INTERPERSONAL EMOTIONAL INTELLIGENCE REDUCES THE GAP IN ANGER REGULATION CONFIDENCE CAUSED BY SELF-OTHER DISSIMILARITY

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Compared to regulating their own emotions, people have to take into account self-other dissimilarities when regulating others’ emotions. We investigate whether self-other dissimilarity decreases confidence in extrinsic anger regulation and how trait emotional intelligence moderates this difference in anger regulation confidence, regardless of context (none, confrontational, and collaborative). Participants indicated how they would respond to provocation-related vignettes. They rated their confidence in successfully regulating their own anger, a similar other’s anger, and a dissimilar other’s anger. Results showed that individuals had lowest confidence in regulating anger for the dissimilar other, followed by the similar other and self. Moreover, individuals high in interpersonal emotional intelligence had higher confidence in regulating anger of a dissimilar other; confidence was nearly as high as for regulating their own anger. These results generalized to all contexts. They offer novel insights into extrinsic emotion regulation and social functions of trait emotional intelligence.

Key words: emotional intelligence, emotion regulation, anger, self-other similarity

Humans benefit greatly from collective life. People should appropriately regulate others’ emotions, as well as their own, when navigating social situations to achieve satisfactory social outcomes. Although individuals usually experience and regulate emotions in social situations, extant emotion regulation theories (e.g., Gross, 1998; Ochsner & Gross, 2005) focus on how individuals deploy different emotion regulation strategies in solitude. Against this background, Zaki and Williams (2013) emphasized the importance of investigating how people regulate emotions in social situations. Their model classifies emotion regulation in social situations according to whether an individual attempts to alter their own or another person’s emotions. The former is called “intrinsic emotion regulation,” whereas the latter is called “extrinsic emotion regulation” (Zaki & Williams, 2013). Gross (2013) indicated that most studies to date have focused on intrinsic emotion regulation. Thus, to further develop a theory of emotion regulation in social situations, extrinsic emotion regulation should be investigated.

Several previous studies have revealed positive outcomes following extrinsic emotion regulation. For example, extrinsic emotion regulation leads to the formation and maintenance of high-quality relationships (Niven, Holman, & Totterdell, 2012) as well as...
high affective well-being in the regulator (Niven, Totterdell, Holman, & Headley, 2012). Therefore, extrinsic emotion regulation can strengthen connections with the target of regulation and plays an important role in successful social relationships.

Although these studies revealed the consequences of extrinsic emotion regulation, to our knowledge, no study has compared extrinsic and intrinsic emotion regulation to reveal what factors makes it difficult to regulate others’ emotions. Compared to intrinsic emotion regulation, individuals have to take into account differences between the self and others when conducting extrinsic emotion regulation. According to simulation theory, individuals understand other peoples’ minds, in part, by assuming that others experience what they themselves would think or feel in a comparable situation (Gallese & Goldman, 1998; Waytz & Mitchell, 2011). Because individuals often uncritically impute their own knowledge to others, they are more likely to experience difficulty successfully communicating when the target has a different background (Nickerson, 1999). Based on simulation theory, previous studies manipulated the similarity of the target to participants, and found that it is more difficult to infer the mental state of dissimilar versus similar others. For example, response time is slower when judging extent of agreement on questions on a wide range of personal and social issues for dissimilar versus similar others (Mitchell, Macrae, & Banaji, 2006). Self-other similarity also matters when understanding other people’s emotions. Individuals are worse at estimating the emotional states of a protagonist who has a dissimilar compared to similar personality to him/her (Komeda, Kawasaki, Tsunemi, & Kusumi, 2009).

