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Personality Moderators of Reactions to Interpersonal Rejection: Depression and Trait Self-Esteem

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Two experiments were conducted to examine the moderating effects of depression and trait self-esteem on reactions to social exclusion. Participants received information indicating that they had been included in or excluded from a laboratory group and that their inclusion or exclusion was based either on the other group members' preferences or on a random procedure. Participants who scored high in depression (Experiment 1) and low in self-esteem (Experiment 2) responded more strongly (and logically) to the experimental manipulations than participants low in depression and high in self-esteem. The results suggested that depression and low self-esteem place people at risk for dysphoria and self-devaluation following interpersonal rejection.

Interpersonal rejection ranks among the most aversive of human experiences. Abandonment, romantic rejection, expulsion from social groups, ostracism, disavowal, and even disinterest generally evoke strong negative emotions. Anxiety (over potential rejection) and depression (over actual rejection) occur most commonly, but other reactions such as hostility, jealousy, and loneliness also accompany perceived social exclusion (Baumeister & Tice, 1990; Leary, 1990). Even imagining rejection can cause emotional distress and physiological arousal (Craighead, Kimball, & Rehak, 1979). In addition, perceived social exclusion can decrease state self-esteem, enhance subsequent motivation to obtain approval and acceptance, and affect social perceptions and interper-

sonal behavior (Leary & Downs, 1995). James (1890) provided a particularly vivid description of the effects of rejection: "No more fiendish punishment could be devised, were such a thing physically possible, than that one should be turned loose in society and remain absolutely unnoticed by all the members thereof. . . . a kind of rage and impotent despair would ere long well up in us, from which the cruelest bodily torture would be a relief" (p. 293).

Such reactions may serve an important function. The distress people feel when excluded may deter them from acting in ways that jeopardize their relationships with others, and it may motivate them to repair breaches in their interpersonal relationships once they occur (Baumeister & Tice, 1990; Miller & Leary, 1993). A psychological system that evoked emotional and motivational processes in response to real or potential exclusion would have provided a distinct adaptive advantage for primitive humans, who were likely to survive and reproduce only in the context of social groups. As a result, evolutionary pressures may have resulted in a

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universal need to belong and in an emotional-motivational system that helped to maintain the individual's connections with other people (Baumeister & Leary, 1995; Leary & Downs, 1995).

Although the tendency to respond negatively to perceived exclusion appears to be innate and universal, people differ greatly in the degree to which they become distressed by real or imagined rejection. Some individuals are relatively impervious to rejection, shrugging off all but the most serious threats to their social inclusion. In contrast, other people are hypersensitive to cues that indicate others do not accept them. Such individuals react to relatively unimportant types of exclusion with strong emotions and extreme behaviors.

In one of the few studies designed explicitly to investigate individual differences in reactions to rejection (Fenigstein, 1979, Experiment 1), a female participant waited with two confederates who either did or did not include her in their conversation. Women who scored high in public self-consciousness (the degree to which people attend to and think about the public, observable aspects of themselves) reacted more strongly to being excluded by the confederates than those low in public self-consciousness. Following rejection, the publicly self-conscious women liked the confederates less and expressed a lower desire to affiliate with them. However, public self-consciousness did not moderate participants' reactions to being included in the confederates' conversation.

The purpose of the present article is to explore other factors that may moderate reactions to interpersonal rejection and acceptance. Two individual difference variables were investigated as possible risk factors for heightened reactions to rejection. Experiment 1 investigated the moderating effects of depression on reactions to exclusion, and Experiment 2 focused on trait self-esteem.¹

EXPERIMENT 1

The causal relationship between depression and perceived social exclusion may be reciprocal. One common cause of depression is the sense that one has been excluded by other people (Leary, 1990). Events such as divorce, expulsion, and exile are typically accompanied by depression. Furthermore, once depressed, people may be more likely to perceive that others are rejecting. Spivey (1990) found that scores on the Beck Depression Inventory (BDI; Beck, 1967) correlated negatively ($r = -.42$) with the degree to which university students believed they were generally included and accepted by other people. In some cases, their perception may be veridical; people tend to be less accepting of depressed than nondepressed people (Coyne, 1976a, 1976b; Coyne, Burchill, & Stiles, 1991). In any case, research

suggests that people who are depressed may be particularly responsive to being ignored, shunned, or rejected.

If depression is associated with perceived exclusion or rejection, people who are depressed may be particularly sensitive to interpersonal rejection. What is unclear, however, is whether depressed people are more sensitive than nondepressed people to cues that connote exclusion or whether they experience more negative affect when such cues are detected. On one hand, depressed people may be more attuned to others' reactions to them and thus may be more responsive to being excluded. Research on *depressive realism* suggests that depressed people sometimes have more accurate (and negative) views of the contingencies in their social environments than nondepressed people, who hold more positive views than are warranted (Alloy & Abramson, 1988). In light of this research, depressed people may be more likely than nondepressed people to detect cues indicating rejection and, likewise, more aware of when others are truly accepting. Furthermore, they may be more sensitive to nuances in the social context that, from an attributional perspective, imply a lesser or greater degree of rejection.

