

# INTERPERSONAL EMOTION REGULATION: STRATEGIES, BEHAVIORS, AND GOALS

By Taylor Loskot

Interpersonal emotion regulation (ER) happens constantly in daily life and plays a role in the success of friendships and relationships. Interpersonal ER refers to the process in which an individual makes efforts to change the emotional experience of another person. Understanding the relationship between interpersonal ER strategies and goals proves necessary towards discerning the effectiveness of different interpersonal ER strategies in various situations. Building on existing research, common strategies used to regulate others' emotions include helping a partner to accept their emotions (acceptance), change the way they think about their emotions (reappraisal), or inhibit their emotions (suppression). However, alternative strategies may prove to be equally, if not more, common. Additionally, the goals and behaviors associated with interpersonal ER have not been extensively studied. In the present study, I examine the goals associated with interpersonal ER strategies, including the exploration of an additional strategy: distraction. To examine which strategies and goals people are likely to use in a scenario in which a friend is expressing negative feelings, 347 students wrote narratives regarding how they would respond. As expected, acceptance and reappraisal were found to be the most common, while suppression was used least frequently. Results point to the importance of distraction as a common interpersonal ER strategy. Significant relationships were found between four distinct strategies and related goals and behaviors, suggesting that individuals are motivated by specific regulatory, instrumental, and social outcomes beyond basic regulation of emotions. Discussion focuses on how these findings point to new avenues in interpersonal ER research.

Keywords: interpersonal emotion regulation, emotion regulation strategies, goal

A parent comforts their child after having fallen off their bike and feeling hopeless, telling them that “everyone falls, it is just part of learning to ride a bike.” A man finds himself in a pivotal relationship conversation with his partner and considers whether he should shut the conversation down entirely and walk away or accept his partner’s emotions and allow them to vent their frustrations. A doctor distracts their anxious patient right before administering a shot by asking about the fun shoes the patient is wearing. All of these interactions have one thing in common: one person is trying to regulate the experience of negative emotions in the other person. In other words, they are participating in interpersonal emotion regulation (ER), or the process by which individuals attempt to regulate the emotional experiences of other people<sup>1</sup>. We rely on the people that surround us to help us feel better, and people help others to feel better in different ways. Although interpersonal ER is ubiquitous in everyday life, researchers have generally focused on how someone regulates their own emotions<sup>2</sup>. This thesis will examine interpersonal emotion regulation strategies in everyday life by focusing on narrative accounts of a particular instance of interpersonal emotion regulation, with special attention paid to the goals and behaviors associated with these particular strategies.

## Background

Within the scope of psychological research as a whole, emotion regulation is fairly new, and until the early 1990s, the phrase “emotion regulation” was only included in a handful of publications<sup>3</sup>. Emotion regulation was first examined in an intrapersonal context, or to adopt the language used by Gonzalez and John<sup>4</sup>, self-directed emotion regulation, whereas the present study pertains to interpersonal emotion regulation, or other-directed emotion regulation. It is peculiar that so much of emotion regulation research centers around self-direction processes, because 90% of self-directed emotion regulation occurs in social contexts<sup>5</sup>, however, this imbalance of focus can be explained by the psychological sciences’ focus on the individual. With intrapersonal emotion regulation research having come before the interpersonal, it is larger in breadth, and therefore many of the present study’s interpersonal hypotheses are based on intrapersonal findings. That being said, there has recently been a greater interest in research on interpersonal emotion regulation<sup>6</sup>. Emotions play a crucial role in social interactions<sup>7</sup>, and therefore emotion regulation should be examined in an interpersonal context. Niven, Holman and Totterdell<sup>8</sup> found that the emotion regulation process commonly occurs within dyadic relationships, with an agent and a target both being single individuals. The agent is the person making attempts at influencing the target, who is the one experiencing the emotions that are being regulated. In the present study, the agent is the participant, and the target is a hypothetical friend introduced in the narrative prompt. Zaki and Williams defined interpersonal emotion regulation as being either intrinsic or extrinsic. Extrinsic emotion regulation can be understood by the way the target (participant) attempts to regulate the emotions of another person, while intrinsic emotion regulation would be the agent (hypothetical friend) experiencing emotions and having them be regulated by someone else.

The following introductory pages will be structured in the same way as my results. First, I introduce each

1 Campos, J. J., Campos, R. G., & Barrett, K. C. (1989). Emergent themes in the study of emotional development and emotion regulation. *Developmental Psychology*, 25(3), 394-402.

2 Gross, J. J. (1998b). Antecedent- and response-focused emotion regulation divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, 74(1), 224-37.

3 Gross, J. J., & Barrett, L. F. (2011). Emotion generation and emotion regulation: One or two depends on your point of view. *Emotion Review*, 3(1), 8-16.

4 Gonzalez, F. J. & John, O. P. (2018). *Strategies of Interpersonal Emotion Regulation: Other-Directed Suppression, Reappraisal, and Acceptance* (Doctoral dissertation).

5 Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion regulation in everyday life. In D. K. Snyder, J. Simpson & J. N. Hughes (Eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health; emotion regulation in couples and families: Pathways to dysfunction and health* (pp. 13-35, Chapter xiv, 332 Pages) American Psychological Association, Washington, DC.

6 Zaki, J., & Williams, W. C. (2013). Interpersonal emotion regulation. *Emotion*, 13(5), 803-810.

7 Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion*, 13(5), 505-521.

8 Niven, K., Holman, D., & Totterdell, P. (2012). How to win friendship and trust by influencing people’s feelings: An investigation of interpersonal affect regulation and the quality of relationships. *Human Relations*, 65(6), 777-805.

interpersonal emotion regulation strategy that is relevant to the present research, followed by an assessment of strategy frequency. After strategies and frequencies have been established, I will discuss interpersonal ER goals and behaviors, why they are important, and what past research has been gathered regarding potential interpersonal outcomes from specific interpersonal ER strategy use.

## Interpersonal Emotion Regulation

Emotion regulation has been reconceptualized because the self-direction emotion regulation literature does not adequately assess the social situation. According to research conducted now almost ten years ago, of over 500 articles published on emotion regulation since 2001, only twelve percent considered the social context<sup>9</sup>. The social construction perspective on emotion regulation<sup>10</sup> views ER as a sequence of transactional emotional episodes within a social event or scene, where the unit of analysis is not a lone person but a person in the context of other people who are mutually influencing one another within the bounds of a social episode. Essentially, individuals are engaging in emotion regulation with the broader goals of giving care, influencing attitudes or behaviors, or rejecting someone. Interpersonal ER is considered a distinct construct because of its primary aim to influence someone else's emotions<sup>11</sup>. For this reason, goals will be examined later on.

**Motivating frequency.** Although past studies have examined strategies and how they are used in intra- and interpersonal contexts, there has not been any level of analysis on frequency of strategy use on an interpersonal level. Gonzalez and John<sup>12</sup> investigated autobiographical recollections of a moment which prompted a particular strategy. While this provided useful information, less is known about which strategies people use when not guided in a particular direction. The researchers' study design accounted for how recently the event that participants recalled was, providing evidence for which strategies were recalled more easily, suggesting a higher frequency of strategies recalled at more recent time points. The present study's examination of frequency of strategy use was conducted using two methods: (1) participants wrote narrative responses about how they would choose to regulate a friend's emotions and a team of observers coded these responses; and (2) participants also rated items that essentially self-coded their narratives as well. This dual data source allowed for an assessment of interpersonal ER strategy use at both the conscious and unconscious level, as interpersonal ER attempts have been shown to occur at both of these cognitive levels<sup>13</sup>.

**Goals.** The present study also considered goals in analyses, because goals have been found to influence which strategy someone chooses to use<sup>14</sup>. Goals involved in emotion regulation are classified by Mauss and Tamir<sup>15</sup> as having three features: content, structure, and operation. While content draws a distinction between hedonic and non-hedonic benefits, structure points to the way in which goals can occur simultaneously but within any event they occur hierarchically. The third component, operation, concerns how goals unfold as emotions are regulated. Generally, goals that correspond with the operational definitions of respective interpersonal ER strategies should map onto those strategies. Consistent with their hypothesis, Gonzalez and John<sup>16</sup> revealed that the goal to change feelings correlated with the acceptance strategy, the goal to change thoughts correlated with the reappraisal strategy, and the goal to change actions correlated with the suppression strategy. However, the authors also found that a disconnect between goals and "realized influence". In other words, participants were reporting having certain goals, but the same participants were reporting that their ultimate influence on their target

9 Campos, J. J., Walle, E. A., Dahl, A., & Main, A. (2011). Reconceptualizing emotion regulation. *Emotion Review*, 3(1), 26-35.

10 Gross & Barrett, 2011

11 Niven, Holman, & Totterdell, 2012

12 Gonzalez and John, 2018

13 Netzer, L., Van Kleef, G. A., & Tamir, M. (2015). Interpersonal instrumental emotion regulation. *Journal of Experimental Social Psychology*, 58, 124-135.

14 Catterson, A. D., Eldesouky, L., & John, O. P. (2017). An experience sampling approach to emotion regulation: Situational suppression use and social hierarchy. *Journal of Research in Personality*, 69, 33-43.

