

Emotion experience and regulation in undergraduates following social rejection: A daily diary study

Dengfeng Xie¹, Jiamei Lu², Zhangming Xie¹

How to cite: Xie, D., Lu, J., & Xie, Z. (2023). Emotion experience and regulation in undergraduates following social rejection: A daily diary study. *Social Behavior and Personality: An international journal*, 51(10), e12609

We used a 30-day daily diary assessment method to examine the within-person associations between social rejection, emotional experiences, and emotion regulation strategies in a sample of 34 college students. Taking emotional experience as the dependent variable, we explored and analyzed cumulative and hysteresis effects using a random regression coefficient model. The results showed that situations of social rejection tended to induce negative emotional experiences, for which college students mostly adopted attention transfer strategies. In contrast, positive emotional experience increased in situations of social acceptance, and college students mostly adopted cognitive reappraisal strategies in this setting. Further, cognitive reappraisal strategies had time accumulation and overlapping effects on individual positive emotional experiences, and attention transfer strategies had a lag effect on individual emotional experiences. These findings advance understanding of the negative affect—emotion regulation association among individuals exposed to social rejection.

Keywords

emotional experience, social rejection, cognitive reappraisal, attention transfer, emotion regulation

Article Highlights

- Situations of social rejection tended to induce negative emotional experiences, whereas situations of social acceptance tended to induce positive emotional experiences.
- College students mostly adopted cognitive reappraisal and attention transfer strategies in situations of social rejection and social acceptance, respectively.
- Cognitive reappraisal strategies had time accumulation and overlapping effects on individual positive
 emotional experience, and attention transfer strategies had a lag effect on individual emotional
 experience.

Social rejection refers to a phenomenon wherein individuals yearn to establish and maintain certain social relationships with others but face rejection (Shore et al., 2011). Social rejection has a pervasive presence in daily life, posing a threat to the sense of belonging, which is a basic human need (Williams, 2007). People encounter various forms of social rejection, such as being rebuffed by an organization, rejection by others within online chat groups, suffering a relationship breakdown with friends, or being excluded by others, and they respond with different behaviors after experiencing this rejection. Multimotive model theory (Smart Richman & Leary, 2009) contends that individuals' immediate reaction to social rejection is similar, but they present different behavioral responses (e.g., prosocial,

¹Education and Continuing Education College, West Anhui University, People's Republic of China

²Educational College, Shanghai Normal University, People's Republic of China

Xie, Lu, Xie

antisocial, or withdrawal behavior). To systematically shed light on the psychological mechanism behind individual responses after social rejection, this study focused on the role of cognitive interpretation factors, emotional factors, and emotion regulation.

Social rejection has a close and complicated relationship with emotional experience. In general, social rejection can trigger intense negative emotions. Leary (2015) probed into the relationship between social rejection and corresponding emotional responses and found that real or imagined social rejection triggers such emotions as hurt, jealousy, loneliness, shame, guilt, sadness, and anger. Riva et al. (2017) compared the emotional status of people who had experienced social rejection for more than 3 months to that of people who had not experienced this sustained rejection and found that the former group had higher levels of negative emotional experiences, such as depression or feelings of alienation, worthlessness, and helplessness.

As a variable related to individual depression, social rejection induces self-negating emotions (e.g., "I am hopeless" and "I am disliked by everyone") and feelings of self-abasement and shame, which are linked with not only depression but also other negative psychological problems (Slavich et al., 2010). Although some studies have indicated that social rejection can provoke individuals' negative emotional reactions, other studies have led to different findings, suggesting that social rejection can give rise to various emotional states after self-regulation (McClain et al., 2020; Smart Richman & Leary, 2009; Twenge et al., 2001). Aside from causing emotional numbness, social rejection activates the defense mechanism, thereby reducing and alleviating the adverse consequences caused by this phenomenon (Twenge et al., 2001).