Alternatively, depression may be unrelated to the extent to which people interpret others' behaviors as rejecting. Depressed persons may experience more negative affect than nondepressed persons once they perceive that others are ignoring, excluding, or abandoning them without necessarily perceiving this rejection differently (e.g., as more personally based). Because they already feel less integrated and accepted than nondepressed people, depressed individuals may experience stronger, more negative reactions to indications that they are being rejected.

In Experiment 1, participants classified as depressed or nondepressed received information indicating that they either were or were not included in a laboratory group and that group inclusion or exclusion was based either on a random selection or on the preferences of group members. By examining participants' perceptions of acceptance and rejection, as well as their emotional reactions and self-ratings, we hoped to determine whether the hypothesized differences between depressed and nondepressed participants' reactions to rejection lay primarily in their perceptions of social acceptance and rejection, their responses to acceptance and rejection, or both.

Method

PARTICIPANTS

A total of 116 female undergraduate students participated in partial fulfillment of a course requirement. To create a group of depressed and a group of nondepressed individuals, participants were recruited on the

basis of their scores on the Center for Epidemiological Studies Depression Scale (CESD; Radloff, 1977) and the BDI (Beck, 1967). At the beginning of the semester, participants completed the CESD and BDI as part of a mass testing. Scores on these two instruments were considered simultaneously to classify and recruit participants. In accord with standard procedures, participants were classified as depressed if they scored above 15 on the CESD and above 9 on the BDI. Participants were classified as nondepressed if they scored below 15 on the CESD and below 9 on the BDI.² Participants were contacted by phone and asked if they would be willing to participate in a study of "group decision making." Virtually all those contacted agreed to participate. The final sample contained 58 depressed and 58 nondepressed participants.

Analyses of participants' CESD and BDI scores revealed that the two desired groups of participants were created. The average CESD score for those classified as depressed was 27.4, with a range of scores from 16 to 47; the average BDI score of the depressed group was 15.4 (range = 10 to 48). These means are in the range that is usually labeled as *depressed* or *at risk* for depression. In contrast, the average CESD score for those classified as nondepressed was 7.4 (range = 3 to 10), and the average BDI score of the nondepressed group was 2.3 (range = 0 to 8). These means are clearly in a range that is usually labeled as *normal* or *nondepressed*. We stress that we use the labels *depressed* and *nondepressed* only to simplify the discussion and do not imply that participants who scored above the cutpoints necessarily met standard diagnostic criteria for clinical depression. Even so, they were clearly depressed in a generic sense.

PROCEDURE

Five individuals participated in each experimental session. Upon arrival at the laboratory, they were placed in separate rooms to prevent contact among them. They were told that they were in a study about decision making and that they would complete an information exchange questionnaire describing themselves that would then be reviewed by the other four participants in the session. They rated themselves on 13 seven-point scales and wrote two brief paragraphs on "What it means to be me" and "The kind of person I would most like to be." After the questionnaires were completed, they were distributed to the other four participants as per the cover story.

After viewing one another's responses, participants rated each of the other participants on the basis of the questionnaires that the others had completed, ostensibly to provide their initial impressions of the individuals with whom they might potentially work. These ratings included indicating the other two participants with whom they would most prefer to work and the two they felt they

could depend on in time of trouble. Finally, they rank ordered the four other subjects in terms of preference as potential coworkers on the upcoming task. Participants then waited as the researcher ostensibly collated participants' ratings of one another.

Next, participants were told that three of the five participants in their session would be working together on a decision-making problem as a group and that the other two would work on this same problem alone. Following this, each participant was provided with a sheet indicating that she was included as a member of the three-person central group (inclusion condition) or that she would work alone (exclusion condition). In addition, participants were told that the decision regarding group membership was made either on the basis of a random drawing or on the basis of the ratings and preferences of the other participants (random vs. personal mode of assignment).

After participants were told whether they were selected for the group and how the selection was made, they completed the primary dependent measures. Participants rated themselves on 12 seven-point bipolar adjectives based on McFarland and Ross's (1982) measure of self-esteem feelings: *good, competent, proud, adequate, useful, superior, intelligent, confident, valuable, important, effective, and satisfied*, each paired with its opposite. Participants also rated their feelings on a second set of 7-point scales that included the affective items *happy, relaxed, accepted, peaceful, excluded, elated, secure, angry, cheerful, welcomed, pleased, and calm*. Within each of these two sets of 12 ratings, 5 ratings were reverse scored. Finally, two questions assessed the effectiveness of the experimental manipulations. Participants indicated whether they had been selected to work in a group or to work alone and how this assignment had been made. These last two questions allowed participants to respond "I don't know."

