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Understanding Ostracism from an Attachment Perspective: Testing a Moderated Mediation Model

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ABSTRACT

The perception of being ostracized in a foreign country is a great obstacle that may lead to international students' strain. The present study aimed to understand ostracism from the perspective of adult attachment. We proposed a moderated mediation model in which attachment anxiety was hypothesized as an antecedent of ostracism and as a moderator of the ostracism – strain links. Participants were 119 international students enrolled at a large public university in U.S. Results largely supported the model, which showed that the attachment anxiety exaggerate the harmful effects of perceived ostracism on depression and physical symptoms. Theoretical and practical implications were discussed.

Keywords: attachment anxiety, moderated mediation, ostracism

International students have the difficult task of adjusting to life in a different country, while adapting to a new academic system. In addition, they may also encounter perceived and/or actual ostracism from others. Individuals feeling isolated or ostracized may experience negative outcomes that can affect them mentally and physically (O'Reilly, Robinson, Berdahl, & Banki, 2014; Williams, 2002). People's perception of being ostracized and their reactions after perceived ostracism vary and may be partially explained by personality traits, such as the Big Five, narcissism, and trait self-esteem (Kong, 2016; Wu, Wei, & Hui, 2011; Xu, 2012). Since ostracism threatens international students' need to belong, we argue that attachment theory may play an important role in understanding social interaction threats. To our knowledge, attachment style as an antecedent of ostracism has not yet been empirically tested, and evidence for attachment as a moderator of the ostracism process has been inconsistent (Shaver & Mikulincer, 2010). As empirical research linking the two literatures has only been tested in the lab (Hermann, Skulborstad, & Wirth, 2014; Waldrip, 2007; Yaakobi & Williams, 2016), we undertook this research to test the relationship in the field.

The study contributes to the ostracism literature by investigating attachment style as an antecedent, as well as moderator, of the ostracism consequence. Our research also contributes to the expanding of the study of attachment style from its major focus on dyadic relationships to broader group relationships. Finally, our study investigates ostracism in a more realistic setting by using a sample of international students who may experience ostracism.

OSTRACISM

Ostracism is typically defined as being ignored and excluded, and it often occurs without excessive explanation or overt negative attention (Williams, 2007). The temporal framework of ostracism proposes that individuals feel the pain of ostracism, which threatens their need for belonging and esteem. Individuals will then respond to cognitive appraisals of the situation in order to remedy it (Scott & Duffy, 2015; Williams & Zadro, 2005) as well as be motivated to be more vigilant of social signals in order to attain success in future interactions. Ostracism has been linked with many detrimental outcomes, such as lower workplace commitment (Zheng, Yang, Ngo, Liu, & Jiao, 2016), psychological distress (Niu et al., 2018; Wu, Yim, Kwan, & Zhang, 2012), and even physical pain (Eisenberger, 2012; Riva, Wesselmann, Wirth, Carter-Sowell, & Williams, 2014).

The link between ostracism and detrimental outcomes is particularly clear in international student populations. Specifically, international students often feel a sense of isolation and exclusion when they enter a foreign university and become a member of a new heterogeneous minority group (Hirai, Frazier, & Syed, 2015). They not only need to become accustomed to a new culture and language, but also must acclimate to those of their fellow international students. Because international students face the possibility of being ostracized on two fronts (by the host nationals as well as fellow international students), they are a natural population to study naturally occurring ostracism. We expect to replicate the previous findings showing strong and positive associations between ostracism and physical and psychological

distress (Niu et al., 2018; Schmitt, Spears, & Branscombe, 2003). Consistent with prior research, the present study focused on two common physical and psychological distress concepts: physical symptoms and depression (Ferris, Brown, Berry, & Lian, 2008; Robinson, O'Reilly, & Wang, 2012). These negative outcomes have the potential to affect school performance and could prevent international students from completing their education program (e.g., Chambel & Curral, 2005; Sommer, 2013).

Hypothesis 1: There is a positive relationship (a) between ostracism and depression and (b) between ostracism and physical symptoms.

Furthermore, ostracism threatens one of the most fundamental human needs—the need of belonging (Baumeister & Leary, 1995). From the evolutionary adaptation perspective, people desire interactions with others, and therefore seek proximity (Baumeister & Tice, 1990; Buss, 1990). This proximity-seeking behavior is built in early childhood through interactions with caregivers. Thus, attachment theory, which offers insights into proximity seeking as the core tenant, appears to be a relevant conceptual framework that may help researchers better understand ostracism.

Attachment Theory

Attachment theory traces its roots to the work of John Bowlby (1969, 1973), who formulated the basic principle that infants inherently have the tendency to maintain proximity to their caregivers. The characteristics of caregivers during the times of stress, uncertainty, and fear results in different attachment styles. When the attachment figures are unavailable, inattentive, or unresponsive, attachment strategies are utilized to help deal with the distress. Attachment theory has since been studied using adult samples in areas such as romantic (Mikulincer & Shaver, 2007; Pietromonaco & Beck, 2015) and workplace relationships (Harms, 2011). The majority of the research on attachment theory in the workplace has been focused on the dyadic relationships (e.g., leader–member exchange; Richards & Hackett, 2012); therefore, the present study contributes to the current literature by investigating attachment theory at the group level.