Factors such as social support and cognitive reappraisal can also mitigate the negative effects of social rejection (Waldeck et al., 2015). Some researchers have found that *mindful adjustment* (i.e., focusing attention on breathing without evaluating one's inner thoughts) can help people to deal with the negative emotions caused by social rejection (Molet et al., 2013). The relationship between daily social situations and emotional experiences is influenced by individual internal factors, such as emotion regulation mode (Kay, 2016), which has a significant impact on daily social situations and negative emotions, such as anxiety and depression (Garnefski & Kraaij, 2018). *Emotion regulation* refers to individuals' efforts to control their emotions in different social situations, the effective use of which can minimize the experience of negative emotions as well as dispelling and buffering the expression of inappropriate behaviors (English et al., 2017; Kay, 2016). Positive emotion regulation helps form a dialectical perspective regarding the occurrence and development of emotions (Miyamoto et al., 2014), thereby creating a positive and optimistic mindset and producing a significant buffering effect in the face of negative social situations such as social rejection (Ulrich-Lai & Herman, 2009). Studies on how individuals adjust to negative emotions induced by social rejection are still in the preliminary stage.

Emotion regulation is closely related to the context with which it has a dynamic interaction. Social context is the main factor that influences emotions and it involves the individual assessment of the environment, internal attitude experiences, and corresponding adjustment (Ugazio et al., 2012). Past research on emotion regulation has been conducted mostly through the use of questionnaire surveys, with some studies reporting that the memories of emotions individuals experience are easily affected by their current situation, thus leading to response bias (Luo et al., 2012). Emotion regulation research that is conducted in the laboratory is often criticized for the ecological effects of its findings (Lavy & Eshet, 2018). With the development of ecological psychology, psychological research has given more attention to the dynamic interaction process between individual psychology and the environment. For example, Shao and Lu (2011) proposed the ecological assessment method, which emphasizes the real-time assessment of psychological phenomena or behaviors in natural situations. This method emphasizes the repeated collection of relevant data and exploration of the internal relationships between variables to reflect the real state of individual psychology. Overcoming the limitations of traditional methods can be achieved by adopting a dynamic, real-time research design combined with natural situations. Thus, we adopted a daily diary method to obtain longitudinal data through the self-reports of individuals, along with their recordings of daily situations and their corresponding emotions, behaviors, and other reactions. Using this method not only overcomes the shortcomings of previous studies, in which trend changes could not be described, but also enables the exploration of causal relationships (McIntyre et al., 2008).



Previous studies have suggested that employing emotion regulation strategies, such as cognitive reappraisal, can mitigate the adverse effects of social rejection (Waldeck et al., 2015). *Attentional shifting*, which redirects attention toward one's breathing rather than engaging in self-evaluation, facilitates a prompt transition from negative emotional states induced by social rejection to a state of rational equanimity (Molet et al., 2013). Nevertheless, research investigating how individuals effectively manage negative emotions arising from their social rejection is still in its nascent stage. Thus far, the extant literature has underscored the significance of attentional shifting and cognitive reappraisal as two fundamental cognitive emotion regulation strategies employed by individuals to diminish negative affective experiences (Dörfel et al., 2014; McRae & Gross, 2020). Despite theoretical support, empirical evidence remains scarce and is insufficient to support the specific adaptive effects of attentional shifting and cognitive reappraisal strategies among college students within the context of social rejection.

From the perspective of emotion regulation, the emotional experiences prompted by daily life situations are largely controllable and can objectively reflect the interactions between situations and individuals. This study used the daily diary assessment method to explore the influence of special emotion regulation (i.e., attentional shifting and cognitive reappraisal) on college students' emotional experiences in daily life situations. We formed the following bidirectional hypotheses:

Hypothesis 1: Levels of daytime social rejection will influence the likelihood of emotion experience and regulation.

Hypothesis 2: Emotion regulation will influence levels of next-day negative affect.

Method

Participants

We recruited 34 students from a college in China, comprising 14 men and 20 women with an average age of 20.6 years (SD = 1.64, range = 19-23). Before the study started, the participants completed an informed consent form, indicating that they understood the survey procedure and test content and agreed to take part. The sample size was determined based on an a priori power analysis, which showed that 27 participants were required to detect a small-to-medium-sized interaction effect (f = .80) with an alpha value of .05 and power of .80. Therefore, this study was sufficiently powered.