Results

VERIFICATION OF GROUP ASSIGNMENT AND EXPERIMENTAL MANIPULATIONS

Differences in depression between the two groups were confirmed by the results of a 2 (depressed vs. nondepressed) \times 2 (inclusion vs. exclusion) \times 2 (random vs. personal mode of assignment) ANOVA conducted on the CESD and BDI scores obtained in mass testing. Both analyses produced a significant main effect for depression: CESD, $F(1, 108) = 391.6$; BDI, $F(1, 108) = 205.0$, $ps < .01$. Moreover, in neither analysis was there any significant main effects or significant interactions involving either of the independent variables. Thus, not only did the groups differ significantly in depression, but random assignment successfully distributed depressed and nondepressed participants across the conditions of the study.

To determine that the two independent variables (inclusion/exclusion and mode of assignment) were manipulated successfully, participants' responses to the two manipulation check items were examined. Participants' responses to the question "What were you assigned to do?" indicated that participants knew whether they had been included or excluded. Of the 60 participants in the excluded condition, only 1 made a mistake, and 3 did not remember. All participants in the included condition remembered that they had been included in the group.

Similarly, participants' responses to the question "How were assignments to the various tasks made?" indicated that participants understood the method used to include or exclude them from the working group. Of the 58 participants in the random mode of assignment condition, only 2 indicated that they did not remember the method. Of the 58 participants in the personal mode of assignment condition, 1 answered the question incorrectly, and 4 did not remember the method. The data for these participants were retained for analysis.

FACTOR ANALYSES OF RATINGS

To simplify the analysis and presentation of the data, participants' responses were factor analyzed to produce summary variables. Two analyses were conducted—one for the self-ratings and another for the affective ratings. A principal components analysis of participants' 12 self-ratings produced one factor with an eigenvalue greater than 1.0. After reverse scoring the negatively scaled items, these 12 ratings were summed to produce one composite variable reflecting participants' *self-ratings*.

A principal components analysis of the 12 affective ratings produced two factors with eigenvalues greater than 1.0, and this two-factor solution was subjected to a varimax rotation. On the first factor, the following items had loadings of .6 or greater: *happy-unhappy*, *relaxed-tense*, *hostile-peaceful*, *peaceful-angry*, *cheerful-gloomy*, and *nervous-calm*; after reverse scoring negatively worded items, these ratings were summed to produce a composite variable reflecting *affective ratings*.

The four other items had loadings of .6 or greater on the second factor: *rejected-accepted*, *included-excluded*, *welcomed-avoided*, and *secure-insecure*. After reverse scoring negatively worded items, these ratings were added together to produce an index of *perceived acceptance*. Each of these three composite variables was analyzed using a 2 (depressed vs. nondepressed) \times 2 (inclusion vs. exclusion) \times 2 (random vs. personal mode of assignment) unweighted means ANOVA.

PERCEIVED ACCEPTANCE

The analysis of ratings of perceived acceptance revealed that, consistent with the social exclusion perspec-

tive on depression, depressed participants ($M = 4.2$) felt less accepted than nondepressed participants ($M = 5.5$), $F(1, 108) = 55.0$, $p < .01$. As might be expected given the nature of the manipulation, a significant main effect for inclusion also was found; included participants felt more accepted than excluded participants, ($M_s = 5.5$ vs. 4.2), $F(1, 108) = 61.0$, $p < .01$. Furthermore, a significant interaction between inclusion/exclusion and mode of assignment, $F(1, 108) = 5.5$, $p < .05$, and a significant three-way interaction between depression, inclusion/exclusion, and mode of assignment, $F(1, 108) = 6.9$, $p < .01$, were found. The means for the three-way interaction are presented in Table 1.

Simple effects tests indicated that the independent variables had markedly different effects on depressed and nondepressed participants. For nondepressed participants, only a simple main effect for inclusion occurred, $F(1, 108) = 30.4$, $p < .01$. Nondepressed participants felt more accepted in the included condition than in the excluded condition both when inclusion/exclusion was based on random selection and when it was based on other participants' preferences.

In contrast, for depressed participants, the simple main effect for inclusion, $F(1, 108) = 30.6$, $p < .01$, was qualified by a significant interaction of inclusion and mode of assignment, $F(1, 108) = 12.3$, $p < .01$. For depressed participants, inclusion/exclusion had a small, though statistically significant, effect on how accepted they felt when the mode of assignment was random ($M_s = 4.1$ and 4.6 for the excluded and included conditions, respectively), $p < .05$. However, when inclusion was perceived to be based on other participants' preferences, depressed participants felt notably more accepted when they had been included than when they had been excluded ($M_s = 3.0$ vs. 5.2), $p < .01$. Furthermore, depressed participants felt less accepted when exclusion was personal rather than random, $p < .01$, and more accepted when inclusion was personal rather than random, $p < .07$.

