect of prior condition such that participants who read that they were excluded without any prior interaction with group members reported feeling more anger than those who read that they had had a previous interaction.

Several interactions between type of scenario and prior contact with perpetrators emerged to qualify the previously discussed main effects. How participants reported their level of self-blame for being excluded differed, F (2, 272) = 5.81, MSE = 2.04, $p < .01$. As seen in Figure 4, participants who read about the conversation or last-picked scenarios had lower levels of self-blame when there was no prior interaction, but targets who read about exclusion in the context of the ball-toss condition had higher levels of self-blame when there was no prior interaction than when there was prior interaction.

Additionally, as seen in Figure 5, participants in the ball-toss and conversation conditions tended to perceive the situation as a strong norm violation regardless of whether or not there was prior interaction. However, in the last-picked scenario participants thought that being excluded in this way was less of a norm violation when prior interaction had occurred than when no prior interaction had occurred. Thus, the main effect of scenario that was described earlier (i.e., that both ball-toss and conversation conditions were greater violations of normative social behavior relative to last-picked) is accentuated when prior interaction occurs.

Additionally, there was an interaction of prior interaction with perpetrators and scenario type in terms of perceptions that exclusion would lead to a lower grade (see Figure 6). Participants who read that they had had prior contact with perpetrators in the ball-toss condition thought they would be more likely to have a lower grade on the project than those who read that they did not have a previous interaction with perpetrators. However, the pattern reversed in the last-picked condition such that participants who read that they had no prior interaction with perpetrators thought that they would be more likely to receive a lower grade than those who had read that they had had a prior interaction. Prior interaction did not influence how participants responded to exclusion in the conversation condition. This may be the pattern because in ball-toss the game of catch may be perceived as less relevant to the group's task on which they will be graded, yet exclusion after prior interaction may be a signal that the participant is an unvalued group member. In the last-picked scenario, it may be that they feel exclusion was due to random chance when there was no prior interaction, leaving their feelings of competency intact.

Predictors of the Effects of Exclusion on Targets

To examine how aspects of the situation and individual differences were related to outcomes for targets, Pearson correlations were computed. Note that the variables referred to as situational may be strongly influenced by personality. For example, variance in the personal control variable likely is based partially on the different scenarios and partially on trait-like individual differences in perceptions of control. Associations were examined between the situational variables, coping strategies, and personality variables with six different outcomes variables: level of anxiety, feelings of rejection, anger, positive emotions, self-esteem, and sense of belonging. Correlations are reported in Tables 7-9.

Aspects of the situation predict outcomes for targets.

To examine associations between perceptions of the situation and expected outcomes for targets, Pearson correlations were computed. As seen in Table 7, psychological aspects of the vignette were associated with different anticipated outcomes for targets. Expecting to have a greater sense of personal control was related to more positive outcomes for targets, specifically more intense positive emotions, less intense feelings of anxiety, rejection and anger, higher self-esteem, and a greater sense of belonging. Greater feelings of others' having control in the vignette were, in turn, associated with more negative outcomes for targets in terms of higher feelings of rejection and anger, and lower levels of positive emotions, self-esteem and belongingness. Here, as in other research (Lachman & Weaver, 1998; Schulz & Decker, 1985; Taylor & Brown, 1994; van der Doef & Maes, 1999), a lower sense of personal control was associated with worse psychological outcomes.

Self-blame and self-attributions both were positively associated with more negative outcomes for targets, whereas stronger attributions of the cause of exclusion to others were related to somewhat more positive outcomes for targets. Targets who thought that they would blame themselves more in the hypothetical context tended to also have more anxiety, a greater sense of rejection, more anger, lower positive emotions, self-esteem and belonging. Likewise, targets who thought they would make more self-attributions about ostracism in the scenario they read showed a similar pattern as those who self-blamed more. In the same vein, targets who thought they would blame the ostracism more on their own poor performance tended to also have higher anxiety and anger, and lower self-esteem.[4] On the other hand, targets who made more other-focused attributions about the exclusion had somewhat more positive outcomes: they reported less intense feelings of rejection, and higher levels of self-esteem. Thus, stronger internal attributions were also associated with more negative outcomes, implying that when targets believed there was something about themselves that caused perpetrators to exclude them, albeit in a hypothetical context, they thought they would suffer more, and when targets have weaker internal attributions, effects of ostracism may be attenuated.

Targets' perceptions that the ostracism was clearer in the vignette were also related to worse outcomes for targets, such as more intense feelings of rejection, and anger, and lower feelings of positive emotions, self-esteem, and belongingness. Targets who expected to be excluded again in the future tended to have worse outcomes in terms of their levels of anxiety, feelings of rejection, anger, and self-esteem. In addition, targets who thought being excluded would lower their grade also thought they would have worse outcomes in all areas measured. Finally, targets who perceived the ostracism as a greater

norm violation tended to also have somewhat worse outcomes. In sum, these results show that when ostracism is perceived as being less ambiguous, anticipated to recur in the future, and thought to be related to poor evaluations, targets also tend to think they will be affected more severely.

Coping strategies relate to outcomes of ostracism for targets.

Direct associations between post-manipulation coping strategy and outcomes for targets were also examined using Pearson correlations, and these are reported in Table 8. As seen in this table, participants who expected worse outcomes also tended to be more likely to endorse that they would use a variety of coping strategies. Participants who thought they would experience greater rejection and less belonging reported that they would be more likely to think about ways to improve their situation, use positive self-talk, hide their emotions, and ruminate. Notably, the correlations are strongest between rumination and outcomes for targets, especially for self-esteem ($r = -.44$, $p < .001$), thus participants with the strongest negative reactions to ostracism were more likely to ruminate, and those who expected to have less severe outcomes were less likely to think that they would ruminate about it. Although most coping strategies targets reported that they would use were negatively related to outcomes, some were related to better outcomes. Surprisingly, being more likely to use verbal aggression (yelling at the perpetrators) was related to more positive outcomes for targets.

Targets' personality relates to responses to ostracism.

Targets' pretest measures of the big five personality traits (Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism), rejection sensitivity, and previous experiences with ostracism were used to examine correlations between

these personality factors and outcomes for targets, and Pearson correlations are presented in Table 9. Most personality traits were unrelated to outcomes for targets, however, as predicted, targets who were more agreeable tended to report that they would feel more intense rejection, less intense positive emotions, and a lower sense of belonging.

On the other hand, higher levels of neuroticism were related to worse outcomes for targets in terms of expected levels of self-esteem, belonging, and negative emotions. These results suggest that people who are more emotionally unstable expect that they would react more strongly to ostracism, consistent with the definition of the trait of neuroticism: People higher on neuroticism tend to already have more negative affect are more reactive to events in general (Bolger & Zuckerman, 1996; Gunthert, Cohen, & Armeli, 1999). Finally, higher levels of rejection sensitivity and more experience being ostracized growing up were associated with lower levels of self-esteem, and surprisingly to higher levels of positive emotions.

Discussion

Results from study 1 revealed that targets' experience of exclusion is complex, encompassing aspects of their personality, the situation they encountered, and coping responses to the situation. Comparisons between the three ostracism contexts showed that participants who imagined themselves being last-picked thought that they would have worse outcomes than targets in the other conditions. One reason why being last-picked may be so damaging is that targets have no means of regaining inclusion. A second explanation may be that participants in this condition were given explicit and direct feedback that they were not wanted by other group members. Although this explanation seems reasonable, it is not clearly supported by the situational variables that were

measured. Instead, being excluded in a conversation was seen as the clearest and most non-normative form of ostracism.

Interestingly, participants who read about being excluded from a game of catch were most mildly affected. There are several possible reasons for this. One is that unlike the conversation or last-picked scenarios, the game of catch targets read about is unrelated to the class project in the vignette. Thus, being excluded from the game may not translate into exclusion from the class group, but as an isolated incident. Additionally, a game of catch is playful and spontaneous, which may create a context in which participants feel as though less is at stake in the interaction, and are less hurt by the exclusion. Notably, these results seem to contradict a number of findings by Williams and colleagues (Williams, 2001; Williams et al., 2000), which find that targets of ostracism from a game of either face-to-face or online catch are affected in terms of emotions, self-esteem, and sense of belonging. One possible reason why the effects of ball-toss seem comparatively mild in this study is that there is no control condition in which participants were included. Thus, when Williams compares targets of exclusion with included participants, ostracism from a game of catch is more severe by comparison in his work. Therefore, although exclusion from a game of catch may be relatively mild in this study compared to the other contexts, this is not to say that ostracism in the ball-toss context has no impact on targets when compared with participants who have been only included.

Participants who read about being excluded from a conversation had outcomes that were not quite as severe as those in the last-picked condition, but not as mild as those in the ball-toss condition. Targets in the conversation condition made the most

attributions to others, found it the clearest form of ostracism, and thought it would be most likely to lead to a lower grade. Given this evidence, conversation seems as though it is quite a severe form of ostracism. One reason is that perpetrators appear to exclude the target of their own volition in this condition, rather than in the last-picked vignette in which one person had to be excluded from the group because of the externally imposed constraint that the group needed to drop one person for the project.

Consistent with previous work examining personal control and psychological well-being, perceiving a lower sense of control was related to expectations of worse outcomes for targets. Also, participants who internalized ostracism more tended to have worse outcomes. These findings are consistent with previous work on exclusion in children (Sandstrom, 2004) in which children who internalized experiences of bullying, exclusion, and teasing tended to be more anxious overall. These patterns of internal attributions, and perceptions that the situation is unchangeable are potentially a very damaging psychological combination because they are both related to symptoms of depression. Thus, one way to alleviate negative outcomes for targets of ostracism may be for them to regain a sense of control, and to evaluate how much of the exclusion is reasonably their own fault versus that of the perpetrators (Taylor & Brown, 1994).

Different ways that targets cope with exclusion were related to different outcomes for targets. The clearest relationship was that people who expected that they would ruminate more about being excluded tended to expect that they would experience worse outcomes. Rumination is a form of coping that is related to internalizing problems (Sandstrom, 2004), and may be linked to a lower sense of personal control or greater levels of self-blame.

In terms of personality factors, participants who were higher on neuroticism tended to have worse outcomes. This result is consistent with previous evidence that people higher on neuroticism tend to have worse psychological outcomes in many situations (Bolger & Zuckerman, 1995; Gunthert, Cohen, & Armeli, 1999). Perhaps because they are more reactive in general, targets higher on neuroticism were hardest hit by exclusion. Also, agreeable people tended to be somewhat more severely affected by ostracism. One explanation for this is that more agreeable individuals are generally kind to others, and so exclusion may be perceived as a greater injustice. Thus, when someone who is usually kind and warm is left out of a group, exclusion violates the norm of reciprocity for their more inclusive behavior.

Recall also that people who were more rejection sensitive or who had more experiences in the past as targets of ostracism tended to have lower self-esteem. These results may relate to sociometer theory, which posits that self-esteem serves as a gauge of how well a person is accepted by others (Baumeister & Leary, 1995; Leary & Baumeister, 2000). Using the reasoning that self-esteem is a gauge of social acceptance (a sociometer), people who are more often excluded or are sensitive to rejection may have more sensitive sociometers, and react more strongly and quickly to cues of exclusion than those less sensitive or with less experience as a target; with one consequence being lower self-esteem. Note, however, that rejection sensitivity and experience with ostracism were both modestly related to experiencing more positive emotions. This finding is perplexing, as it contradicts most other work.

Important information has been gained from this study in terms of understanding how targets believe they would experience different ostracism situations, how they would

cope with these situations, and how personality plays a role in understanding responses to exclusion. Yet, this study has several short-comings which should be addressed. First, the method used was intended to gain only preliminary information about targets. Using internet studies and hypothetical scenarios is a good step towards understanding exclusion, but without putting targets into real situations where they actually face exclusion (not just read about it), it is difficult to draw broader conclusions. Thus, study 2 addresses similar questions as study 1, but uses face-to-face interactions rather than internet-based hypothetical scenarios.

STUDY 2

Overview

This study continues to examine how people cope with being excluded, and how being excluded in different ways leads to different psychological outcomes. It extends the scope of Study 1 by involving face-to-face encounters in which targets are actually ostracized in a small group rather than having them imagine themselves in hypothetical scenarios. Participants were randomly assigned to one of three conditions in which they were ostracized in a game of catch, a conversation, or a situation where they received feedback that they were chosen last by their group.[5] Note that in study 2, the prior interaction/no prior interaction manipulation was dropped from the design because there was little evidence in Study 1 that this manipulation moderated the effects of the ostracism condition factor.

Participants completed several pre-test measures of coping style, personality, and experience with ostracism before they were ostracized. New to this study, the trait of optimism was examined as it related to outcomes for targets of exclusion. Previous research suggests that individuals who are more optimistic should be more likely to persevere and keep talking or trying to engage the perpetrators, and should be less likely to withdraw from the situation quickly (Scheier, Carver & Bridges, 2001; Geers & Lassiter, 2002). Additionally, it is reasonable to expect that they would be less severely affected by exclusion because optimists generally tend to cope effectively with stressors and have more positive psychological outcomes.

Methods

Participants

Participants were 130 undergraduates (104 women and 26 men) recruited from the Psychology subject-pool. Participants were randomly assigned to one of three conditions: Ball-toss (n = 37), Conversation (n = 42), or Last-Picked (n = 51). After probing for suspicion and examining responses to the question, "Why do you think you were excluded by your group?", several participants were removed because they expressed explicit suspicion that the study involved high levels of deception (e.g., they stated that, "they wanted to see what I'd do in a situation like this"; or, "the others were confederates"). People who expressed that they knew they were being excluded on purpose were not removed from analyses because although they correctly understood that they were being excluded, there is no reason to think this would impact their responses to exclusion, in fact, it was the intention of the manipulation to make it clear to participants that they were being left out. In total, 13 people expressed suspicion: five people were removed from the ball-toss condition; five from the conversation; and three from the last-picked condition. Thus a total of 117 participants (92 women and 25 men) remained, with 32 in the ball-toss condition, 37 in the conversation condition, and 48 in the last-picked condition.