Given these studies, large dissimilarity between the self and others may also reduce confidence in successfully regulating others’ emotions because people have difficulty applying their own minds to understanding others’ emotions or finding effective ways to regulate others’ emotions. By addressing this point, we can reveal what factors make extrinsic emotion regulation difficult. To fill this gap, the current study investigated differences between regulating self-anger, similar others’ anger, and dissimilar others’ anger. Anger is an important target for emotion regulation because inappropriate anger expression can damage interpersonal relationships (Kim & Smith, 1993; Nozaki & Koyasu, 2013a). Thus, this study focused on anger regulation. Because using self-knowledge to infer another person’s mind is less useful for dissimilar others (Nickerson, 1999), we predicted that people would have less confidence in regulating a dissimilar other’s anger, followed by confidence in regulating a similar other’s anger and their own anger (Hypothesis 1).

This study also investigates how trait emotional intelligence (EI) moderates differences in emotion regulation confidence based on self-other dissimilarity. EI reflects individual variability in the ability to appropriately appraise and regulate self-related and other-related emotions (Mayer & Salovey, 1997; Petrides & Furnham, 2003). Because EI is regarded as a subset of social intelligence, it plays an important role when other people are involved (e.g., Nozaki & Koyasu, 2013a, 2013b). EI has been classified in one of two ways: trait and ability. Trait EI is conceived as a constellation of emotional self-perceptions at the lower levels of personality hierarchies (Petrides, Pita, & Kokkinaki, 2007) and is measured through self-report questionnaires that tap typical performance. Compared to ability EI, measured through maximum-performance tests (Mayer & Salovey, 1997), trait EI theories
usually distinguish between intrapersonal (e.g., appraisal and regulation of emotions in the self) and interpersonal (e.g., appraisal and regulation of emotions in others) domains (e.g., Petrides & Furnham, 2003). We focus on trait EI to investigate how intrapersonal and interpersonal EI are related to emotion regulation in social situations.

How is trait EI associated with differences in emotion regulation based on self-other dissimilarity? Emotionally intelligent people may have high confidence in emotion regulation even for dissimilar others because they are good at inferring others’ emotional states and selecting suitable emotion regulation strategies (Petrides & Furnham, 2003). We predicted that interpersonal trait EI would be associated with reduced differences in anger regulation confidence based on self-other dissimilarity (Hypothesis 2). This prediction is based on the assumption that individuals with high interpersonal EI are able to effectively deal with other-related emotions.

Previous studies have emphasized the importance of investigating whether trait EI can explain variance that is not accounted for by personality traits (e.g., Saklofske, Austin, & Minski, 2003). Trait EI is moderately, and in some cases largely, correlated with personality traits (Zeidner, Roberts, & Matthews, 2008). These relationships raise the question of whether trait EI is a distinct aspect of personality (e.g., Davies, Stankov, & Roberts, 1998). Because previous studies have revealed that Big Five personality traits are also related to anger regulation (e.g., McCullough, Bellah, Kilpatrick, & Johnson, 2001), it is valuable to investigate the predictive utility of trait EI over Big Five personality traits. Therefore, we measured Big Five personality traits and controlled for them when examining correlations with trait EI.

In social situations, emotions are regulated in various contexts (Tamir & Ford, 2012). Previous studies have revealed that individuals change how they regulate emotions depending on context. For example, people try to increase anger in confrontational contexts, whereas they try to increase joy or happiness in collaborative contexts (e.g., Tamir & Ford, 2012; Tamir, Mitchell, & Gross, 2008). Thus, it is important to test whether the hypothesized effects of self-other dissimilarity on confidence and its relationship with trait EI generalize to different contexts. To this end, the current study manipulated context (none, confrontational, and collaborative) and asked participants to rate their confidence in successful anger regulation in each context. Regardless of whether individuals try to up-regulate or down-regulate anger, they should take into account differences between the self and others for successful extrinsic emotion regulation. Therefore, we predicted that the hypothesized effect of self-other dissimilarity on anger regulation confidence and its relationship with trait EI would be observed in all contexts (Hypothesis 3).

