

The Predictive Role of Trait Mindfulness on the Lasting Effect of Emotion Regulation in Adolescents: An ERP Study

Xinmei Deng , Yong Zhan



Background

- Trait mindfulness that includes five components that have significant impacts on individual emotion regulation and mental health: observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience.
- In adolescent emotional life full of challenges and fluctuations, emotion regulation can promote their happiness by identifying and promoting the best emotional experiences.
- However, little is known about how the multidimensional nature of mindfulness affects the lasting effects on emotion regulation and the underlying neural mechanism during adolescence.

Methods

- During the Reactivity and Regulation-Image (REAR-I) Task, the adolescents were asked to view the negative or neutral picture and to regulate their emotional reaction to the picture by using the instructed strategy (cognitive reappraisal or no-regulation). After five minutes, the same pictures were re-presented to examine the lasting effect of prior emotion regulation.
- Electroencephalograms (EEG) was recorded during the stimuli re-presented.
- Adolescents' levels of five components of trait mindfulness were measured by the Five Facet Mindfulness Questionnaire (FFMQ).

Results

Results of the stepwise logistic-regression indicated that nonjudging of inner experience significantly negatively predicted 28% and 27% of the variance of the mean magnitudes of LPP 1000-1500 negative no-regulation and neutral reappraisal conditions. However, describing

significantly predicted 35% of the mean magnitudes of LPP 300-600 in negative reappraisal condition.

