

OSTRACISM AND ACCESSIBILITY OF SELF-TRAITS

by

ALEXANDER KUTSCERA

Submitted to the Department of Psychology  
School of Natural and Social Sciences  
in partial fulfillment of the requirements  
for the degree of Bachelor of Arts

Purchase College  
State University of New York

May 2019

Sponsor: Yanine Hess, Ph.D.  
Second Reader: Paul Siegel, Ph.D.

### **Abstract**

Social ostracism occurs when individuals are ignored or excluded by others and it elicits decreased belonging and decreased explicit self-esteem (Dvir, Kelly, & Williams, 2018). Individuals may cope with these threats by increasing accessibility of their own social groups (Knowles & Gardner, 2008) and increasing implicit self-esteem (Rudman, Dohn, & Fairchild, 2007). The present study examined how ostracism impacts self-perceptions more broadly. We hypothesized that ostracism (compared to inclusion) would cause negative self-traits to become more accessible. Participants were assessed on state self-esteem, randomly assigned to either an ostracism or acceptance condition. They then provided a self-description (to be used as a measure of explicit self-perceptions) and a word-completion task consisting of positive and negative traits, as well as non-personal words (to be used as a measure of implicit self-perceptions). Ostracism did not affect the positivity or negative of the explicit self-descriptions, but did lead to an increase of positive traits in the word-completion task. The results indicate that individuals may show heightened accessibility of positive traits as a defense mechanism against ostracism.

*Keywords: Ostracism, Self-traits, Implicit, Self-esteem*

### **Ostracism and Accessibility of Self-Traits**

Humans have a fundamental and instinctive need for social belonging (Baumeister & Leary, 1995). One threat to social belonging is ostracism, which can be described as being ignored or excluded in a social context (Williams & Nida, 2011). Individuals are subject to ostracism throughout their lifetime in a variety of ways. While ostracism threatens social belonging, it can be detrimental in other ways. Research on ostracism has shown that it can also threaten control and meaningful existence, elicit worsened mood, and deplete self-esteem (Dvir, Kelly, & Williams, 2018; Williams & Nida, 2011). While previous research has shown the impact ostracism has on self-esteem, self-esteem is only one aspect of the self-concept, which is defined as “the totality of the individuals thought and feelings having reference to himself as an object” (Rosenberg, 1979, p.9).

### **Ostracism and Self-Concept**

Individuals have defense mechanisms to buffer threats to their self-concept. These defense mechanisms soften the impact of threatening experiences, such as ostracism. Since ostracism isolates an individual and threatens one’s sense of belonging, reconnecting with someone on the basis of similarity can be used as a defense against ostracism. Building on this, researchers wanted to investigate the malleability of self-concept in reaction to ostracism (Richman et al., 2018). They hypothesized that ostracism encourages participants to modify their self-concepts in order to increase their felt similarity to others (Richman et al., 2018). In line with research stating that ostracism elicits negative emotions and encourages us to belong, increasing similarity to others would perhaps create connections with others. The participants were ostracized in the study via Cyberball (Williams, Cheung, & Choi, 2000), a virtual ball-toss game in which a participant is either included or excluded while playing (Dvir, Kelly, &

Williams, 2018). After the participants were ostracized via Cyberball, participants were shown a personality profile of a potential friend (who was actually a confederate), which included a description of this potential friend including four personality traits that the potential friend had ostensibly self-described as having. It was found that after the initial self-description of the participant, ostracized participants used the same personality traits that the confederate used (Richman et al., 2018). Ostracism seemed to motivate participants to change the way they presented themselves to the confederate. This change in self-concept could be a coping technique to regain social connection after being socially ostracized (Richman et al., 2018).

Another way individuals may defend against ostracism is through changes to their implicit self-esteem. Implicit self-esteem is defined as the automatic, nonconscious aspect of self-esteem (Baccus, Baldwin, & Packer, 2004). Implicit Self-esteem can be seen as a useful buffer because self-affirmation is associated with self-esteem. Self-affirmation is defined as behavioral or cognitive events that sustain, support and strengthen the perceived integrity of the self (Steele, 1988). Considering this, researchers examined implicit self-esteem compensation as a defense mechanism, and how it also related to self-affirmation (Rudman, Dohn, & Fairchild, 2007). Implicit self-esteem compensation was defined as a self-defense process that automatically buffers people from a variety of threats (Rudman, Dohn, & Fairchild, 2007). Researchers manipulated self-affirmation by asking participants to choose from values such as making money, attaining knowledge, and social relationships from least important to most important and to write an essay on why these values mattered to them (high self-affirmation condition) or mattered to others (low self-affirmation condition). They also measured implicit self-esteem by administering a self-esteem implicit association task, using target constructs related to the self or others, and pleasant or non-pleasant attributes (Rudman, Dohn, & Fairchild,