METHOD

Participants and procedure

Two hundred undergraduate students (100 men and 100 women, mean age = 20.37, SD = 1.41) participated in this study. This sample was recruited using a Japanese-based participant recruitment and data collection company (Cross Marketing Inc.). Participants consented (in advance) to receiving information about various
research projects and surveys in which they could be involved. Participants answered our questionnaire through a website.

**Materials**

*Vignettes.* Participants were presented with three types of provocation-related vignettes (see Appendix for descriptions). We used a within-subjects design (Target: self, similar other, dissimilar other) to investigate how trait EI is associated with differences in anger regulation confidence between targets; this required participants’ assessments of their anger regulation confidence for all targets. Participants were asked to imagine themselves in each vignette. Each vignette described a situation in which the participant and two other people engaged in a group activity together (e.g., doing group work as a university assignment). One of the other people had a very similar personality to the participant, whereas the other had a fairly dissimilar personality. While the group was conducting the activity, a fourth person, who often made disagreeable comments, happened to pass by and made provocative comments. The participant’s group members looked offended. After reading each vignette, participants were asked to answer the following question: “To what extent are you confident in being able to regulate your anger, the similar other’s anger, and the dissimilar other’s anger, respectively, in this situation?” (confidence: 1 = not at all, 7 = very much). Participants also read additional descriptions about relationships between the participant’s group and the fourth person. In the confrontational context, the participant’s group opposes the fourth person (e.g., the participant’s group and the fourth person’s group will make presentations about group activity achievement; the group that obtains a higher rating will get a better grade). In the collaborative context, the participant’s group is supposed to collaborate with that person (e.g., the fourth person’s group will join the participant’s group and will complete a group activity together in the near future). After reading each additional description, participants rated their confidence in anger regulation. Therefore, participants rated their confidence three times per vignette (no context, confrontational context, and collaborative context). Responses were averaged across the three vignettes for each target and context (a = .79–.89). For each vignette, participants first read the vignette with no additional description, followed by the confrontational or cooperative context. Order was counterbalanced across vignettes.

To check whether our vignettes actually describe provocation-related situations, a separate sample of 84 undergraduates (49 men and 35 women, M = 20.82, SD = 1.72) read the vignettes and answered the following question: “To what extent do you feel anger in this situation?” (1 = not at all, 6 = very much). The results showed that participants felt significantly more anger than the mid-point in all vignette situations (vignette 1: M = 4.86, SD = 0.97; vignette 2: M = 4.79, SD = 1.15; vignette 3: M = 4.52, SD = 1.07), ts > 38.08, ps < .001. These results confirm that our vignettes are provocation-related.

*Trait EI.* Trait EI was assessed with a revised version of the Wong and Law Emotional Intelligence Scale (WLEIS; Nozaki, 2012). The original WLEIS (Wong & Law, 2002; Japanese version: Toyota & Sakurai, 2007) was criticized because items in the “use of emotion” subscale included content that was not related to emotions, and no items referred to the management of others’ emotions (McEnrue, Groves, & Shen, 2010). The revised scale addresses these issues. It consisted of four subscales: self-emotion appraisal, regulation of emotions in the self, other-emotion appraisal, and regulation of emotions in others. Each subscale contains four items rated on a 6-point scale (1 = totally disagree, 6 = totally agree). This scale yields two area scores computed by combining two subscales scores: (1) Intrapersonal EI (α = .86) is the combined score for self-emotion appraisal and regulation of emotions in the self; and (2) Interpersonal EI (α = .91) is the combined score for other-emotion appraisal and regulation of emotions in others.

*Big Five.* The Big Five personality traits were assessed with the Ten-Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003; Japanese version: Oshio, Abe, & Cutrine, 2012). Extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience were each assessed with two items. Responses were measured with a 7-point scale (1 = strongly disagree, 7 = strongly agree).
RESULTS

Conditional differences in anger regulation confidence

To test the effect of target on anger regulation confidence, we conducted a repeated measures analysis of variance (ANOVA) with Target (self, similar other, dissimilar other) and Context (confrontational context, no context, cooperative context) as within-subjects factors (see Table 1 for means and standard deviations). As predicted, there was a significant main effect of Target, $F(2, 398) = 44.66$, $MSE = 0.99$, $p < .001$, $\eta_p^2 = .18$, 95% CI [.12, .25]. Ryan’s Q post-hoc analyses showed that confidence was lowest for the dissimilar other, followed by the similar other and the self, $p_s < .001$.