Procedure

This study used continuous daily data acquisition tracking for 1 month. The participants were required to accurately record daily life situations (key characters and key events), rate their emotion regulation, and evaluate their emotional experiences at the end of the day. To ensure high-quality data and timely recording and evaluation, they used smartphones and were prompted to send their completed measures for recording and evaluation at 12 pm daily. The reporting rate was 100%. No incentives were provided for participation.

Measures

Emotional Experience Scale

The emotional experience of each social situation was scored using an 8-point Likert scale ranging from 0 (*very unhappy*) to 7 (*very happy*). The overall emotional experience in each day was scored using an 8-point Likert scale ranging from 0 (*not at all*) to 7 (*very much*). Considering that the emotional experiences induced by daily life situations are complex, diverse, and cannot be measured by a single basic emotion, the emotional experience scale items in this study included happiness, excitement, pleasure, surprise, anxiety, anger, sadness, guilt, and shame. The average scores for positive and negative emotions were calculated. Cronbach's alpha internal reliability in this study was .87.



Daily Life Situations Surveys

The participants recorded the social situations they experienced in daily life, including the time, place, person(s) involved, and process. They were allowed to use alternative symbols and patterns to simplify relevant details, such as the names of key figures and important objects, for reasons of privacy. The influence of social context on emotion experience was scored by participants using an 8-point Likert scale ranging from 0 (*not at all*) to 7 (*very much*). Upon completion of the recording, social situation classification was coded by two psychology postgraduates. If the coding results of the two sides were inconsistent, they were required to reach an agreement after discussion.

Daily life situations were divided into social rejection and social acceptance categories. *Social rejection situations* refer to settings in which individuals are ignored or rejected by others and in which they might experience neglect, negation, or rejection. *Social acceptance situations* refer to settings in which individuals feel accepted or are shown concern and in which they might experience attention, affirmation, or acceptance.

Emotion Regulation Strategy

After collecting the specific descriptions of participants' emotion regulation in each event, emotion regulation strategies were judged and classified by two coders. With this index, emotion regulation was divided into the elements of cognitive reappraisal, attention transfer, concealment restraint, keeping calm, disclosure, and enjoyment (English et al., 2017). Individuals use the strategy of *cognitive reappraisal* to assign new meanings to situations, thereby regulating their emotional responses and behavioral tendencies. *Attention transfer* refers to the strategy by which an individual's attention selectively refocuses on other situations and things, thereby transferring the focus of induced emotion and weakening the intensity of a particularly emotional experience. *Concealment restraint* refers to the strategy whereby individuals do not express their real emotions or force their suppression. *Keeping calm* refers to the individual facing emotional events and remaining calm. *Disclosure* entails revealing and venting about one's emotional experiences, while *enjoyment* refers to recalling or experiencing positive emotions for a long period.

Data Analysis

After data collection and coding, we used SPSS 20.0 and HLM 6.08 software for statistical processing.

Results

The Emotional Experiences of College Students in Daily Life Situations

The college students experienced acceptance situations 2.20 ± 0.17 times per day and rejection situations 1.87 ± 0.20 times per day. The average positive emotional experience score was 3.16 ± 0.24 , while the score for negative emotional experience was 1.58 ± 0.22 . A correlation analysis revealed that frequency of refusal situations in a day was significantly and positively correlated with negative emotional experiences (r = .73, p < .001). In analyzing the temporal changes in emotional experience by repeated measures analysis of variance, we found no significant differences in positive emotional experience, F(30, 982) = 1.24, p = .17, but there was a significant difference in negative emotional experience, F(30, 982) = 1.53, p < .05, $\eta^2 = 0.05$. We also found that the negative emotional experiences of the first 3 days, the 5th day, the 7th day, the 11th day, and the 16th day were all significantly higher than those of other time points. Furthermore, the score on the 29th day was significantly lower than those of the other time points, indicating fluctuations in the negative emotional experiences of college students in daily life.

College Students' Application of Emotion Regulation Strategies in Daily Life Situations

The influence indices of acceptance and rejection situations in the study were 3.09 ± 0.22 and 2.91 ± 0.33 , respectively. These indicate that emotional situations induced a certain degree of emotional experience and needed to be adjusted accordingly.