Depressed participants' ratings of perceived acceptance were, in an absolute sense, more accurate than nondepressed participants' ratings. When inclusion and exclusion were believed to be based on other participants' ratings, the mean perceived acceptance rating for depressed participants who had been excluded ($M = 3.0$ on a 7-point scale) fell toward the *excluded* end of the scale, whereas the mean for depressed participants who had been included ($M = 5.2$) was in the *included* range. When inclusion/exclusion was random, the mean for depressed participants fell near the midpoint of the scale (i.e., 4). Nondepressed participants, on the other hand, displayed a positive bias in their ratings of perceived acceptance. When they had been included, nondepressed participants' mean ratings were at the upper-

TABLE 1: Perceived Acceptance, Experiment 1

Mode of Assignment	Depressed		Nondepressed	
	Excluded	Included	Excluded	Included
Random	4.1	4.6	4.9	6.3
Personal	3.0	5.2	4.8	6.1

NOTE: Mean ratings could range from 1 to 7; higher numbers indicate feelings of greater perceived acceptance.

most *included* region of the scale ($M = 6.1$); however, when they had been excluded, the mean rating reflected somewhat greater inclusion than the neutral scale midpoint ($M = 4.8$).

SELF-RATINGS

The analysis of the self-rating composite variable produced a significant main effect for depression, $F(1, 108) = 64.5, p < .01$. Depressed participants rated themselves less positively ($M = 4.3$) than nondepressed participants ($M = 5.7$), replicating a plethora of previous research showing negative relationships between depression and self-esteem (Alloy & Abramson, 1988).

This analysis also produced a significant main effect for inclusion/exclusion, $F(1, 108) = 5.4, p < .05$. Participants who were included in the group rated themselves more positively ($M = 5.2$) than participants who were excluded ($M = 4.9$), a finding that replicates Leary, Tambor, Terdal, and Downs (1995). However, these main effects must be interpreted in light of the significant three-way interaction of depression, inclusion/exclusion, and mode of assignment, $F(1, 108) = 5.6, p < .05$. The relevant means for this triple interaction are presented in Table 2.

The triple interaction shown in Table 2 was due to the fact that the independent variables had different effects on depressed and nondepressed participants. The manipulations had virtually no effect on the self-ratings of nondepressed participants. Follow-up simple effects analyses produced no significant effects for nondepressed participants, all $ps > .20$.

In contrast, a marginally significant main effect for inclusion/exclusion was obtained in the analyses of depressed participants' self-ratings, $F(1, 108) = 3.8, p < .06$, as well as a significant interaction of inclusion/exclusion and mode of assignment, $F(1, 108) = 8.3, p < .01$. As expected, depressed participants' self-ratings were more positive when inclusion was perceived as personal rather than random, $p < .01$, but they tended to be more negative when they thought exclusion was personal rather than random, $p < .09$. However, whereas depressed participants, as expected, rated themselves more positively following personal inclusion than personal

TABLE 2: Self-Ratings, Experiment 1

Mode of Assignment	Depressed		Nondepressed	
	Excluded	Included	Excluded	Included
Random	4.5	3.9	5.6	6.0
Personal	4.0	5.0	5.5	5.7

NOTE: Mean ratings could range from 1 to 7; higher numbers indicate more positive self-ratings.

exclusion, $p < .01$, they also rated themselves less positively when included than excluded at random, $p < .01$. For unknown reasons, depressed participants reacted negatively to random inclusion.

AFFECTIVE RATINGS

Finally, the analysis of the affect composite variable produced only a main effect for depression, $F(1, 108) = 47.1, p < .01$. As might be expected, depressed participants reported a significantly less positive mood than nondepressed participants ($M_s = 4.4$ vs. 5.8); however, affect was unaffected by the experimental manipulations.

Discussion

As predicted, depressed participants responded to social inclusion and exclusion differently than nondepressed participants. The specific pattern of results supported the hypothesis that depressed people actually detect or process information regarding inclusion/exclusion differently than nondepressed people rather than simply reacting more strongly to being included versus excluded by others.

Overall, depressed participants seemed to process information regarding exclusion in a more realistic or logical manner than nondepressed participants. Specifically, depressed participants' ratings of how accepted (included, welcomed, secure) they felt reflected whether they were included or excluded only when inclusion was based on other group members' assessments of their personal characteristics; inclusion/exclusion did not affect how depressed participants felt when it was based on random selection. In contrast, nondepressed participants' feelings of inclusion ignored the mode of assignment; they felt more accepted when they had been included than excluded regardless of whether the selection was random or based on their personal characteristics.