There was also a significant main effect of Context, $F(2, 398) = 13.88$, $MSE = 0.45$, $p < .001$, $\eta_p^2 = .07$, 95% CI [.02, .11]. Ryan’s Q post-hoc analyses showed that confidence was higher in the confrontation context than in the control and cooperation contexts, $p_s < .001$. Moreover, the Target $\times$ Context interaction was significant, $F(4, 796) = 2.50$, $MSE = 0.09$, $p = .041$, $\eta_p^2 = .01$, 95% CI [.00, .03]. However, subsequent Ryan’s Q post-hoc analyses revealed that confidence was highest for the self, followed by the similar other and dissimilar other in all contexts. These results suggest that individuals have less confidence in regulating anger of dissimilar others followed by similar others and the self, regardless of context.

Moderating effects of trait EI on differences in confidence

As revealed above, participants had the most confidence in regulating their own anger followed by that of similar others and dissimilar others. To test whether trait EI moderated these differences, we conducted a linear mixed model (LMM) with the statistical package R 13.0.1 (R Development Core Team, 2013) using the “nlme” package (Pinheiro, Bates, DebRoy, Sarkar, & R Development Core Team, 2013). Coefficients were estimated using restricted maximum likelihood. All continuous predictors were centered. Effects of participant were treated as random effects. In the first step, we regressed confidence ratings on gender, extraversion, agreeableness, openness, neuroticism, and conscientiousness. In the second step, we added the predictor variables: intrapersonal EI, interpersonal EI, target, and context. In the third step, we added intrapersonal EI $\times$ target, interpersonal EI $\times$ target, intrapersonal EI $\times$ context, interpersonal EI $\times$ context, and target $\times$ context. In the final step, we added intrapersonal EI $\times$ target $\times$ context and interpersonal EI $\times$ target $\times$ context.

Table 1. Means and standard deviations (in parentheses) of participants’ ratings on confidence in anger regulation

|                     | Self      | Similar other | Dissimilar other |
|---------------------|-----------|---------------|------------------|
| Confrontational context | 4.28 (1.08) | 4.03 (1.06)   | 3.77 (1.02)      |
| No context          | 4.19 (1.07) | 3.91 (1.06)   | 3.58 (0.96)      |
| Collaborative context | 4.09 (1.14) | 3.80 (1.06)   | 3.58 (1.03)      |
Table 2. Regression coefficients in predicting participants’ ratings on confidence in anger regulation