Attachment and Ostracism

The present study proposed a moderated mediation model with attachment as an independent variable and moderator, ostracism as mediator, and psychological strain (i.e., depression and physical symptoms) as outcomes (see Figure 1). When the need of belonging is threatened in a stressful environment, ostracism is likely to be perceived. It is also a "top-down" process where the perception of ostracism is impacted by one's attachment style—for example, anxiously attached individuals tend to exaggerate the feelings of rejection.

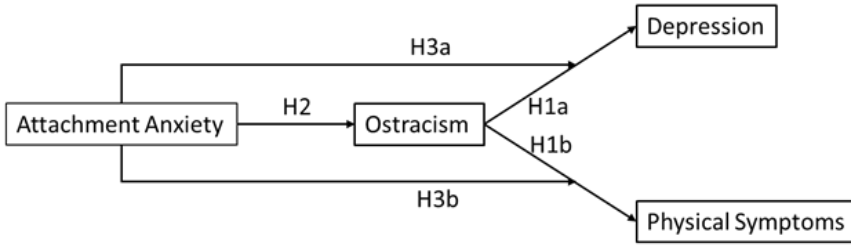

Figure 1: The Theoretical Model of the Present Study

Attachment Anxiety as Antecedent

Personality traits been shown to influence an individual's perception of ostracism (Kong, 2016; Robinson et al., 2012; Wu et al., 2011). Though not empirically tested, Williams (2002) suggested attachment styles as possible antecedent of ostracism. There are two perspectives on why people with different attachment styles tend to have different levels of ostracism perception. First, the behavior systems of people with different attachment styles lead them to be treated differently by others. Second, when facing ostracism, the individual's attachment style leads to different ways of appraising and interpreting their perceptions.

An anxious attachment style results from inconsistent responses from an attachment figure when distress occurs. Attachment-anxious individuals tend to use hyperactivating strategies, which might scare or annoy other people. Moreover, those who are anxiously attached tend to have an intense fear of rejection, jealousy, and abandonment, and a preoccupation with relationships (Brennan, Wu, & Loev, 1998). This preoccupation may be attributed to the individual attempting to satisfy an unmet need for attention and acceptance (Popper & Mayseless, 2003) and therefore they put a lot of effort into trying to avoid being rejected (Shaver & Mikulincer, 2013).

Anxious attachment is also characterized by holding negative beliefs about one's self-worth and self-efficacy, and positive beliefs about the abilities and characteristics of others (Bartholomew & Horowitz, 1991). These negative self-images cause an anxiously attached individual to develop a need for approval from others, which could increase their susceptibility to perceived ostracism (Williams, 2002), because ostracism is a lack of approval at its core. Finally, anxious individuals are sensitive to rejection (Downey & Feldman, 1996; Sato, Yuki, & Norasakkunkit, 2014) and tend to exaggerate their feelings when they encounter ostracism. Therefore,

Hypothesis 2: There will be a positive relationship between anxious attachment and the perception of ostracism.

Attachment Anxiety as Moderator

Isolation from others can create a sense of loneliness, which is a known risk factor for social withdrawal, physical symptoms (Ernst & Cacioppo, 2000), and depression (Tangney, Baumeister, & Boone, 2004). Though the link between

ostracism and many detrimental outcomes has been empirically established, research is needed to investigate whether this relationship may also be impacted by contextual factors or individual differences. Research has been conducted that supports the moderating role of variables, including loneliness, social avoidance, and distress during but not after an ostracism episode (Wesselmann, Wirth, Mroczek, & Williams, 2012); group composition (Wittenbaum, Shulman, & Braz, 2010); proactive personality and political skill (H. Zhao, Peng, & Sheard, 2013); and other variables (Oaten, Williams, Jones, & Zadro, 2008; Zadro, Boland, & Richardson, 2006). In contrast to the empirically supported moderating variables listed previously, other studies have shown that reactions to ostracism are resistant to moderation (McDonald & Donnellan, 2012; Wesselmann et al., 2012; Williams, 2009; Yaakobi & Williams, 2016).

Researchers argued that these inconsistent findings may be due to the time period being measured—during or after the ostracism episode. However, this difference between time periods seems to be a concern only in lab-induced (e.g., artificial) ostracism scenarios while it is a long-term concern for international students. Other scholars have also argued that the inconsistent findings might be due to the nature of the moderator—that is, whether the moderator variable is a salient trait or not (Yaakobi & Williams, 2016). When the personality was a salient trait, it is more likely to see individual differences in how the person is affected by the ostracism. To further investigate the moderation effect, we used a trait (i.e., attachment style), which has strong theoretical link with ostracism, and tested the effect in a realistic ostracism episode.

