Emotion regulation difficulties and moral judgment in different domains: The mediation of emotional valence and arousal☆

Lisong Zhang [a,b,1], Ming Kong [c,1], Zhongquan Li [b,*]

[a] Nanjing Normal University of Special Education, Nanjing, China.
[b] School of Social and Behavior Sciences, Nanjing University, Nanjing, China.
[c] Department of Psychology, Soochow University, Suzhou, China.

ARTICLE INFO

ABSTRACT

Many studies have demonstrated the crucial role of emotion in moral judgment, and some researchers have begun to pay attention to the association between emotion regulation and moral judgment. This study focused on the influence of individual differences in emotion regulation difficulties. The Difficulties in Emotion Regulation Scale and scenarios in five moral domains from Moral Foundations Vignettes were administrated to 218 college students. The results indicated emotional regulation difficulties could significantly predict immorality judgment in all the five domains, and emotional valence and arousal mediated the effects in the domains of Harm, Fairness and Sanctity.

© 2016 Elsevier Ltd. All rights reserved.

Moral judgment refers to an evaluation of the moral acceptability of one's own actions and those of others (Szekely & Miu, 2015a). Though for a long time in the past, it was dominantly regarded as completely rational (Haidt, 2001), increasing evidences indicated the critical role of emotions in the process (Avramova & Inbar, 2013; Greene & Haidt, 2002). In Greene's dual process model (Cushman, Young, & Greene, 2010), the final moral judgment is a result of interaction between emotion and reason, while in Haidt's social intuitionist model (Haidt, 2001), it is mainly determined by emotions.

Emotion regulation literature reveals that people are not passively influenced by emotions. Instead, they use different strategies to regulate their emotions (Gross, 2013). Several studies have examined the relationship between emotion regulation strategies and moral judgment and decision making. Feinberg, Willer, Antonenko, and John (2012) found that reappraisal led to more deliberative moral judgment. Szekely and Miu (2015b) reported that habitual reappraisal negatively predicted deontological choices, "refusing to harm another person, despite all consequences". However, Lee and Gino (2015) found reappraisal had no relationship with moral choices, while suppression resulted in

more utilitarian choices. The divergent results might be partly due to different moral dilemmas they used.

Previous studies have argued and demonstrated the key role of emotion in moral judgment and the relationship between emotion regulation and moral judgment. What will happen if one person with poor emotion regulation is asked to make moral judgments? There has no study focusing on the topic so far. According to Gratz and Roemer (2004), emotion dysregulation meant deficits in any or all of the following abilities: (a) awareness and understanding of emotions; (b) acceptance of emotions; (c) ability to engage in goal-directed behavior, and refrain from impulsive behavior, when experiencing negative emotions, and (d) access to effective regulation strategies. Emotion dysregulation is among the central features of several mood disorders, for example, borderline personality disorder (Gratz & Roemer, 2004). It is also associated with chronic worry and generalized anxiety disorder (Salters-Pedneault, Roemer, Tull, Rucker, & Mennin, 2006). Emotion regulation difficulties imply failures in the control and reduction of emotional experience and expression of negative emotions (Cortez & Bugental, 1994). Moral dilemmas always lead to negative emotions such as anger, contempt and disgust (Avramova & Inbar, 2013), and these negative emotions result in a deontological judgment and decision (David & Olatunji, 2011; Szekely & Miu, 2015b; Zhao, Harris, & Vigo, 2016). Therefore, we expected that people having higher emotion regulation difficulties would make a more deontological moral judgment in general.

Valence and arousal are two independent dimensions of emotion (Posner, Russell, & Peterson, 2005). Valence refers to how positive or

negative the experienced emotion is, while arousal refers to how intense the experienced emotion is Lang (1985). The definition of emotion regulation includes exerting impacts on the valence and arousal of emotion (Gratz & Roemer, 2004; Gross, 2013). Szekely and Miu (2015b) found emotional arousal mediated the effect of reappraisal on moral choice. We speculated the mediating roles of valence and arousal between emotion regulation difficulties and moral judgment. The higher emotion regulation difficulties scores, the more negative valence and higher arousal of emotion experienced, and the more immoral they judged.

In the only three studies directly examining the relationship between emotion regulation and moral judgment and decision making, the moral dilemmas mainly focus on Sanctity (i.e., concerns with purity and contamination) (Feinberg et al., 2012), and Harm area (i.e., concerns with suffering of others) (Lee & Gino, 2015; Szekely & Miu, 2015b). These are only two among the five clusters of moral domains in term of Moral Foundations Theory (Graham et al., 2011). The other three moral domains are Fairness (i.e., concerns with proportional fairness), Loyalty (i.e., concerns with group loyalty), and Authority (i.e., concerns with deference to authority and tradition). The five-domain structure is quite common in most cultures. And the themes of five domains have different evolutionary meanings, and have differences in the following five aspects: adaptive challenge, original triggers, current triggers, characteristic emotions, and relevant virtues (Graham et al., 2013). Moral Foundations Theory widely broadens the content of moral judgment in exploring moral violations (Simpson & Laham, 2015). Therefore, we would like to extend the investigation of the relationship between emotion regulation difficulties and moral judgment to more moral domains. Due to limited literature, we could not generate a specific hypothesis about the effect of domain differences on the association between emotion regulation difficulties and moral judgment.