As shown in Table 1, college students used a cognitive reappraisal strategy the most frequently (59.6%), followed by an attention transfer strategy (31.8%). Statistical analysis yielded a value of $\chi^2 = 1012.78$ (df = 2, p < .001), indicating that the emotional context of daily life was significantly associated with the use of emotion regulation strategies; specifically, college students tended to adopt attention transfer strategies in social rejection situations and cognitive reappraisal strategies in social acceptance situations.

Table 1. Emotion Regulation Strategies in Social Situations in Daily Life

Emotion regulation strategy	Social acceptance frequency (expected value)	Social rejection frequency (expected value)	Total frequency (%)	
Cognitive reappraisal	1854 (1337)	594 (1109)	2448 (59.6%)	
Attention transfer	282 (714)	1022 (592)	1304 (31.8%)	
Other strategies ^a	108 (193)	245 (160)	353 (8.6%)	

Note. Other emotion regulation strategies included concealment restraint, keeping calm, disclosure, and enjoyment.

Cumulative Effect of Emotion Regulation on College Students' Emotional Experiences in Daily Life Situations

The cumulative effect of college students' emotional adjustment on their emotional experiences in daily life was analyzed using a random regression coefficient model. The first layer consisted of the sampled daily data and the second layer was the zero model form for individual data. The specific mathematical models were as follows:

First layer: Emotional experience $d_i = \beta_{0i} + \beta_{1i} \times \text{Emotion regulation } d_i + \varepsilon_{di}$

Second layer:
$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$
, $\beta_{1j} = \gamma_{10} + \mu_{1j}$

where β_{0j} represents the average score of emotional experience without emotion regulation, and β_{1j} is the influence coefficient of emotion regulation on emotional experience. The size of the coefficient indicates the influence of emotion regulation on emotional experience.

As shown in Table 2, the effect of cognitive reappraisal on positive emotional experience was significant (the moderating effect of cognitive reappraisal was $\gamma_{10} = 0.25$, p < .001), whereas the effect of attention transfer was not significant. Therefore, cognitive reappraisal affected college students' positive emotional experiences in emotional situations. Individuals' use of cognitive reappraisal also had a time-cumulative effect on their subjective positive emotional experiences.

Table 2. Effect of Cognitive Reappraisal on Emotional Experience

	Effect	Coefficient	SE	df	t	
Emotional experience	$\begin{matrix} \gamma_{00} \\ \gamma_{10} \end{matrix}$	2.70 0.25	0.15 0.03	33 33	17.37** 6.67**	

Note. ** p < .001.



Lag Effect of College Students' Emotion Regulation on Their Emotional Experiences in Daily Life Situations

We used a time-lagged multilayer linear analysis model to further explore whether college students' emotion regulation had a lag effect on their positive emotional experiences in daily life. Emotion regulation and emotional experiences of the previous day were used as the independent variables. The dependent variable was the score for emotional experience on the following day. A zero model was used for analysis.

For emotional experience and emotion regulation in emotional situations, two time-lagged multilayer linear analysis mathematical models were devised as follows:

First layer: Emotional experience $d + 1_j = \beta_{0j} + \beta_{1j} \times Emotional$ experience $d_j + \beta_{2j} \times Emotion$ regulation $d_j + \varepsilon_{dj}$

Second layer:
$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$
, $\beta_{1j} = \gamma_{10} + \mu_{1j}$, $\beta_{2j} = \gamma_{20} + \mu_{2j}$

As shown in Tables 3 and 4, in daily life situations college students' emotional experiences showed a lag effect ($\gamma_{10} = 0.27$, t = 5.74, p < .001). Furthermore, use of the attention transfer adjustment strategy on the previous day significantly affected the emotional experience of the next day ($\gamma_{20} = -0.02$, t = -0.71, p < .05), indicating a lag effect for the use of the attention transfer strategy.

Table 3. Time-Lagged Changes in Cognitive Reappraisal Strategy and Emotional Experience

	Effect	Coefficient	SE	df	t	
Emotional experience	$\begin{matrix} \gamma_{00} \\ \gamma_{10} \\ \gamma_{20} \end{matrix}$	1.11 0.27 –0.01	0.10 0.04 0.02	33 33 33	10.58** 5.89** -0.13	

Note. ** p < .001.