Procedure

Participants completed several pretest measures (self-esteem, big five personality traits, coping style, optimism, and experience with ostracism) on the internet prior to arriving to the lab portion of the study. Participants who signed up for the lab part of the study were assigned to condition based on the availability of confederates necessary to run different conditions of the study at the scheduled time. For the sessions at the times

when at least three confederates were available, participants were randomly assigned to either the ball-toss or conversation condition. Participants who signed up for sessions during times when fewer than three confederates were available were assigned to the last-picked condition of the study.[6,7]

In the last-picked condition (based on Twenge et al., 2001 and Twenge et al., 2003) participants arrived in groups of exactly four participants.[8] Each participant was randomly given a nametag with a letter on it (A, B, C, and D) for identification purposes. Participants were then given a five minute Relationship Closeness Induction Task (RCIT; Sedikedes, Campbell, Reeder, & Elliot, 1999), during which time all four group members took turns answering questions designed to encourage them to reveal increasingly personal information about themselves and to feel closer to each other. The RCIT is available in Appendix D. Participants were reminded that they were allowed to skip questions they were uncomfortable answering. After five minutes, the interaction was stopped and each participant was taken to a separate cubicle. There, each participant was instructed to rank order the other participants in the group in terms of how much they wanted to work with them on an upcoming task involving a dyad. Participants were told that for the task involving pairs, everyone would be paired with either their first or second choice. The rating sheets were collected, and participants were asked to wait a few minutes for the experimenter to tally the results and create pairs. Next, the experimenter delivered false feedback to each participant individually so that the others could not hear her. She came to each of them and said, "Well, this is really unusual, but after looking over the ratings, it turned out that everyone else rated you as number three [out of three]. Because of this we can't go on with the pairs task like we normally do, so I'm going to

just give you the questionnaire for the study." After completing the post-test questionnaire, all participants were debriefed and told that they were actually not picked last by everyone else in the group.[9]

In the ball toss condition, participants were ostracized using Williams (1997; 2001) ball-toss methodology in which they were excluded from a game of catch for four minutes. In this condition, one participant per session arrived with three confederates. When the experimenter approached the group to bring them in for the study, she would always call an extra name for a fifth participant (this made the cover story more plausible). Participants were taken to a room with signs posted reading, "Child Play Study – please be quiet" and "Child Play Study Waiting Area". All tables were pushed to the walls of the room, and chairs were placed around the room to encourage participants to sit away from tables and face one another. A box of toys for the Child Play Study was in one corner of the room. In this box was an assortment of gender-neutral small children's toys (a puzzle, phone, blocks, xylophone, and a small, soft, blue street hockey ball). The participants were seated and were given their nametags with letters on them at random. The experimenter then told them that she would appreciate it if they could wait while she went to see what had happened to the fifth person. She added that the experiment required that all five participants be present, and then requested that the participants refrain from speaking while they waited for her to return. She told them she would return in a few minutes after she found the fifth person in order to start the experiment.

As soon as the experimenter closed the door, she began timing the session for five minutes. Meanwhile, a confederate in the room soon got up and looked through the items

in the toy box. S/he would pull out the ball and begin a game of catch with the other two confederates and the participant. Confederates kept an eye on the time, and after playing for one minute, they stopped throwing the ball to the participant for the remaining time. After a total of five minutes had passed, the experimenter noisily approached the lab, and dropped her keys loudly each time to give the confederates warning that she was returning. The confederate with the ball quickly returned the ball to the toybox before the experimenter entered the room.

The experimenter then announced that the fifth person was a no-show and that they would have to finish the study without him/her. She asked participants to each take a seat by a table and handed out the questionnaire to the participant and session report sheets to the confederates. She then dismissed the confederates one by one so that they could set up for the next session and return to the waiting area in the hall without being seen by the next participant. When the participant had finished, the experimenter handed him or her the debriefing sheet and orally debriefed them. She probed to see if 1) there were lingering negative emotions or feelings of upset and 2) the participant truly knew the nature of the study or was just trying to save face by saying they 'knew it all along'.

In the conversation condition, participants were excluded from a conversation for five minutes (similar to Poulsen, 2003). In this condition, each participant arrived and waited in a hallway with the three confederates. All four people were led to a room with a large square-shaped table in the middle, and four chairs (one on each side) placed around it. The experimenters asked that everyone select a nametag (A, B, C, or D) and then explained the discussion task the group would be doing. The discussion task was from Johnson and Johnson (1975) and involved discussing and rank ordering what equipment

would be important to bring along when making a 200 mile group trip on the surface of the moon (see Appendix E). The experimenter then left the room and timed the group for five minutes. In the group the three confederates had been instructed and trained ahead of time to only speak to one another, and to ignore the participant in the group. After five minutes, the experimenter returned, and administered the questionnaire. When the participant had completed the questionnaire, s/he was thoroughly debriefed and probed for distress and suspicion.

In all conditions, the post-test questionnaire consisted of measures of momentary self-esteem, emotions, coping strategies they used, belonging, control, self-blame, attributions, norm violation, clarity of ostracism, as well as if they expected to be ostracized in the future, if they blamed ostracism on their performance, if they thought being ostracized would affect their evaluation, and one open-ended question about why the participant thought s/he was excluded. Participants also provided information concerning their perceptions of all group members on extroversion and agreeableness. Complete pre-test measures are available in Appendix F, and all post-test measures can be found in Appendix G. Descriptive statistics for the pre-test measures are available in Table 10, and post-test measures in Table 11.

Materials

Self-esteem. The Rosenberg (1965) Self-Esteem Scale was used as a trait-level pre-test measure of self-esteem. The 10-item scale was administered using the endpoints 1 (strongly disagree) to 5 (strongly agree), with higher values on the scale indicating higher levels of self-esteem. Example items include, "On the whole, I am satisfied with myself," and the reverse scored item, "All in all, I am inclined to feel that I am a failure."

The complete measure is available in Appendix F, and descriptive statistics are available in Table 10.

The Big Five Factors of Personality. A brief measure of the five major personality traits was administered during the pre-test. The 20 item measure compiled by Donnellan et al. (in press) was identical to the one used in Study 1. Participants responded using a 5-point scale with endpoints ranging from 1 (strongly disagree) to 5 (strongly agree) and higher values indicating stronger endorsement of a given personality trait. Descriptive statistics are available in full in Table 10.

Coping Style. Coping style was assessed using the Brief COPE (Carver, 1997) during the pretest and again after participants had been ostracized. The wording for this measure was altered slightly when assessing dispositional coping style (pretest), and situational coping strategies during the post-test (Carver et al., 1989). This scale is identical to the pre-test coping scale used in Study 1. The items that make up the 13 subscales had correlations (within each subscale) of $r = .15$ - .85 for the pretest, and $r =$ .27 - .89 for the posttest, differing from the reported $\alpha = .50$ - .90 on the subscales (Carver, 1997). All descriptive statistics are available in Table 12 for pre-test, and Table 13 for post-test measures. The response options participants used ranged from 1 (I haven't been doing this at all.) to 4 (I've been doing this a lot.), with higher scores indicating that a strategy was used more often.

Optimism/Pessimism. To assess how optimistic participants were during the pretest stage of the study, the Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994) was administered. Descriptive statistics are available in Table 10. Participants responded using a five-point response format, with the endpoints of 1

(strongly disagree) to 5 (strongly agree). Example items include, "If something can go wrong for me, it will." (reverse scored), and, "Overall, I expect more good things to happen to me than bad." For this scale, higher values indicate higher levels of optimism.

Childhood Ostracism Experiences. Previous ostracism experiences participants had encountered were measured during the pretest using an adapted measure of relational aggression the Iowa Personality Questionnaire (Conger & Conger, 2002), identical to the one used in Study 1 (see Table 10 for descriptive statistics). Similar to study 1, this measure could neatly be made into two subscales of physical and social exclusion, but because there is no theoretical reason to divide the scale, and the subscales were highly correlated with each and so analyses for this study were based on the full scale.

Momentary Self-esteem. Immediately following the ostracism manipulation, participants completed a modified version of the Single-Item Self-Esteem Scale (Robins, Hendin, & Trzesniewski, 2001), to examine momentary self-esteem with the item, "Right now I feel good about myself." This item was rated on a 1 (not very true of me) to 5 (very true of me) and descriptive statistics for this measure are available in Table 11.

Emotions. Similar to study 1, emotions were measured using items selected from Poulsen (2003) and adding several items aimed specifically at feelings of exclusion. The items are identical to those in study 1 with the addition of one item, stressed. Participants rated how intensely they felt each of these 18 emotions during the interaction using a 1 (very little/none) to 5 (a great deal) scale. Like study 1, the emotion items factored into three subscales: rejection, positive emotions, and anger, with the item 'anxiety' as a separate measure. Means, standard deviations, and reliabilities are presented in Table 11.

Other Dependent Measures. Several measures that were administered in this study as dependent variables were identical to those given in study 1. In study 2, the following post-test measures were identical to those in study 1: Belonging; Personal Control; Other Control, Self-Blame; Self-Attribution; Other-Attribution; Norm Violation; clarity; Future Ostracism; Performance Blame; and Evaluation Outcome. The exact wording of these items is presented in Appendix G. Descriptive statistics for these measures are available in full in Table 11.

Results

To address the questions posed in study 2, two types of analyses were used. First, one-way analysis of variance (ANOVA) was used to examine how participants' experiences differed by condition in the study. Additionally, because there were several mean-level gender differences in study 1, a 3 (condition) by 2 (gender) factorial ANOVA was used to examine any main-effects or interactions of condition and gender. Finally, pretest measures (coping style, personality traits, optimism, prior experience with ostracism), aspects of the situation (control, attributions, etc.), and coping strategies (post-test) were used in Pearson correlations to determine how these factors relate to outcomes of ostracism for targets.

Targets respond differently depending on how they were ostracized

Participants' responses to ostracism were compared across conditions using one-way ANOVA's, and several differences emerged and are described in Table 14. Emotional responses to being excluded differed depending on the condition targets were assigned to. Targets indicated that they felt more rejected and less intense positive emotions in the last-picked condition. Additionally, participants reported lower levels of

momentary self-esteem in the last-picked condition compared to those in the ball-toss condition. Consistently in both study 1 and 2 participants excluded in the last-picked condition report worse emotional and self-esteem outcomes than those excluded by ball-toss.

In terms of how targets perceived the ostracism situation, those excluded in ball-toss felt that others in their group had considerably more control over them compared to targets in other conditions. Also, participants in the ball-toss condition saw that form of ostracism as being clearer than those in other conditions (although differences were not statistically significant when compared with the conversation condition).

Gender differences in responses to ostracism

Initially, there were no predicted gender differences in how targets responded to being ostracized. However, in light of the mean-level differences which emerged in study 1, the data were examined to test for main effects of gender, and interactions of gender and condition using a 3 x 2 factorial ANOVA. Means, standard deviations and main effects of gender are available in Table 15. Scanning through these main effects, women and men responded similarly in most respects when they were ostracized. A series of marginally significant differences suggest that women were somewhat more severely affected than men (lower self-esteem, lower sense of belonging, more self-attributions, greater expectation of future ostracism). Although there are these consistent, marginally significant main effect differences, there was only one interaction between gender and condition.

The only interaction that emerged occurred for the measure of self-blame. This interaction is depicted in Figure 7 and indicates that gender differences were strongest in

the conversation and last-picked conditions. In this study, women self-blamed (n = 40, M = 3.87, SD = 1.59) more than men (n = 8, M = 2.37, SD = 1.17) in the last-picked condition, but men self-blamed (n = 11, M = 4.33, SD = 1.54) more than women (n = 26, M = 3.44, SD = 1.52) in the conversation. Men (n = 5, M = 3.67, SD = 1.25) and women (n = 20, M = 3.80, SD = 1.62) had similar levels of self-blame in the ball-toss condition. It may be that being left out of an ongoing conversation is a type of ostracism women can dismiss somewhat more easily than men as not being their fault. However, women have a harder time letting other take the blame in the last-picked condition, and may think exclusion was related to their behaviors during the brief interaction.

Aspects of the situation and target relate to outcomes of ostracism

The relationships between aspects of the situation, personal factors such as personality and coping, and psychological outcomes of ostracism for targets were examined using Pearson correlations, reported in Tables 16 - 18. The six outcomes used in all correlations were feeling of anxiety, rejection, anger, positive emotions, self-esteem, and sense of belonging. Note that like study 1, variance in the situational variables likely reflects both individual-difference variation and variation in the situations. For example, ratings of personal control are likely a function of both the person's general tendency to perceive that they have control as well as a situational component.

Aspects of the situation are related to outcomes for targets

Perceptions of the situation were examined as being potentially related to outcomes of ostracism. Perceptions of situational characteristics that were used include: sense of personal control, control others had in the situation, self-blame, self-attributions,

other-attributions, extent to which exclusion was a norm violation, clarity of ostracism, expectations that ostracism will happen again, blaming ones own poor performance as the cause of ostracism, and expecting that exclusion will lead to a lower evaluation.

As seen in Table 16, results indicate that targets with a greater sense of personal control also had better psychological outcomes (i.e., more positive emotions, higher self-esteem, and a greater sense of belonging). These results replicate those from study 1, demonstrating a consistent link between sense of control and positive outcomes for targets.

Other results were also consistent with findings from study 1. The internal attributions targets made (self-blame, self-attributions, blaming one's performance for the cause of ostracism) were again related to negative outcomes for targets. All three factors were related to more intense feelings of rejection, anger, and lower self-esteem, and self-attributions and blaming one's poor performance were related to less intense positive emotions, and a lower sense of belonging. Together these results provide further evidence that internalizing ostracism is related to worse outcomes for targets.

Targets who felt exclusion was a greater violation of social norms, more clear-cut, and would lead to a poorer evaluation tended to show similar patterns of results. That is, these variables all were associated with greater anger, lower self-esteem, and a lower sense of belonging. Additionally, participants who viewed the ostracism as a greater norm violation tended to report less intense positive emotion. In addition, the more clear the ostracism was perceived to be was associated with more intense feelings of rejection. Thus, when targets perceived the situation as being more severe (in terms of clear ostracism, it being counter-normative, and in terms of evaluations), they also tended to

have worse outcomes. Finally, targets who expected to be excluded again in the future reported lower self-esteem and more intense feelings of rejection, suggesting that the expectation for future ostracism created worse outcomes in targets' current situation.