15 Mauss, I. B., & Tamir, M. (2014). Emotion goals: How their content, structure, and operation shape emotion regulation. In J. J. Gross (Ed.), 2nd ed.; *handbook of emotion regulation* (2nd ed.) (2nd ed. ed., pp. 361-375, Chapter xviii, 669 Pages) Guilford Press, New York, NY.

16 Gonzalez and John, 2018

did not achieve the influence that their goals intended. By continuing to examine goals in the present study, I aim to bring clarity to this disconnect. Twenty-two items were included, all probing at participant goals and intentions during their hypothetical interpersonal emotion regulation event. Lastly, goals are a relevant consideration in interpersonal ER research because research highlights how goals that someone had influenced their choice of strategy, and that emotional versus instrumental goals function differently<sup>17</sup>.

## Emotion Regulation Strategies

Within the intrapersonal body of research, two strategies emerge as common and are therefore most extensively researched: reappraisal and suppression<sup>18 19</sup>. Reappraisal is defined as modifying how one thinks about an emotion-eliciting event in order to alter its (often negative) emotional impact<sup>20</sup>, whereas suppression provides a useful contrast, defined as inhibiting outward expressions of emotion<sup>21</sup>. A third strategy is also commonly considered within emotion regulation research but can paradoxically be thought of as the absence of emotion regulation. Acceptance as an interpersonal ER strategy involves the nonjudgmental acceptance of emotions without any efforts to change or influence them. Unlike suppression, self-directed acceptance has consistently been found to benefit one's psychological well-being<sup>22</sup>. Gonzalez and John<sup>23</sup> took these three ER strategies and studied them in an interpersonal context comprehensively, and also found distraction to commonly be used as a strategy in participant responses, bringing us to the present study's four strategies of focus: acceptance, reappraisal, suppression, and distraction. Acceptance would appear in everyday life as someone expressing negative emotions to a friend and being allowed to simply feel those emotions and let them run their course. There would be no attempt to change these emotions or their expression, but rather they would be encouraged and supported nonjudgmentally. Reappraisal can be understood as a targeting of cognitions, with a focus on reframing negative emotions. For example, someone may share negative feelings about a bad grade on an exam, and a classmate could employ reappraisal by pointing out how this bad grade could be used as motivation to study harder on future exams or bringing the perspective that the bad grade will not matter in the long term. Suppression is fairly straightforward and involves the inhibition of emotions. It can be seen in instances such as stonewalling, where a woman tells her partner that she feels hurt by their actions. Instead of listening and validating those feelings, a partner engaging in suppression would simply avoid the interaction altogether, by either telling the woman not to express those emotions or removing themselves from the situation. Finally, distraction appears just as it would seem; it is employed by distracting someone else from their emotions. This would look like the scenario presented at the very start of the thesis, in which a doctor is administering a shot. To distract from the negative emotions of anxiety towards the imminent shot, the doctor redirects attention to the patient's fun new shoes.

**Acceptance.** I will begin with an explanation of acceptance, because it varies greatly from the other three strategies due to its conceptualization as a non-regulation strategy. In its broadest terms, acceptance involves the nonjudgmental acceptance of one's own emotions, or the emotions of another person, without any attempts to change or influence those emotions. Instead, it is marked by the allowance of emotions to take their natural course. Much of the research that examines acceptance in an emotion regulation context finds that it is linked to

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17 Eldesouky, L. & English, T. (2018). Individual differences in emotion regulation: Does personality predict the reasons why people regulate their emotions? *Journal of Personality*.

18 Gross, J. J., 1998b

19 Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.

20 Gross, J. J., 1998a

21 Kühn, S., Gallinat, J., & Brass, M. (2011). "Keep Calm and Carry On": Structural Correlates of Expressive Suppression of Emotions. *PLoS ONE*, 6(1).

22 Bernard, M. E., Vernon, A., Terjesen, M., & Kurasaki, R. (2013). Self-Acceptance in the Education and Counseling of Young People. *The Strength of Self-Acceptance*, 155-192.

23 Gonzalez and John, 2018

psychological health outcomes<sup>24 25</sup>. Aiming to guide participants toward the use of true and active interpersonal emotion regulation, participants read a prompt that explicitly asked them to influence the negative emotions of their hypothetical friend. I hypothesize that despite this guiding language, acceptance will still be used quite frequently, and certainly more than suppression, because people have been found to sometimes share negative emotions with others for the simple reason of sharing, without any expectation of the listener attempting to change those emotions on their behalf<sup>26</sup>. This hypothesis is also consistent with research that asked participants to recall their use of various strategies, where time since recalled event analyses revealed acceptance events to be more easily recalled than other strategies, suggesting that they may be used more often<sup>27</sup>. Also, in research by Gonzalez and John<sup>28</sup>, acceptance was found to be used more by women (in a college student sample only), and to have adaptive interpersonal outcomes such as stronger relationships and perceived social support. As far as goals were concerned, Gonzalez and John<sup>29</sup> found an interesting distinction between acceptance goals and realized influence. Although participants had the goal to change their target's feelings and thoughts when engaging in acceptance as an emotion regulation strategy, they discordantly realized that their ultimate influence on the target when using acceptance would not involve any change in thoughts or feelings. In fact, correlations with changed feelings and thoughts actually flipped, correlating negatively for realized influence. Interested in this difference, I hypothesized that acceptance would not correlate with any emotion-influencing or changing goals. Finally, although behaviors have not been studied in the context of interpersonal acceptance of emotions, I hypothesize that behaviors will be marked by tones of support and acceptance.

**Reappraisal.** Despite reappraisal requiring more contextual variables and effort by the regulator<sup>30</sup>, it is still used quite frequently<sup>31</sup>. Reappraisal is associated with not only a more positive emotional experience, but also greater well-being and greater interpersonal functioning<sup>32</sup>. Research focused on situational effects on self-directed reappraisal found that reappraisal was used more frequently in low intensity situations rather than high intensity situations<sup>33</sup>. This motivated my hypothesis that reappraisal would occur at a high frequency. The scenario presented to participants would classify as low intensity, because it describes a new friend feeling negative about the horrible day they have had and expressing those negative emotions over lunch. Also based on intrapersonal findings, I hypothesize the use of reappraisal to not be significantly correlated with any particular gender or ethnicity, because no gender or ethnicity effects were revealed for self-directed reappraisal<sup>34</sup>. Like acceptance, reappraisal has been found to predict positive outcomes<sup>35</sup>. Gonzalez and John<sup>36</sup> research linked reappraisal with the goal to change thoughts, highlighting this strategy as highly cognition-focused. Therefore, I predict for reappraisal use to correlate significantly with all cognition-focused goals and behaviors.

**Suppression.** Suppression is the restriction of emotions, and in an interpersonal context it would classify as one person inhibiting or restricting the expression of emotions in another person. Suppression is less commonly used than acceptance and reappraisal. It is often utilized as a contrasting strategy for reappraisal. Suppression has

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24 Ford, B. Q., Lam, P. H., John, O., & Mauss, I. B. (in press). The psychological health benefits of accepting negative emotions and thoughts: Laboratory, diary, and longitudinal evidence. *Journal of Personality and Social Psychology*.

25 Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30, 217-237.

26 Rimé, B. (2007). Interpersonal emotion regulation. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 466-485). New York: Guilford.

27 Gonzalez and John, 2018

28 Gonzalez and John, 2018

29 Gonzalez and John, 2018

30 Suri, G., Whittaker, K., & Gross, J. J. (2015). Launching reappraisal: It's less common than you might think. *Emotion*, 15, 73-77.

31 Gross & John, 2003

32 Gross & John, 2003

33 Eldesouky & English, 2018

34 Gross & John, 2003

35 Gross & John, 2003

36 Gonzalez and John, 2018

been found again and again to have maladaptive interpersonal and well-being outcomes<sup>37 38</sup>. I predict suppression use to be significantly less detected by participants than observers, because of how interpersonal emotion regulation occurs at both a conscious and subconscious level<sup>39</sup>. Suppression is not socially desirable, so it is likely that in addition to an unawareness at the conscious level, self-report bias will keep participant-rated suppression scores lower than the scores from the observer-coded data source. While researchers did not find gender differences for suppression as a self-directed ER strategy, Gross and Levenson<sup>40</sup> predicted that gender differences would emerge in social contexts. In Gonzalez and John<sup>41</sup>, analyses revealed that men were more likely to use suppression than women. Also, possibly because Western cultures deem emotion expression as “unmanly”<sup>42</sup>, more suppression use was found in men in Gross and John’s<sup>43</sup> study of intrapersonal strategy use. In the same paper, researchers found that Asian participants suppressed their emotions more because those with less power are associated as suppressing more, and minority groups in the United States inherently perceive themselves to have less power<sup>44</sup>. While suppression use outcomes vary depending on culture and goals<sup>45</sup>, it has been generally found that increased use of suppression is associated with poor social outcomes<sup>46</sup>.

Goal analyses in Gonzalez and John<sup>47</sup> found significant correlations between suppression and change acts, meaning that participants who used suppression as an interpersonal emotion regulation strategy generally had goals to change the behaviors and actions of their targets. For this reason, I expect for suppression use to be correlated with the goal to change the topic, because this would involve changing the target’s action of expressing their feelings regarding a particular topic. Regarding the social goals included in this study, I expect negative correlations with suppression use, because suppression was deemed most relevant to social goals only because it so blatantly interferes with them<sup>48</sup>. I also expect suppression users to have a goal to escape and avoid the interpersonal situation, because past research shows that suppression is still used as an interpersonal ER strategy, despite its negative outcomes, when the goals are to escape or avoid the situation. I also expect to see negative correlations between suppression use and all behaviors included in the study, because suppression involves inhibition and avoidance and therefore should not be associated with any specific behaviors.