2007). In comparison to accepted participants, ostracized participants demonstrated high scores on the implicit self-esteem measure. They also found that self-affirmation eliminated implicit self-esteem compensation, supporting their initial hypothesis (Rudman, Dohn, & Fairchild, 2007). These results provide some evidence that individuals involuntarily react to ostracism through implicit self-esteem compensation (Rudman, Dohn, & Fairchild, 2007). This experiment supports the tendency for ostracism to elicit cognitive processes such as implicit self-esteem compensation, and overall supports the claim that individuals effortlessly activate defense mechanisms when threatened.

Another adaptive strategy that individuals might rely on in reaction to ostracism is thinking about the groups they belong to. Belonging to a larger social whole can provide individuals with physical and emotional support and make an individual feel less isolated. When individuals think about who they are and what makes them distinct from other individuals, they refer to their group memberships, also known as group identities. Group memberships are formative to our self-concept because they provide belonging from those who share similar qualities to one another. Since group memberships are common and, in many cases, meaningful, researchers wanted to see if accessibility of meaningful group memberships and if being part of a meaningful group was cushioning individuals from the detrimental impacts of ostracism (Knowles & Gardner, 2008). When participants were ostracized, not only were group memberships more cognitively available, but the activation of a meaningful group was associated with higher self-esteem (Knowles & Gardner, 2008). This finding suggests that group memberships that were highly meaningful to an individual were activated and combatted the negative impacts of ostracism by increasing self-esteem.

Future research is needed on the activation of thoughts not pertaining to group memberships, but of negative personal thoughts or traits, in the face of ostracism. To expand on previous research, we tested the impact of ostracism on individual's implicit and explicit accessibility of self-traits. In the present research, we examined how social ostracism makes positive and negative traits available. After manipulating ostracism through Cyberball, we tested implicit self-trait accessibility through a word-stem completion task, and tested explicit self-trait accessibility through an open ended self-description. Previous research indicates that ostracism depletes mood and sense of belonging, because of this we are led to believe that ostracism will impact the type (positive or negative) of traits available. Given that ostracism has a negative impact on explicit measures of self-esteem, we hypothesized that ostracism would prime individuals to think of their negative traits, which might explain their decreased self-esteem.

### **Method**

#### **Participants**

Participants were recruited from the introductory to psychology participant pool at Purchase College, State University of New York, and Amazon Mechanical Turk. For incentive, participants from the Psychology Participant pool were given course credit and participants from Mechanical Turk were given \$2 for completing the study. A total of 222 participants were recruited and completed the experiment. Given that 97 of these participants knew Cyberball and its intent, their data was not included in our analysis. Another participant's data was discounted due to failing the manipulation check, leaving a total of 124 participants (58% Male, 42% Female), whose ages varied from 18 to 65 ( $M = 28.30$ ,  $SD = 9.99$ ).

#### **Materials**

The materials used in this experiment were an online Qualtrics survey which included an informed consent form, the Rosenberg Self-Esteem Scale (Rosenberg, 1965), Cyberball, a word-stem completion task, an open-ended self-description, a decision-making task, a manipulation check, and a demographic questionnaire.

The Rosenberg Self-Esteem scale is a measure used to assess state self-esteem in participants. The Rosenberg Self-Esteem Scale has 10 items based on a Likert-scale from 1 “Strongly Disagree” to 4 “Strongly Agree.” An example of a question from the Rosenberg Self-Esteem scale is “I feel that I have a number of good qualities”. One item on the Rosenberg Self-Esteem scale within the survey was mistakenly repeated, (“I am able to do things as well as most other people”), and therefore discounted from the experiment.

Cyberball was used to manipulate either ostracism or acceptance in participants. Participants were told that the experiment involved mental visualization skills, and that to practice their skills, they would be playing an online ball-toss game with other individuals. In reality, Cyberball was used to either make the participant feel ostracized or accepted by having the ball tossed to their player frequently or not tossed to their player

The open-ended self-description provided by participants allowed us to assess how they their explicit self-perception after being ostracized or accepted directly after Cyberball. This measure made participants reflect on their personality and how they felt about themselves overall. Specifically, the open-ended self-description asked “We would like you to think about yourself. As quickly as possible, please list as many traits or characteristics that describe you as a person. Describe your personality and qualities that you think you attain. There are no wrong answers to this question; we would like to know more about what qualities you have and how you would describe your personality to another person.” The Evaluative Lexicon (Rocklage,

Rucker, & Nordgren, 2017) was used to count the number of positive and negative words used in the open-ended self-description, allowing us to assess whether participants were thinking of themselves negatively or positively after Cyberball.