| Predictor                    | B     | 95% CI          | t     |
|------------------------------|-------|-----------------|-------|
| Fixed effect                 |       |                 |       |
| Step 1 ($\chi^2(6) = 22.45, p < .001$) |       |                 |       |
| Intercept                    | 3.93  | [3.79, 4.07]    | 54.99*** |
| Gender$^a$                   | –0.04 | [–0.25, 0.16]   | –0.42 |
| Extraversion                 | 0.00  | [–0.08, 0.09]   | 0.10  |
| Agreeableness                | –0.04 | [–0.14, 0.07]   | –0.67 |
| Neuroticism                  | –0.13 | [–0.23, –0.03]  | –2.53 |
| Openness                     | –0.06 | [–0.16, 0.04]   | –1.24 |
| Conscientiousness            | –0.04 | [–0.14, 0.06]   | –0.83 |
| Step 2 ($\chi^2(4) = 305.40, p < .001$) |       |                 |       |
| Intrapersonal EI             | 0.17  | [–0.03, 0.38]   | 1.68  |
| Interpersonal EI             | 0.41  | [0.23, 0.58]    | 4.47*** |
| Target$^b$                   | –0.27 | [–0.31, –0.24]  | –14.87*** |
| Context$^c$                  | 0.10  | [0.06, 0.14]    | 5.47*** |
| Step 3 ($\chi^2(5) = 11.14, p = .048$) |       |                 |       |
| Intrapersonal EI $\times$ Target | –0.11 | [–0.18, –0.04]  | –2.95** |
| Interpersonal EI $\times$ Target | 0.09  | [0.03, 0.15]    | 2.84** |
| Intrapersonal EI $\times$ Context | 0.02  | [–0.05, 0.10]   | 0.65  |
| Interpersonal EI $\times$ Context | –0.04 | [–0.10, 0.02]   | –1.22 |
| Target $\times$ Context     | 0.00  | [–0.04, 0.04]   | 0.02  |
| Step 4 ($\chi^2(2) = 0.26, p = .876$) |       |                 |       |
| Intrapersonal EI $\times$ Target $\times$ Context | 0.01  | [–0.07, 0.10]   | 0.33  |
| Interpersonal EI $\times$ Target $\times$ Context | –0.02 | [–0.10, 0.06]   | –0.50 |

Random effect

| Predictor      | SD |
|----------------|----|
| Intercept      | 0.66 |
| Residual       | 0.63 |

Note. N = 200; EI = Emotional intelligence; Coefficients were from the final model.

$^a$ Male = 0, Female = 1, $^b$ Dissimilar other = –1, Self = 0, Similar other = 1, $^c$ Collaborative context = –1, No context = 0, Confrontational context = 1.

* p < .05, ** p < .01*** p < .001
The results are summarized in Table 2. As expected, intrapersonal EI × target and interpersonal EI × target were significant. No interactions with context were significant, suggesting that there were no moderating effects of context. Following Aiken and West’s (1991) recommendation, we decomposed the significant interactions via simple slope analyses (Fig. 1). At one standard deviation below the mean in intrapersonal EI, confidence was low in general, and confidence in regulating self-anger was highest, followed by that of similar others and dissimilar others, $B = -0.18, p = .007, 95\% \text{ CI} [-0.31, -0.04]$. At one standard deviation above the mean in intrapersonal EI, the difference between targets was bigger, $B = -0.36, p < .001, 95\% \text{ CI} [-0.43, -0.29]$. Additional simple slope analyses revealed that the effect of intrapersonal EI was significant for the self, $B = 0.28, p = .011, 95\% \text{ CI} [0.07, 0.50]$, whereas it was not significant for either the similar other, $B = 0.17, p = .094, 95\% \text{ CI} [-0.03, 0.38]$, or dissimilar other, $B = 0.06, p = .561, 95\% \text{ CI} [-0.15, 0.28]$. These results suggest that intrapersonal EI mainly heightened confidence in intrapersonal anger regulation.

At one standard deviation below the mean in interpersonal EI, confidence in regulating self-anger was highest, followed by similar others and dissimilar others, $B = -0.36, p < .001, 95\% \text{ CI} [-0.49, -0.23]$. At one standard deviation above the mean in interpersonal EI, confidence was high, and although the differences between targets was smaller, they remained significant, $B = -0.18, p < .001, 95\% \text{ CI} [-0.25, -0.11]$. Additional simple slope analyses revealed that all effects of interpersonal EI were significant for the self, $B = 0.31, p = .001, 95\% \text{ CI} [0.13, 0.50]$, similar other, $B = 0.41, p < .001, 95\% \text{ CI} [0.23, 0.58]$, and dissimilar other, $B = 0.50, p < .001, 95\% \text{ CI} [0.31, 0.69]$. These results suggest that interpersonal EI heightened not only confidence in self-anger regulation, but also confidence in regulating anger for dissimilar others, and reduced confidence differences between targets.

Fig. 1. Moderated effects of trait emotional intelligence on the differences in confidence in anger regulation among targets.