**Distraction.** Research on distraction as an interpersonal ER strategy is very limited. As a self-directed ER strategy, it is defined as drawing attention away from a focal event and plays an important role in the leading theories of emotion regulation<sup>49 50 51</sup>. However, distraction is easier said than done. Despite efforts to engage in

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37 John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72.6, 1301-1334.

38 John, O. P., and Eng, J. (2014). Three approaches to individualized differences in affect regulation: Conceptualizations, measures, and findings. In J. J. Gross, (Ed.), *Handbook of emotion regulation* (2nd ed. pp. 321–45). New York, NY: Guilford.

39 Hopp, H., Troy, A. S., & Mauss, I. B. (2011). The unconscious pursuit of emotion regulation: Implications for psychological health. *Cognition and Emotion*, 25(3), 532-545.

40 Gross, J. J., & Levenson, R. W. (1993). Emotional suppression: Physiology, self-report, and expressive behavior. *Journal of Personality and Social Psychology*, 64(6), 970-986.

41 Gonzalez and John, 2018

42 Brody, L. R. (2000). The socialization of gender differences in emotional expression: Display rules, infant temperament, and differentiation. In A. H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 24–47). New York: Cambridge University Press.

43 Gross & John, 2003

44 Gross & John, 2003

45 English, T., & John, O. P. (2013). Understanding the social effects of emotion regulation: The mediating role of authenticity for individual differences in suppression. *Emotion*, 13, 314- 329.

46 John & Gross, 2004

47 Gonzalez & John, 2018

48 Catterson, A. D., Eldesouky, L., & John, O. P. (2017). An experience sampling approach to emotion regulation: Situational suppression use and social hierarchy. *Journal of Research in Personality*, 69, 33-43.

49 Bishop, S., Duncan, J., Brett, M., & Lawrence, A. D. (2004). Prefrontal cortical function and anxiety: Controlling attention to threat-related stimuli. *Nature Neuroscience*, 7(2), 184-188.

50 Rusting, C. L., & Nolen-Hoeksema, S. (1998). Regulating responses to anger: Effects of rumination and distraction on angry mood. *Journal of Personality and Social Psychology*, 74(3), 790-803.

51 Trask, P. C., & Sigmon, S. T. (1999). Ruminating and distracting: The effects of sequential tasks on depressed mood. *Cognitive Therapy and Research*, 23(3), 231-246.

self-directed distraction, rumination on negative thoughts has been found to persist<sup>52</sup>, because people find it hard to distract themselves<sup>53</sup>. For distraction to be successful, people's feelings need to be replaced by something else<sup>54</sup>, and this is hard for people to do by themselves. Therefore, I reason that distraction would function more effectively in social contexts, where the individual has help in distracting themselves from negative emotions.

Interpersonal distraction was a common strategy within participant responses in Gonzalez and John<sup>55</sup>, and as the inverse for the earlier explained research on the difference between high and low intensity situations, which asserted that reappraisal is commonly used in low intensity situation, distraction is more appropriate for high intensity situations<sup>56 57</sup>. I predict distraction to be present but not overwhelmingly common, because the present study presents a low intensity scenario. However, being that distraction has not been studied in this context before, where it fits with the other three strategies is largely exploratory. I hypothesize that gender and ethnicity correlations will be somewhat similar to those seen for suppression, due to the two strategies likeness to each other in their surface-level presentation. Both strategies are motivated by an avoidance of the present topic, however suppression involves inhibition whereas distraction involves redirection. As a self-directed strategy, distraction has been found to have better outcomes than suppression<sup>58</sup>, and comparing these two strategies can aid in understanding because both strategies involve preventing emotion-related cognitions from entering awareness. However, key differences explain why outcomes differ between the two. Since distraction does not require for thoughts to be actively suppressed, it does not result in the same mood rebounds that suppression does<sup>59</sup>. Since the present research on distraction as an interpersonal emotion regulation strategy is novel, I predict a correlation between the goal to distract from emotions and the distraction strategy at the very least, to serve as a manipulation check and convergence verification.

## The Present Study

The present research will take a novel approach to the study of interpersonal emotion regulation by asking participants to respond openly to an ambiguous situation in which they are expected to influence the negative feelings of a friend. Will they engage in a non-regulation acceptance strategy, despite the prompt's explicit guidance towards influencing the friend? Findings will provide a profile of ER strategy frequency that has not yet been examined interpersonally. By asking participants to self-rate their goals, findings aim to reflect a more accurate picture of interpersonal ER goals because past observer-coding efforts to detect goals have encountered challenges in obtaining high inter-rater reliability<sup>60</sup>. In terms of behaviors, there has not been any past work that has assessed the relationship between interpersonal ER and behaviors but examining this aspect of the interpersonal event should help to build a more comprehensive picture of how these events are psychologically structured from an emotion regulation perspective.

## Methods

### *Participants*

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52 Van Dillen, L. F., & Koole, S. L. (2007). Clearing the mind: A working memory model of distraction from negative mood. *Emotion*, 7(4), 715-723.

53 Josephson, B. R., Singer, J. A., & Salovey, P. (1996). Mood regulation and memory: Repairing sad moods with happy memories. *Cognition and Emotion*, 10(4), 437-444.

54 Van Dillen & Koole, 2007

55 Gonzalez and John, 2018

56 Thiruchselvam, R., Blechert, J., Sheppes, G., Rydstrom, A., & Gross, J. J. (2011). The temporal dynamics of emotion regulation: An EEG study of distraction and reappraisal. *Biological Psychology*, 87(1), 84-92.

57 Sheppes, G., & Meiran, N. (2007). Better late than never? on the dynamics of online regulation of sadness using distraction and cognitive reappraisal. *Personality and Social Psychology Bulletin*, 33(11), 1518-1532.

58 Van Dillen & Koole, 2007

59 Wenzlaff, R. M., Wegner, D. M., & Roper, D. W. (1988). Depression and mental control: The resurgence of unwanted negative thoughts. *Journal of Personality and Social Psychology*, 55(6), 882-892.

60 Gonzalez & John, 2018

Participants were 468 undergraduates at the University of California, Berkeley who participated in exchange for course credit. Sample size was determined by recommendations from which suggests 322 participants to achieve 80% power for a small effect size at an alpha of 0.01. One hundred twenty-one participants were excluded for the following reasons: completed less than 50% of survey, failed manipulation check, failed at least two of three possible attention checks, fell outside of the 18-25 age range, or did not follow directions for the open-ended response. After exclusions, responses from 347 participants (83% women) were included in analyses. On average, participants were 20 years old ( $SD=1.6$ ), with a range of 18-25. The sample was predominantly Asian-American (57% Asian-American, 22% European-American, 12% Latinx, and 9% other).

All study procedures were approved under the “Personality and Emotion Survey” protocol (#2015-01-7025).

### ***Procedure***

The survey involved an open-ended narrative prompt that followed a hypothetical scenario, in conjunction with self-report questions about strategy use and goals, individual differences measures, and demographic questions. Participants first were told that they were taking a survey that was part of pilot research to help our understanding of how people differ in the way they use emotions in everyday life. They were told that they would be asked to respond to a series of structured questions about their emotions in day-to-day life, as well as how they might respond during a hypothetical scenario, and that the survey would take approximately one hour.

All participants were given the same scenario for their open-ended response (see Appendix A for full prompt) which told them they were having lunch with a new friend who was expressing negative feelings after having had a horrible day. Participants were asked to write open-ended responses directed towards this hypothetical friend with a length of at least 150 characters. Following this prompt, participants were asked to essentially self-code their narrative response. They were provided with definitions for acceptance, reappraisal, suppression, and distraction, and instructions to rate each strategy on a 0-6 scale, 0 being least similar to the strategy they used in their response, and 6 being most similar to their response to the lunch scenario. Following what will be referred to as the “self-rated” questions, twenty-two items were structured in a way that asked participants to reflect upon their goals and motivations while responding to the lunch scenario, and each began with “Writing this message, I...” and included options such as “wanted to change the topic”, “wanted to support my friend”. These items were rated using a 1-7 Likert scale. A length of other questions and individual differences scales were included in the survey but have not been included in the present study’s analyses. Ultimately, participants were thanked for completing the survey and then redirected to an unrelated second survey.

### ***Coding and analyses***

Four coders were recruited and trained to rate the narrative responses across eleven variables. A coding scheme was created and revised throughout the training process and developmental sources and descriptions can be found in Appendix B. Each coder was blind to both the study design and our hypotheses. Coders were first trained using a different dataset, meeting weekly to work on inter-judge agreement. After substantial inter-judge agreement was achieved, the four coders were introduced to the focal data set. Coders rated the use of four interpersonal emotion regulation strategies (acceptance, reappraisal, suppression, and distraction) and six specific behaviors (empathizing, asking questions, providing physical support/comfort, giving compliments, encouraging venting, and expressing sympathy).