Coping strategies are related to outcomes for targets

The ways that participants indicated they used to cope with being excluded were examined to see if they were related to outcomes for targets. As seen in table 17, targets who tended to have better outcomes in terms of emotions, self-esteem and belonging, tended to endorse certain strategies. Those who reported using positive reframing tended to have less intense feelings of rejection, more intense positive emotions, and higher self-esteem. Those who used denial tended to have marginally higher self-esteem, and a greater sense of belonging, but also reported higher levels of anxiety. Additionally, participants with more positive emotions tended to use more active strategies, and those with a greater sense of belonging tended to rely on religion to cope. To a large extent, these results do not replicate findings from study 1, where these strategies are largely unrelated to outcomes for targets. Interestingly, targets in study 1 who thought they would use positive self-talk were also those who thought they would suffer exclusion more severely, but targets who used positive reframing in study 2, reported better outcomes. These results suggest that reading about a hypothetical situation and estimating how one may respond to it does not always correspond precisely to how participants actually reported that they responded to a face-to-face ostracism situation.

Some coping strategies were related to worse outcomes for targets. Targets who reported higher levels of anxiety also endorsed using self-distraction. Similar coping strategies were presented in study 1, but there was no relationship in that study. Also,

participants who blamed themselves more as a means of coping tended to be angrier and have lower self-esteem. These results are consistent with the other measures of internalizing ostracism, providing further evidence that targets who blame themselves, or some aspect of themselves tend to have more severe outcomes when they are excluded.

Personality factors are related to outcomes of ostracism for targets

Participants reports of big five personality traits (openness, extroversion, agreeableness, conscientiousness, and neuroticism), optimism, and previous experience as a target of ostracism were examined to test for associations between individual differences and outcomes of ostracism for targets, and results are reported in Table 18. Two traits were associated with outcomes for targets: neuroticism and optimism. Targets higher on neuroticism tended to have more severe and more negative outcomes in that they reported higher levels of anxiety, rejection, anger, and lower levels of positive emotions, self-esteem, and belonging. These results are consistent with those from study 1, suggesting that people higher in neuroticism suffer more intensely when they are ostracized.

Participants who reported being more optimistic at a trait level tended to have more positive outcomes. They report less intense feelings of rejection and anger, higher levels of self-esteem, and marginally higher levels of positive emotions. These results support predictions that optimists would have better outcomes when they encounter ostracism, and are consistent with more general work on optimism which shows that optimists generally are more resilient (Scheier & Carver, 1992).

Considering the correlational analyses together, results from study 2 show that internalizing ostracism as being caused in some way by oneself is related to worse

outcomes for targets. Also, several coping strategies were related to better outcomes for targets (active, positive reframing, religion, and denial). Finally, neuroticism was related to more negative outcomes for targets, whereas optimism was related to less severe outcomes for targets.

Discussion

Results from Study 2 provide more information about how targets respond to different ostracism situations, and were consistent in several important ways with results from study 1. Consistent with findings from study 1 (and predictions for this study), participants excluded in the last-picked condition were most severely affected in terms of their emotions and self-esteem. One reason why the last-picked condition is the harshest of the three examined here may be that targets have no chance to try to gain inclusion back into the group. In both the ball-toss and conversation conditions, targets are excluded over the course of an ongoing five-minute interaction, allowing them several minutes to potentially attempt different strategies to gain acceptance from the perpetrators. However, in the last-picked condition, participants experience inclusion with their group, and are later told that the other group member unanimously liked him or her the least. They do not interact with these people again after they are excluded, which removes their ability to try different strategies to be included again.

The relationships between sense of control and other measures of internalizing ostracism were again related to worse outcomes for targets in study 2. The findings from study 2 extend those of study 1 in that study 2 involved a face-to-face exclusion experience rather than a hypothetical one. Thus, participants who actually experienced exclusion, not just read about it, and reported feeling lower levels of control and higher

levels of internal attributions (rather than anticipated or expected levels of these factors), suffered worse outcomes.

One pattern unique to study 2 was that more severe forms of ostracism tended to be related to worse outcomes for targets. That is, when ostracism was perceived as being more counter-normative, clearer, and targets internalized the experience (greater self-blame, self-attributions, and blaming exclusion on their own poor performance), these aspects of the situation were related to worse outcomes for targets. Perhaps this pattern emerged in study 2 because this study involved a stronger ostracism manipulation and targets did not just imagine themselves being excluded, they actually experienced it. Although participants in study 1 read vignettes describing the same ostracism contexts as those actually manipulated in study 2, it is possible that they imagined the situation differently, in part because some details were omitted from the passage they read (e.g., gender of group members, exact behaviors perpetrators performed). Imagining being excluded was an aversive experience for participants, and this may have prompted them to gloss over details of the imagined interaction in order to avoid thinking about a painful experience. It may also be that because they completed the study online some were distracted by other things, and did not focus completely on imagining a vivid situation. Thus, experiencing ostracism in a face-to-face context, rather than imagining it, should make the experience more vivid for targets. So, although the overall experience of being left-out may be something participants can readily imagine, evaluating details such as how clear or counter-normative their imagined experience was may be something difficult to imagine. When ostracism was actually experienced, as in Study 2, these types

of situational aspects should have been more vivid, and were associated with more negative outcomes.

Several coping strategies were related to positive outcomes for targets in this study. These findings were unique to study 2, suggesting either the use of different post-manipulation coping scales, or differences in how participants experienced face-to-face versus hypothetical ostracism may be why they were not found consistently across studies. Regardless of this, it is an important implication for targets of exclusion that there are strategies related to positive (or perhaps less negative) outcomes. It is not possible to say for certain whether positive outcomes cause people to cope in different ways, or vice versa, or if there are other variables at work in this relationship, but it would be interesting to test whether assigning targets to use different coping strategies would lead them to have better outcomes when they encounter exclusion.

Finally, although agreeableness, extroversion, and conscientiousness were unrelated to outcomes for targets, neuroticism was again related to worse outcomes for targets, replicating results from study 1. Additionally, as predicted, targets higher on optimism tended to have more favorable outcomes. This provides evidence that the general finding that optimists tend to have favorable psychological outcomes when they face a stressor (even a major one) holds true for situations in which participants encounter ostracism.

GENERAL DISCUSSION

In this paper, two studies were presented examining how different ostracism situations as well as individual differences such as personality and coping strategies affect psychological outcomes for targets of ostracism. The first study was conducted on the internet, and participants were presented with one of six different scenarios involving an ostracism situation that parallels those commonly used in laboratory research on exclusion. In study 2, participants were randomly assigned to be excluded in the laboratory using the same ostracism situations as those used in study 1 (i.e., they were excluded from a game of catch, a conversation, or by being told they were least liked by their group). Participants completed pre-test measures of personality, and measures of perceptions of the situation and coping strategy after the exclusion manipulation. Across both studies, several findings with implications for researchers and/or real-world targets of exclusion emerged.

First, comparisons between ostracism conditions consistently showed that being excluded from the last-picked condition, in which targets are told that they were selected as the least desirable or likeable group member was the most detrimental form of ostracism in terms of emotional outcomes and self-esteem. Some potential reasons why this condition had the most severe outcomes have been discussed previously, the main argument being that targets are unable to attempt to gain inclusion again.
This condition may also be most difficult because participants are explicitly told that no one wanted to work with them again, whereas in the other situations this explicit information is only implied by the behavior of the other group members. These findings

suggest that researchers interested in pursuing questions about exclusion should be mindful of the type of exclusion manipulation they choose. As results from study 1 and especially study 2 show, all forms of ostracism are not equal, nor are they perceived the same by targets.

Perceptions of the situation differed by the type of ostracism. In study 1, participants thought the last-picked condition would leave them with the least sense of personal control, and greatest levels of self-blame, however they thought conversation was the most counter-normative, clear, and would be more likely to lower their grade. Results were different in study 2, such that in the ball-toss condition targets thought others had more control, and thought it was the clearest form of ostracism. Perhaps imagining being left out of a game of catch seemed more innocuous to participants in Study 1, but actually experiencing it in Study 2 left participants with a different impression of this situation.

Both studies found that targets with a lower sense of control, or who internalized the cause of ostracism more tended to have worse outcomes. These findings are consistent with previous research on locus of control, and self-blaming tendencies (Schulz & Decker, 1985; Taylor & Brown, 1994). These findings are particularly relevant in the context of ostracism because being excluded is often linked to a lower sense of control for targets (Williams, 2001). Williams (1997; 2001) argues that an outcome of exclusion is that targets have a lower sense of control, but results from the present studies suggest that perhaps it is not simply an outcome, rather it also predicts worse outcomes (self-esteem and emotions) for targets. Thus, sense of personal control

may play a more complex role in understanding how targets are affected by ostracism than originally posited by previous theory.

It is important to note here that targets' sense of personal control was considered to be a contextual variable in these studies, but elsewhere personal control is also regarded as a personality variable (Rotter, 1966; Boone & De Brabander, 1993). One major reason why control was a contextual variable in these studies is because previous theory and work have suggested that the amount of control people have does vary objectively by context (Folkman & Lazarus, 1985; Williams, 1997; 2001), and can influence other psychological processes such as coping. Nonetheless it is possible that participants' personal feelings of agency and control may have influenced how they responded to the situation beyond the effects of contextual control. However, because no measures of targets' baseline levels of perceptions of control were assessed, it is difficult to know how much their responses to the post-manipulation questions were influenced by the situation they were in versus their personal feelings of control. This interaction of contextual and personal variables on one's sense of control should be examined more carefully in future work to determine how precisely ostracism impacts perceptions of control, and how personal perceptions of control (i.e., baseline trait levels) may influence responses to exclusion.

An apparent contradiction can be observed in the results such that although ball-toss was perceived as being the condition in which participants would have the least personal control and/or others would have most control, this condition did not elicit the worst outcomes for targets, rather it was the last-picked condition. It may be that these conditions reduce participants' sense of control in very different ways. As discussed

previously, targets in the last-picked condition are unable to influence their situation, that is, they cannot even attempt to gain inclusion to the group again because they are not interacting with the perpetrators during or after they are told that they were the least liked group member. In this way, by limiting targets' options of how to deal with being excluded, the constraints of the last-picked condition remove targets' ability to control the situation. However, in the ball-toss (and conversation) condition(s), targets lack control in a different way. They are indeed able to interact with perpetrators, and try to gain inclusion, but all of their attempts fail. Thus, although they may be exercising their ability to attempt to regain some control over the situation, their attempts are never successful, thus their feeling of a lack of control should be because they exhausted their attempts at inclusion, rather than not being given any attempts in the first place like in the last-picked condition.

Consistently in the studies presented here, people higher on neuroticism tended to have worse outcomes of ostracism. These findings are part of a larger pattern that people higher on neuroticism tend to be more emotionally reactive to stimuli, often reacting more strongly to negative events or stressors than people lower in neuroticism (Bolger & Zuckerman, 1995; Gunthert, Cohen, & Armeli, 1999). Although this pattern is not novel in terms of broader findings about the trait of neuroticism, it does provide evidence that there are individual differences that relate to outcomes of ostracism, beyond situational factors.

Finally, there was evidence that several coping strategies were related to positive outcomes for targets, suggesting that there are responses targets can make to being excluded that are more resilient than others. These findings hold the potential for helping

everyday targets of exclusion in real-world situations. That is, if research in the future can demonstrate that using certain coping strategies causes the effects of ostracism to be attenuated for targets, then interventions for targets of exclusion can be developed to help alleviate their psychological suffering.

Limitations

These studies contributed to the broader understanding of ostracism, but are not without fault. In study 1, participants were asked approximately 200 questions over the internet, which may mean that by the end of the questionnaire they had experienced too much demand and were answering with poorer quality. Additionally, there are other risks involved with doing internet-based research. Namely, participants may not devote their full attention to doing the study, and there may be any number of distractions around them. Although this is a fault in study 1, it also suggests that the effects of ostracism are quite robust to affect participants even though they may have been distracted. Finally, study 1 involved hypothetical situations, which are not always realistic and may be subject to varying interpretations. For instance, some individuals may have imagined the situation vividly, others less so; or some may have imagined being excluded by people of the same gender as they are, whereas others may have imagined mixed-gender groups.

Study 2 addressed a number of these concerns in that is involved face-to-face exclusion, and the questionnaire was split into two parts, and thus was more manageable in length. The methods used in study 2 made it a more controlled study, but certain aspects of the study used to enhance control may have decreased generalizability. The major ones being that participants were excluded in contrived settings in order to replicate previously used laboratory methods and perpetrators were confederates. One

additional limitation is that college-aged participants were used in this sample. Using participants of other ages, especially children and people in early adolescence, would be useful in order to generalize results to populations who face victimization as targets of ostracism in daily life, and who are particularly affected by such victimization.

Another concern in study 2 involves the ball-toss condition. In this condition, participants engage in their game of catch while purportedly waiting for the experimenter to return. Thus, the game of catch supposedly occurs outside of the experimental context. However, participants in this condition, as well as the other two, were asked a number of questions regarding their perceptions of the exclusion situation. In the ball-toss condition, these questions were preceded with the stem: "During the game of catch, to what extent did you...?" These questions may have interfered with the experimental manipulation by alerting the participants to the experimental manipulation.

Although this problem is a critical concern for some measures in this study (e.g. the situational variables such as attributions, perceptions of control, and clarity of the ostracism), five of the six key outcome measures (self-esteem, anxiety, positive emotions, anger, and feelings of rejection) were administered before the biasing items occurred. Thus, analyses of these key outcomes were not compromised by this issue. On the other hand, analyses of the perceptions of the situation and measures of how participants coped during the exclusion are potentially biased by this problem.

Future Directions

The present study gathered new information about ostracism, yet more questions remain to be answered about how targets deal with ostracism. One line of future research should further explore the role of control in ostracism. It would be interesting to see if

targets who are excluded but later gain a sense of control in the group, perhaps as being voted group leader, or simply gaining inclusion, are still negatively affected by ostracism, or if the effects are entirely eliminated relative to people who were included the entire time. Such research would have implications for understand real-world situations in which people are excluded, and later re-included by a group, such as people who are suspended from a team and later taken back.