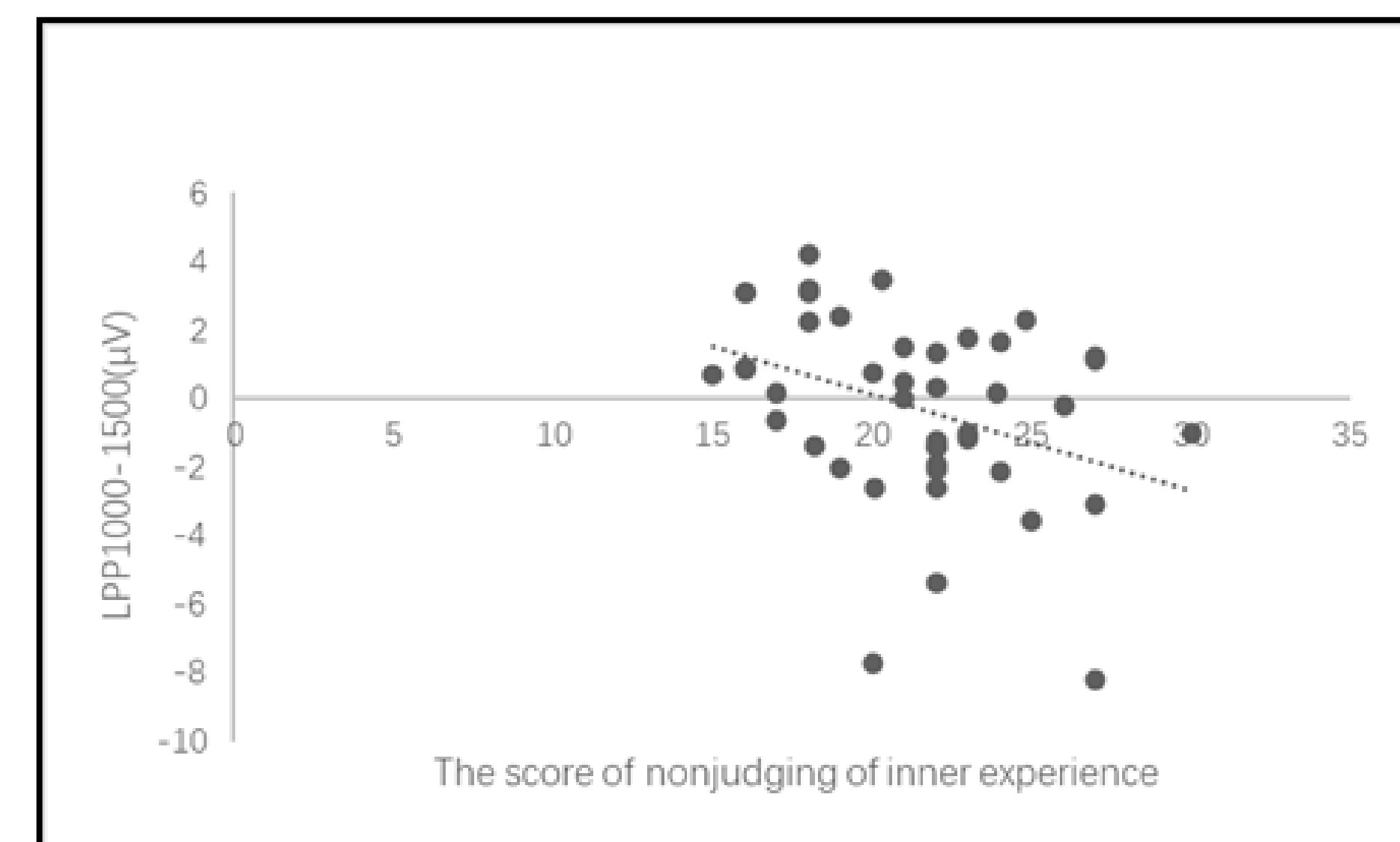


Fig. 1 The relationship between LPP1000-1500 and nonjudging of inner experience in negative no-regulation condition

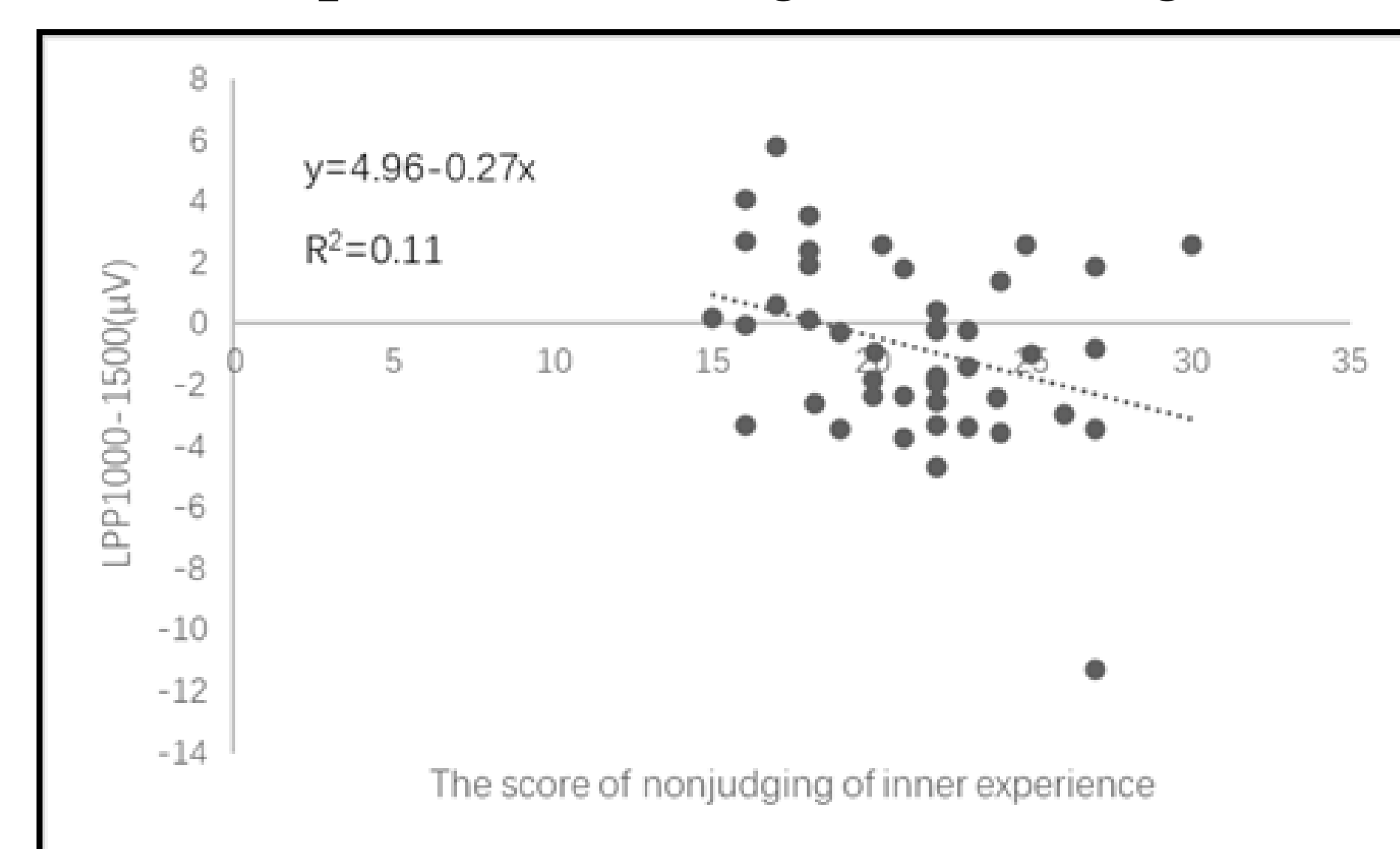


Fig. 2 The relationship between LPP1000-1500 and nonjudging of inner experience in neutral reappraisal conditions