Since ostracism threatens the need to belong, it can be argued that the detrimental outcomes of ostracism might be moderated by how an individual conceptualizes belongingness and whether they employ attachment strategies, congruent with Cassidy, Shaver, Mikulincer, and Lavy's (2009) argument that individuals show different responses to hurt feelings when they have different attachment orientations.

The characteristics of attachment anxiety, such as fear of rejection, vigilance to possible threats, exaggeration of threats, tendencies to rumination, and self-blame (e.g. Mikulincer & Shaver, 2007), might lead higher anxiously attached individuals to experience more detrimental outcomes when they perceive ostracism. Specifically, people who are anxiously attached are less likely to have constructive reactions, and are more likely to have exaggerated feelings of rejection and negative emotions. During a stressful situation (such as being ostracized), anxiously attached individuals show a higher accessibility to worries regarding rejection than those who are avoidant or securely attached (Mikulincer, Birnbaum, Woddis, & Nachmias, 2000). In other words, the increase in vigilance and tendency to catastrophizing may lead an anxiously attached individual to become hyper-aware of the perceived ostracism situation.

The ease of accessibility of these worries of ostracism means that they are more likely to think about what it is that is worrying them, which, in this case, is the perceived ostracism by their peers. An anxiously attached individual, who tends to ruminate and self-blame (Ognibene & Collins, 1998), will be more likely to experience the negative outcomes of ostracism such as depression and physical symptoms. This will occur because the anxiously attached individual will ruminate

on the perceived ostracism, which will heighten their experience of that pain, and increase the likelihood of negative outcomes occurring. When one dwells on the negative experience, the undesirable aspects of that situation will be amplified in one's memory (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). These adverse experiences stick with use, and by ruminating more on them, anxiously attached individuals put themselves in a position where the magnitude of the ostracism will be increased in their mind, and therefore the risk of negative outcomes will also increase.

While there is limited empirical evidence for the moderating role of attachment anxiety on the negative consequences of ostracism (Arriaga, Capezza, Reed, Wesselman, & Williams, 2014), Waldrip (2007) tested the moderating role of a similar concept, social anxiety, and showed that participants high in social anxiety perceive more threat after controlling for the exclusion. Therefore, we expect a moderating role of attachment anxiety in the ostracism process:

> **Hypothesis 3:** Attachment anxiety will moderate the relationship (a) between ostracism and depression and (b) between ostracism and physical symptoms, such that the relationship will be stronger when attachment anxiety is higher.

Moderated Mediation Model for Attachment Anxiety

We also expect that at different levels of attachment anxiety, the indirect effects of attachment anxiety on depression/physical symptoms through ostracism may vary. We therefore propose: Attachment anxiety will moderate the mediating effect of ostracism on the relationship between attachment anxiety and (a) depression as well as (b) physical symptoms such that the mediating effect is stronger when attachment anxiety is higher (see Figure 1).

METHOD

Sample and Procedure

Participants were 119 international students (61% men) enrolled in a public university in the Southeast US, with an average age of 26.09 years old (*SD* = 3.85), and 34 months average staying time in the US. Among them, 41 (37%) were from China, 35 (31%) were from India, and the other 32% were from other countries. An email invitation was sent through an international student organization's mailing list to complete an anonymous online survey. A random code was generated after they finished the survey to claim a $5 cash reward. The code to claim the cash reward was not identifiable and only the principal investigator had the list of the codes to distribute the cash rewards.

Measures

Attachment Anxiety

We adapted Leiter, Price, and Day's (2013) Short Work Attachment Measure to measure international students' attachment anxiety. Items were rated on 5-point Likert scale ranging from 1 (*not at all like me*) to 5 (*very much like me*). One sample item for attachment anxiety was "Others are often reluctant to be as close as I would prefer at class/school." And one sample item for attachment avoidance was "I like to have close personal relationships with people at class/school (reverse coded)." The scale's alpha coefficient is .83.

Ostracism

We adapted Ferris et al.'s (2008) 10-item workplace ostracism measure for use in a university context. The measure has a 7-point scale (1 = *Never*, 2 = *Once in a while*, 3 = *Sometimes*, 4 = *Fairly often*, 5 = *Often*, 6 = *Constantly*, 7 = *Always*; see Bass, Cascio, & O'Connor, 1974). One sample item was "Your greetings have gone unanswered at school/class." The alpha coefficient for the current sample is .85.

Depression

We adapted Radloff's (1977) 5-item Epidemiological Studies Depression Scale (CES-D; Bohannon, Maljanian, & Goethe, 2003) to measure symptoms of depression. One sample item was "My sleep was restless." Frequency of the feeling or behaviors during the past week was measured using a 4-point scale (1 = *Rarely or none of the time* [*less than 1 day*], 2 = *Some or a little of the time* [*1–2 days*], 3 = *Occasionally or moderate amount of time* [*3–4 days*], and 4 = *Most or all of the time* [*5–7 days*]). The alpha coefficient for the current sample was .81.