Future work in this area should also focus on more real-world situations. Understanding how targets of ostracism cope with exclusion in daily life and the psychological outcomes they experience would be useful in terms of applying these findings and ultimately helping targets. It may be useful to target school-age children and adolescents in particular. Targets of bullying and exclusion in this age-group have garnered national attention in recent years in part because acts of school violence by targets of exclusion in this age group (e.g., Columbine), and more recently attention on the negative psychological impact bullying and exclusion have on victims (Institute for Public Policy and Social Research, 2006). Indeed, in some states (including Michigan) legislation is being proposed to help and protect victims of bullying, suggesting that research about exclusion (related to bullying) could serve to inform policy-makers about how to help and protect victims.

Conclusions

The studies presented here provide evidence that targets of exclusion experience a range of outcomes when aspects of the ostracism situation vary, and that individual differences, in addition to situational ones, are related to outcomes for targets. Researchers in the area of ostracism should be aware that the particular paradigm used in

research studies has implications for how targets interpret the social context, and in turn may influence targets responses in systematic ways. This research has shown that in addition to the impact that situational variation has on outcomes, personality factors and coping strategies also relate to variations in resiliency or vulnerability to ostracism. More research is needed to establish the causal sequencing of the relationships found in the present work, however, this work represents a first important step.

APPENDICES

SCENARIOS PRESENTED IN STUDY 1

Instructions:
In a moment, we are going to ask you to carefully read a description of a social situation. You will be one member of a group of students who have been assigned to complete a class project together. We would like you to carefully read the description of the situation. As you are reading, try to imagine the described events as if they were really happening to you. Take some time to consider how the events would make you feel. Think about what kinds of thoughts would go through your head. Imagine what you might do in such a situation. After taking some time to read about the situation, we will ask you a series of questions about how you think you would feel, what thoughts you would have, and what you might do in such a situation. In order to answer these questions accurately, please read the scenario thoroughly, and imagine yourself participating in the events as vividly as you can.

Scenario 1.1 and 1.2

During the second week of fall semester you go to your upper division Group Process and Interpersonal Relationships class, and at the beginning of class the instructor has each student complete a brief personality questionnaire. Then she uses the questionnaires to assign each member of the class into a three-person group to complete a group project. Note that each group is formed so that all group members are initially unacquainted. One goal of the groups, according to the instructor is to form friendships so that the class can study the development of close relationships.

Twenty-eight students complete the personality test and so, although all the other groups have three members, the group you are assigned to ends up with four members.

The instructor has the class break up into the groups. **(Before you even have time to introduce yourself,/After you have spent about five minutes introducing yourself and talking with your other group members,)** the instructor comes to your group and says that the friendship project really requires three-person groups, and so she would like to cut your group by one person – and that person will receive an alternative assignment to complete on their own.

Because the goal of the groups is to form friendships, she has the members of your group rate how much they want each group member to stay in the group. She examines the ratings and then tells you that every other group member rated you as the least desirable group member. Thus, you are removed from the group.

Scenario 2.1 and 2.2

During the second week of fall semester you go to your upper division Group Process and Interpersonal Relationships class, and at the beginning of class the instructor has each student complete a brief personality questionnaire. Then she uses the questionnaires to assign each member of the class into a four-person group to complete a group project. Note that each group is formed so that all group members are initially unacquainted. One goal of the groups, according to the instructor is to form friendships so that the class can study the development of close relationships. The first task of the

group is to meet with the instructor in her office to discuss project details. Your group is scheduled to meet with her at 1:00pm the next day.

(The next day the four of you arrive at your instructor's office at 1:00, you immediately knock on the instructor's door, but she asks you to wait in a nearby room with your other group members./The next day the four of you arrive at your instructor's office about 5 minutes early, so you stand in the hall, introducing yourself talking with your other group members. Then you knock on the instructor's door, but she asks you to wait in a nearby room with your other group members.) As you enter this waiting area, you notice a sign that says, "Silence Please, Experiments in Progress", and another sign that says, "Child Play Study Waiting Room".

You take a seat, and the four of you sit there quietly. Then you notice a toybox in the room for "Child Play" study. One of your group members notices it too and starts digging around in the box. She/He pulls out a ball and begins tossing it in the air to herself/himself. None of you speak, so as not to disturb the experiment, but since there were no signs about playing ball, a game of catch begins. At first you all play catch together. However, after a short while you notice that the other group members are only tossing the ball among themselves, and you aren't getting passed the ball at all anymore. This goes on for about five minutes. Then you hear your instructor's door open and her footsteps approaching. Your group puts the ball away quickly, and you all go into her office for the meeting.

Scenario 3.1 and 3.2

During the second week of fall semester you go to your upper division Group Process and Interpersonal Relationships class, and at the beginning of class the instructor has each student complete a brief personality questionnaire. Then she uses the questionnaires to assign each member of the class into four-person groups to complete a group project. Note that each group is formed so that all group members are initially unacquainted. One goal of the groups, according to the instructor is to form friendships so that the class can study the development of close relationships.

The instructor has the class break up into the groups. **(Before you even have time to introduce yourself, /After you have spent about five minutes introducing yourself and talking with your other group members,)** the instructor explains that your group needs to have a five minute discussion concerning theories of friendship that have been presented in class.

The members of your group begin an animated discussion about theories of friendship, but every time you speak the other group members don't seem to hear you. They ignore your comments and suggestions. Several times you try to contribute to the discussion but when you begin to speak another group member jumps in and dismissively remarks "Well, anyway..." and the conversation continues on without you. The other group members don't make eye contact with you and they seem to avoid looking in your direction. After the five minutes is up, the instructor asks each group what they concluded.

PRE-TEST QUESTIONNAIRE FOR STUDY 1

This is a questionnaire designed to measure how you think about yourself right now. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Again, answer these questions as they are true for you RIGHT NOW.

1. I am worried about whether I am regarded as a success or failure.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

2. I feel self-conscious.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

3. I feel displeased with myself.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

4. I am worried about what other people think of me.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

5. I feel inferior to others at this moment.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

6. I feel concerned about the impression I am making.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

7. I am worried about looking foolish.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

These items deal with ways you usually cope with the stress in your life. There are many ways to try to deal with problems. These items ask what you do to cope with most problems. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with problems. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I turn to work or other activities to take my mind off things.	1	2	3	4
2. I concentrate my efforts on doing something about the situation I'm in.	1	2	3	4
3. I say to myself "this isn't real."	1	2	3	4
4. I get emotional support from others.	1	2	3	4
5. I give up trying to deal with it.	1	2	3	4
6. I take action to try to make the situation better.	1	2	3	4
7. I refuse to believe that it has happened.	1	2	3	4
8. I say things to let my unpleasant feelings escape.	1	2	3	4
9. I get help and advice from other people.	1	2	3	4
10. I try to see it in a different light, to make it seem more positive.	1	2	3	4
11. I criticize myself.	1	2	3	4
12. I try to come up with a strategy about what to do.	1	2	3	4
13. I get comfort and understanding from someone.	1	2	3	4
14. I give up the attempt to cope.	1	2	3	4
15. I look for something good in what is happening.	1	2	3	4
16. I make jokes about it.	1	2	3	4
17. I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
18. I accept the reality of the fact that it has happened.	1	2	3	4
19. I express my negative feelings.	1	2	3	4
20. I try to find comfort in my religion or spiritual beliefs.	1	2	3	4
21. I try to get advice or help from other people about what to do.	1	2	3	4
22. I learn to live with it.	1	2	3	4
23. I think hard about what steps to take.	1	2	3	4
24. I blame myself for things that happened.	1	2	3	4

25. I pray or meditate.	1	2	3	4	
26. I make fun of the situation.	1	2	3	4	

On the following questionnaire, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes ***you***. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Response Options

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

1. Am the life of the party.	1	2	3	4	5	
2. Sympathize with others' feelings	1	2	3	4	5	
3. Get chores done right away.	1	2	3	4	5	
4. Have frequent mood swings.	1	2	3	4	5	
5. Have a vivid imagination.	1	2	3	4	5	
6. Don't talk a lot.	1	2	3	4	5	
7. Am not interested in other people's problems.	1	2	3	4	5	
8. Often forget to put things back in their proper place.	1	2	3	4	5	
9. Am relaxed most of the time.	1	2	3	4	5	
10. Am not interested in abstract ideas.	1	2	3	4	5	
11. Talk to a lot of different people at parties.	1	2	3	4	5	
12. Feel others' emotions.	1	2	3	4	5	
13. Like Order.	1	2	3	4	5	
14. Get upset easily.	1	2	3	4	5	
15. Have difficulty understanding abstract ideas.	1	2	3	4	5	
16. Keep in the background.	1	2	3	4	5	
17. Am not really interested in others.	1	2	3	4	5	
18. Make a mess of things.	1	2	3	4	5	
19. Seldom feel blue.	1	2	3	4	5	
20. Do not have a good imagination.	1	2	3	4	5	

Each of the items below describes things college students sometimes ask of other people. Please imagine that you are in each situation and answer the questions below.

1. You ask someone in class if you can borrow his/her notes.

   How concerned or anxious would you be over whether or not the person would want to lend you his/her notes?

   very unconcerned very concerned
   1 2 3 4 5 6

   I would expect that the person would willingly give me his/her notes.

   very unlikely very likely
   1 2 3 4 5 6

2. You ask your boyfriend/girlfriend to move in with you.

   How concerned or anxious would you be over whether or not he/she also would want to move in with you?

   very unconcerned very concerned
   1 2 3 4 5 6

   I would expect that he/she would want to move in with me.

   very unlikely very likely
   1 2 3 4 5 6

3. You ask your parents for help in deciding what programs to apply to.

   How concerned or anxious would you be over whether or not your parents would want to help you?

   very unconcerned very concerned
   1 2 3 4 5 6

   I would expect that they would want to help me.

   very unlikely very likely
   1 2 3 4 5 6

4. You ask someone you don't know well out on a date.

   How concerned or anxious would you be over whether or not the person would want to go out with you?

   very unconcerned very concerned
   1 2 3 4 5 6

I would expect that the person would want to go out on a date with me.

very unlikely very likely
1 2 3 4 5 6

5. Your boyfriend/girlfriend has plans to go out with friends tonight, but you really want to spend the evening with him/her, and you tell him/her so.

How concerned or anxious would you be over whether or not your boyfriend/girlfriend would decide to stay in?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would willingly choose to stay in with me.

very unlikely very likely
1 2 3 4 5 6

6. You ask your parents for extra money to cover living expenses.

How concerned or anxious would you be over whether or not your parents would help you out?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that my parents would not mind helping me out.

very unlikely very likely
1 2 3 4 5 6

7. After class, you tell your professor that you have been having some trouble with a section of the course and ask if he/she can give you some extra help.

How concerned or anxious would you be over whether or not your professor would want to help you out?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that the professor would want to help me.

very unlikely very likely
1 2 3 4 5 6

8. You approach a close friend to talk after doing or saying something that seriously upset him/her.

How concerned or anxious would you be over whether or not your friend would want to talk with you?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to talk with me to try to work things out.

very unlikely very likely
1 2 3 4 5 6

9. You ask someone in one of your classes to coffee.

How concerned or anxious would you be over whether or not the person would want to go?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to go with me.

very unlikely very likely
1 2 3 4 5 6

10. After graduation you can't find a job and you ask your parents if you can live at home for a while.

How concerned or anxious would you be over whether or not your parents would want you to come home?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that I would be welcome at home

very unlikely very likely
1 2 3 4 5 6

11. You ask your friend to go on vacation with you over Spring Break.

How concerned or anxious would you be over whether
or not your friend would want to go with you?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to go with me.

very unlikely very likely
1 2 3 4 5 6

12. You call your boyfriend/girlfriend after a bitter argument and tell him/her you want to see him/her.

How concerned or anxious would you be over whether
or not your boyfriend/girlfriend would want to see you?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to see me.

very unlikely very likely
1 2 3 4 5 6

13. You ask a friend if you can borrow something of his/hers.

How concerned or anxious would you be over whether
or not your friend would want to loan it to you?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would willingly loan me it.

very unlikely very likely
1 2 3 4 5 6

14. You ask your parents to come to an occasion important to you.

How concerned or anxious would you be over whether
or not your parents would want to come?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that they would want to come.

very unlikely very likely
1 2 3 4 5 6

15. You ask a friend to do you a big favor.

How concerned or anxious would you be over whether
or not your friend would want to help you out?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would willingly agree to
to help me out.

very unlikely very likely
1 2 3 4 5 6

16. You ask your boyfriend/girlfriend if he/she really loves you.

How concerned or anxious would you be over whether
or not your boyfriend/girlfriend would say yes?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would answer yes sincerely.

very unlikely very likely
1 2 3 4 5 6

17. You go to a party and notice someone on the other side of the
room, and then you ask
them to dance.

How concerned would you be over whether or not
the person would want to dance with you?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to dance with me.

very unlikely very likely
1 2 3 4 5 6

18. You ask your boyfriend/girlfriend to come home to meet your
parents.

How concerned would you be about whether or not
your boyfriend/girlfriend would want to meet your parents?

very unconcerned very concerned
1 2 3 4 5 6

I would expect that he/she would want to meet my parents.

very unlikely very likely
1 2 3 4 5 6

The following questions are about the relationships you had with other kids your age when you were growing up. Please tell me how often each of the following things happened to you when you were growing up.

1 Almost never or never
2 Once in a while
3 Sometimes
4 A lot of the time (frequently)
5 Almost always or always

1. Growing up, a kid your age left you out of what he or she was doing.	1	2	3	4	5
2. Growing up, a kid your age left you out of an activity or conversation that you really wanted to be included in.	1	2	3	4	5
3. Growing up, a kid your age did not invite you to a party or other social event even though he or she knew that you wanted to go.	1	2	3	4	5
4. A kid your age that you like would not sit near you at lunch or in class.	1	2	3	4	5
5. A kid your age gave you the silent treatment or did not talk to you on purpose.	1	2	3	4	5
6. A kid your age called you bad names.	1	2	3	4	5
7. A kid your age talked badly about you behind your back, or gossiped about you.	1	2	3	4	5
8. A kid your age picked on you.	1	2	3	4	5
9. A kid your age pushed you around or hit you.	1	2	3	4	5
10. A kid your age took or messed up your things.	1	2	3	4	5
11. A kid your age laughed at you.	1	2	3	4	5
12. Growing up, when kids your age chose people to be on sports teams, you were the last one picked.	1	2	3	4	5

POST-MANIPULATION QUESTIONNAIRE FOR STUDY 2

Think about when you found out that you were being left out by the group, and indicate how intensely you felt the following emotions at that time.