The word-stem completion task was used to assess implicit self-perception, and if participants were accessing positive or negative traits after Cyberball. Word-stems are words that are incomplete. One must complete the word-stem by filling in appropriate letters in the blank spaces to create a complete word. To construct the word-stem completion task, a thesaurus was used to generate a large pool of words including neutral non-social words and both positive and negative personality traits. There were six word-stems that could be filled out with either a positive trait or a neutral word. There were another six word-stems that could be filled out with either a negative personality trait or a neutral word. Lastly, there were four word-stems that assessed non-social valenced words. An example of a positive/neutral word-stem used in this experiment was “S W E \_ \_” that could be filled out with “Sweet,” a positive personality trait, or “Swelt” and Sweat,” which counted as non-personality traits.

We also used a manipulation check. The first item measured how many times the participant perceived that the ball was thrown to them in Cyberball. The three other items assessed the extent to which participants felt that Cyberball actually induced ostracism or acceptance. An example of one of these 3 items is “To what extent did you feel ignored or excluded by the other participants?” Each of these 3 items was based on a Likert-scale from 1 (Not at all) to 9 (Very much so).

## **Procedure**

First, participants completed an informed consent form. Once participants gave informed consent, participants filled out the Rosenberg Self-Esteem Scale. Then, to test for our hypothesis,



participants were randomly assigned to either an ostracism condition or an acceptance condition. Participants in the ostracism condition were ostracized via Cyberball, while participants in the acceptance condition were accepted via Cyberball. After completing Cyberball, participants completed an open-ended self-description. Following the self-description, participants completed a word-stem completion task.

After participants filled out the word- completion task, participants completed a decision-making task for an unrelated study. Finally, participants completed the manipulation check and a demographic questionnaire. The demographic questionnaire assessed age, gender, race, and an optional item asking if participants had any feedback regarding the experiment. Participants were also asked if they knew Cyberball. After the demographic questionnaire, participants were debriefed on the intent of this study. The complete testing procedure lasted approximately 10 to 15 minutes.

## Results

After reverse-coding relevant items, we averaged the nine unique items on the Rosenberg self-esteem scale, excluding the second repetition of one of the questions and the missed question that was accidentally not included in the questionnaire ( $\alpha = 0.93$ ). For the positive and negative trait word-stems, answers were coded as either reflecting a personality trait (positive or negative depending on the word-stem type) or a neutral word. Participants generally completed word-stems with more positive self-traits ( $M = 1.2, SD = 0.82$ ) than negative self-traits ( $M = 0.9, SD = 0.9$ ).

As expected, Cyberball made participants feel more ostracized; a MANOVA on the three belonging items indicated ostracized participants felt less belonging than accepted participants,  $F(3,120) = 502.80, p < .001$ .

### Main Analyses

First-order correlations revealed that, as expected, self-esteem predicted the use of positive and negative words in the open-ended self-description. In the explicit self-descriptions, self-esteem was unrelated to the number of positive words used to describe the self,  $r = -.092$ ,  $p = .311$ , but greater self-esteem was negatively linked to the number of negative words used to describe the self,  $r = -.214$ ,  $p = .017$ . In the word-completion task, greater self-esteem negatively predicted the use of negative words,  $r = -.271$ ,  $p = .002$ , but did not predict the use of positive words,  $r = .047$ ,  $p = .603$ . (See Figure 1 for full results)

A repeated measures ANCOVA was performed to examine the effect of ostracism and trait self-esteem (mean-centered) on the positive and negative word-stem completions (within-subjects). The results indicated a significant difference of proportion between positive traits completed and negative traits completed in the word-stem task,  $F(1, 120) = 9.29$ ,  $p = .003$ , partial  $\eta^2 = .072$ . More importantly, ostracism moderated the proportion of positive traits versus negative traits completed,  $F(1, 120) = 4.62$ ,  $p = .034$ , partial  $\eta^2 = .037$  (See Figure 1). There was no significant moderation of word-stem type by trait self-esteem,  $F(1, 120) = .69$ ,  $p = .409$ , partial  $\eta^2 = .006$  (See Table 1 for full results).