Physical Symptoms

We used somatization items in Derogatis's (1975) Brief Symptom Inventory (BSI) to measure physical symptoms. The scale uses a 5-point Likert scale (1 = *Not at all* to 5 = *Extremely*). A sample item was "Feeling weak in parts of your body." The alpha coefficient for the current sample was .89.

Control Variables

We controlled for the following demographic variables: gender, age, and tenure in the US.

Data Analysis

We used the SPSS Macro (PROCESS; Preacher, Rucker, & Hayes, 2007) to measure the moderated mediation of attachment. This macro estimates the conditional indirect effects of ostracism between attachment style and depression/physical symptoms using bootstrapping methods.

RESULTS

Descriptive statistics, reliability estimates, and correlations of the study variables are presented in Table 1. The results of the regression analyses (see Table 2) showed that there were significant positive associations between ostracism and depression (β = .24, p < .01) and between ostracism and physical symptoms (β = .39, p < .01) after controlling for gender, age, and tenure supporting Hypotheses 1a and 1b.

Table 1: Means, Standard Deviations, Reliability, and Correlations Among Study Variables

		M(*SD*)	1	2	3	4	5	6	7
1	Gender	1.39 (.49)	—						
2	Age	26.09 (3.85)	.04	—					
3	Time	34.05 (36.35)	.22*	.37**	—				
4	Anxiety	2.53 (.81)	−.07	−.05	−.04	.82			
5	Ostracism	1.86 (.78)	−.05	.17	−.01	.28**	.86		
6	Depression	1.63 (.60)	.20*	−.06	−.07	.28**	.22*	.81	
7	Symptom	1.58 (.68)	.08	−.07	−.13	.31**	.39**	.54**	.89

Note: Numbers on the diagonal are coefficient alphas for various scales. Gender: 1 = Male, 2 = Female; Time = time in U.S.; Symptom = physical symptom; *p < .05, **p < .01.

Table 2: Regression Results

Variable	Ostracism						Depression						Physical Symptoms					
	B	*SE*	*β*	*t*	*F*	R^2	B	*SE*	*β*	*t*	*F*	R^2	B	*SE*	*β*	*t*	*F*	R^2
Control					1.58	.04					2.35†	.06					.94	.02
Gender	-.11	.15	-.07	-.76			.29	.11	.24	2.52*			.17	.12	.12	1.38		
Age	.04	.02	.20	1.98			-.00	.02	-.00	-.01			-.01	.02	-.08	-.80		
Time	-.00	.00	-.07	-.71			-.00	.00	-.13	-1.25			-.00	.00	-.12	-1.24		
Mediator											3.58**	.11					5.69**	.17
Ostracism							.18	.07	.24	2.63**			.33	.08	.39	4.41**		
Moderator					4.00**	.12					4.51**	.17					6.17**	.18
Anxiety	.27	.08	.29	3.30**			.18	.07	.24	2.69**			.19	.07	.23	2.62*		
Interaction											4.40**	.19					5.92**	.20
Anx × Ost							.17	.09	.80	1.83†			.20	.10	.84	1.99*		

Note. Time = time in U.S.; Ost = ostracism; Anx = anxiety. † p < .10, * p < .05, ** p < .01.

To examine the moderated mediation model, we tested the relationship between attachment (i.e., IV) and ostracism (i.e., mediator), the Attachment × Ostracism interaction effect and the moderated mediation index significance. Results showed significant associations between attachment anxiety and ostracism (β = .29, p < .01) after controlling gender, age, and tenure, supporting Hypothesis 2. Next, we examined the moderation effect of attachment style on the Ostracism – Strains

relationship. Results showed marginal significant interaction effects of attachment anxiety and ostracism on depression (β = .80, p < .10) as well as on physical symptoms (β = .84, p < .05). The positive interactions suggested that the effect of ostracism on depression/physical symptoms became stronger when attachment anxiety was higher. Accordingly, Hypothesis 3 was supported.

Recall that in our model, attachment anxiety was tested as the independent variable and moderator, ostracism was tested as the mediator, and the strains (e.g., depression and physical symptoms) were tested as the dependent variables. When depression was tested, the bootstrapping result showed a significant index of moderated mediation, which was .05 with 95% CI = [.001, .134]. We then examined the conditional indirect effect of attachment on depression through ostracism at two levels of attachment anxiety (Preacher et al., 2007). First, we tested the indirect effect at 1 *SD* above and below the mean of attachment using the model number 74 and controlled for gender, age, and tenure. Results showed that when individuals' attachment anxiety is low (−1 SD), the indirect effect of ostracism between anxiety and depression was not significant (β = −.00, 95% CI = [−.07, .05]); when individuals' attachment anxiety is high (+1 *SD*), the indirect effect was stronger and significant (β = .07, 95% CI = [.01, .16]). Similar results were found for physical symptoms with index equals to .05 with 95% CI = [.001, .135]; specific indirect effects see Table 3). The moderated mediation model for attachment anxiety was supported.