1	2	3	4	5
Very slightly or not at all	a little	moderately	quite a bit	extremely

_____ Angry	_____ Excluded	_____ Happy
_____ Isolated	_____ Energetic	_____ Sad
_____ Hostile	_____ Upset	_____ Anxious
_____ Lonely	_____ Resentful	_____ Warm
_____ Rejected	_____ Pleasant	_____ Embarrassed
_____ Hurt	_____ Left-out	

Just after you learned that you were selected as the least desirable person by all other group members, to what extent were the following statements true for you at that moment:

1. I was worried about whether I was regarded as a success or failure.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

2. I felt self-conscious.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

3. I felt displeased with myself.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

4. I was worried about what other people thought of me.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

5. I felt inferior to others at that moment.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

6. I felt concerned about the impression I was making.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

7. I was worried about looking foolish.

1	2	3	4	5
Not at All	A little Bit	Somewhat	Very Much	Extremely

Just after you learned that you were selected as the least desirable person by all other group members, to what extent were the following statements true:

I felt a sense of belonging to my group.

Not at all 1 2 3 4 5 6 7 Very Much

I felt a sense of loss when the group members excluded me.

Not at all 1 2 3 4 5 6 7 Very Much

I felt that I was a member of the project group.

Not at all 1 2 3 4 5 6 7 Very Much

I felt rejected by the group members.

Not at all 1 2 3 4 5 6 7 Very Much

I saw myself as part of the project group.

Not at all 1 2 3 4 5 6 7 Very Much

To what extent did you perceive the situation to be isolating?

Not at all 1 2 3 4 5 6 7 Very Much

Please answer the following two questions concerning the scenario:

How many people were initially in the group, including you? _____

Did you have a chance to talk with and get to know the group members?
Yes _____ No _____ I don't know _____

Just after you learned that you were selected as the least desirable person by all other group members, to what extent did you feel that:

You could influence how the other group members treated you:

Not at all 1 2 3 4 5 6 7 Very Much

You could control how the other group members perceived you:

Not at all 1 2 3 4 5 6 7 Very Much

The other group members controlled your ability to participate in the group:

Not at all 1 2 3 4 5 6 7 Very Much

After you learned that you were selected as the least desirable person by all other group members, to what extent did you feel that:

The behavior of the other group members might have been different if you had changed the way you acted:

Not at all 1 2 3 4 5 6 7 Very Much

You might not have been excluded if you had done something differently:

Not at all 1 2 3 4 5 6 7 Very Much

You could have made the other group members value you more than they did if you had behaved in a different way:

Not at all 1 2 3 4 5 6 7 Very Much

Just after you learned that you were selected as the least desirable person by all other group members, to what extent did you think that:

You must have done something wrong to get treated as you did.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members treated you this way because of who they are rather than who you are.

Not at all 1 2 3 4 5 6 7 Very Much

It was your fault that you were left out by the other group members.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members left you out because of something about them (perhaps their personalities) and NOT something about you.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members left you out because they are socially incompetent.

Not at all 1 2 3 4 5 6 7 Very Much

The other group member treated you as they did because YOU are socially incompetent?

Not at all 1 2 3 4 5 6 7 Very Much

Just after you learned that you were selected as the least desirable person by all other group members, to what extent was it apparent to you that:

The members of the group clearly intended to leave you out.

Not at all 1 2 3 4 5 6 7 Very Much

You were being excluded from the group on purpose.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members obviously did not want you to be part of the group.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that the other group members' behavior was impolite.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that the other group members' behavior was socially inappropriate.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that the other group members' behavior violated normal rules of how people should treat one another.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that most people would not behave like the other group members did in this situation.

Not at all 1 2 3 4 5 6 7 Very Much

There are many reasons why the other group members may have left you out of the group. In your own words, please describe why YOU THINK the other group members rated you so unfavorably.

_____

To what extent do you think that you were left out of the group because of your performance on the project task?

Not at all 1 2 3 4 5 6 7 Very Much

Do you think that being left out of the group would negatively impact your grade on the project?

Not at all 1 2 3 4 5 6 7 Very Much

How likely do you think that how you were treated in this situation might happen again in the future?

Not at all likely 1 2 3 4 5 6 7 Very Likely

Now we'd like to know about how you think you would respond to being removed from the group because the other group members thought you were the least desirable group member.

1. I would ask the others why they were treating me this way.

a.	I wouldn't do this at all.	1	2	3	4	5	6	7	I would do this a lot.
b.	This would NOT help me feel better.	1	2	3	4	5	6	7	This would help me to feel better.
c.	This would make the other group members feel bad.	1	2	3	4	5	6	7	This would make the other group members feel good.
d.	This would not help me to reconnect with the group.	1	2	3	4	5	6	7	This would help me to reconnect with the

group.

2. I would think about how to improve the situation.
3. I would tell myself that I can get through this.
4. I would think about other things.
5. I would think about what other people would do in this situation.
6. I would find something else to do.
7. I would keep playing the situation in my head over and over.
8. I would yell at the other group members.
9. I would try not to show my emotions.
10. I would drop the class, or try to switch to a different section.
11. I would pray or meditate about it.

Lastly, we are interested in some basic background information about you as a participant. Please answer the following questions asking you to describe yourself.

What is your sex? Male _____ Female _____

How old are you? _____ years

Thank you for taking time to complete today's study!

Note that for scenarios 2 and 3, the pre-test measures were identical. However, slight changes in the wording of the instructions for the post-test questions will be made, as indicated below.

Scenario 2:

Think about when you were sitting for five minutes while everyone else in your group except for you was playing a game of catch, and indicate how intensely you felt the following emotions at that time.

When you were sitting while the other group members played a game of catch without including you, to what extent were the following statements true for you at that moment:

As you were sitting with your group while they played a game of catch without including you, to what extent were the following statements true:

As you were sitting with your group while they played a game of catch without including you, to what extent were the following statements true:

When you were sitting and waiting while the other group members played a game of catch without including you, to what extent did you feel that:

When you were sitting and waiting while the other group members played a game of catch without including you, to what extent did you feel that:

When you were sitting and waiting while the other group members played a game of catch without including you, to what extent did you think that:

When you were sitting and waiting while the other group members played a game of catch without including you, to what extent was it apparent to you that:

Now we'd like to know about how you think you would respond to sitting through a game of catch for five minutes in which none of the other group members threw you the ball.

Scenario 3:

Think about when you were being left out of the in-class group discussion, and indicate how intensely you felt the following emotions at that time.

When you were being left out of the in-class group discussion, to what extent were the following statements true for you at that moment:

While you were being left out of the in-class group discussion, to what extent were the following statements true:

When you were being left out of the in-class group discussion, to what extent did you feel that:

When you were being left out of the in-class group discussion, to what extent did you feel that:

When you were being left out of the in-class group discussion, to what extent did you think that:

When you were being left out of the in-class group discussion, to what extent was it apparent to you that:

Now we'd like to know about how you think you would respond to being left out of a short in-class group discussion.

RELATIONSHIP CLOSENESS INDUCTION TASK (RCIT)

Instructions:

"You and the other participants will receive three identical lists of questions. These three lists of questions will be on three separate pages. We would like you to engage in as natural a conversation as possible using these questions. An easy way to do this would be to take turns asking and answering these questions. In other words, one participant should ask another participant the first question on the list. The other participant should answer and then ask that same question of the first partner. There is a time limit on each of the three lists of questions. You should try to finish all the questions within that time limit. Check off each question you finish on the provided sheet. You may spend 1 minute on the first list of questions, 2 minutes on the second list, and 2 minutes on the third list of questions. The experimenter will keep time and tell you when to go on to the next list of questions. When this occurs, finish the question you are on and then go on to the next list."

List 1

1) What is your first name?
2) How old are you?
3) Where are you from?
4) What year are you at Michigan State University?
5) What is your major, or, what do you think you might major in? Why?
6) What made you come to Michigan State University?
7) What is your favorite class at MSU? Why?

List 2

1) What are your hobbies?
2) What would you like to do after graduating from MSU?
3) What would be the perfect lifestyle for you?
4) What is something you have always wanted to do but probably never will be able to do?
5) If you could travel anywhere in the world, where would you go and why?
6) What is one strange thing that has happened to you since you've been at MSU?
7) What is one embarrassing thing that has happened to you since arriving at MSU?
8) What is one thing happening in your life that makes you stressed out?
9) If you could change anything that happened to you in high school, what would that be?
10) If you could change one thing about yourself, what would that be?
11) Do you miss your family?
12) What is one habit you'd like to break?

List 3

1) If you could have one wish granted, what would that be?
2) Is it difficult or easy for you to meet people? Why?
3) Describe the last time you felt lonely.
4) What is one emotional experience you've had with a good friend?
5) What is one of your biggest fears?
6) What is your most frightening early memory?
7) What is your happiest early childhood memory?
8) What is one thing about yourself that most people would consider surprising?
9) What is one recent accomplishment that you are proud of?
10) Tell me one thing about yourself that most people who already know you don't now.

DISCUSSION TASK FROM JOHNSON & JOHNSON, 1975

Lost on the Moon Scenario Discussion Task

Imagine that:

You have crash landed on the lighted surface of the Moon with your group. You are about 200 miles from the mother ship and the rest of your crew. You have some equipment and supplies that survived the crash. Below is a list of the 15 items that survived the crash. Sort these items from most to least important for your voyage back to the mother ship. You have five minutes to discuss your answers.

_____ Box of matches

_____ Food concentrate

_____ Nylon rope

_____ Parachute silk

_____ Portable heating unit

_____ First aid kit with injection needles

_____ Pistols

_____ Dehydrated milk

_____ Life raft

_____ Magnetic compass

_____ 12 gallons of water

_____ Signal flares

_____ 2 – 100 lb. oxygen tanks

_____ Solar powered FM receiver-transmitter

_____ Star map (based on stars viewed from the moon)

PRE-TEST QUESTIONNAIRE FOR STUDY 2

So that we can identify your responses today with your responses to the laboratory component of the study, please indicate your PID _____

For these questions, please circle the appropriate number for each statement depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

Strongly Agree	1	2	3	4	5	Strongly disagree

1. On the whole, I am satisfied with myself.	1	2	3	4	5
2. At times I think I am no good at all.	1	2	3	4	5
3. I feel that I have a number of good qualities.	1	2	3	4	5
4. I am able to do things as well as most other people.	1	2	3	4	5
5. I feel I do not have much to be proud of.	1	2	3	4	5
6. I certainly feel useless at times.	1	2	3	4	5
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4	5
8. I wish I could have more respect for myself.	1	2	3	4	5
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4	5
10. I take a positive attitude toward myself.	1	2	3	4	5

On the following questionnaire, there are phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes ***you***. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the bubble that corresponds to the number on the scale.

Response Options

1: Very Inaccurate
2: Moderately Inaccurate
3: Neither Inaccurate nor Accurate
4: Moderately Accurate
5: Very Accurate

1. Am the life of the party.	1	2	3	4	5
2. Sympathize with others' feelings	1	2	3	4	5
3. Get chores done right away.	1	2	3	4	5
4. Have frequent mood swings.	1	2	3	4	5
5. Have a vivid imagination.	1	2	3	4	5
6. Don't talk a lot.	1	2	3	4	5

7. Am not interested in other people's problems.	1	2	3	4	5
8. Often forget to put things back in their proper place.	1	2	3	4	5
9. Am relaxed most of the time.	1	2	3	4	5
10. Am not interested in abstract ideas.	1	2	3	4	5
11. Talk to a lot of different people at parties.	1	2	3	4	5
12. Feel others' emotions.	1	2	3	4	5
13. Like Order.	1	2	3	4	5
14. Get upset easily.	1	2	3	4	5
15. Have difficulty understanding abstract ideas.	1	2	3	4	5
16. Keep in the background.	1	2	3	4	5
17. Am not really interested in others.	1	2	3	4	5
18. Make a mess of things.	1	2	3	4	5
19. Seldom feel blue.	1	2	3	4	5
20. Do not have a good imagination.	1	2	3	4	5

These items deal with ways you usually cope with the stress in your life. There are many ways to try to deal with problems. These items ask what you do to cope with most problems. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with problems. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I turn to work or other activities to take my mind off things.	1	2	3	4
2. I concentrate my efforts on doing something about the situation I'm in.	1	2	3	4
3. I say to myself "this isn't real."	1	2	3	4
4. I get emotional support from others.	1	2	3	4
5. I give up trying to deal with it.	1	2	3	4
6. I take action to try to make the situation better.	1	2	3	4
7. I refuse to believe that it has happened.	1	2	3	4
8. I say things to let my unpleasant feelings escape.	1	2	3	4
9. I get help and advice from other people.	1	2	3	4
10. I try to see it in a different light, to make it seem more positive.	1	2	3	4
11. I criticize myself.	1	2	3	4
12. I try to come up with a strategy about what to do.	1	2	3	4
13. I get comfort and understanding from someone.	1	2	3	4
14. I give up the attempt to cope.	1	2	3	4
15. I look for something good in what is happening.	1	2	3	4
16. I make jokes about it.	1	2	3	4

17. I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
18. I accept the reality of the fact that it has happened.	1	2	3	4
19. I express my negative feelings.	1	2	3	4
20. I try to find comfort in my religion or spiritual beliefs.	1	2	3	4
21. I try to get advice or help from other people about what to do.	1	2	3	4
22. I learn to live with it.	1	2	3	4
23. I think hard about what steps to take.	1	2	3	4
24. I blame myself for things that happened.	1	2	3	4
25. I pray or meditate.	1	2	3	4
26. I make fun of the situation.	1	2	3	4

In this next set of questions, please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

A = I DISagree a lot
B = I DISagree a little
C = I neither agree nor disagree
D = I agree a little
E = I agree a lot

1. In uncertain times, I usually expect the best.	A	B	C	D	E
2. If something can go wrong for me, it will.	A	B	C	D	E
3. I'm always optimistic about my future.	A	B	C	D	E
4. I hardly ever expect things to go my way.	A	B	C	D	E
5. I rarely count on good things happening to me.	A	B	C	D	E
6. Overall, I expect more good things to happen to me than bad.	A	B	C	D	E

The following questions are about the relationships you had with other kids your age when you were growing up. Please tell me how often each of the following things happened to you when you were growing up.