1. Method

1.1. Participants

Undergraduate students who enrolled in College English at one university in East China were invited to attend the study. The final sample consisted of 218 students, among which 108 males, 68 females, and 42 unreported. Their age ranged from 17 to 21 years old (M = 19. 12, SD = 0.67). They received course credit as reimbursement.

1.2. Measures

1.2.1. The difficulties in emotion regulation scale (DERS; Gratz & Roemer, 2004)

This measure was used to assess individual differences in emotion dysregulation. It consists of 36 items distributed among six subscales: nonacceptance of emotional responses (e.g., When I'm upset, I feel guilty for feeling that way.), difficulty engaging in goal-directed behavior when distressed (e.g., When I'm upset, I have difficulty concentrating.), impulse control difficulties when distressed (e.g., When I'm upset, I lose control over my behaviors.), lack of awareness of emotions(e.g., When I'm upset, I acknowledge my emotions.(reverse-scored)), limited access to strategies for regulation(e.g., When I'm upset, I believe that I'll end up feeling very depressed.), and lack of emotional clarity(e.g., I have no idea how I am feeling.). Each item is rated on a 5-point Likert-type Scale, from 1 (almost never) to 5 (almost always). The scale provides both six subscale scores and a total score representing difficulties in emotion regulation. It has demonstrated with good reliability and validity. It correlated with the Negative mood Regulation Scale (Gratz & Roemer, 2004), and it is also a good predictor for many clinical outcomes, such as aggressive behavior (Berzenski & Yates, 2010), depression (Weinberg & Klonsky, 2009), anxiety disorders (Roemer et al., 2009; Tull, Stipelman, Salters-Pedneault, & Gratz, 2009). We employed a Chinese version of

Table 1
Means, standardized deviations, reliabilities and correlations for major variables.

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Age	19.12	0.67																		
2. Sex	0.39	0.49	−0.12																	
3. DERS	2.52	0.36	−0.16*	−0.04	(0.86)															
4. Harm_V	1.63	0.55	0.1	−0.09	−0.20**	(0.52)														
5. Fairness_V	1.92	0.59	0.07	0.04	−0.12	0.57**	(0.57)													
6. Authority_V	2.23	0.59	0.13	0.06	−0.06	0.35**	0.53**	(0.51)												
7. Loyalty_V	2.68	0.69	−0.03	0.05	−0.03	0.12	0.17*	0.32**	(0.45)											
8. Sanctity_V	1.7	0.77	0.15*	−0.12	−0.13*	0.50**	0.45**	0.39**	0.144*	(0.77)										
9. Harm_A	3.38	0.92	−0.02	0.01	0.14*	−0.31**	−0.18*	−0.11	−0.06	−0.34**	(0.73)									
10. Fairness_A	2.85	0.88	0.05	−0.11	0.16*	−0.12	−0.28**	−0.22**	−0.13	−0.22**	0.64**	(0.72)								
11. Authority_A	2.6	0.86	0.05	−0.14	0.12	−0.07	−0.22**	−0.24**	−0.13	−0.22**	0.52**	0.68**	(0.70)							
12. Loyalty_A	2.56	0.89	0.05	−0.05	0.1	−0.01	−0.21**	−0.24**	−0.05	−0.24**	0.39**	0.52**	0.68**	(0.67)						
13. Sanctity_A	3.29	1.1	−0.05	−0.05	0.14*	−0.12	−0.21**	−0.21*	−0.11	−0.27**	0.39**	0.56**	0.58**	0.48**	(0.84)					
14. Harm_I	3.72	0.8	−0.01	−0.22**	0.28**	−0.12	−0.16*	−0.07	−0.1	−0.32**	0.61**	0.24**	0.1	0.07	0.13	(0.64)				
15. Fairness_I	3.63	0.8	0.02	−0.23**	0.19**	−0.39**	−0.23**	−0.20**	−0.04	−0.21**	0.35**	0.24**	0.16*	0.13	0.06	0.67**	(0.74)			
16. Authority_I	2.91	0.86	0.01	−0.23**	0.25**	−0.22**	−0.33**	−0.26**	0.01	−0.18**	0.18**	0.26**	0.37**	0.28**	0.09	0.44**	0.52**	(0.77)		
17. Loyalty_I	2.2	0.97	0.02	−0.19*	0.18*	−0.11	−0.1	−0.21**	−0.42**	−0.14	0.08	0.23**	0.34**	0.39**	0.17*	0.22**	0.21**	0.54**	(0.73)	
18. Sanctity_I	3.59	1.15	0.04	−0.20**	0.15*	0.05	−0.18*	−0.24**	−0.11	−0.46**	0.08	0.25**	0.25**	0.21**	0.36**	0.50**	0.45**	0.51**	0.39**	(0.83)

Note: N = 218. DERS = the Difficulties in Emotion Regulation Scale. Harm_V, Harm_A, and Harm_I stand for valence, arousal and immorality rating in Harm area, respectively. The same in other four areas.
* p < 0.05.
** p < 0.01.