Table 3: Results of Testing Moderated Mediation

	Level	Conditional indirect effect	*SE*	*LLCI*	*ULCI*
DV = depression					
Anxiety	Low (mean −1 *SD)*	−.00	.03	−.07	.05
	High (mean +1*SD)*	.07	.03	.01	.16
DV = physical symptoms					
Anxiety	Low (mean −1 *SD)*	.03	.03	−.02	.11
	High (mean +1*SD)*	.11	.03	.04	.24

Note. CI = confidence interval; LL = lower limit; UL = upper limit. n = 119.

DISCUSSION

For international students, maladjustment in a foreign country (Mesidor & Sly, 2016; Takeuchi, Tesluk, Yun, & Lepak, 2005) may lower their self-confidence (e.g., Mak & Tran, 2001; Telbis, Helgeson, & Kingsbury, 2014) and prevent them from completing their education program. Moreover, the families of these overseas students may also be affected psychologically and financially because of high expectations placed on the students and the high expenses of tuition and living (L. Zhao, 2010).

These compounding issues drive our continuing attention to international students' maladjustment issues. We therefore devised the current study to attempt to address this issue. Due to the interpersonal relationship nature of ostracism,

attachment style, which can strongly influence relationship quality, can be used as a strong indicator of their maladjustment. Therefore, in the present study we hypothesized attachment insecurity would be positively related to ostracism (Hypothesis 2), which would in turn lead to psychological and physical strain (Hypothesis 1a & 1b). Results supported these hypothesis.

In addition, we proposed a moderated mediation model that ostracism has a conditionally indirect effect between attachment anxiety and strain variables (i.e., depression and physical symptoms) at different levels of attachment anxiety, based on the literature of attachment and ostracism. Specifically, when attachment anxiety is higher, the harmful effect of high attachment anxiety to strains through ostracism become stronger and when their attachment anxiety is low, this indirect effect disappeared. The strong association between attachment anxiety and perceived ostracism may be due to the anxious individual's strong demand for attention, which may be difficult to satisfy and may lead to them feeling undervalued or underappreciated. An anxious individual's tendency to catastrophize, ruminate on negative experiences, and become hypervigilant also influence the outcomes of perceived ostracism (Baumeister et al., 2001). The results confirmed our theoretical arguments that attachment anxiety exacerbates the perception of ostracism and aggravates the harmful effect of perceived ostracism on strain.

Practical Implications

As the results showed that international students' perception of ostracism has a detrimental effect on psychological health, it indicates the importance of reducing their tendency to perceive ostracism where there may be none. To reduce the perception of ostracism, learning the culture and interpretation of behaviors in the host country becomes considerably important. Only when the international students can better attribute the behaviors of others in the host culture can they minimize the unnecessary misunderstanding and reduce the perception of ostracism.

Furthermore, as attachment anxiety conditionally moderates the mediation effect of attachment anxiety on strain, we should focus on the individual's attachment style as well. Individuals who are highly anxiously attached should be of more concern. Based on attachment theory, when individuals perceive a safe environment, their attachment system will not be activated. In the foreign culture, if the new environment is perceived as secure and safe, international students' attachment anxiety pattern might not be activated. For this reason, it becomes critical to increase host-country students' awareness of new international students' maladjustment issues. Events or activities are encouraged to increase interaction opportunities among host-country and international students.

Interventions might also be implemented to help international students, especially those focused on anxious-attached individuals. Various types of interventions have been found to be efficacious such as writing therapy (Wright, 2002), stress coping (Fan & Wanous, 2008), and mindfulness training (Grossman, Niemann, Schmidt, & Walach, 2004). Researchers have also tested several interventions to specifically address international or minority students' sense of inclusion/belonging and their social ties. For instance, Sakurai, McCall-Wolf, and

Kashima (2010) investigated the effects of a multicultural intervention program and showed the program enhanced the social ties of international students in Australia. Walton and Cohen (2011) examined a brief social-belonging intervention and results showed that, over a 3-year period, the intervention helped African American students' academic achievement (e.g., GPA) as well as their well-being. Hausmann, Ye, Schofield, and Woods (2009) designed a program to increase the sense of belonging of first-year students, but results were mixed and showed the intervention was only effective for White but not African American students. Besides intervention, other methods have been shown to have positive effects in promoting the sense of inclusion, such as advisor support (Curtin, Stewart, & Ostrove, 2013) and counseling groups (Delgado-Romero & Wu, 2010). Future interventions could be developed based on this study targeting on insecure attachment styles.

Limitation and Future Research Directions

There are some limitations for the current study. First, this is a cross-sectional study with all self-reported data, which makes it difficult to establish the causality. However, the results of the moderated mediation help alleviate the drawbacks of common method variance (Preacher et al., 2007). Second, previous experience in the US or other foreign countries before the current trip might confound the international students' current perceived experience. This previous experience may serve to reduce anxiety one feels when traveling to an unfamiliar place (e.g., Chambless & Ollendick 2001; Szabo, Ward, & Jose, 2016). Third, no objective information (e.g., other-rated ostracism, GPA) was collected. Such measures (e.g., GPA) may serve as dependent variables in future studies. Lastly, it might be interesting to test international students' perception of intention of others, which could better help us learn the process of ostracism for international students.