1 Almost never or never
2 Once in a while
3 Sometimes
4 A lot of the time (frequently)
5 Almost always or always

1. Growing up, a kid your age left you out of what he or she was doing.	1	2	3	4	5
2. Growing up, a kid your age left you out of an activity or conversation that you really wanted to be included in.	1	2	3	4	5
3. Growing up, a kid your age did not invite you to a party or other social event even though he or she knew that you wanted to go.	1	2	3	4	5

4. A kid your age that you like would not sit near you at lunch or in class.	1	2	3	4	5
5. A kid your age gave you the silent treatment or did not talk to you on purpose.	1	2	3	4	5
6. A kid your age called you bad names.	1	2	3	4	5
7. A kid your age talked badly about you behind your back, or gossiped about you.	1	2	3	4	5
8. A kid your age picked on you.	1	2	3	4	5
9. A kid your age pushed you around or hit you.	1	2	3	4	5
10. A kid your age took or messed up your things.	1	2	3	4	5
11. A kid your age laughed at you.	1	2	3	4	5
12. Growing up, when kids your age chose people to be on sports teams, you were the last one picked.	1	2	3	4	5

POST-MANIPULATION QUESTIONNAIRE FOR STUDY 2

Please rate the extent to which the following statement applies to you right now, at this moment.

Right now, I feel good about myself.

Not very true of me 1 2 3 4 5 Very true of me

Think about how you feel right now, at this moment, and indicate how intensely you feel the following emotions.

1	2	3	4	5
Very slightly or not at all	a little	moderately	quite a bit	extremely

_____ Angry	_____ Excluded	_____ Happy
_____ Isolated	_____ Energetic	_____ Sad
_____ Hostile	_____ Upset	_____ Anxious
_____ Lonely	_____ Resentful	_____ Warm
_____ Rejected	_____ Pleasant	_____ Embarrassed
_____ Hurt	_____ Left-out	_____ Stressed

The questions in this scale ask you about your feelings and thoughts during the study you were in today. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

0 Not at all
1 A little bit
2 Moderately so
3 A little bit
4 Very much

1. In the study, how intensely were you upset because of something that happened unexpectedly?	0 1 2 3 4
2. In the study, how intensely did you feel that you were unable to control the important things?	0 1 2 3 4

3. In the study, how intensely did you feel nervous and "stressed"?	0	1	2	3	4
4. In the study, how intensely did you feel you dealt successfully with irritating hassles?	0	1	2	3	4
5. In the study, how intensely did you feel that you were effectively coping with important changes in the situation?	0	1	2	3	4
6. In the study, how intensely did you feel confident about your ability to handle your personal problems?	0	1	2	3	4
7. In the study, how intensely did you feel that things were going your way?	0	1	2	3	4
8. In the study, how intensely did you find that you could not cope with all the things that you had to do?	0	1	2	3	4

Now we are interested in what you thought of the people you interacted with in the study today. You will be asked to rate each person individually, starting with Person A. For each of the following characteristics, indicates with an X, the degree to which you believe that PERSON A possesses this characteristic. The closer the X is to a word, the more you believe PERSON A exhibits this trait.

Outgoing	_____ : _____ : _____ : _____ : _____ : _____ : _____	Reclusive
Likeable	_____ : _____ : _____ : _____ : _____ : _____ : _____	Unlikeable
Friendly	_____ : _____ : _____ : _____ : _____ : _____ : _____	Unfriendly
Talkative	_____ : _____ : _____ : _____ : _____ : _____ : _____	Quiet
Considerate	_____ : _____ : _____ : _____ : _____ : _____ : _____	Inconsiderate

These items deal with ways you've been coping with the social interaction you participated in during today's study. There are many ways to try to deal with social situations. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I turn to work or other activities to take my mind off things.	1	2	3	4

2. I concentrate my efforts on doing something about the situation I'm in.	1	2	3	4
3. I say to myself "this isn't real."	1	2	3	4
4. I get emotional support from others.	1	2	3	4
5. I give up trying to deal with it.	1	2	3	4
6. I take action to try to make the situation better.	1	2	3	4
7. I refuse to believe that it has happened.	1	2	3	4
8. I say things to let my unpleasant feelings escape.	1	2	3	4
9. I get help and advice from other people.	1	2	3	4
10. I try to see it in a different light, to make it seem more positive.	1	2	3	4
11. I criticize myself.	1	2	3	4
12. I try to come up with a strategy about what to do.	1	2	3	4
13. I get comfort and understanding from someone.	1	2	3	4
14. I give up the attempt to cope.	1	2	3	4
15. I look for something good in what is happening.	1	2	3	4
16. I make jokes about it.	1	2	3	4
17. I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
18. I accept the reality of the fact that it has happened.	1	2	3	4
19. I express my negative feelings.	1	2	3	4
20. I try to find comfort in my religion or spiritual beliefs.	1	2	3	4
21. I try to get advice or help from other people about what to do.	1	2	3	4
22. I learn to live with it.	1	2	3	4
23. I think hard about what steps to take.	1	2	3	4
24. I blame myself for things that happened.	1	2	3	4
25. I pray or meditate.	1	2	3	4
26. I make fun of the situation.	1	2	3	4

During your conversation with the other two participants, to what extent were the following statements true:

I felt a sense of belonging to my group.

Not at all 1 2 3 4 5 6 7 Very Much

I felt a sense of loss.

Not at all 1 2 3 4 5 6 7 Very Much

I felt that I was a member of the group.

Not at all 1 2 3 4 5 6 7 Very Much

I felt rejected by the group members.

Not at all 1 2 3 4 5 6 7 Very Much

I saw myself as part of the group.

Not at all 1 2 3 4 5 6 7 Very Much

During your conversation with the other two participants, to what extent did you feel that:

You could influence how the other group members treated you:

Not at all 1 2 3 4 5 6 7 Very Much

You could control how the other group members perceived you:

Not at all 1 2 3 4 5 6 7 Very Much

The other group members controlled your ability to participate in the group:

Not at all 1 2 3 4 5 6 7 Very Much

While you were in the conversation with the other group members, to what extent did you feel that:

The behavior of the other group members might have been different if you had changed the way you acted:

Not at all 1 2 3 4 5 6 7 Very Much

You might have been treated differently if you had done something differently:

Not at all 1 2 3 4 5 6 7 Very Much

You could have made the other group members value you more than they did if you had behaved in a different way:

Not at all 1 2 3 4 5 6 7 Very Much

During the conversation with the other participants, to what extent did you think that:

You must have done something wrong to get treated as you did.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members treated you this way because of who they are rather than who you are.

Not at all 1 2 3 4 5 6 7 Very Much

It was your fault that the other group members talked to you as much or little as they did.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members talked to you as much or little as they did because of something about them (perhaps their personalities) and NOT something about you.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members included you to the extent that they did because they are socially incompetent.

Not at all 1 2 3 4 5 6 7 Very Much

The other group member included you to the extent that they did because YOU are socially incompetent?

Not at all 1 2 3 4 5 6 7 Very Much

During the conversation with the other participants, to what extent was it apparent to you that:

You felt that the other group members' behavior was impolite.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that the other group members' behavior was socially inappropriate.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that the other group members' behavior violated normal rules of how people should treat one another.

Not at all 1 2 3 4 5 6 7 Very Much

You felt that most people would not behave like the other group members did in this situation.

Not at all 1 2 3 4 5 6 7 Very Much

To what extent do you think that if you had done better on the group task, your group would have included you more?

Not at all 1 2 3 4 5 6 7 Very Much

Do you think that your performance on the group task was negatively affected by how your group members treated you?

Not at all 1 2 3 4 5 6 7 Very Much

How likely do you think that how you were treated in this situation might happen again in the future?

Not at all likely 1 2 3 4 5 6 7 Very Likely

The members of the group clearly intended to leave you out.

Not at all 1 2 3 4 5 6 7 Very Much

You were being excluded from the group on purpose.

Not at all 1 2 3 4 5 6 7 Very Much

The other group members obviously did not want you to be part of the group.

Not at all 1 2 3 4 5 6 7 Very Much

There are many reasons why the other group members may have left you out of the group. In your own words, please describe why YOU THINK the ***other group members rated you so unfavorably.***

_____

Lastly, so that we can match your responses today with the responses you provided to the online component of this study, please provide us with your PID _____

Thank you for taking time to complete today's study!

Note that for the other two conditions, the pre-test measures will be identical. However, slight changes in the wording of the instructions for the post-test questions will be made, as indicated below.

Ball-toss condition:

During the game of catch with the other two participants, to what extent were the following statements true:

During the game of catch with the other two participants, to what extent did you feel that:

While you were playing the game of catch with the other group members, to what extent did you feel that

During the game of catch with the other participants, to what extent did you think that:

During the game of catch with the other participants, to what extent was it apparent to you that:

Last-picked condition:

When you found out how the other participants had rated you for the upcoming group project, to what extent were the following statements true:

When you found out how the other participants had rated you for the upcoming group project, to what extent did you feel that:

When you found out how the other participants had rated you for the upcoming group project, to what extent did you feel that

When you found out how the other participants had rated you for the upcoming group project, to what extent did you think that:

When you found out how the other participants had rated you for the upcoming group project, to what extent was it apparent to you that:

FOOTNOTES

1. One paradigm not included in this list is the so-called Killer Fortune Cookie method used by Twenge et al. (2003; Studies 5, 6). In this paradigm, targets are told that based on a personality test, it is likely that they will ultimately end up alone in life, with no friends, distant from their family, and unattached romantically. In the sense that participants receiving this feedback feel isolated, and lack a sense of belonging, they are indeed excluded in this situation. However, participants who receive this manipulation are not actually being ignored or excluded by others in an interaction (real or imagined). Thus, although they may feel isolated, they are not being excluded at that moment. It may be the case that thinking about a life of isolation, devoid of close relationships is fundamentally different from being excluded in a fact-to-face context.

2. Data from study 1 were originally analyzed using very strict criteria to eliminate participants who did not pass the two manipulation checks. Participants needed to accurately report that there were four people in their group (including themselves), and they needed to accurately report whether or not the group members interacted prior to the exclusion. This eliminated about 40% of the sample. Therefore the criteria for elimination were loosened, allowing 95% of the sample to be used. Some patterns of results were different between these samples. For main effects of gender, in the smaller sample women and men did not differ on their positive emotions or sense of belonging, but in the larger sample, men tended to have higher levels of both of these. Main effects of scenario differed slightly such that in the smaller sample participants who read a ball-toss scenario had higher levels of positive emotions, lower sense that others had control in the situation, are marginally higher expectations of future ostracism relative to the other scenarios, but these differences were not significant in the larger sample. Additionally, differences in self-attributions were more pronounced and statistically significant in the larger sample but were not significant in the smaller one. Finally, several main effects for prior interaction in the smaller sample were no longer significant in the larger sample. In the smaller sample participants who read they had no prior interaction with perpetrators reported marginally higher feelings of belonging, greater sense of personal control, and that the situation was not as counter-normative, but these differences were not significant in the larger sample.

3. Analyses of pretest variables as a function of the two experimental factors, prior/no prior interaction and scenario) indicated one significant difference as a function of scenario. Participants who read about the ball-toss exclusion were significantly higher in their previous experience with ostracism, $F(2, 272) = 3.20$, $MSE = .92$, $p = .04$. The mean for past experience in the ball-toss condition was $M = 2.78$, $SD = 1.04$; in the conversation condition this mean was $M = 2.46$, $SD = .93$; and in the last-picked condition it was $M = 2.48$, $SD = .89$.

4. Note that for both studies 1 and 2, self-blame, self-attributions, and blaming exclusion on one's own poor performance were moderately correlated (r's ranged from .19 to .49), suggesting that participants who self-blame more are also likely to make more self-attributions and blame ostracism on their own poor performance.

5. Note that true random assignment was not used due to pragmatic concerns. Targets were assigned to condition based in part on the time they signed up. Those who signed up for sessions in which there were 3 confederates available were then randomly assigned to either the ball-toss or conversation condition, and those who signed up for sessions when less than three confederates were available were assigned to the last-picked condition.

6. Note that there were a few differences among participants on pretest measures as a function of assigned condition. Participants tended to differ on pre-test measures of humor as coping, religion as coping, and neuroticism. People who cope more with religion (F (2, 113) = 3.36, MSE = 1.14, $p < .05$, for ball-toss M = 2.59, SD = 1.10; for conversation M = 3.26, SD = .91; for last-picked M = 3.01, SD = 1.15) were over-represented in the conversation condition relative to the other two. More participants who were higher on neuroticism were in the last-picked condition relative to the other two (F (2, 113) = 6.67, MSE = .42, $p < .05$, for ball-toss M = 2.89, SD = .76; for conversation M = 2.49, SD = .61; for last-picked M = 3.00, SD = .58). Finally, participants who tend to cope using humor were over-represented in the ball-toss condition (F (2, 113) = 4.30, MSE = 1.60, $p < .05$, for ball-toss M = 2.67, SD = 1.35; for conversation M = 1.93, SD = .93; for last-picked M = 2.67, SD = 1.42). The only variable among these that was a good predictor of outcomes for targets was neuroticism, and further analyses will be conducted to investigate how people higher on neuroticism may impact the results in this condition. Because the other variables were not key predictors in the study, nor were they particularly good predictors of outcomes, these differences will not be discussed further.