Throughout the coding process, coders met weekly with the research team to review any problems or complexities in the coding scheme. Coders were not allowed to change or update their ratings from previous days. These meetings were intended to ensure data quality and to prevent conceptual drift.

Statistical analyses predominantly involved basic descriptive statistics, correlations, and one-way ANOVAs. First, each of the eleven observer-coded items was assessed for inter-rater reliability and means and standard deviations were calculated. Paired-sample t-tests were used to compare observer-coded ratings to self-reported ratings. Correlations were conducted between observer-coded strategies, self-rated strategies, observer-coded

behaviors, and self-reported goals. A series of one-way ANOVAs were conducted to test ethnicity and gender effects. Participants also completed the Emotion Regulation Questionnaire – Other (ERQ-O<sup>61</sup>), but analyses that incorporated the ERQ-O are not central to the thesis and were therefore not included, however for completeness, the core results are shown in Appendix C.

## Results and Discussion

I will present my results in three sections. First, I will justify the inclusion of observer-coded variables by presenting variable reliabilities and providing examples of participant open-ended responses. Second, I will break down strategy use frequency and determine whether it was appropriate to include distraction as an interpersonal ER strategy. Finally, goals and behaviors will be introduced to help illustrate how each of the four strategies differ. Gender and ethnicity effects will be considered throughout.

### *Why train four judges to observer-code 347 narratives?*

Observer coding addressed two questions. The first was which emotion regulation strategies would be most prominently used by participants in a hypothetical interpersonal scenario. The second question focused on the relationship between interpersonal emotion regulation strategies and specific behaviors. Before addressing either of these questions, however, I needed to ask, was the coding effort successful?

Table 1 shows the four interpersonal ER strategies that coders were trained to code for and includes operational definitions and prototypical examples for each, which were gleaned from participant responses in order to provide a better understanding of what these strategies may look like within our sample. Inter-rater reliability was assessed each week when the research team met, and I aimed to keep each variable's alpha at or above 0.7. Final alpha reliabilities for the observer-coded variables can be found in Table 2, along with means and standard deviations. The right two columns of the table also include correlations with female gender and Asian-American ethnicity. The four coders successfully achieved high inter-rater reliability for all of the eleven variables. As expected, acceptance and reappraisal were more often used as ER strategies by females than males. While not significant, suppression was correlated in the expected direction ( $r = -.10$ ,  $p < 0.10$ ), aligning with past literature that has shown males to employ a suppression strategy more often than females. In terms of behavior use within open-ended responses to the lunch scenario, female gender correlated significantly with asking questions, physically comforting, encouraging venting, and expressing sympathy. These findings support my hypothesis that females should be more likely to engage in an acceptance strategy, because these behaviors all have flavors of acceptance and support. No significant correlations were found for ethnicity among our four strategies, however I did find, interestingly, that Asian-American participants were far less likely to express sympathy within their narrative responses ( $r = -.22$ ,  $p < .001$ ). While past research has examined the role that sympathy plays in emotion regulation<sup>62</sup> <sup>63</sup>, ethnicity has not been examined in this context, so this finding was not expected. Explanations for why Asian-Americans are less likely to sympathize as a means to regulate the emotions of another person could be examined in future research.

### *How frequently are these strategies being used?*

It was important to assess how our observer coding training would influence strategy use scores, so mean scores for each strategy were compared to the mean scores from participant self-ratings of their narratives. Having the open-ended responses scored by both the team of observers and the participants themselves allowed for me to investigate differences that may arise between the two data sources. Table 3 includes the means and SDs

61 Gonzalez & John, 2018

62 Song, J., Colasante, T., & Malti, T. (2018). Helping yourself helps others: Linking children's emotion regulation to prosocial behavior through sympathy and trust. *Emotion*, 18(4), 518-527.

63 Eisenberg, N., & Eggum, N. D. (2011). Empathic Responding: Sympathy and Distress. In *The Social Neuroscience of Empathy* (pp. 71-72). MIT Press.

for strategies used in the lunch scenario for both self-rated scores and observer-coded scores, and Figures 1 and 2 give visual representations of score frequencies for each strategy. As hypothesized, both data sources yielded the same order of means, with acceptance being the most frequent, followed by reappraisal, and then suppression. I did not know where distraction would fall among the existing three strategies in terms of frequency, however both data sources found distraction to be the third most frequent strategy, bumping suppression to the least frequent strategy in our study. Comparisons between self-rated and observer-coded mean ratings reveal that participants tend to exaggerate their use of acceptance, reappraisal, and distraction, while observer-coded ratings are more conservative. In the case of suppression, however, participants underestimated their use. Coders were psychologically trained to differentiate the four strategies, which may explain their more conservative scoring. Paired-samples t-tests were conducted to clarify whether or not judges' scoring of lunch scenario narratives were producing significantly different pictures of strategy use than the self-ratings were. Across all four strategies, observer-coded means were significantly different from self-rated means (acceptance:  $t(346) = -21.93, p < .001$ ; reappraisal:  $t(346) = -13.69, p < .001$ ; suppression:  $t(345) = 11.37, p < .001$ ; distraction:  $t(346) = -22.72, p < .001$ ), suggesting that the coding efforts were meaningful and provided a differentiation and specificity that I would not have had if I had only considered self-rated strategy use.

**ER strategy convergence.** To further compare self-rated and observer-coded strategy use in the lunch scenario, Table 4 shows the convergence between these two data source ratings for interpersonal ER strategy use. High correlations were found for the convergence of all four strategies, verifying that both participants and observers had a mutual understanding of strategy definitions. Additionally, acceptance correlates negatively with the three other strategies across both data sources, likely because acceptance is unique in that it is more so a no-regulation strategy, because an acceptance strategy should not involve any sort of effort to change or influence emotions. As the example items from Table 1 demonstrated, reappraisal and distraction are very different from acceptance because they do not allow for venting (which will be seen later in the examination of behaviors), so the negative correlation found between acceptance and reappraisal and distraction aligns with this differentiation. Slight asymmetry between reappraisal and suppression correlations suggests that the relationship between reappraisal and suppression is not fully understood. Distraction and suppression were significantly correlated, supporting Van Dillen and Koole's<sup>64</sup> findings, which suggested that distraction is similar to suppression in many of its qualities, except it is better for relationship quality and well-being because it is more supportive in both its intentions and execution. Aside from the correlation with suppression, distraction is uniquely differentiated from acceptance and reappraisal, justifying its relevance as a fourth and important interpersonal ER strategy. It is necessary to note, however, that self-rated suppression and distraction both highly correlated with observer-coded suppression, which demonstrated a threat to discriminant validity. What observers classified as suppression was just as close to self-rated suppression as it was to self-rated distraction, which should not have been the case, thus highlighting that observers were defining these strategies somehow differently than how participants were.

### *What have we learned about these four strategies?*

**Goals.** Of the twelve questions in the survey intended to learn more about participants' motivations and goals when responding to the lunch scenario, there were two factors that formed a priori. An "accepting emotions" factor, consisting of two items, generated an alpha of .77 and a "targeting cognitions" factor with three items generated an alpha of .72. Table 5 includes correlations of these two factors along with seven single-item self-reported goals with strategy use from both our self-rated and observer-coded data sources. It was noteworthy to find that convergence was amazingly strong across both data sources. The table presents these goals in three distinct subgroups: regulatory goals (aligning clearly with an emotion regulation strategy), instrumental goals, and social goals. The self-rated strategy use correlations with self-reported goals can be thought of as consistency checks, being that both scores were participant-rated. The important consideration to be made is between observer-coded strategy use and self-reported goals, and thus these correlations are shaded in gray. These correlations illustrate what each strategy looked like in practice.

Acceptance was marked by accepting emotions, finding a solution, and showing empathy, but was

significantly not intended to achieve the goals of changing emotions, distracting from emotions, changing the topic, or escaping the situation. Reappraisal involved the expected targeting of cognitions, as well as changing emotions and finding a solution. Suppression was correlated with changing the topic, escaping the situation, and distracting from emotions, suggesting that suppression is motivated by avoidance. Suppression also notably did not include the goals to accept emotion, target cognitions, find a solution, or show empathy. It is clear that using this strategy was not motivated by any interest in support, empathizing, or dwelling on negative emotions. Lastly, distraction was most highly correlated with the goal to distract from emotions, which more so functioned as a manipulation check. It also correlated with changing emotions and changing the topic, which fit well with how distraction is understood. It also correlated negatively with the targeting cognitions goal, which made sense, as someone who distracts from the situation would not want to dwell on the cognitions that surround the target's current negative emotions.

**Behaviors.** The inclusion of behaviors in observer-coding allowed me to begin building profiles for interpersonal emotion regulation strategies in a tangible and unique way. Six specific behaviors were included in analyses and can be found in Table 6, along with their correlations with strategy use, as rated by self and observer. Considering behaviors were observer-coded, the observer-coded strategy correlations primarily serve as a consistency check, and discussion will focus on the self-rated strategy correlations that have been shaded gray in Table 6.