**DISCUSSION**

The current study investigated whether self-other dissimilarity reduces confidence in regulating others’ anger and how trait EI moderates this difference in anger regulation confidence. The results support our predictions. Individuals have the lowest confidence in regulating anger for dissimilar others, followed by similar others and self (supporting Hypothesis 1). Furthermore, individuals high in interpersonal EI have higher confidence in regulating dissimilar others’ anger, and confidence is nearly as high as their confidence in regulating their own anger (supporting Hypothesis 2). Furthermore, these effects of self-other dissimilarity on confidence and its relationship with trait EI generalized to all contexts (supporting Hypothesis 3).

**Self-other dissimilarity of emotion regulation targets and the role of trait EI**

Anger regulation confidence was lowest for dissimilar others, followed by similar others and self. This suggests that self-other dissimilarity reduces confidence in regulating others’ emotions. This is consistent with simulation theory (Gallese & Goldman, 1998; Waytz & Mitchell, 2011). According to this theory, people try to understand others’ minds by applying their own minds. Individuals experience difficulty successfully communicating with a person from a different background because they try to impute their own knowledge to others (Nickerson, 1999). Our results suggest that this is also the case for regulating others’ anger. Because participants could not apply their own minds to understanding dissimilar others’ psychological states (e.g., precise emotions and/or appropriate ways to regulate emotions), they had lower confidence in emotion regulation for the dissimilar person.

Although our results are consistent with previous studies on mentalizing others’ minds (e.g., Komeda et al., 2009; Mitchell et al., 2006), several recent studies suggest other factors that make it difficult to mentalize others’ minds. For example, mentalizing others’ minds is also affected by closeness of the target to the self (Krienen, Tu, & Buckner, 2010) and the amount of idiosyncratic knowledge about the target (Welborn & Lieberman, 2015). Therefore, these factors may also affect the difficulty of extrinsic emotion regulation. Future research should manipulate these factors and examine their effects on confidence in successful extrinsic emotion regulation to determine which factors are most critical.

Our study also revealed how intrapersonal and interpersonal EI affect differences in anger regulation confidence based on self-other dissimilarity. High intrapersonal EI mainly increased confidence in regulating self-anger and increased confidence differences between targets. In contrast, high interpersonal EI increased anger regulation confidence in general and reduced confidence differences between targets. Therefore, individuals high in interpersonal EI could confidently regulate dissimilar others’ anger nearly as well as their own anger, even though they could not apply their own mind to simulate the mind of a dissimilar other. Thus, intrapersonal EI is not sufficient for regulating others’ emotions with confidence.

These results suggest the importance of the ability to handle others’ emotions. In daily life, individuals should be able to appropriately regulate others’ emotions to achieve
satisfactory social outcomes (e.g., Niven, Holman, et al., 2012). However, previous studies have mainly focused on intrinsic emotion regulation (see Gross, 2013; Zaki & Williams, 2013, for reviews) or emotion perception (see Barrett, Mesquita, & Gendron, 2011, for a review), and little attention has been paid to extrinsic emotion regulation. Moreover, although some studies revealed benefits of extrinsic emotion regulation, such as higher affective well-being (Niven, Totterdell, et al., 2012) and higher quality of interpersonal relationships (Niven, Holman, et al., 2012), to our knowledge no studies have compared extrinsic and intrinsic emotion regulation in terms of difficulty regulating others’ emotions. This study is the first to reveal that self-other dissimilarity is one factor that influences others’ emotion regulation, and individuals high in interpersonal EI could effectively handle this dissimilarity during extrinsic emotion regulation.