7. The gender composition of the groups varied in part because of variation in the participants' gender (25 men and 92 women participated), and in part because two male confederates and seven female confederates worked on the study. An analysis was conducted to evaluate whether the gender composition of the group affected participant outcomes. The only significant interaction between gender of the target and gender composition of the other group members occurred for how much the participants blamed themselves for their exclusion, $F(1,106) = 8.43$, $MSE = 2.28$, $p < .01$. Specifically, whereas women tended to blame themselves equally regardless of the gender composition of the other group members (for groups comprised of all women M = 3.71, SD = 1.42, for groups including at least one man M = 3.73, SD = 1.67), men reported experiencing considerably less self-blame when they were excluded from a group that consisted of only women (M = 2.22, SD = 1.19) relative to a group that included at least one other man (M = 4.33, SD = 1.23).

8. In one session, a confederate stood in as a participant because we were short just one participant to run the group. The confederate was blind to hypothesis, and was strictly instructed to be herself during the closeness induction task. She did not act noticeably different from the other actual participants, and when they were probed, none of them had suspected that she was a confederate or in any way connected with the study. She was not counted as a participant, nor was pre-test or outcome data collected from her.

9. Incidentally, in four groups out of the 13 total there was a participant who actually was chosen last by every other group member. It is difficult to draw conclusions about these groups because there are so few of them.

Table 1. Means, standard deviations, and reliabilities for pre-test measures of study 1.

	Mean	Std. Deviation	Reliability
State Self-Esteem	3.48	.82	.87
Active (coping strategy)	3.35	.80	.76
Planning (coping strategy)	3.37	.82	.74
Positive Reframing (coping strategy)	3.19	.89	.78
Acceptance (coping strategy)	3.48	.75	.50
Humor (coping strategy)	2.85	1.04	.77
Religion (coping strategy)	2.34	1.26	.90
Emotional Support (coping strategy)	3.27	1.02	.81
Instrumental Support (coping strategy)	3.20	1.03	.87
Self-Distraction (coping strategy)	3.21	.86	.55
Denial (coping strategy)	1.61	.77	.75
Venting (coping strategy)	2.74	.89	.59
Behavioral Disengagement (coping strategy)	1.78	.72	.59
Self-Blame (coping strategy)	2.95	.97	.70
Extroversion	3.26	.83	.83
Agreeableness	3.90	.64	.74
Conscientiousness	3.49	.77	.74
Openness	3.63	.67	.68
Neuroticism	2.84	.76	.68
Rejection Sensitivity	7.87	2.68	.87
Relational Aggression	2.57	.96	.91
Physical Exclusion	2.43	1.11	.88
Social Exclusion	2.83	1.23	.89

Table 2. *Means, standard deviations and reliabilities for post-test measures for Study 1.*

	Mean	Std. Deviation	Reliability
State Self-Esteem	2.98	.95	.91
Rejection	3.31	.93	.93
Positive	1.57	.75	.89
Anger	2.66	.93	.77
Anxiety	2.64	1.15	*
Belonging	2.07	.72	.81
Personal Control	2.05	.88	.71
Other Control	3.21	1.18	*
Self-Blame (not coping)	4.03	1.49	.87
Self-Attribution	3.39	1.34	.66
Other-Attribution	3.82	1.24	.71
Clear Norm Violation	4.72	1.60	.91
Clarity	4.23	1.53	.84
Future Ostracism	3.57	1.56	*
Performance Blame	2.86	1.59	*
Evaluation Outcome	3.42	1.81	*

Note. * indicates the measure consisted of a single item.

Table 3. *Means and standard deviations for post-test coping measure in Study 1. Rows represent the strategy participants were asked about. Columns represent the four distinct questions they answered about each strategy.*

	How likely would you be to do this?		How would responding in this way make you feel?		How would responding in this way make the other group members feel?		What effect would this response have on your ability to reconnect with this group?	
Strategy	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Confront	2.91	1.86	3.71	2.02	2.86	1.37	3.39	1.88
Improve	3.21	1.04	4.53	1.65	3.99	1.23	4.26	1.64
Positive self-talk	3.24	1.14	4.66	1.74	3.95	1.06	3.54	1.73
Self-distraction	2.82	1.06	4.11	1.85	3.99	1.04	2.69	1.55
Social modeling	2.68	1.03	3.95	1.69	3.97	0.96	3.67	1.58
Other Activity	2.67	1.17	4.07	1.96	3.66	1.30	2.72	1.53
Ruminate	2.53	1.22	2.12	1.43	3.83	1.00	2.41	1.46
Aggress	1.98	1.63	2.75	1.99	1.99	1.34	1.97	1.51
Save Face	3.32	1.13	2.82	1.68	4.23	1.36	2.72	1.52
Distance	2.32	1.62	3.05	2.06	3.09	1.51	1.95	1.47
Religion	1.67	1.04	3.25	2.15	3.75	1.13	2.87	1.77

Table 4. *Means and standard deviations of outcome variables by gender in Study 1 based on a 3 (scenario) x 2 (gender) x (prior interaction) ANOVA.*

Variable		Women	Men	*F*
Anxiety	*M*	2.68	2.51	1.16
	SD	1.22	.87	
Rejection	*M*	3.39	3.03	9.41**
	SD	.95	.84	
Positive Emotions	*M*	1.52	1.75	4.30*
	SD	.73	.76	
Anger	*M*	2.68	2.61	1.48
	SD	.96	.83	
State Self-Esteem	*M*	2.91	3.21	7.15**
	SD	.99	.75	
Belonging	*M*	2.02	2.27	8.85**
	SD	.71	.70	
Personal Control	*M*	2.00	2.18	2.46
	SD	.88	.90	
Other Control	*M*	3.21	3.20	.27
	SD	1.23	1.01	
Self-Blame	*M*	4.06	3.97	.32
	SD	1.55	1.29	
Self-Attribution	*M*	3.48	3.10	5.66*
	SD	1.33	1.33	
Other-Attribution	*M*	3.70	4.19	5.93*
	SD	1.20	1.29	
Non-Normative	*M*	4.75	4.58	1.71
	SD	1.60	1.61	
Clear Ostracism	*M*	4.24	4.22	.42
	SD	1.53	1.50	
Your Performance	*M*	2.94	2.55	3.86*
	SD	1.55	1.57	
Future Ostracism	*M*	3.71	3.06	11.84***
	SD	1.60	1.27	
Lower Grade	*M*	3.42	3.47	.05
	SD	1.79	1.88	

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5. *Means, standard deviations, and F-values for the Main Effects of the Three scenarios in study 1 based on a 3 (scenario) x 2 (prior interaction) ANOVA.*

Variable		Ball-Toss	Conversation	Last-Picked	*F*
Anxiety	*M*	2.61	2.67	2.63	.05
	SD	1.17	1.12	1.22	
Rejection	*M*	3.06[a]	3.23[a]	3.65[b]	10.73***
	SD	.97	.87	.85	
Positive Emotions	*M*	1.69	1.53	1.48	2.01
	SD	.78	.75	.70	
Anger	*M*	2.27[a]	2.83[b]	2.90[b]	14.27***
	SD	.86	.91	.90	
State Self-Esteem	*M*	3.20[a]	3.08[a]	2.66[b]	8.67***
	SD	.91	.93	.94	
Belonging	*M*	2.22[a]	2.03[a,b]	1.96[b]	3.32*
	SD	.75	.67	.71	
Personal Control	*M*	2.25[a]	1.88[b]	2.00[a,b]	4.47*
	SD	.84	.77	.99	
Other Control	*M*	3.01	3.25	3.38	2.34+
	SD	1.18	1.11	1.24	
Self-Blame	*M*	4.15[a]	3.52[b]	4.41[a]	9.20***
	SD	1.46	1.46	1.43	
Self-Attribution	*M*	3.37[a,b]	3.05[a]	3.74[b]	6.22**
	SD	1.32	1.22	1.38	
Other-Attribution	*M*	3.71[a]	4.29[b]	3.47[a]	11.25***
	SD	1.28	1.17	1.13	
Non-Normative	*M*	5.10[a]	5.42[a]	3.63[b]	44.26***
	SD	1.25	1.45	1.49	
Clear Ostracism	*M*	4.05[a]	4.70[b]	3.94[a]	7.00**
	SD	1.61	1.38	1.49	
Performance	*M*	3.00	2.86	2.72	.73
	SD	1.72	1.52	1.46	
Future Ostracism	*M*	3.82	3.54	3.35	2.08
	SD	1.61	1.63	1.42	
Lower Grade	*M*	3.05[a]	4.09[b]	3.14[a]	10.00***
	SD	1.79	1.68	1.78	

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$. Values that share a letter as a superscript are not significantly different from each other based on Tukey post-hoc pairwise t-tests.

Table 6. *Means and standard deviations for the main effects of prior versus no-prior interaction with perpetrators in Study 1 based on a 3 (scenario) x 2 (prior interaction) ANOVA.*

Variable		No Prior	Prior	*F*
Anxiety	*M*	2.74	2.52	2.62
	SD	1.10	1.18	
Rejection	*M*	3.34	3.28	.32
	SD	.98	.88	
Positive Emotions	*M*	1.61	1.52	1.06
	SD	.76	.73	
Anger	*M*	2.77	2.55	4.04*
	SD	.91	.94	
State Self-Esteem	*M*	2.94	3.03	.68
	SD	.96	.94	
Belonging	*M*	2.05	2.10	.24
	SD	.74	.70	
Personal Control	*M*	1.96	2.13	2.69
	SD	.82	.94	
Other Control	*M*	3.29	3.13	1.33
	SD	1.17	1.20	
Self-Blame	*M*	3.95	4.11	.91
	SD	1.56	1.43	
Self-Attribution	*M*	3.44	3.34	.39
	SD	1.35	1.32	
Other-Attribution	*M*	3.87	3.77	.48
	SD	1.21	1.28	
Non-Normative	*M*	4.83	4.60	1.99
	SD	1.56	1.63	
Clear Ostracism	*M*	4.24	4.22	.01
	SD	1.60	1.46	
Your Performance	*M*	2.87	2.85	.02
	SD	1.63	1.51	
Future Ostracism	*M*	3.62	3.52	.38
	SD	1.57	1.55	
Lower Grade	*M*	3.41	3.43	.01
	SD	1.79	1.84	

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7. *Pearson correlations (r) between outcomes for targets and aspects of the ostracism situation in Study 1.*

	Anxiety	Rejection	Positive	Anger	Self-Esteem	Belonging
Personal Control	-.14*	-.15**	.19**	-.14*	.15*	.25***
Others' Control	.09	.48***	-.37***	.37***	-.41***	-.51***
Self-Blame	.18**	.24***	-.15*	.14*	-.36***	-.20***
Self-Attribution	.25***	.27***	-.07	.17**	-.45***	-.16**
Other-Attribution	-.10	-.17**	.02	.09	.28***	.06
Norm Violation	.06	.14*	-.24***	.22***	-.05	-.32***
Clear Ostracism	.10	.27***	-.29***	.31***	-.24***	-.36***
Expect to happen again	.13*	.16**	.02	.15**	-.17**	-.08
Blame bad performance	.18**	.10+	.08	.13*	-.27***	-.05
Ostracism lowers grade	.28***	.25***	-.14**	.35***	-.22***	-.26***

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 8. *Pearson correlations (r) between post-manipulation coping response to ostracism and aspects of the ostracism situation in Study 1.*

	Anxiety	Rejection	Positive	Anger	Self-Esteem	Belonging
Confront perpetrators	-.11+	-.11+	.09	.01	.13*	.04
Think how to improve	.02	.22***	-.28***	.02	-.08	-.31***
Positive self-talk	.07	.25***	-.25***	.18**	-.21***	-.29***
Self-distracting thoughts	.06	.07	-.01	.05	-.11	-.09
Social modeling	.14*	.14*	-.11+	-.03	-.21***	-.13*
Do another activity	.03	.04	.05	.05	-.12	-.02
Ruminate	.37***	.36***	-.17**	.21***	-.44***	-.28***
Yell at perpetrators	.06	-.15*	.41***	.06	.09	.30***
Hide emotions	-.00	.16**	-.22***	-.03	-.17**	-.24***
Drop class or section	.12+	.11+	.10+	.19**	-.17**	.00
Turn to religion	.03	-.03	.07	-.00	.04	.05

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 9. *Pearson correlations between personality and aspects of the ostracism situation in Study 1.*

	Anxiety	Rejection	Positive	Anger	Self-Esteem	Belonging
Extroversion	-.08	-.03	-.05	.01	.07	-.06
Agreeableness	.03	.15**	-.30***	-.09	-.08	-.27***
Conscientiousness	.06	.04	-.08	.00	.03	-.15**
Openness	-.04	-.00	-.18**	-.09	.10	-.03
Neuroticism	.23***	.30***	-.11+	.16**	-.38***	-.14*
Rejection Sensitivity	.06	-.00	.21***	.05	-.12*	.15*
Experience with Ostracism	.02	-.02	.22***	-.00	-.15**	.09

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 10. *Means, standard deviations and Cronbach's α reliability of internal consistency for pre-test variables in Study 2 for all conditions.*

	Mean	Standard Deviation	Reliability
Rosenberg Self-Esteem	3.83	.57	.86
Extroversion	3.37	.74	.76
Agreeableness	3.99	.56	.66
Conscientiousness	3.45	.72	.76
Openness	3.69	.64	.69
Neuroticism	2.75	.68	.67
Optimism	3.44	.65	.82
Experience with Exclusion	2.71	.98	.91
Physical Exclusion	2.44	1.09	.87
Social Exclusion	3.13	1.25	.88

Table 11. *Means, standard deviations and Cronbach's α reliability of internal consistency for post-test variables in Study 2 for all conditions.*

	Mean	Standard Deviation	Reliability
Rejection	1.42	.75	.79
Positive	2.71	.85	.78
Anger	1.42	.54	.70
Anxiety	1.99	1.10	*
Self-Esteem	3.73	.94	*
Belonging	3.96	1.43	.87
Personal-Control	3.34	1.52	.83
Other-Control	3.96	1.90	*
Self-Blame	3.68	1.56	.90
Self-Attribution	2.51	1.20	.62
Other-Attribution	3.19	1.21	.63
Norm Violation	2.60	1.55	.89
Clarity (of ostracism)	2.33	1.72	.89
Future Ostracism	3.11	1.61	*
Performance Blame	2.88	1.69	*
Evaluations Affected	2.45	1.65	*

Note. * indicates the measure consisted of a single item.