Correlations with the first specific behavior, empathizing, replicated findings from Gonzalez and John<sup>65</sup>, but the strong correlations with the physically comforting and encouraging venting behaviors provide us with new insights about acceptance. Seeing that acceptance was more common in women, and that women are more likely to use touch as a means of communication than men<sup>66</sup>, finding a correlation between physically comforting and acceptance was not surprising. Encouraging venting also aligned well with what how people go about using acceptance as an interpersonal ER strategy. A regulator may tell their friend that they accept their emotions and therefore they should feel comfortable to let their feelings out and express them. This kind of encouragement to vocalize feelings was prototypical of both acceptance and the behavior of encouraging venting.

Reappraisal was most strongly correlated with physically comforting, but in the opposite direction as acceptance. Due to reappraisal's very cognitive and intellectual focus, this correlation helped us understand further that reappraisal was much more about cognition than it was about being warm and comforting. Gonzalez and John<sup>67</sup> found that reappraisal is experienced as intending to be helpful but is not always well liked by the ER target, and this almost detached aspect of reappraisal may explain this disconnect.

Suppression correlated negatively with physically comforting as well, which was not surprising after finding that suppression was defined by goals to escape the situation or change the topic. This finding fit with the avoidant nature of suppression. Otherwise, suppression did not correlate with any other behaviors, likely because there was no opportunity to use specific behaviors if the ultimate goal was to escape entirely.

Distraction correlated negatively with Table 6's first three behaviors, but most notably encouraging venting. Since the goal of distraction was to, of course, distract from the negative emotions, encouraging venting clearly worked against this goal. This piece also helped to explain why acceptance and distraction were correlated negatively as strategies, because they varied substantially in their use of this specific behavior.

These behavior findings for the self-rated strategies mostly paralleled in the observer-coded data source, except in the case of encouraging venting for suppression, where the correlation lost its significance (however it remained in the same direction and was marginally significant). This could possibly be explained by the potential for participants to have positively "colored" views on the way they are regulating others' emotions, whereas the coders were more realistic about suppression use. Participants may have not wanted to see or admit their use of suppression in their responses to the lunch scenario. Thus, using open-ended responses and observer-coding revealed something about the participant responses that was true but that participants were not aware of.

## General Discussion

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65 Gonzalez & John, 2018

66 Jones, S. E. (1986). Sex differences in touch communication. *Western Journal of Speech Communication*, 50(3), 227-241.

67 Gonzalez & John, 2018

### *What have we learned?*

**Frequency.** As a first step, Gonzalez and John<sup>68</sup> focused on reappraisal and suppression as the two core interpersonal ER strategies, but the present study shows this framework was too narrow. Distraction is also important, with observer-coded scores for distraction averaging out at three times higher than suppression scores, and participant self-reported strategy scores for distraction averaging at almost nine times higher than that for suppression. However, acceptance over-performed all three of these strategies. Despite being a non-regulation strategy in its goals and behaviors, and despite a study design aimed at evoking active interpersonal emotion regulation, acceptance still was employed significantly more than the other three strategies included in the present research. Interpersonal acceptance has been shown to have positive outcomes for both the individual, the target of the emotion regulation, and the relationship as a whole (Gross & John, 2003), and these adaptive outcomes may be stronger motivators of strategy choice than an explicit request to influence emotions, as was presented in the open-ended prompt. However, reappraisal was close behind acceptance in frequency, replicating Gonzalez and John<sup>69</sup> findings that it is a common and core interpersonal ER strategy.

As predicted, acceptance was significantly more common in females, though the correlations were not as strong as past studies of this relationship have shown it to be. In the same vein, while suppression strategy correlations with gender were marginally significant towards males, the strength of the correlation was less than anticipated. These weak correlations may be explained by our limiting sample, which was over 80% female. Future studies of this relationship would seek to replicate these correlations using a more diverse sample.

**Goals and behaviors.** These strategies can be profiled differently now that there is a better understanding of each strategy's unique goals and behaviors. While inherently overlapping in some capacities, the four strategies examined in the present study, acceptance, reappraisal, suppression, and distraction, all have unique and distinct profiles. Acceptance, as predicted, did not involve any efforts to influence emotions or actions, but instead was marked by supportive and sympathetic goals and actions. Reappraisal was highly motivated by goals to target cognitions, and to that end did not include the more compassionate and supportive behaviors like expressing sympathy or physically comforting. Differences between suppression and distraction paralleled the differences found in an intrapersonal context. While the two strategies correlated highly with each other and both involved the goal of changing the topic, only suppression was correlated negatively with expressing sympathy and accepting emotions. It seems that, overall, while the two strategies are superficially similar, distraction is more focused on changing emotions, while suppression centers around the goal to escape. The differentiating component separating distraction from suppression can be understood by classifying suppression as an avoidant-focused strategy, whereas distraction is a cognition-focused strategy.

While there are many opportunities to explore gender and ethnicity differences more extensively, the present study only considered gender differences for observer-coded strategies and behaviors. The females in the sample were significantly more likely to provide physical support and comfort than their male counterparts, which aligns with theories that females are more prone to include touch in interpersonal interactions<sup>70</sup>. Lastly, the finding that Asian-American ethnicity participants were far less likely to express sympathy in an interpersonal emotion regulation context points to unanticipated cultural differences in emotion regulation behaviors.

### **Clinical and Theoretical Implications**

It is common to experience interpersonal conflict, and this conflict often arises from unsuccessful forms of interpersonal emotion regulation. Interpersonal ER can help to build and maintain high-quality relationships, extending implications of interpersonal ER to the domain of social relations<sup>71</sup>. A better understanding of interpersonal ER strategies and behaviors can be helpful for individuals who find themselves in social conflict as

68 Gonzalez & John, 2018

69 Gonzalez & John, 2018

70 Hall, J. A., & Veccia, E. M. (1990). More "touching" observations: New insights on men, women, and interpersonal touch. *Journal of personality and social psychology*, 59(6), 1155.

71 Niven, Holman, & Totterdell, 2012

a result of their inability to gauge what strategy is appropriate for the context they are in, the person that they are engaging with, and the structural cause of the target's negative emotions. Understanding what goals are commonly linked with different strategies, for example the goal to target cognitions with reappraisal, can help individuals to match goals for a situation to a fitting strategy, and ultimately maintain more amiable relationships. High quality relationships have implications for an individual's likelihood and ability to thrive psychologically, and interpersonal ER contributes to this relationship quality. However, it is important to understand how interpersonal ER strategies differ, because not every strategy has the same interpersonal outcomes. For example, as discussed, while distraction and suppression appear to be similar, suppression has outcomes that are more maladaptive than those for distraction. Depressed individuals who are distracted from negative mood states have been found to show alleviated depressive symptoms<sup>72</sup> and angry individuals who are distracted from this anger show lower levels of anger<sup>73</sup>. Understanding the goals and behaviors for different strategies can help to strengthen positive outcomes for relationships. Moving from relational consequences to those of the individual, emotion regulation can affect psychological adjustment and an individual's competence in social settings in both clinical<sup>74</sup> and non-clinical populations<sup>75</sup>.

Though these findings only cover a single time point, specific situation, and were not intended to assess outcomes, they reveal important themes within interpersonal emotion regulation, which is relevant in all interpersonal settings, including that between a clinical psychologist and their client. Findings suggest that while reappraisal and distraction are common, acceptance remains the most common approach towards negative emotions, despite its non-regulation nature. The goals correlated with acceptance were all prosocial in their intentions, with the only somewhat positive goal variable not correlated with acceptance being the goal for the friend to like the participant more, which can be argued as self-serving rather than prosocial. While an acceptance strategy may not be defined by the explicit goal to change emotions, or in this context, help a client to feel better, the goals that are associated with acceptance all are marked by positive and healthy intentions.

### Limitations and Future Directions

While the present study had its share of limitations due to sample size and study design, it was not without strengths. Reaching analyses across two data sources provided a perspective not before achieved in interpersonal emotion regulation research. Additionally, by having both participants and a team of coders independently responsible for rating multiple strategies present in a single narrative simultaneously, the present study has allowed for the concurrent use of multiple strategies at once, something that past studies have not achieved, despite the knowledge that multiple emotion regulation strategies are often utilized at once<sup>76</sup>.

This thesis ran into limitations resulting from the sample size on multiple different levels. Initially, the sample gleaned from UC Berkeley's research participant pool (RPP) is known to have an overwhelming presence of female and Asian-American participants. The sample included 83% females, which while highly unlikely in a sample from the general population, is fairly prototypical within RPP. I was also limited by the age range in the sample, which was capped between 18 and 25. It would be interesting to examine effects of age on interpersonal emotion regulation, because intrapersonal emotion regulation has seen findings that younger and older adults show different patterns of emotion regulation strategy use<sup>77</sup>. Overall, the sample was homogenous in gender, ethnicity, and age, which can certainly have a large influence on results, not to mention the sample's homogeneity regarding intellect. College students included in RPP are those currently enrolled in introductory

72 Joormann, J., & Siemer, M. (2004). Memory accessibility, mood regulation, and dysphoria: Difficulties in repairing sad mood with happy memories? *Journal of Abnormal Psychology*, 113(2), 179-188.

73 Gerin, W., Davidson, K. W., Christenfeld, N. J. S., Goyal, T., & Schwartz, J. E. (2006). The role of angry rumination and distraction in blood pressure recovery from emotional arousal. *Psychosomatic Medicine*, 68(1), 64-72.

74 Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice*, 2(2), 151-164.