Table 4. Time-Lagged Changes in Attention Transfer Strategy and Emotional Experience

	Effect	Coefficient	SE	df	t	
Emotional experience	γ_{00}	1.13	0.10	33	10.64**	
	γ_{10}	0.27	0.04	33	5.74**	
	γ_{20}	-0.02	0.02	33	-0.71*	

Note. * p < .05. ** p < .001.

Discussion

Analysis of Daily Life Situations and Emotion Regulation

The results of this study showed that emotional situations in daily life are related to emotional experience and that rejection situations are positively correlated with negative emotional experience. Social rejection is experienced widely in people's daily lives and threatens the sense of belonging, which is one of the most basic needs of individuals (Luo et al., 2012; Williams, 2007). Our results reveal that individuals tend to use cognitive reappraisal in acceptance situations and attention transfer in rejection situations.

Emotion regulation preference in daily life has attracted the attention of emotional psychology researchers, who have discussed this concept in terms of cognitive behavior and proximity avoidance. Some researchers believe that rejection situations in daily life differ from temporary, virtual rejection situations induced in a laboratory setting. In particular,



the former may have greater long-term effects, which, in turn, may affect individuals' self-control and weaken their ability to choose and use emotion regulation. Furthermore, individuals pay greater attention to weakening the impact of negative emotions and restoring emotional, cognitive, and behavioral self-regulation (Riva et al., 2014). In the context of rejection, individuals tend to use attention transfer, which initially weakens the influence of emotional stimuli and then gradually eliminates the negative impact.

Some studies have found that among individuals of Chinese cultural background, the choice of emotion regulation strategies is closely related to interpersonal situations. When people have good interpersonal relationships they tend to use cognitive reappraisal, whereas when they are in poor interpersonal relationships they tend to use emotion regulation strategies (Li & Lu, 2005). The college students in this study tended to use the emotion regulation strategy of attention transfer in the context of rejection, which is a positive and healthy emotional coping method.

Cumulative Effect of College Students' Emotion Regulation on Their Emotional Experiences in Daily Life Situations

Our results show that cognitive reappraisal significantly affects individuals' positive emotional experiences in daily life situations. In particular, the use of individual cognitive reappraisal in the context of rejection has a cumulative effect on positive emotional experience. Cognitive reappraisal entails modifying one's emotional experiences by mentally separating oneself from unfavorable circumstances and altering one's cognitive interpretation (Grezellschak et al., 2015). Furthermore, cognitive reappraisal is a regulatory strategy of prior attention, which involves modifying a possible negative emotional experience by readjusting one's cognitive concept of an external emotional situations or endowing situations with new meaning. This finding is consistent with that presented in previous studies (see, e.g., Yuan et al., 2015). Therefore, our results reveal that individuals of Chinese cultural background may effectively reduce the negative impact of negative emotions through cognitive reappraisal.

The inertia emotion strategy formed by individuals can reflect the time superposition effect of emotion regulation strategies on emotional experience. When the intensity of an irrational emotional experience is adjusted, corresponding physiological indicators and reactions of discomfort, including skin temperature, heart rate, and respiratory rate, are also adjusted and stabilized (Kreibig, 2010). On the whole, cognitive reappraisal has a cumulative protective effect on the physical and mental health of individuals in situations of rejection in daily life.

Lag Effect of College Students' Emotion Regulation on Their Emotional Experiences in Daily Life Situations

The results reveal that attention transfer has a lag effect in daily life situations, in which the use of emotion regulation during the previous day significantly affects the emotional experience of the following day. Attentional shifting involves directing one's attention away from the current context toward alternative stimuli, thereby attenuating the impact of certain adverse emotional experiences (Grezellschak et al., 2015). Attention transfer, which is the most commonly used emotion regulation method in people's daily lives (Brans et al., 2013), reduces the negative impact of negative emotions on the time axis of emotion occurrence. Here, individuals selectively remove their attention from the current emotional situation or focus on cognitive operation activities unrelated to the emotional situation (continuous addition and subtraction operations). In doing so, they deviate from the point of emotional focus and prevent or weaken the occurrence and persistence of negative emotional experiences.