Another repeated measures ANCOVA was performed for the number of positive and negative words included in the self-descriptions, Although self-esteem was linked to the overall number of words in the self-description,  $F(1,120) = 5.81$ ,  $p = .017$ , partial  $\eta^2 = .046$ , ostracism did not moderate the link between self-esteem and number of positive or negative traits reported in the open-ended description,  $F(1, 120) = .005$ ,  $p = .945$ , partial  $\eta^2 = .00$  (See Table 2 for full results).

### Discussion

It was hypothesized that ostracized individuals would report more negative self-traits than accepted individuals. However, contrary to our hypothesis, ostracized participants reported more positive self-traits in the word-stem completion task than accepted participants. Instead of thinking more negatively about themselves, participants may have used positive self-traits as a defense mechanism in reaction to ostracism. These results parallel previous research regarding how individuals can cope with ostracism (Rudman, Dohn, & Fairchild, 2007). Based off previous research, we can infer that the accessibility of positive traits that are activated after ostracism may serve as buffer against the detriments of ostracism. This supports previous research regarding the accessibility of implicit defense mechanisms against ostracism.

These implicit defense mechanisms are seen in previous research regarding ostracism, and soften the impact of threatening experiences that occur to individuals on a regular basis. Defense mechanisms exist to buffer the impact of these threatening experiences. Since ostracism isolates an individual and threatens one's sense of belonging, thinking about yourself in a positive light by accessing positive self-traits can be used as a defense against ostracism. The participants seemed to report more positive traits on the implicit measure than negative traits when ostracized; this could be seen as the participants unconsciously combating the threatening aspect of ostracism.

Despite Cyberball inducing ostracism in select participants, it is unclear why more positive self-traits were completed in the word-stem completion task overall. One possible explanation for this could be that our sample was high in self-esteem, and therefore felt good about their self-concept.

While there is a significant difference between number of positive word-stems and negative word-stems completed, no conclusions can be drawn regarding this difference. One

reason could be that the words that could be filled out in the positive word-stems could have been more commonly used or more easily guessed than words in the negative word-stems, rather than being reflective of an actual overall implicit bias. This is a limitation to the word-stem task that was not examined through pilot-testing. However, another possibility is this difference reflects individuals' tendency toward high implicit-self-esteem (Schröder-Abe, Rudolph, and Schütz, 2007), which would suggest the measure was working as intended.

Another limitation to this experiment is the lack of lengthy responses on the open-ended self-description, which was our explicit measure. This measure may not have been truly sensitive to differences between individuals due to lack of participant motivation to write thoughtful self-descriptions. Results could have differed if participants were more thoughtful on our explicit measure, and perhaps we could have found that individuals reported more negative self-traits after ostracism, better reflecting work on explicit self-esteem scales. Future research should examine a broader sample with additional measures of explicit and implicit self-esteem. For example, a minimum of more than 20 or 30 words should be set for the open-ended self-description. Another suggestion for future research is to examine a sample that reports low self-esteem rather than high self-esteem. The high self-esteem reported in this experiment could have skewed the data, as our results could have differed with a low self-esteem sample because those with low self-esteem may not be as able to buffer against ostracism (Zadro, Williams, & Richardson, 2004)

We predicted that ostracized individuals would report more negative self-traits than accepted individuals based on research that ostracism elicits decreased belonging, mood, and self-esteem. While research on the detriments of ostracism varies, there is a gap in research for the possible benefits of ostracism and the accessibility of implicit and explicit defense mechanisms. While we

examined the relationship between self-traits and ostracism, other aspects of an individual's self-concept, such as beliefs about the self, could be used as a defense mechanism, paving the way for future research. While many of us face social ostracism, we take for granted the implicit defense mechanisms that are observed in social psychology and in human kind.

### References

- Baccus, J. R., Baldwin, M. W., & Packer, D. J. (2004). Increasing implicit self-esteem through classical conditioning. *Psychological Science*, 15(7), 498–502.  
<https://doi.org/10.1111/j.0956-7976.2004.00708.x>
- Baumeister, Roy & Leary, Mark. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin*. 117. 497-529.  
10.1037/0033-2909.117.3.497.
- Bastian, B., Jetten, J., Chen, H., Radke, H. R., Harding, J. F., & Fasoli, F. (2012). Losing our humanity: The self-dehumanizing consequences of social ostracism. *Personality and Social Psychology Bulletin*, 39(2), 156-169.
- Dvir, M., Kelly, J. R., & Williams, K. D. (2018). Is inclusion a valid control for ostracism? *The Journal of Social Psychology* 159(1), 106-111.
- Knowles, M. L., & Gardner, W. L. (2008). Benefits of membership: The activation and amplification of group identities in response to social rejection. *Personality and Social Psychology Bulletin*, 34(9), 1200-1213.
- Richman, S. B., Slotter, E. B., Gardner, W. L., & DeWall, N. C. (2015). Reaching out by changing what's within: Social exclusion increases self-concept malleability. *Journal of Experimental Social Psychology*, 57, 64-77.
- Rocklage, M. D., Rucker, D. D., & Nordgren, L. F. (2017). The Evaluative Lexicon 2.0: The measurement of emotionality, extremity, and valence in language. *Behavior Research Methods*, 50(4), 1327-1344.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.