This difference is consistent with previous research suggesting that depressed people often have a more accurate view of environmental contingencies than do nondepressed people (Alloy & Abramson, 1979, 1988). Research has also shown that depressed people perceive feedback from other people more accurately than do

nondepressed people, who tend to see it as more favorable than it is (Vestre & Caulfield, 1986; Wenzlaff & Berman, 1985). In the present study, depressed participants were clearly more sensitive to nuances regarding others' reactions to them (i.e., whether inclusion/exclusion was random or personal), and their ratings of perceived acceptance more closely mirrored the inclusion/exclusion manipulation than nondepressed participants' ratings, which indicated that they felt more accepted and included than one might logically assume they should have (when they were included randomly).

In brief, Experiment 1 demonstrated that depression moderated participants' reactions to interpersonal rejection. Moreover, the pattern of data suggested that participants who scored high in depression were more sensitive to inclusion and exclusion than those low in depression.

EXPERIMENT 2

Several lines of evidence suggest that reactions to interpersonal rejection may also be moderated by trait self-esteem. According to the sociometer theory of self-esteem (Leary & Downs, 1995), state self-esteem is an internal gauge or monitor that provides a continuous, automatic, and relatively nonconscious assessment of the degree to which the individual is being included versus excluded by other people. Research shows that rejection leads to a sharp drop in state self-esteem and that the effects of events on state self-esteem closely mirror the presumed effects of those events on others' reactions to the individual (Leary et al., 1995).

Over time, people who are frequently ostracized, rejected, or ignored are likely to develop low trait self-esteem as well as a sensitivity to cues that connote social exclusion. A history of rejection over time may lead to chronically low trait self-esteem (Coopersmith, 1967; Harter, 1993) and cause people with low trait self-esteem to feel less accepted by others than people with high self-esteem (Leary et al., 1995). As with depression, however, it is unclear whether low trait self-esteem is associated with a lower threshold for detecting cues that connote rejection (i.e., the sociometers of low- and high-self-esteem persons are calibrated differently) or whether they simply respond more strongly to such cues once they are detected.

In Experiment 2, participants who had completed a pretest measure of trait self-esteem received information indicating that they either were or were not included in a laboratory group and that group inclusion or exclusion was based on a random selection or on the preferences of group members. Measures of perceived acceptance, self-ratings, and affective reactions were then obtained.

Method

PARTICIPANTS

A total of 153 male and female undergraduates participated in partial fulfillment of a course research requirement. Participants were randomly assigned to experimental conditions.

PROCEDURE

The procedure for Experiment 2 replicated that of Experiment 1 in most respects. Again, five individuals participated in each experimental session. After signing an informed consent form, participants completed Rosenberg's (1965) Self-Esteem Inventory, a 10-item measure of participants' feelings of self-worth. Subjects responded to each of the items using a 5-point scale (1 = *not at all characteristic of me* to 5 = *extremely characteristic of me*).

Participants then completed the information exchange questionnaire described in Experiment 1. However, rather than receiving the information exchange questionnaires completed by the other participants as in Experiment 1, participants in Experiment 2 received information exchange questionnaires completed by confederates to ensure that all participants were exposed to the same information.

Rating scales were provided for subjects to evaluate the other participants based on the information obtained on the information exchange questionnaire. Participants indicated the two participants with whom they would most like to work and then rank ordered the other participants in terms of how much they would like to work with each later in the study.

After allowing time to purportedly score the rating scales and summarize the ratings across participants, the researcher distributed sheets containing the task assignments. Participants were informed that three of the five participants would work together on a group decision-making task, whereas the other two individuals would work on the same task individually. They were then told that they were selected either to work with the group (inclusion condition) or to work individually (exclusion condition) and that this assignment was determined either by the ratings obtained from the other group members (personal) or at random (random). This allowed for the manipulation of inclusionary status (excluded/included) and mode of assignment (random/personal).

Following this, participants completed the affective and self-ratings used in Experiment 1. However, the responses to the self-esteem ratings of McFarland and Ross (1982) were completed using a 5-point scale (1 = *not at all characteristic of me*, 5 = *extremely characteristic of me*). Following this, they indicated how excluded, avoided, and rejected they felt. Each of these three measures was

completed using a 12-point scale with 5-scale labels; a composite measure of perceived acceptance was calculated based on the average of the three measures.

Two manipulation check items assessed (a) how task assignments were determined and (b) whether participants were assigned to work alone or as part of the three-person group. Subjects were then debriefed and dismissed.