Limitations and future directions

This study has several limitations. First, we used hypothetical vignettes, so it is unknown how individuals would have reacted in the actual situations. The hypothetical vignette method has been widely used in previous studies related to anger (e.g., Griskevicius et al., 2009) and emotion regulation (e.g., Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008). Moreover, some emotion regulation studies showed positive relationships between answers to hypothetical situations and actual reactions (e.g., Tamir & Ford, 2012). Therefore, we believe that our participants would have had similar confidence in an actual situation. Nevertheless, it would be useful to assess confidence in emotion regulation in actual situations. Second, we could not assess how individuals flexibly changed how they regulated others’ emotions based on self-other dissimilarity. The effectiveness of an emotion regulation strategy could vary depending on the target’s characteristic (Augustine & Hemenover, 2009). Emotionally intelligent people might be more flexible, and may select the most useful strategy given a target’s characteristic. Future research should investigate the relationship between EI and the choice of emotion regulation strategy based on self-other dissimilarity. Third, carry-over effects may have influenced the observed differences in confidence between targets. We used a within-subjects design to investigate how trait EI is related to differences in anger regulation confidence between targets. To this end, participants needed to assess their confidence for all targets. Nevertheless, it would be useful to investigate whether the differences in confidence between targets can be replicated in a between-subjects design. Fourth, this study only focused on anger as the target of emotion regulation because anger regulation is important for maintaining interpersonal relationships. However, given that emotionally intelligent people can appropriately regulate various kinds of emotions to a similar extent (Mikolajczak et al., 2008), we believe that our results can be applied to regulating other kinds of emotions (e.g., sadness). Future research should address this point.

Despite these limitations, the current study is valuable because it is the first to reveal that self-other dissimilarity reduces confidence in extrinsic emotion regulation. Moreover, individuals with high interpersonal EI have higher confidence in regulating dissimilar others’ anger, such that confidence is similar to that for their own anger regulation. Our results offer novel insights into extrinsic emotion regulation and the social function of trait EI.
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Appendix

Descriptions of Vignettes

Vignette 1
You, A, and B are doing group work for an academic class assignment. A has a very similar personality to you, whereas B has a fairly dissimilar personality. While your group is having a meeting, C happens to pass by you and your group. C is doing the same kind of group work. C, who often says something disagreeable, finds you and your group members and says in an ironic tone, “I cannot expect adequate achievement from you. Lots of luck!” A and B look offended.

Confrontational context.

Please answer the next questions assuming the following additional condition. Both your group and C’s group will make a presentation about achievement regarding the group activities in front of the teacher and other students. The group obtaining a higher rating will get a better grade. Thus, the relationship between you and C is confrontational.

Collaborative context.

Please answer the next questions assuming the following additional condition. Your group and C’s group are going to get together and do the group work together. Thus, the relationship between you and C requires collaboration.

Vignette 2
You, D, and E are making a signboard for a booth shop together in preparation for a school festival. D has a very similar personality to you, whereas E has a fairly dissimilar personality. F is walking on the university campus and happens to pass by you and your group while your group is making the signboard. F, who usually makes insensitive comments, looks at the signboard and says in an ironic tone, “What an ugly sign board that is! Good luck with your senseless artistic skills”! D and E look offended.

Confrontational context.

Please answer the next questions assuming the following additional condition. F will set up a booth shop next to yours. Thus, the relationship between you and F is confrontational.

Collaborative context.

Please answer the next questions assuming the following additional condition. F handles commodities in your booth shop. Thus, the relationship between you and F requires collaboration.

Vignette 3
You, X, and Y belong to the same soccer club team. X has a very similar personality to you, whereas Y has a fairly dissimilar personality. When you, X, and Y are practicing for the next tournament, Z, on their way to go shopping, happens to pass by you. Z, who usually says something arrogant, looks at you practicing and says in an ironic tone, “No. You do not understand the right way. Practice hard to avoid becoming a burden on the team but it must be a waste of time”. X and Y look offended.

Confrontational context.

Please answer the next questions assuming the following additional condition. Z is a member of another team, and your team will play against Z’s team at the next game. Thus, the relationship between you and Z is confrontational.

Collaborative context.

Please answer the next questions assuming the following additional condition. Z is a member of your team. Thus, the relationship between you and Z requires collaboration.