75 Gross & John, 2003

76 Gross, 1998a

77 Brummer, L., Stopa, L., & Bucks, R. (2013). The Influence of Age on Emotion Regulation Strategies and Psychological Distress. *Behavioural and Cognitive Psychotherapy*, 42(6), 668-681.

psychology courses, so while I knew that UC Berkeley students already have an above average intelligence compared to the general population, placement within a psychology educational setting may have had effects on emotional intelligence as well, which certainly would translate to differences in emotion regulation that are not perfect representations of the general population. Finally, students who participate in RPP are likely doing so as a course requirement, and therefore may not be the most motivated sample to answer questions accurately, as I lost over 25% of the sample pool to manipulation and attention checks.

While the study format offered strengths that justified its design, the hypothetical scenario was limiting in ways as well. Because the prompt was very vague in how it defined the friend's relationship with the participant and the friend's negative feelings, I was not able to assess how types of negative feelings or closeness of relationship may influence strategy choice. It would be interesting for future research to create multiple conditions that specify different types of negative feelings and track how interpersonal emotion regulation strategy use changes depending on the situation, because these differences arise on the self-directed emotion regulation level<sup>78</sup>. It would also be valuable to administer a dyadic study, so that self-reported goals can be assessed in both the target and the regulator. Finally, it was difficult to capture goals from a remotely completed survey format, so future studies may consider either incorporating an open-ended response opportunity for goals or administering the study face-to-face. A limitation often seen in survey studies was that of self-report bias. In order to eliminate this bias, interpersonal emotion regulation would need to be observed naturalistically. One student currently pursuing their PhD in clinical psychology is working on a dissertation that involves experience sampling to study interpersonal interactions, in which participants would have their cell phones programmed to come on during the day and record what is being said. Ultimately, research assistants would code for interpersonal emotion regulation, among many other interactions, so that conclusions can be made about what people are actually doing in their everyday lives, improving on both ecological validity and accuracy not entirely accomplished in the present study.

## Conclusion

Right now, researchers are just putting together the building blocks for the foundation of interpersonal emotion regulation and thus need to make sure they pursue the most relevant and common strategies. The present study has shown that research on emotion regulation not only needs to continue expanding in the interpersonal realm, but also needs to expand beyond reappraisal and suppression. Despite its non-regulation operation, acceptance is extremely common, warranting its relevance within the topic. Additionally, distraction is occurring far more than suppression, justifying the need for equal if not more attention to be paid towards distraction than has been given to suppression in past literature.

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78 Sheppes & Meiran, 2007

**Table 1**

Observer-coded Strategies: Operational Definitions Used by the Coders and Three Examples Coded as Particularly Prototypical (High) for that Strategy

| Strategy    | Definition   | Abbreviated examples of responses given  |
|-------------|--|--|
| Acceptance  | Attending to and non-judgmentally engaging with the other person's negative emotions   | <ol style="list-style-type: none"> <li>1. <i>I would accept my friend and let them vent to me</i></li> <li>2. <i>I would let my friend talk through things until they feel better</i></li> <li>3. <i>I would support and validate my friend</i></li> </ol>   |
| Reappraisal | Suggesting a reframing an emotional event in order to modulate the other person's experience of negative (or positive) emotion | <ol style="list-style-type: none"> <li>1. <i>I would tell them that tomorrow will be OK.</i></li> <li>2. <i>I would remind them that there may be a silver lining to this.</i></li> <li>3. <i>I would say they still have a lot going for them, things aren't as bad as they seem.</i></li> </ol>                                  |
| Suppression | Attempting to hide, reduce, or stop another person's ongoing emotion-expressive behavior                                       | <ol style="list-style-type: none"> <li>1. <i>I would want to not talk about that and ruin the good day I was having.</i></li> <li>2. <i>I would tell them it is not good to be so negative and complain so much.</i></li> <li>3. <i>I would tell them to not talk about that right now and just have lunch with me.</i></li> </ol> |
| Distraction | Diverting an individual's attention away from emotion aspects of an event or situation   | <ol style="list-style-type: none"> <li>1. <i>I would take them for ice cream and tell some jokes.</i></li> <li>2. <i>I would tell them an unrelated story to get their mind off things.</i></li> <li>3. <i>I would get them to think about</i></li> </ol>  |

**Table 2**

Variables Coded from Open-ended Responses: Interpersonal ER Strategy Use and Specific Behaviors, their Interrater Reliability (Alpha), Means and SDs, and Correlations with Gender and Asian-American Ethnicity

| Observer-coded variables           | Alpha | Mean | Standard deviation | Correlation with: |                 |
|------------------------------------|-------|------|--------------------|-------------------|-----------------|
|                                    |       |      |                    | Female gender     | Asian ethnicity |
| <b>Interpersonal ER strategies</b> |       |      |                    |                   |                 |
| Acceptance                         | .85   | 3.4  | 1.7                | .11*              | -.05            |
| Reappraisal                        | .92   | 2.6  | 2.1                | .13*              | .03             |
| Suppression                        | .84   | 0.6  | 1.1                | -.10              | .10             |
| Distraction                        | .93   | 1.5  | 2.0                | -.08              | .02             |
| <b>Specific behaviors</b>          |       |      |                    |                   |                 |
| Empathizing                        | .92   | 1.6  | 2.0                | -.06              | .06             |
| Physically comforting              | .82   | 2.0  | 1.7                | .15**             | -.10            |
| Encouraging venting                | .89   | 2.2  | 2.1                | .13*              | -.02            |
| Asking questions                   | .93   | 1.5  | 2.1                | .11*              | -.03            |
| Giving compliments                 | .92   | 0.4  | 1.1                | .08               | -.02            |
| Expressing sympathy                | .96   | 1.2  | 2.2                | .11*              | -.22**          |

*Note.* \*  $p < .05$ , \*\*  $p < .01$ . Items were rated on a 0-6 scale, 0=Not at all present, 6=Fully present. Female gender was coded as female (1) vs. male (0), and Asian ethnicity was coded Asian-American ethnicity (1) vs. all other ethnicities (0).

**Table 3**

Ratings of Strategy Use: Means (and SDs) for Self-rated and Observer-coded Variables

| Data source    | Acceptance | Reappraisal | Suppression | Distraction |
|----------------|------------|-------------|-------------|-------------|
| Self-rated     | 4.5 (1.6)  | 4.3 (2.0)   | 0.3 (0.9)   | 2.6 (2.1)   |
| Observer-coded | 3.4 (1.7)  | 2.6 (2.1)   | 0.6 (1.1)   | 1.5 (2.0)   |

*Note.* Both self-rated and observer-coded variables were scored on a scale from 0 to 6.

Table 4

Convergence between Observer-coded and Self-rated Strategy Use

| Observer-coded | Self-rated   |              |              |              |
|----------------|--------------|--------------|--------------|--------------|
|                | Acceptance   | Reappraisal  | Suppression  | Distraction  |
| Acceptance     | <b>.42**</b> | -.15**       | -.14*        | -.33**       |
| Reappraisal    | -.13*        | <b>.36**</b> | -.04         | -.09         |
| Suppression    | -.27**       | .14**        | <b>.26**</b> | .31**        |
| Distraction    | -.08         | .02          | .08          | <b>.65**</b> |

*Note.* \*  $p < .05$ , \*\*  $p < .01$ . Diagonal values that show the convergence between self-rated and observer-coded variables and are set in bold.

**Table 5**

Correlations of Self-reported Goals with Self-rated (Self) and Observer-coded (Obs.) Strategy Use

| Self-reported goals       | Acceptance |        | Reappraisal |       | Suppression |        | Distraction |        |
|---------------------------|------------|--------|-------------|-------|-------------|--------|-------------|--------|
|                           | Self       | Obs.   | Self        | Obs.  | Self        | Obs.   | Self        | Obs.   |
| <b>Regulatory</b>         |            |        |             |       |             |        |             |        |
| Accepting emotions        | .36**      | .32**  | -.08        | -.07  | -.31**      | -.25** | -.11*       | -.06   |
| Targeting cognitions      | .02        | .04    | .32**       | .33** | -.11*       | -.11*  | -.06        | -.17** |
| Changing emotions         | -.18**     | -.24** | .22**       | .19** | .12*        | .10    | .28**       | .19**  |
| Distracting from emotions | -.17**     | -.28** | .04         | -.08  | .10         | .20**  | .59**       | .46**  |
| <b>Instrumental</b>       |            |        |             |       |             |        |             |        |
| Finding solution          | .10        | .11*   | .12*        | .12*  | -.21**      | -.16** | .00         | -.10   |
| Changing topic            | -.26**     | -.31** | .09         | -.06  | .24**       | .27**  | .39**       | .34**  |
| Escaping situation        | -.16**     | -.24** | .18**       | .01   | .25**       | .31**  | .15**       | .08    |
| <b>Social</b>             |            |        |             |       |             |        |             |        |
| Friend liking me more     | .05        | -.12*  | .15**       | -.05  | .09         | .09    | .13*        | .05    |
| Showing empathy           | .26**      | .22**  | -.03        | .00   | -.14**      | -.22** | -.10        | -.09   |

Note. \*  $p < .05$ , \*\*  $p < .01$ .