Results

MANIPULATION CHECKS

Participants' responses to the question "What were you assigned to do?" indicated that all but two participants understood whether they had been included or excluded. Similarly, responses to the question "How were assignments to the various tasks made?" showed that only three participants in the personal-assignment condition and two in the random-assignment condition answered this question in a manner inconsistent with their experimental condition. All participants' data were retained for analysis.

PERCEIVED ACCEPTANCE

Unlike depression, for which accepted cutpoints exist to distinguish normal from depressed individuals, no criteria exist for identifying low- versus high-self-esteem people. In fact, some have argued that the term *low self-esteem* is a misnomer; most individuals identified as having low self-esteem actually possess moderate levels of self-esteem, and few cases of truly low self-esteem exist (Baumeister, Tice, & Hutton, 1989). In light of this, analysis of the data for Experiment 2 used moderated multiple regression analyses that maintained the continuity of the self-esteem scores (Aiken & West, 1991; Kowalski, 1995). In each analysis, inclusion/exclusion and mode of assignment (both dummy coded), self-esteem scores, and all possible interactions were entered as predictors. Each effect was tested while controlling for effects of equal and lower order. Significant interactions were probed by testing conditional regression equations.

On the composite measure of participants' perceived acceptance, main effects of inclusionary status, $t(146) = 3.69, p < .01$, mode of assignment, $t(146) = 3.36, p < .01$, and self-esteem, $t(146) = 3.99, p < .01$, were obtained, along with two-way interactions of inclusionary status by mode of assignment, $t(146) = 2.06, p < .05$, and inclusionary status by self-esteem, $t(146) = 1.96, p < .05$.

Not surprisingly, participants who were excluded ($M = 9.1$) felt less accepted than participants who were included ($M = 10.5$). Furthermore, participants for whom the assignments were personal felt less accepted ($M = 9.2$) than participants who were randomly selected for inclusion or exclusion ($M = 10.3$). The main effect of self-esteem revealed that low-self-esteem participants

perceived themselves to be less accepted than high-self-esteem persons; the correlation of self-esteem with perceived acceptance was .29.

The two-way interaction of inclusionary status and mode of assignment showed that, when the mode of assignment was personal, participants felt more rejected when they were excluded than included, $t(146) = 4.00, p < .01$. However, inclusion/exclusion had no effect when based on a random procedure. In addition, participants in the exclusion condition felt more rejected when assignments were personal rather than random, $t(146) = 3.38, p < .01$. Most important, there was an interaction of inclusionary status and self-esteem. When they were excluded, participants low in self-esteem perceived themselves to be more rejected than participants high in self-esteem, $t(146) = 3.86, p < .01$. (Conditional regression lines are shown in Figure 1.) Furthermore, low-self-esteem persons perceived themselves to be more rejected when they were excluded than included, $t(146) = 3.73, p < .01$, whereas inclusionary status had little effect on high-self-esteem participants.

SELF-RATINGS

A moderated multiple regression analysis conducted on participants' self-ratings revealed a main effect of self-esteem, $t(146) = 2.55, p < .01$, and a three-way interaction of self-esteem, inclusionary status, and mode of assignment, $t(145) = 2.75, p < .01$. Overall, trait self-esteem and state self-ratings were positively correlated, $r = .20$.

The manipulations of inclusionary status and mode of assignment affected the self-ratings of participants who were relatively low in self-esteem but had less effect on high-self-esteem individuals (see Figure 2). The self-ratings of low-self-esteem persons were higher when they were personally rather than randomly included, $t(146) = 2.66, p < .01$, whereas high-self-esteem participants' self-ratings did not differ. Participants low in self-esteem rated themselves less positively when they were included than excluded at random, $t(146) = 2.76, p < .01$. In addition, when assignments were determined at random, high-self-esteem participants rated themselves more positively than low-self-esteem individuals when they were included, $t(146) = 4.07, p < .01$.

AFFECTIVE RATINGS

Participants high in self-esteem expressed more positive affect than individuals low in self-esteem. The correlation between self-esteem and affective ratings was .54. No other effects were obtained.