Previous researchers have argued that there are three stages after ostracism, namely (a) reflexive, (b) reflective, and (c) acceptance stages (e.g., Williams, 2007). The current study focused on the reflexive stage and thus future studies should examine the last two stages of ostracism that international students may experience.

Finally, the current study tested international students' ostracism perception from a negative perspective (i.e., insecure attachment style). Future studies could also test the impact of some positive personalities, such as gratitude, which might have a buffering effect on the perception of ostracism.

REFERENCES

Arriaga, X. B., Capezza, N. M., Reed, J. T., Wesselman, E. D., & Williams, K. D. (2014). With partners like you, who needs strangers? Ostracism involving a romantic partner. *Personal Relationships, 21*, 557–569. doi:10.1111/pere.12048

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*, 226–244. doi:10.1037/0022-3514.61.2.226

Bass, B. M., Cascio, W. F., & O'Connor, E. J. (1974). Magnitude estimations of expressions of frequency and amount. *Journal of Applied Psychology, 59*, 313–320. doi:10.1037/h0036653

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*, 323–370. doi:10.1037/1089-2680.5.4.323

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529. doi:10.1037/0033-2909.117.3.497

Baumeister, R. F., & Tice, D. M. (1990). Anxiety and social exclusion. *Journal of Social and Clinical Psychology, 9*, 165–195. doi:10.1521/jscp.1990.9.2.165

Bohannon, R., Maljanian, R., & Goethe, J. (2003). Screening for depression in clinical practice: Reliability and validity of a five item subset of the CES-depression. *Perceptual and Motor Skills, 97*, 855–861. doi:10.2466/PMS.97.7.855-861

Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2: Separation: Anxiety and anger*. New York: Basic Books.

Brennan, K. A., Wu, S., & Loev, J. (1998). Adult romantic attachment and individual differences in attitudes toward physical contact in the context of adult romantic relationships. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 394–428). New York: Guilford.

Buss, D. M. (1990). The evolution of anxiety and social exclusion. *Journal of Social and Clinical Psychology, 9*, 196–201. doi:10.1521/jscp.1990.9.2.196

Cassidy, J., Shaver, P. R., Mikulincer, M., & Lavy, S. (2009). Experimentally induced security influences responses to psychological pain. *Journal of Social and Clinical Psychology, 28*, 463–478. doi:10.1521/jscp.2009.28.4.463

Chambel, M. J., & Curral, L. (2005). Stress in academic life: Work characteristics as predictors of student well-being and performance. *Applied Psychology: An International Review, 54*, 135–147. doi:10.1111/j.1464-0597.2005.00200.x

Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology, 52*, 685–716. doi:10.1146/annurev.psych.52.1.685

Curtin, N., Stewart, A. J., & Ostrove, J. M. (2013). Fostering academic self-concept: Advisor support and sense of belonging among international and domestic graduate students. *American Educational Research Journal, 50*, 108–137. doi:10.3102/0002831212446662

Delgado-Romero, E. A., & Wu, Y. C. (2010). Asian international students in counseling programs: A group intervention to promote social justice. *The Journal for Specialists in Group Work, 35*, 290–298. doi:10.1080/01933922.2010.492896

Derogatis, L. R. (1975). *Brief Symptom Inventory*. Baltimore, MD: Clinical Psychometric Research.

Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology, 70*, 1327–1343. doi:10.1037/0022-3514.70.6.1327

Eisenberger, N. I. (2012). Broken hearts and broken bones: A neural perspective on the similarities between social and physical pain. *Current Directions in Psychological Science, 21*, 42–47. doi:10.1177/0963721411429455

Ernst, J. M., & Cacioppo, J. T. (2000). Lonely hearts: Psychological perspectives on loneliness. *Applied and Preventive Psychology, 8*, 1–22. doi:10.1016/S0962-1849(99)80008-0

Fan, J., & Wanous, J. P. (2008). Organizational and cultural entry: A new type of orientation program for multiple boundary crossings. *Journal of Applied Psychology, 93*, 1390–1400. doi:10.1037/a0012828

Ferris, D. L., Brown, D. J., Berry, J. W., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology, 93*, 1348–1366. doi:10.1037/a0012743

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35–43. doi:10.1016/S0022-3999(03)00573-7

Harms, P. D. (2011). Adult attachment styles in the workplace. *Human Resource Management Review, 21*, 285–296. doi:10.1016/j.hrmr.2010.10.006

Hausmann, L. R., Ye, F., Schofield, J. W., & Woods, R. L. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*, 649–669. doi:10.1007/s11162-009-9137-8

Hermann, A. D., Skulborstad, H. M., & Wirth, J. H. (2014). Inoculating against the aversive effects of ostracism with acceptance: The role of attachment styles. *Social Influence, 9*, 255–271. doi:10.1080/15534510.2013.824388

Hirai, R., Frazier, P., & Syed, M. (2015). Psychological and sociocultural adjustment of first-year international students: Trajectories and predictors. *Journal of Counseling Psychology, 62*, 438–452. doi:10.1037/cou0000085

Kong, D. T. (2016). Ostracism perception as a multiplicative function of trait self-esteem, mindfulness, and facial emotion recognition ability. *Personality and Individual Differences, 93*, 68–73. doi:10.1016/j.paid.2015.08.046

Leiter, M. P., Price, L. & Day, A. (2013). Short Work Attachment Measure Manual. [Technical Document]. Wolfville, Nova Scotia: Centre for Organizational Research, Acadia University.