**Table 6**

Observer-coded Behaviors Correlated with Participant-rated (Self) and Observer-coded (O) Strategies

| Observer-coded behaviors | Acceptance |       | Reappraisal |        | Suppression |        | Distraction |        |
|--------------------------|------------|-------|-------------|--------|-------------|--------|-------------|--------|
|                          | Self       | Obs.  | Self        | Obs.   | Self        | Obs.   | Self        | Obs.   |
| Empathizing              | .20**      | .30** | -.04        | .02    | .00         | -.21** | -.14**      | -.16** |
| Physically comforting    | .23**      | .38** | -.27**      | -.19** | -.13**      | -.20** | -.10        | -.07   |
| Encouraging venting      | .22**      | .62** | -.12*       | -.19** | -.10        | -.31** | -.18**      | -.13*  |
| Asking questions         | .07        | .28** | -.05        | -.18** | -.08        | -.16** | -.06        | -.02   |
| Giving compliments       | .01        | -.09  | .05         | .11*   | -.07        | -.08   | -.08        | -.07   |
| Expressing sympathy      | .06        | .07   | -.04        | -.09   | -.10        | -.06   | -.01        | .03    |

Note. \*  $p < .05$ , \*\*  $p < .01$ .

## Appendix A

In this section, you will be asked how you might respond to an emotional situation in which you interacted with a friend.

This part of the study involves situations where someone is having strong feelings and you respond to them in a particular way. How might those interactions play out? We are interested in your personal views, so please share your thoughts and reactions as honestly as you can.

Please click the “next” button to continue.

(new screen)

Please consider the following situation:

You are going to have lunch with a new friend, and you have been looking forward to it all morning. You’ve just sat down and ordered your food, when your friend starts telling you what a difficult day they have had. Things have not gone well, and your friend is feeling quite bad. Your friend has been talking for a while about how bad their day has been and is sharing their negative feelings.

Now it’s your turn to talk. What would you say?

Please think about how you might respond. Below there is space for you to type the response you would give to your friend.

(new screen)

Your friend is clearly very upset. How do you deal with that situation? What would you say to influence how your friend is feeling and behaving?

Describe what comments you would use to influence how your friend is feeling.

1. What sort of advice would you give to change how your friend is feeling?
2. What sort of comments might you provide to signal your intentions?

## Appendix B1

| ER Strategies                         | Definition  | More info   | Examples  |
|---------------------------------------|---|---|---|
| Acceptance                            | Attending to and non-judgmentally engaging with negative emotions (Segal, Williams, & Teasdale, 2002)                   | Simply let their feelings happen, whatever these feelings may have been, you tried to simply let their feelings happen so that these feelings could run their course (Gonzalez & John, 2018)  | <i>"I'd let them talk through it until they felt better, I would support and validate them"</i>   |
| Reappraisal                           | Reframing an emotional event in order to modulate one's experience of negative or positive emotion (Gross, 1998)        | Trying to have the other person think differently about whatever was making them emotional, suggesting alternative ways to think about the situation and getting them to reinterpret or reconsider what the experience means to them (Gonzalez & John, 2018); contextualizing; distance | <i>"I'd try to remind them that everything happens for a reason"</i><br><i>"I'd remind them that they still have a lot going for them and things aren't as bad as they seem"</i> <i>"Tomorrow will be OK"</i> |
| Suppression                           | The attempt to hide, inhibit or reduce ongoing emotion-expressive behavior (Gross & Levenson, 1993; Gross & John, 2003) | Trying to keep another person from expressing their feelings, finding ways to keep him or her from expressing these emotions, shutting others down (Gonzalez & John, 2018)  | <i>"I'd tell them it's not good to be so negative and they shouldn't be complaining so much"</i>  |
| Distraction/<br>shifting<br>attention | Diverting an individual's attention away from the affective aspects of a situation (Van Dillen & Koole, 2007)           | Diverting attention away from an emotional stimulus and towards other content (Gonzalez & John, 2018); shifting attention away from negative feelings   | <i>"I would take them for ice cream and tell them some jokes"</i> <i>"I would have them think about happy things like puppies"</i>  |

Note. Scale = 0-6 (0=not at all present, 6=very evident)

## Appendix B2

| Specific behaviors    | Face-valid definitions   | Examples  |
|-----------------------|--|---|
| Empathizing           | Participant puts themselves in their friend's shoes and is aware of and sensitive to their feelings in an intention to help  | <i>"I would make sure my friend knew I understood what they're going through and that I had been in their shoes before"</i> |
| Asking questions      | Participants asks friend questions to better understand their situation  | <i>"I would ask what's wrong" "What happened?"</i>  |
| Physically supporting | Participant offers physical comfort or their physical presence as a means of support, offers companionship   | <i>"I would give my friend a hug" "I would be there for my friend"</i>  |
| Giving compliments    | Speech acts which maintain, improve or support the participant's face, used as a positive politeness strategy which notices the participant's interests, wants, needs and goods, could be about various topics, such as appearance, ability, performance and possessions | <i>"I would remind her that she's smart and capable"</i>  |
| Allowing venting      | Participant allows friend to disclose stress as a coping mechanism   | <i>"I just want my friend to be able to talk through things and vent to me"</i>   |
| Expressing sympathy   | Shifts the friend's attribution of the cause of the task's outcome, blaming the failure on random chance, i.e. the situation, rather than the friend's type, i.e. their disposition  | <i>"I'm sorry for what you're going through"</i>  |

*Note.* Scale = 0-6 (0=not at all present, 6=very evident)

**Appendix C1**

Habitual Use of Interpersonal ER Strategies, as Measured by the Three ERQ-O Scales: Number of Items, Alpha Reliability, Means and SDs, and Correlations with Gender and Asian-American Ethnicity

| Factor      | # of items | Alpha | Mean | Standard deviation | Correlation with: |                 |
|-------------|------------|-------|------|--------------------|-------------------|-----------------|
|             |            |       |      |                    | Female gender     | Asian ethnicity |
| Acceptance  | 4          | .80   | 5.4  | 1.0                | .25**             | -.04            |
| Reappraisal | 5          | .78   | 5.2  | 0.9                | .21**             | -.00            |
| Suppression | 4          | .86   | 2.1  | 1.2                | -.22**            | .17**           |

*Note.* \*\*  $p < .01$ .  $N = 347$ . Female gender was coded as female (1) vs. male (0), and Asian ethnicity was coded Asian-American ethnicity (1) vs. all other ethnicities (0).

## Appendix C2

Three ERQ-O Scales Correlated with Self-rated (Self) and Observer-coded (Obs.) Strategies

| ERQ-O       | Acceptance   |              | Reappraisal  |              | Suppression  |             | Distraction  |              |
|-------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|
|             | Self         | Obs.         | Self         | Obs.         | Self         | Obs.        | Self         | Obs.         |
| Acceptance  | <b>.29**</b> | <b>.23**</b> | -.16**       | .00          | -.15**       | -.11*       | -.13*        | -.07         |
| Reappraisal | -.05         | -.12*        | <b>.28**</b> | <b>.27**</b> | -.13*        | .03         | <b>.21**</b> | <b>.24**</b> |
| Suppression | -.07         | -.23**       | .06          | -.06         | <b>.38**</b> | <b>-.06</b> | <b>.16**</b> | -.02         |

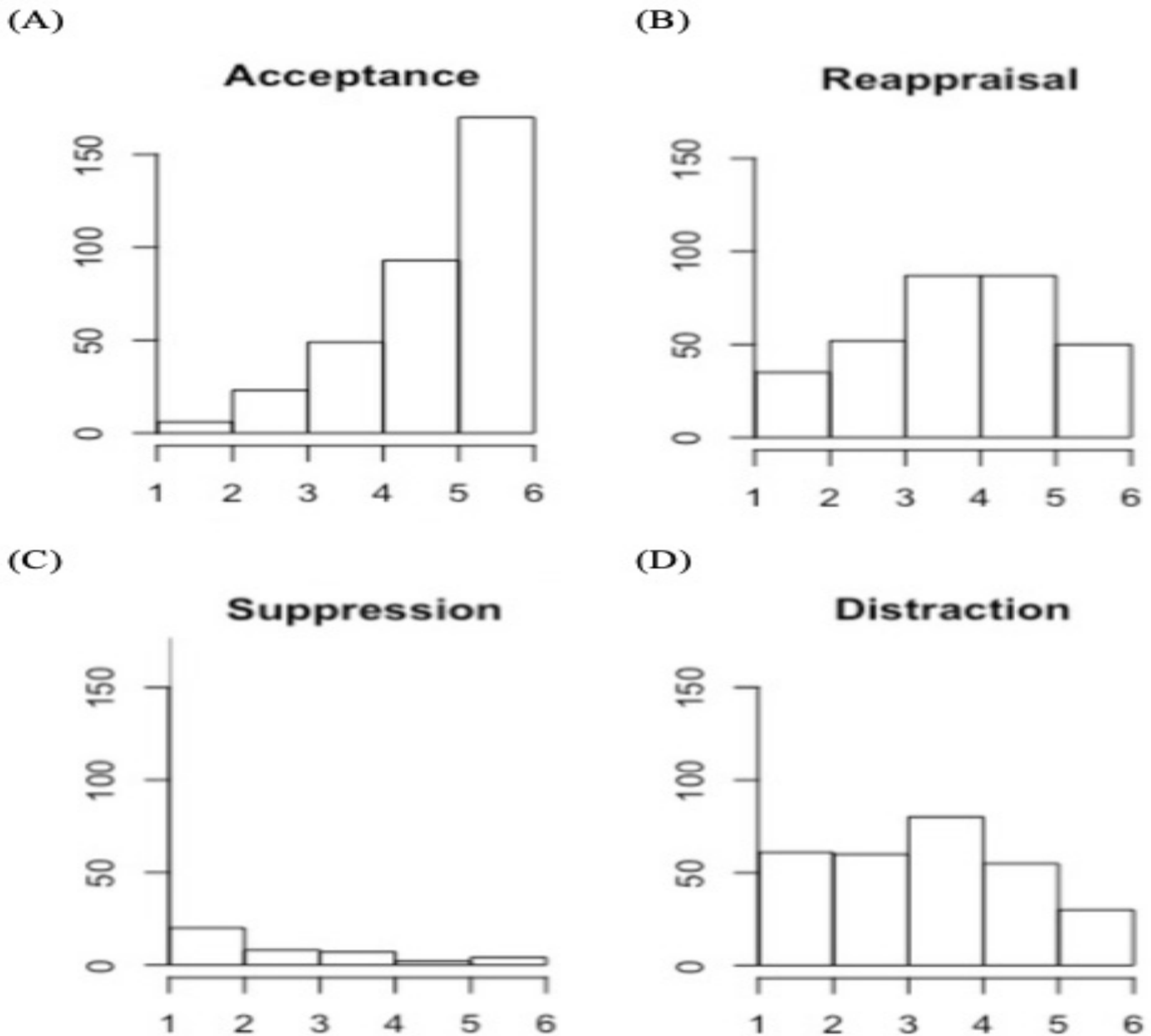
Note. \*  $p < .05$ , \*\*  $p < .01$ . Expected convergent validity correlations are set in bold.