Discussion

As predicted, trait self-esteem moderated participants' reactions to social inclusion and exclusion. Given identical exclusionary feedback, participants with relatively low self-esteem perceived less acceptance and more

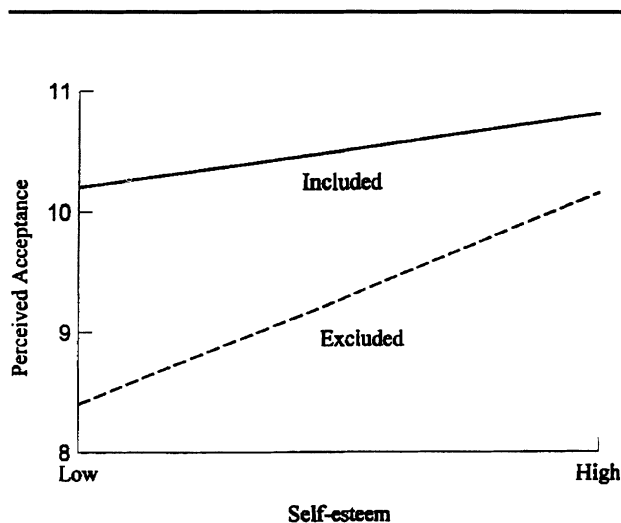


Figure 1 Effects of inclusion/exclusion and trait self-esteem on perceived acceptance, Experiment 2.

rejection than those with higher self-esteem. Furthermore, the inclusion/exclusion feedback received from the other group members affected how included low-self-esteem participants felt about themselves, whereas high-self-esteem participants' feelings of acceptance were unaffected by the feedback. Similarly, the self-ratings of participants who scored relatively low in trait self-esteem were affected by social inclusion and exclusion, whereas self-ratings by high-self-esteem participants were not.

Two aspects of these results merit specific discussion. First, the results further implicate the self-esteem system in reactions to social exclusion, although they qualify previous findings showing that social exclusion lowers state self-esteem (Leary et al., 1995). Results from Experiment 2 showed that exclusion resulted in lower state self-esteem than inclusion only for participants with relatively low trait self-esteem. This finding suggests that people with high trait self-esteem have a higher threshold for responding to threats to their inclusionary status. Stronger threats to inclusion than those used in this study—perhaps threats with important personal implications coming from significant others—might affect the self-feelings of even those with high trait self-esteem.

The second noteworthy aspect of these results is that participants who were low in self-esteem appeared to process the inclusionary and exclusionary feedback they received in a more logical fashion than participants high in trait self-esteem. If their reports can be believed, high-self-esteem participants felt no more excluded (accepted, welcomed) when they had been excluded from the group than when they had been included. Low-self-

esteem participants, in contrast, felt more rejected when they had been excluded than included.

The processes that are responsible for this interaction between inclusionary status and self-esteem cannot be specified given the present results, but at least three mechanisms may be involved. First, as noted earlier, people with high trait self-esteem may possess a higher threshold for responding to threats to inclusionary status than people with low trait self-esteem. Although participants high in self-esteem in the excluded condition appropriately acknowledged that they had been assigned to work alone, they appeared not to feel excluded or left out. Alternatively, the lack of a response to exclusion by high-self-esteem participants may have reflected a defensive reaction to the ego threat. Some theorists have suggested that people with high self-esteem maintain their positive self-feelings by denying or minimizing such threats (Schneider & Turkat, 1975). Finally, the response of high-self-esteem participants may reflect a self-presentational tactic designed to convince others that the individual was unperturbed by being excluded. Evidence suggests that people with high self-esteem may be more motivated to convey positive impressions of themselves to others (Baumeister et al., 1989).

GENERAL DISCUSSION

Taken together, these two experiments show that depression and trait self-esteem moderate reactions to interpersonal inclusion and exclusion in similar ways. Not only were depression and low self-esteem associated with lower perceived acceptance overall, but participants who were high in depression and low in self-esteem responded more strongly to the experimental manipulations than those who scored low in depression and high in self-esteem. These results suggest that depressed and low-self-esteem participants distinguished more clearly between inclusion and exclusion than nondepressed and high-self-esteem participants and were more sensitive to the nuances of the interpersonal feedback they received. Furthermore, the self-perceptions of depressed and low-self-esteem participants were more strongly affected by the manipulations, replicating previous research showing that depression and low self-esteem are associated with greater emotional lability and with less stable self-images (Brockner, 1983; Campbell & Lavalley, 1993).

One unexpected finding obtained in both studies was that depressed and low-self-esteem participants rated themselves less positively following random inclusion than random exclusion. This pattern suggests that being randomly included may be threatening to certain individuals, possibly because it raises the specter of being arbitrarily assigned to a group in which one may not be