Attention transfer has proven to be the most effective strategy when negative emotions induced by emotional situations are fully exposed and responded to and when the rapid regulation of their intensity is required (Fredrickson & Branigan, 2005). In the laboratory context the time interval between the first presentation of emotional stimuli and the second presentation of situations is relatively short, and the effect of repetition of emotional stimuli in daily life situations may be small. In this study the frequency of daily life events was recorded in the unit of a day and the effects of the corresponding emotion regulation strategies differed from those seen in a laboratory setting. We found that rejection



situations in daily life induced negative emotional experiences, prompting individuals to use attention transfer adjustment strategies. Such strategies have both a timely effect and an overall lag effect on negative emotional experiences.

Limitations and Future Research Directions

In terms of limitations, our findings may not be generalizable to other cultural or educational contexts because our sample was composed solely of Chinese college students. Furthermore, this study was small in scale and caution is recommended in drawing wider conclusions based on our findings. Nonetheless, the daily diary method has important advantages in exploring the effects of college students' daily emotion regulation in the context of social rejection.

Acknowledgments

The authors acknowledge support from the Research Foundation for Advanced Talents (WGKQ201702021) and the Ministry of Education, Humanities, and Social Science Research Funds (13YJC190010).

The data that support the findings of this study are available on request from the corresponding author.

References

Brans, K., Koval, P., Verduyn, P., Lim, Y. L., & Kuppens, P. (2013). The regulation of negative and positive affect in daily life. *Emotion*, *13*(5), 926–939. https://doi.org/10.1037/a0032400

Dörfel, D., Lamke, J.-P., Hummel, F., Wagner, U., Erk, S., & Walter, H. (2014). Common and differential neural networks of emotion regulation by detachment, reinterpretation, distraction, and expressive suppression: A comparative fMRI investigation. *NeuroImage*, 101, 298–309. https://doi.org/10.1016/j.neuroimage.2014.06.051

English, T., Lee, I. A., John, O. P., & Gross, J. J. (2017). Emotion regulation strategy selection in daily life: The role of social context and goals. *Motivation and Emotion*, *41*(2), 230–242. https://doi.org/10.1007/s11031-016-9597-z

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, *19*(3), 313–332. https://doi.org/10.1080/02699930441000238

Garnefski, N., & Kraaij, V. (2018). Specificity of relations between adolescents' cognitive emotion regulation strategies and symptoms of depression and anxiety. *Cognition and Emotion*, *32*(7), 1401–1408. https://doi.org/10.1080/02699931.2016.1232698

Grezellschak, S., Lincoln, T. M., & Westermann, S. (2015). Cognitive emotion regulation in patients with schizophrenia: Evidence for effective reappraisal and distraction. *Psychiatry Research*, 229(1–2), 434–439. https://doi.org/10.1016/j.psychres.2015.05.103

Kay, S. A. (2016). Emotion regulation and resilience: Overlooked connections. *Industrial and Organizational Psychology*, 9(2), 411–415. https://doi.org/10.1017/iop.2016.31

Kreibig, S. D. (2010). Autonomic nervous system activity in emotion: A review. *Biological Psychology*, 84(3), 394–421. https://doi.org/10.1016/j.biopsycho.2010.03.010

Lavy, S., & Eshet, R. (2018). Spiral effects of teachers' emotions and emotion regulation strategies: Evidence from a daily diary study. *Teaching and Teacher Education*, 73, 151–161. https://doi.org/10.1016/j.tate.2018.04.001



Leary, M. R. (2015). Emotional responses to interpersonal rejection. *Dialogues in Clinical Neuroscience*, 17(4), 435–441.

https://doi.org/10.31887/DCNS.2015.17.4/mleary

Li, M., & Lu, J. (2005). Comparing emotion regulation types among high school students [In Chinese]. *Acta Psycholigica Sinica*, *37*(4), 517–523. https://rb.gy/0mzbo