Mak, A. S., & Tran, C. (2001). Big five personality and cultural relocation factors in Vietnamese Australian students' intercultural social self-efficacy. *International Journal of Intercultural Relations, 2*, 181–201. doi:10.1016/S0147-1767(00)00050-X

McDonald, M. M., & Donnellan, M. B. (2012). Is ostracism a strong situation? The influence of personality in reactions to rejection. *Journal of Research in Personality, 46*, 614–618. doi:10.1016/j.jrp.2012.05.008

Mesidor, J. K., & Sly, K. F. (2016). Factors that contribute to the adjustment of international students. *Journal of International Students, 6*, 262–282.

Mikulincer, M., Birnbaum, G., Woddis, D., & Nachmias, O. (2000). Stress and accessibility of proximity-related thoughts: Exploring the normative and intraindividual components of attachment theory. *Journal of Personality and Social Psychology, 7*, 509–523. doi:10.1037/0022-3514.78.3.509

Mikulincer, M., & Shaver, P. R. (2007). Attachment in adulthood: Structure, dynamics, and change. New York: Guilford Press.

Niu, G. F., Zhou, Z. K., Sun, X. J., Yu, F., Xie, X. C., Liu, Q. Q., & Lian, S. L. (2018). Cyber-ostracism and its relation to depression among Chinese adolescents: The moderating role of optimism. *Personality and Individual Differences, 123*, 105–109. doi:10.1016/j.paid.2017.10.032

Oaten, M., Williams, K. D., Jones, A., & Zadro, L. (2008). The effects of self-regulation in the socially anxious. *Journal of Social and Clinical Psychology, 27*, 471–504. doi:10.1521/jscp.2008.27.5.471

Ognibene, T. C., & Collins, N. L. (1998). Adult attachment styles, perceived social support, & coping strategies. *Journal of Social and Personal Relationships, 15*, 323–345. doi:10.1177/0265407598153002

O'Reilly, J., Robinson, S. L., Berdahl, J. L., & Banki, S. (2014). Is negative attention better than no attention? The comparative effects of ostracism and harassment at work. *Organization Science, 26*, 774–793. doi:10.1287/orsc.2014.0900

Pietromonaco, P. R., & Beck, L. A. (2015). Attachment processes in adult romantic relationships. In M. Mikulincer, P. R. Shaver, J. A. Simpson, & J. F. Dovidio (Eds.), *APA handbook of personality and social psychology* (vol. 3, pp. 33– 64). Washington, DC: American Psychological Association. doi:10.1037/14344-002

Popper, M., & Mayseless, O. (2003). Back to basics: Applying a parenting perspective to transformational leadership. *The Leadership Quarterly, 14*, 41–65. doi:10.1016/S1048-9843(02)00183-2.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*, 185–227. doi:10.1080/00273170701341316

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401. doi:10.1177/014662167700100306

Richards, D. A., & Hackett, R. D. (2012). Attachment and emotion regulation: Compensatory interactions and leader–member exchange. *The Leadership Quarterly, 23*, 686–701. doi:10.1016/j.leaqua.2012.03.005

Riva, P., Wesselmann, E. D., Wirth, J. H., Carter-Sowell, A. R., & Williams, K. D. (2014). When pain does not heal: The common antecedents and consequences of chronic social and physical pain. *Basic and Applied Social Psychology, 36*, 329–346. doi:10.1080/01973533.2014.917975

Robinson, S. L., O'Reilly, J., & Wang, W. (2012). Invisible at work an integrated model of workplace ostracism. *Journal of Management, 39*, 203–231. doi:10.1177/0149206312466141

Sakurai, T., McCall-Wolf, F., & Kashima, E. S. (2010). Building intercultural links: The impact of a multicultural intervention programme on social ties of international students in Australia. *International Journal of Intercultural Relations, 34*, 176–185. doi:10.1016/j.ijintrel.2009.11.002

Sato, K., Yuki, M., & Norasakkunkit, V. (2014). A socio-ecological approach to cross-cultural differences in the sensitivity to social rejection: The partially mediating role of relational mobility. *Journal of Cross-Cultural Psychology, 45*, 1549–1560. doi:10.1177/0022022114544320

Scott, K. L., & Duffy, M. K. (2015). Antecedents of workplace ostracism: New directions in research and intervention. In *Mistreatment in organizations* (pp. 137-165). Bingley, UK: Emerald Group. doi:10.1108/S1479-355520150000013005