Table 12. *Means and standard deviations of Study 2 pre-test coping measure, and correlations between the two items that comprise each sub-scale.*

	Mean	Standard Deviation	Correlation
Active	3.48	.76	.59 ***
Planning	3.49	.84	.68 ***
Positive Reframing	3.34	.90	.67 ***
Acceptance	3.44	.81	.41 ***
Humor	2.98	1.03	.73 ***
Religion	2.52	1.33	.85 ***
Emotional Support	3.38	.99	.67 ***
Instrumental Support	3.31	.92	.71 ***
Self-Distraction	3.33	.70	.15 *
Denial	1.71	.86	.65 ***
Venting	2.91	.80	.27 ***
Behavioral Disengagement	1.89	.77	.55 ***
Self-Blame	3.11	.88	.51 ***

Note. * indicates significance at the $p < .05$ level, and *** indicates $p < .001$.

Table 13. *Means and standard deviations of Study 2 post-test coping measure, and correlations between the two items that comprise each sub-scale.*

	Mean	Standard Deviation	Correlation
Active	3.32	.93	.65 ***
Planning	3.35	.91	.58 ***
Positive Reframing	3.46	.93	.67 ***
Acceptance	3.28	.80	.27 ***
Humor	2.98	1.17	.77 ***
Religion	2.27	1.37	.89 ***
Emotional Support	3.29	1.13	.72 ***
Instrumental Support	3.30	1.16	.86***
Self-Distraction	3.25	.94	.41 ***
Denial	1.70	.89	.57 ***
Venting	2.65	1.02	.60 ***
Behavioral Disengagement	1.88	.79	.47 ***
Self-Blame	2.85	1.06	.67 ***

Note. *** indicates significance at the $p < .001$ level.

Table 14. *Means, standard deviations, and differences between conditions for outcomes and situational variables in Study 2.*

Variable		Ball-Toss	Conversation	Last-Picked	*F* (*MSE*)
Anxiety	*M*	2.25	1.68	2.07	2.58+
	SD	1.05	1.03	1.16	(130.91)
Rejection	*M*	1.34[a]	1.08[a]	1.76[b]	9.98***
	SD	.68	.22	.93	(54.84)
Positive Emotions	*M*	3.12[a]	2.77[a, b]	2.39[b]	7.98***
	SD	.68	.74	.92	(72.38)
Anger	*M*	1.39	1.39	1.48	.40
	SD	.41	.57	.62	(34.04)
State Self-Esteem	*M*	4.10[a]	3.69[a, b]	3.53[b]	3.57*
	SD	.70	.79	1.12	(94.05)
Belonging	*M*	4.38	4.06	3.68	2.11
	SD	1.15	1.29	1.63	(216.25)
Personal Control	*M*	2.96	3.58	3.36	1.25
	SD	1.41	1.34	1.70	(248.59)
Other Control	*M*	5.12[a]	4.30[a]	3.10[b]	12.10***
	SD	1.86	1.70	1.70	(322.85)
Self-Blame	*M*	3.77	3.70	3.62	.08
	SD	1.53	1.57	1.61	(267.00)
Self-Attribution	*M*	2.41	2.22	2.79	2.53+
	SD	1.26	.82	1.36	(149.10)
Other-Attribution	*M*	2.83	3.51	3.14	2.49
	SD	.98	1.25	1.26	(153.67)
Non-Normative	*M*	3.16	2.58	2.34	2.37
	SD	1.58	1.75	1.31	(250.93)
Clear Ostracism	*M*	3.59[a]	1.80[b]	2.10[b]	10.25*
	SD	1.98	1.37	1.54	(273.49)
Your Performance	*M*	2.84	2.54	3.17	1.45
	SD	1.70	1.48	1.83	(305.22)
Future Ostracism	*M*	3.04	3.13	3.14	.04
	SD	1.67	1.72	1.54	(285.26)
Lower Grade	*M*	2.68	2.51	2.29	.48
	SD	1.52	1.82	1.61	(296.60)

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 15. *Main effects of gender differences on outcome and situational variables based on a 3 x 2 ANOVA for Study 2.*

Variable		Women	Men	*F*
Anxiety	*M*	2.05	1.74	.77
	SD	1.13	.96	
Rejection	*M*	1.47	1.25	.63
	SD	.80	.53	
Positive Emotions	*M*	2.65	2.98	2.48
	SD	.85	.84	
Anger	*M*	1.45	1.35	.41
	SD	.56	.49	
State Self-Esteem	*M*	3.68	3.95	3.11+
	SD	.94	.95	
Belonging	*M*	3.84	4.41	3.33+
	SD	1.43	1.41	
Personal Control	*M*	3.20	3.87	2.61
	SD	1.47	1.66	
Other Control	*M*	4.06	3.62	2.24
	SD	1.91	1.91	
Self-Blame	*M*	3.72	3.54	.42
	SD	1.57	1.58	
Self-Attribution	*M*	2.65	2.04	4.33*
	SD	1.24	.90	
Other-Attribution	*M*	3.29	2.86	2.96+
	SD	1.18	1.28	
Non-Normative	*M*	2.72	2.21	3.74+
	SD	1.57	1.45	
Clear Ostracism	*M*	2.38	2.17	.58
	SD	1.77	1.59	
Your Performance	*M*	2.99	2.50	1.73
	SD	1.74	1.47	
Future Ostracism	*M*	3.24	2.67	2.85+
	SD	1.59	1.68	
Lower Grade	*M*	2.50	2.29	.97
	SD	1.62	1.80	

Note. + indicates marginal significance at $p < .10$; * indicates significance at the $p < .05$ level.

Table 16. *Pearson correlations (r) between outcomes for targets and aspects of the ostracism situation in Study 2.*

	Anxiety	Rejection	Positive Emotions	Anger	Self-Esteem	Belonging
Personal Control	.05	-.01	.17*	.00	.22*	.32**
Others' Control	-.03	-.04	.14	.13	-.03	-.15
Self-Blame	-.07	.28**	-.00	.18+	-.18+	-.04
Self-Attribution	-.01	.55***	-.22*	.28**	-.45***	-.27**
Other-Attribution	-.14	-.09	.10	-.03	.07	-.09
Norm Violation	-.08	.15	-.21*	.27**	-.24**	-.36***
Clear Ostracism	.01	.22*	-.15	.20*	-.27**	-.37***
Expect to happen again	-.14	.22*	-.16	.08	-.24*	-.09
Blame bad performance	-.12	.40***	-.22*	.25**	-.35***	-.25**
Negative outcomes	.03	-.01	-.05	.27**	-.21*	-.38***

Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 17. *Pearson correlations (r) between outcomes for targets and post-test coping strategies targets endorsed in Study 2.*

	Anxiety	Rejection	Positive	Anger	Self-Esteem	Belonging
Active	-.01	-.12	.21*	-.00	.08	.13
Planning	.16+	.01	.05	.07	-.02	.14
Positive Reframing	-.01	-.18+	.16+	-.12	.24*	.10
Acceptance	.04	.05	.06	.05	-.06	.10
Humor	.05	-.14	.00	.04	-.08	.02
Religion	.14	.03	.12	-.12	.10	.21*
Emotional Support	.00	-.08	-.01	-.05	.06	-.02
Instrumental Support	.09	-.05	-.01	-.04	.08	-.02
Self-Distraction	.19*	.07	-.06	.11	-.05	-.02
Denial	.23*	.01	.06	-.01	.18+	.22*
Venting	.06	.01	.01	.17+	.00	.02
Behavioral Disengagement	-.01	.05	-.02	-.03	-.03	.01
Self-Blame	.11	.29	-.01	.20*	-.26**	.03

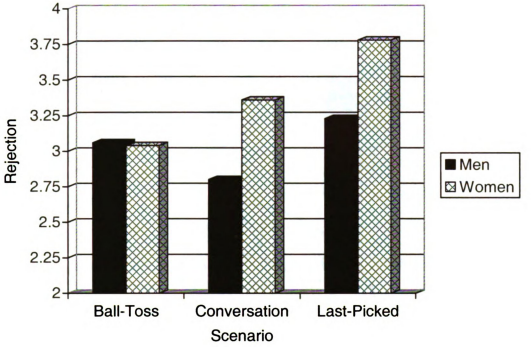
Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 18. *Pearson correlations (r) between outcomes for targets and pre-test measures of personality in Study 2.*

	Anxiety	Rejection	Positive	Anger	Self-Esteem	Belonging
Extroversion	.00	-.16+	.12	.06	.10	.15
Agreeableness	.04	.02	.02	.08	.05	-.13
Conscientiousness	-.12	.13	-.03	.00	.00	-.12
Openness	.14	-.13	-.06	-.07	.01	-.02
Neuroticism	.35***	.32***	-.24**	.23*	-.18+	-.18+
Optimism	-.11	-.28**	.17+	-.27**	.35***	.06
Experience with Ostracism	.06	.15	-.13	.02	-.06	-.03

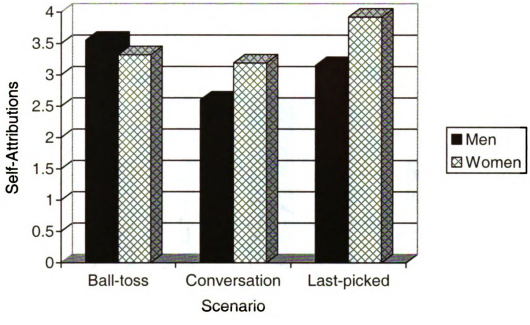
Note. + denotes significance at the $p < .10$ level, * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 1. The interaction of scenario and gender in Study 1 on targets' feelings of rejection based on a 3 x 2 x 2 ANOVA.



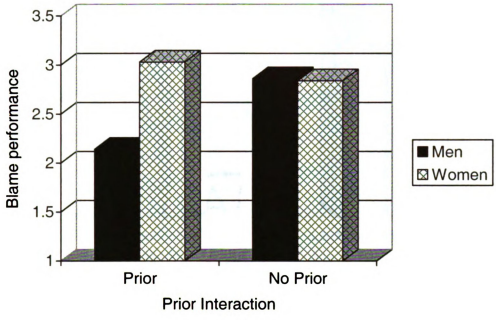
Note. F (2, 265) = 2.98, MSE = .79, $p < .06$.

Figure 2. The interaction of scenario and gender in Study 1 on targets' level of self-attribution based on a 3 x 2 x 2 ANOVA.



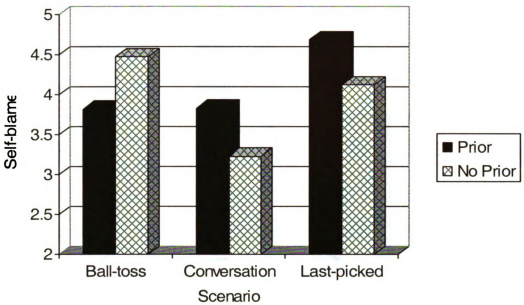
Note. F (2, 265) = 2.77, MSE = 1.68, $p < .07$.

Figure 3. The interaction of prior interaction and gender in Study 1 on how much targets blamed their own performance for being excluded based on a 3 x 2 x 2 ANOVA.



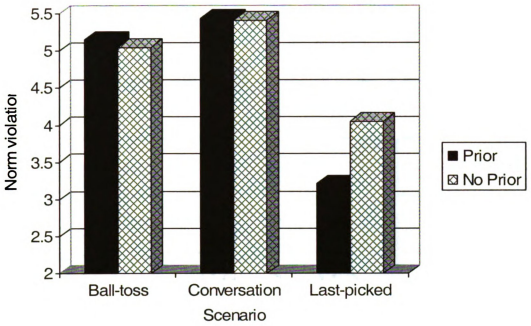
Note. F (1, 265) = 4.14, MSE = 2.44, $p < .05$.

Figure 4. The interaction of prior interaction and scenario in Study 1 on how much targets blamed themselves based on a 3 x 2 ANOVA.



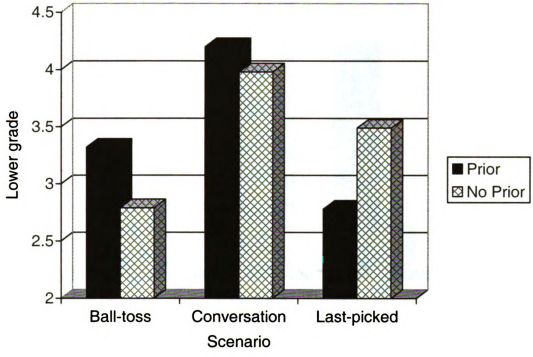
Note. F (2, 272) = 5.81, MSE = 2.04, $p < .01$.

Figure 5. The interaction of prior interaction and scenario in Study 1 on how much targets thought exclusion was a violation of social norms based on a 3 x 2 ANOVA.



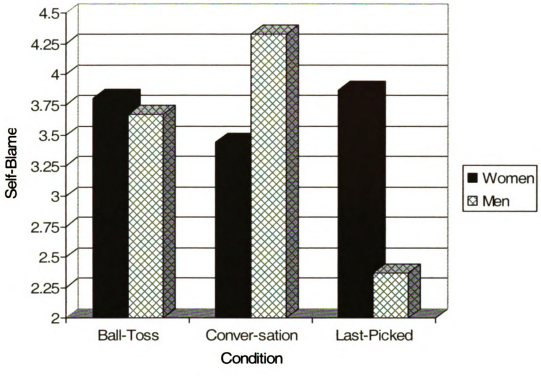
Note. F (2, 272) = 3.32, MSE = 1.92, $p < .05$.

Figure 6. The interaction of prior interaction and scenario in Study 1 on how much targets thought exclusion would lead to a lower grade based on a 3 x 2 ANOVA.



Note. F (2, 272) = 3.18, MSE = 3.04, $p < .05$.

Figure 7. Two-way interaction of gender and condition in Study 2 on targets' self-blame.



Note. F (2,104) = 4.32, MSE = 2.36, $p < .05$.

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