Luo, Z., Fu, J., Xiong, Q., & Zhang, T. (2012). The influence of emotion regulation on the relationship between daily life events and daily emotions [In Chinese]. *Journal of Psychological Science*, *35*(2), 481–486. https://tinyurl.com/3yxf4fd5

McClain, C. M., Younginer, S. T., & Elledge, L. C. (2020). Social risk and internalizing distress in middle childhood: The moderating role of emotion regulation processes. *Journal of Child and Family Studies*, 29, 167–181. https://doi.org/10.1007/s10826-019-01548-9

McIntyre, K. P., Korn, J. H., & Matsuo, H. (2008). Sweating the small stuff: How different types of hassles result in the experience of stress. *Stress & Health*, 24(5), 383–392. https://doi.org/10.1002/smi.1190

McRae, K., & Gross, J. J. (2020). Emotion regulation. *Emotion*, 20(1), 1–9. https://doi.org/10.1037/emo0000703

Miyamoto, Y., Ma, X., & Petermann, A. G. (2014). Cultural differences in hedonic emotion regulation after a negative event. *Emotion*, *14*(4), 804–815. https://doi.org/10.1037/a0036257

Molet, M., Macquet, B., Lefebvre, O., & Williams, K. D. (2013). A focused attention intervention for coping with ostracism. *Consciousness and Cognition*, 22(4), 1262–1270. https://doi.org/10.1016/j.concog.2013.08.010

Riva, P., Montali, L., Wirth, J. H., Curioni, S., & Williams, K. D. (2017). Chronic social exclusion and evidence for the resignation stage: An empirical investigation. *Journal of Social and Personal Relationships*, *34*(4), 541–564. https://doi.org/10.1177/0265407516644348

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*(4), 329–346.

https://doi.org/10.1080/01973533.2014.917975

Shao, H., & Lu, X. (2011). EMA: An ecologism-orientated research model [In Chinese]. *Journal of Psychological Science*, 34(5), 1236–1241.

Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Holcombe Ehrhart, K., & Singh, G. (2011). Inclusion and diversity in work groups: A review and model for future research. *Journal of Management*, *37*(4), 1262–1289. https://doi.org/10.1177/0149206310385943

Slavich, G. M., O'Donovan, A., Epel, E. S., & Kemeny, M. E. (2010). Black sheep get the blues: A psychobiological model of social rejection and depression. *Neuroscience & Biobehavioral Reviews*, *35*(1), 39–45. https://doi.org/10.1016/j.neubiorev.2010.01.003

Smart Richman, L., & Leary, M. R. (2009). Reactions to discrimination, stigmatization, ostracism, and other forms of interpersonal rejection: A multimotive model. *Psychological Review*, *116*(2), 365–383. https://doi.org/10.1037/a0015250

Twenge, J. M., Baumeister, R. F., Tice, D. M., & Stucke, T. S. (2001). If you can't join them, beat them: Effects of social exclusion on aggressive behavior. *Journal of Personality and Social Psychology*, 81(6), 1058–1069. https://doi.org/10.1037/0022-3514.81.6.1058

Xie, Lu, Xie

Ugazio, G., Lamm, C., & Singer, T. (2012). The role of emotions for moral judgments depends on the type of emotion and moral scenario. *Emotion*, *12*(3), 579–590. https://doi.org/10.1037/a0024611

Ulrich-Lai, Y. M., & Herman, J. P. (2009). Neural regulation of endocrine and autonomic stress responses. *Nature Reviews Neuroscience*, *10*(6), 397–409. https://doi.org/10.1038/nrn2647

Waldeck, D. B. S., Tyndall, I. T., & Chmiel, N. (2015). Resilience to ostracism: A qualitative inquiry. *The Qualitative Report*, 20(10), 1646–1670. https://doi.org/10.46743/2160-3715/2015.2346

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

Yuan, J., Long, Q., Ding, N., Lou, Y., Liu, Y., & Yang, J. (2015). Suppression dampens unpleasant emotion faster than reappraisal: Neural dynamics in a Chinese sample. *Science China Life Sciences*, *58*(5), 480–491. https://doi.org/10.1007/s11427-014-4739-6