- Rudman, L. A., Dohn, M. C., & Fairchild, K. (2007). Implicit self-esteem compensation: Automatic threat defense. *Journal of Personality and Social Psychology*, 93(5), 798-813.
- Schröder-Abé, M. , Rudolph, A. and Schütz, A. (2007). High implicit self-esteem is not necessarily advantageous: Discrepancies between explicit and implicit self-esteem and their relationship with anger expression and psychological health. *Eur. J. Pers.*, 21: 319-339. doi:10.1002/per.626
- Steele, C. M., (1988). The psychology of self-affirmation: Sustaining the integrity of the self. *Advances in Experimental Social Psychology*, 21, 261-302.
- Williams, K. D., Cheung, C. K. T., & Choi, W. (2000). CyberOstracism: Effects of being ignored over the Internet. *Journal of Personality and Social Psychology*, 79, 748–762
- Williams, K. D. & Nida, S. A. (2011). Ostracism consequences and coping. *Current Directions in Psychological Science*, 20(2), 71-75.
- Zadro, L, Williams, K. D., & Richardson, R. (2004). How low can you go? Ostracism by a computer is sufficient to lower self-reported levels of belonging, control, self-esteem, and meaningful existence. *Journal of Experimental Social Psychology*, 40(4), 560-567.

**Tables** Table 1: Repeated Measures ANCOVA Examining Trait Accessibility on the word-stem completion task

	<b>F</b>	<b>p-value</b>	<b>Partial Eta Squared</b>
<b>Word-Stem</b>	<b>9.29</b>	<b>.003*</b>	<b>.072</b>
<b>Word-Stem X Rejection</b>	<b>4.62</b>	<b>.034*</b>	<b>.037</b>
<b>Word-Stem X Self-Esteem</b>	<b>0.69</b>	<b>.409</b>	<b>.006</b>
<b>Word-Stem X Rejection Self- Esteem</b>	<b>0.00</b>	<b>.938</b>	<b>.000</b>

*Notes:* \* indicates  $p < .05$ ; \*\* indicates  $p < .001$ ; All degrees of freedom (1, 120)



Table 2: Within-Subjects ANCOVA performed for the number of positive and negative words included in the self-descriptions

	<b>F</b>	<b>p-value</b>	<b>Partial Eta Squared</b>
<b>Valence Type</b>	<b>103.87</b>	<b>.00**</b>	<b>.464</b>
<b>Valence Type X Rejection Condition</b>	<b>0.484</b>	<b>.448</b>	<b>.004</b>
<b>Valence Type X Self-Esteem</b>	<b>2.571</b>	<b>.111</b>	<b>.021</b>
<b>Valence Type X Rejection X Self-Esteem</b>	<b>0.392</b>	<b>.532</b>	<b>.003</b>

*Notes:* \* indicates  $p < .05$ ; \*\* indicates  $p < .001$ ; All degrees of freedom (1, 120)

Table 3: Test of Between-Subjects Effects was performed for condition and self-esteem

	<b>F</b>	<b>Significance</b>	<b>Partial Eta Squared</b>
<b>Rejection Condition</b>	<b>.086</b>	<b>.769</b>	<b>.001</b>
<b>Self- Esteem</b>	<b>5.806</b>	<b>.017*</b>	<b>.046</b>
<b>Rejection Condition &amp; Self-Esteem</b>	<b>.005</b>	<b>.945</b>	<b>.000</b>

*Notes:* \* indicates  $p < .05$ ; \*\* indicates  $p < .001$ ; All degrees of freedom (1, 120)

Table 4: Mean and standard error of word-stems reported in each condition

<b>Condition</b>	<b>Word-Stem Type</b>	<b>Mean</b>	<b>Standard Error</b>
<b>Acceptance</b>	<b>Positive</b>	<b>1.18</b>	<b>.104</b>
	<b>Negative</b>	<b>1.08</b>	<b>.118</b>
<b>Ostracism</b>	<b>Positive</b>	<b>1.39</b>	<b>.101</b>
	<b>Negative</b>	<b>0.81</b>	<b>.114</b>

**Figures**

Figure 1