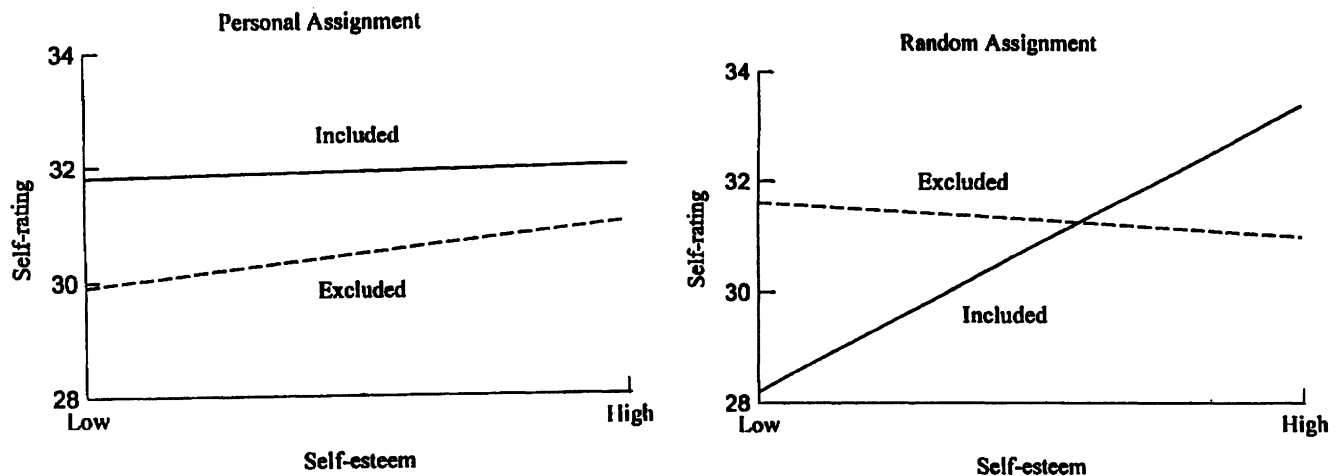


Figure 2 Effects of inclusion/exclusion, mode of assignment, and trait self-esteem on self-ratings, Experiment 2.

welcome. For people who harbor doubts about their social desirability (such as those who are depressed or who have low self-esteem), being randomly assigned to a group may be more troubling than being randomly excluded from it.

The pattern of results suggests that the effects of depression and self-esteem may arise from a single process. The fact that depression and trait self-esteem are moderately negatively correlated (e.g., Kanfer & Zeiss, 1983; Lewinsohn, Mischel, Chaplin, & Barton, 1980), combined with the similarity of findings across the two present studies, supports the idea that the results were produced by the same underlying mechanism. Previous theory and research point toward the possibility that a single process is common to the moderating effects of depression and self-esteem on reactions to inclusion and exclusion. Leary and Downs (1995; Leary et al., 1995) suggested that reactions to exclusion are moderated by a sociometer mechanism that automatically monitors the environment for cues that connote interpersonal rejection, that triggers negative affect when such cues are detected, and that motivates the individual to behave in ways that restore his or her social acceptance in the face of such threats. Evidence suggests that a variety of psychological reactions—including low self-esteem, social anxiety, loneliness, and some instances of depression—are reactions to real, imagined, or potential social exclusion and may be mediated by this motivational-affective mechanism (Baumeister & Leary, 1995; Leary, 1990; Leary et al., 1995). To the extent this is so, one would expect that individual differences in the tendency to experience these various reactions would moderate re-

actions to inclusion and exclusion in similar ways. Consistent with this, Leary, Kowalski, and Campbell (1988) found that trait social anxiety moderated perceptions of others' evaluations in a manner similar to the effects obtained in the present studies.

Although the results of these studies revealed similarities in the effects of depression and low self-esteem, one important difference emerged. In Experiment 1, depressed participants were more responsive than nondepressed participants to personal exclusion and inclusion but less responsive than nondepressed participants to random exclusion and inclusion. Thus, depressed participants not only felt more accepted when they were personally included than personally excluded but were quite reasonably unaffected by random inclusion and exclusion. In contrast, nondepressed participants felt more accepted in the inclusion than exclusion condition whether the feedback was personal or random. In Experiment 2, however, low-self-esteem participants felt more accepted when they were included versus excluded, whereas high-self-esteem participants were unaffected by the inclusion manipulation regardless of whether inclusion/exclusion was random or personal (i.e., the two-way interaction of self-esteem by inclusion was not qualified by mode of assignment). Whether this reflects a true difference in the ways in which depression and self-esteem moderate perceived acceptance is unclear. However, the fact that identical three-way interactions were obtained on participants' self-ratings in both studies suggests that depression and self-esteem moderated the effects of inclusion on self-ratings in virtually identical ways. Thus, the present studies contribute to

growing evidence that a common mediating process may underlie various reactions to exclusion.

NOTES

1. The two studies reported in this article were conducted independently without knowledge of one another. After learning of the extensive overlap between the two experiments' objectives, methods, and findings, the authors decided to combine their efforts into a single article.

2. Controversy exists regarding whether depression is best conceptualized as a continuous trait or as a dichotomy characterized by a cutpoint that separates normal levels of dysphoria from clinical depression. Because recent research has provided evidence for a cutpoint approach to depression (Nezlek, Imbrie, & Shean, 1994), we opted to classify participants into depressed and nondepressed groups.

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