## Appendix C3

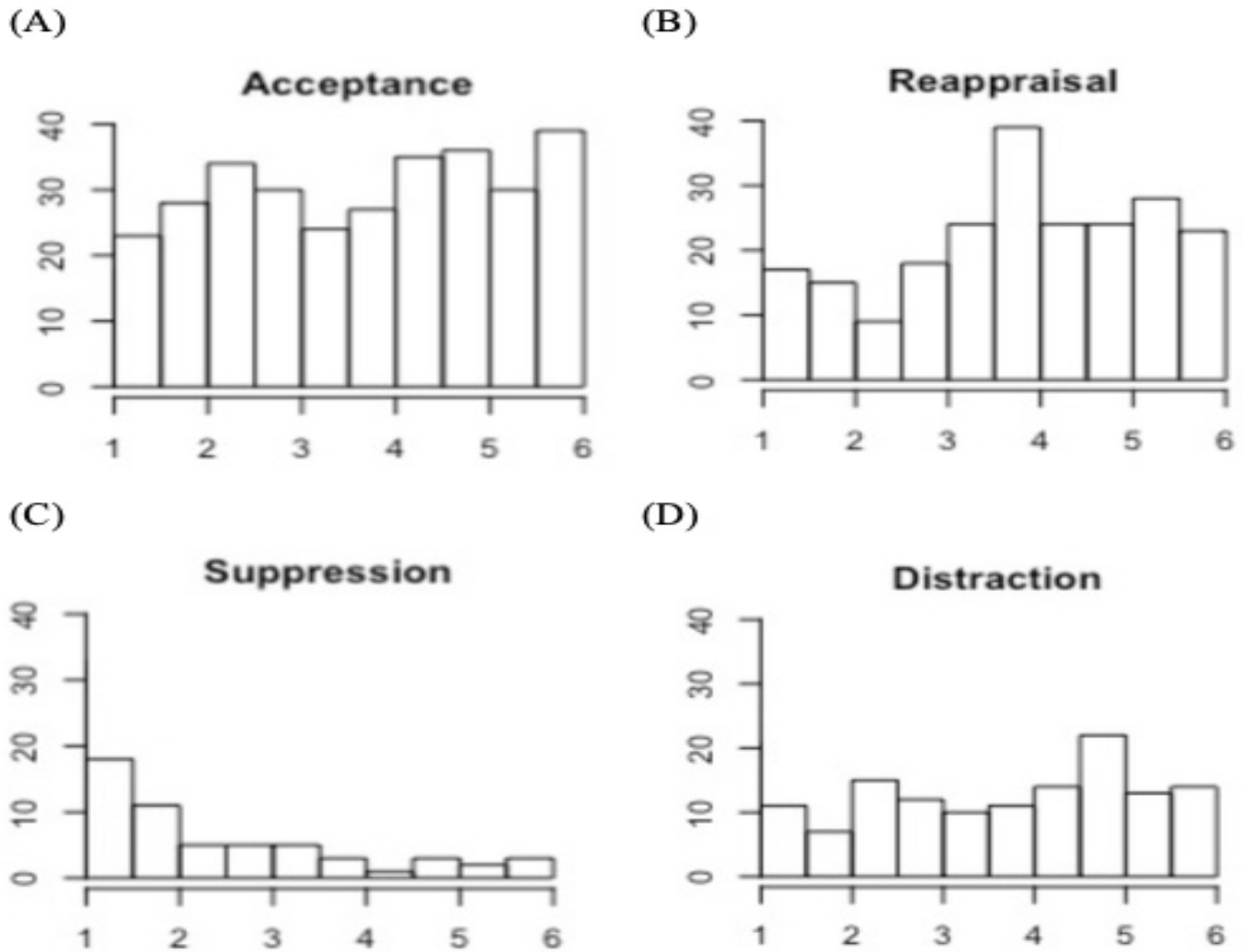
## Self-reported Goals and Observer-coded Behaviors Correlated with Three ERQ-O Scales

| Goals and behaviors             | ERQ-O scales |             |             |
|---------------------------------|--------------|-------------|-------------|
|                                 | Acceptance   | Reappraisal | Suppression |
| <b>Self-reported goals</b>      |              |             |             |
| Regulatory                      |              |             |             |
| Accepting emotions              | .48**        | .17**       | -.28**      |
| Targeting cognitions            | .11*         | .37**       | -.07        |
| Changing emotions               | -.16**       | .36**       | .08         |
| Distracting from emotions       | -.12*        | .20**       | .16**       |
| Instrumental                    |              |             |             |
| Changing topic                  | -.29**       | .02         | .22**       |
| Escaping Situation              | -.30**       | -.04        | .23**       |
| Finding solution                | .08          | .24**       | -.10        |
| Social                          |              |             |             |
| Friend liking me more           | -.10         | .02         | .16**       |
| Showing empathy                 | .34**        | .07         | -.14**      |
| <b>Observer-coded behaviors</b> |              |             |             |
| Empathizing                     | .01          | -.08        | -.02        |
| Physically comforting           | .11*         | -.02        | -.17**      |
| Encouraging venting             | .07          | -.09        | -.17**      |
| Asking questions                | .00          | -.03        | -.13*       |
| Giving compliments              | .04          | .04         | -.09        |
| Expressing sympathy             | .09          | -.02        | -.19**      |

Note. \*  $p < .05$ , \*\*  $p < .01$ .



**Figure 1.** Bar charts display the frequencies for which scores (1=Not very likely, 6=Very likely) were given to each strategy for participant self-ratings. Scores of 0 are not shown, being that this graph aims to illustrate instances in which the strategy was present to some degree. The acceptance (A) strategy was rated “not at all similar [to open-ended response]” by 2.5% of participants, and thus these 2.5% are not shown. For reappraisal (B), 14.1% rated “not at all similar”. For suppression (C), 83.3% rated “not at all similar”, and finally for distraction (D), 25.1% rated “not at all similar”.



**Figure 2.** Bar charts display the frequencies for which scores (1=Not very likely, 6=Very likely) were given to each strategy during observer coding of narratives. Scores of 0 are not shown, being that this graph aims to illustrate instances in which the strategy was present to some degree. The acceptance (A) strategy was rated “not at all present” in 8.6% of participant narratives, and thus these 8.6% are not shown. For reappraisal (B), 33.4% were rated “not at all present”. For suppression (C), 79.5% were rated “not at all present”, and for distraction, 60.5% were rated “not at all present”.

## **Acknowledgements**

I would like to thank the many people who have made this work possible: my incredible mentor Professor Oliver P. John for sharing his wisdom with me whenever he is able; Fausto Gonzalez, PhD, for making himself available to help and support me while on the other side of the country; and Jacob Gray and Stephen Antonoplis for their assistance in R and beyond. I would also like to thank my peers, Giana and Julia, for writing theses alongside me and helping me to maintain my sanity. Lastly, I would like to thank my phenomenal parents, for always doing everything in their power to support and love me in the best way possible.

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Oliver P. John is a professor of Psychology at UC Berkeley. His research focuses on the concepts and categories used to describe people, from both a social and personality psychology lens. He served as Taylor's primary investigator for her senior thesis. He is most well-known for co-developing the "Big Five" Index.

Fausto Gonzalez is currently a post-doc at New York University, after having completed his PhD under Professor Oliver P. John at UC Berkeley, where he studied interpersonal emotion regulation. Taylor worked as a research assistant for him during her time at Berkeley and was inspired by his interest

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