Schmitt, M. T., Spears, R., & Branscombe, N. R. (2003). Constructing a minority group identity out of shared rejection: The case of international students. *European Journal of Social Psychology, 33*, 1–12. doi:10.1002/ejsp.131

Shaver, P. R., & Mikulincer, M. (2010). New directions in attachment theory and research. *Journal of Social and Personal Relationships, 27*, 163–172. doi:10.1177/0265407509360899

Shaver, P. R., & Mikulincer, M. (2013). Attachment orientations and reactions to ostracism in close relationships and groups. In N. De-Wall (Ed.), *The Oxford handbook of social exclusion* (pp. 238–247). New York: Oxford University Press.

Sommer, M. (2013). *Psychosocial factors predicting the adjustment and academic performance of university students* (unpublished doctoral dissertation). University of South Africa, Pretoria, South Africa.

Szabo, A., Ward, C., & Jose, P. E. (2016). Uprooting stress, coping, and anxiety: A longitudinal study of international students. *International Journal of Stress Management, 23*, 190–208. doi:10.1037/a0039771

Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experience. *Academy of Management Journal, 48*, 85–100. doi:10.5465/AMJ.2005.15993143

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*, 271–324. doi:10.1111/j.0022-3506.2004.00263.x

Telbis, N. M., Helgeson, L., & Kingsbury, C. (2014). International students' confidence and academic success. *Journal of International Students, 4*, 330–341.

Waldrip, A. M. (2007). *The power of ostracism: can personality influence reactions to social exclusion?* (unpublished doctoral dissertation). University of Texas, Arlington, TX.

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science, 331*, 1447–1451. doi:10.1126/science.1198364

Wesselmann, E. D., Wirth, J. H., Mroczek, D. K., & Williams, K. D. (2012). Dial a feeling: Detecting moderation of affect decline during ostracism. *Personality and Individual Differences, 53*, 580–586. doi:10.1016/j.paid.2012.04.039

Williams, K. D. (2002). *Ostracism: The power of silence*. New York: Guilford Press.

Williams, K. D. (2007). Ostracism: The kiss of social death. *Social and Personality Psychology Compass, 1*, 236–247. doi:10.1111/j.1751-9004.2007.00004.x

Williams, K. D. (2009). Ostracism: A temporal need-threat model. *Advances in Experimental Social Psychology, 41*, 275–314. doi:10.1016/S0065-2601(08)00406-1

Williams, K. D., & Zadro, L. (2005). Ostracism: The indiscriminate early detection system. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *The social*

outcast: Ostracism, social exclusion, rejection, and bullying (pp. 19–34). New York, NY: Psychology Press.

Wittenbaum, G. M., Shulman, H. C., & Braz, M. E. (2010). Social ostracism in task groups: The effects of group composition. *Small Group Research, 41*, 330–353. doi:10.1177/1046496410363914

Wright, J. (2002). Online counselling: Learning from writing therapy. *British Journal of Guidance and Counselling, 30*, 285–298. doi:10.1080/030698802100002326

Wu, L., Wei, L., & Hui, C. (2011). Dispositional antecedents and consequences of workplace ostracism: An empirical examination. *Frontiers of Business Research in China, 5*, 23–44.

Wu, L. Z., Yim, F. H. K., Kwan, H. K., & Zhang, X. (2012). Coping with workplace ostracism: The roles of ingratiation and political skill in employee psychological distress. *Journal of Management Studies, 49*, 178–199. doi:10.1111/j.1467-6486.2011.01017.x

Xu, H. (2012). How am I supposed to live without you: An investigation of antecedents and consequences of workplace ostracism? (Unpublsihed doctoral dissertation). The Hong Kong Polytechnic University, Hong Kong.

Yaakobi, E., & Williams, K. D. (2016). Ostracism and attachment orientation: Avoidants are less affected in both individualistic and collectivistic cultures. *British Journal of Social Psychology, 55*, 162–181. doi:10.1111/bjso.12122

Zadro, L., Boland, C., & Richardson, R. (2006). How long does it last? The persistent effects of ostracism on the socially anxious. *Journal of Experimental Social Psychology, 42*, 692–697. doi:10.1016/j.jesp.2005.10.007.

Zhao, L. (2010). *Socio-cultural adjustment of international students as expatriates in America* (unpublished master's thesis). Western Kentucky University, Bowling Green.

Zhao, H., Peng, Z., & Sheard, G. (2013). Workplace ostracism and hospitality employees' counterproductive work behaviors: The joint moderating effects of proactive personality and political skill. *International Journal of Hospitality Management, 33*, 219–227. doi:10.1016/j.ijhm.2012.08.006

Zheng, X., Yang, J., Ngo, H. Y., Liu, X. Y., & Jiao, W. (2016). Workplace ostracism and its negative outcomes. *Journal of Personnel Psychology, 15*, 143–151. doi:10.1027/1866-5888/a000147

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