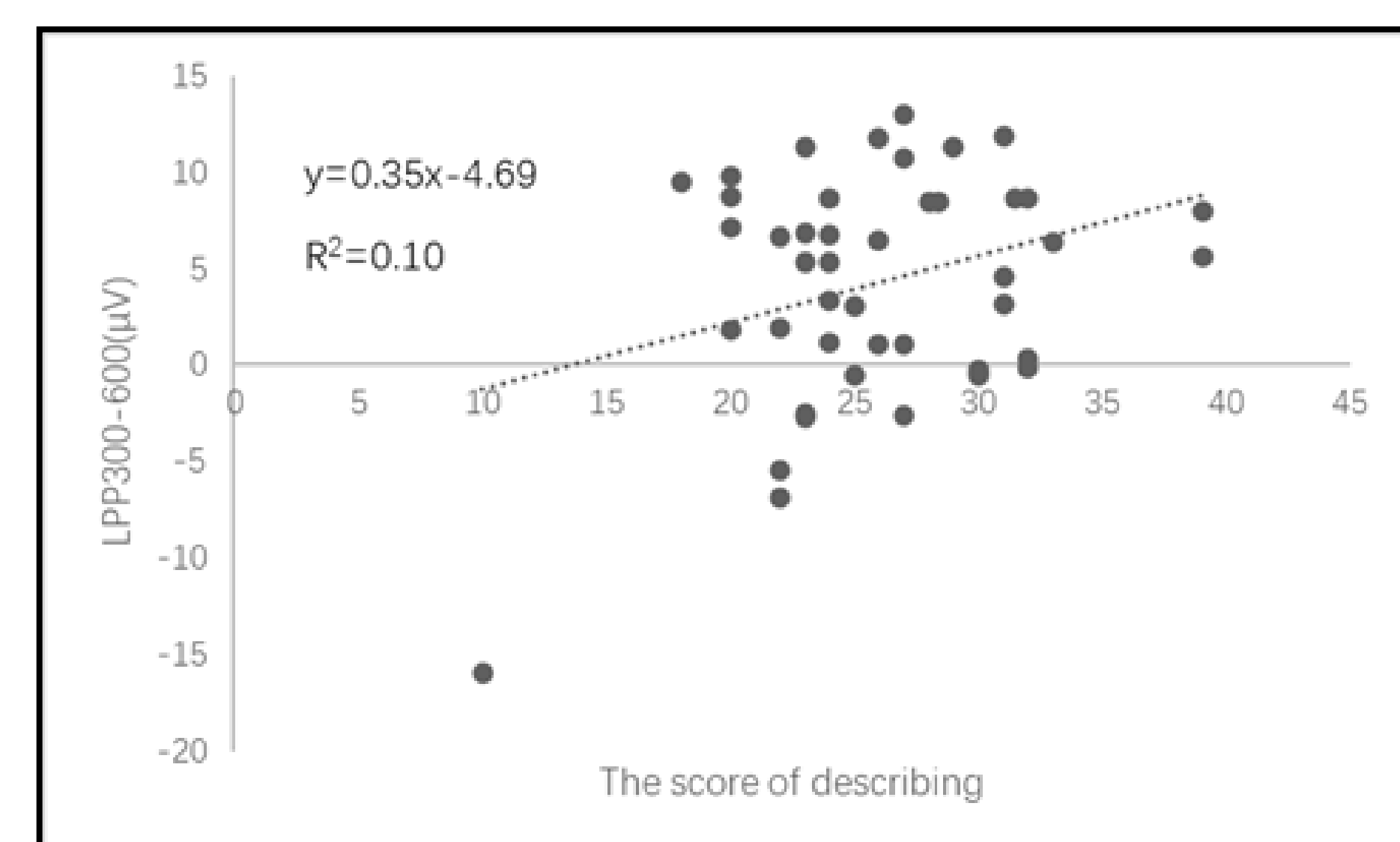


Fig. 3 The relationship between LPP300-600 and describing in negative reappraisal condition

Conclusions

Our research delineated the predictive role of five components of trait mindfulness on the lasting effect of emotion regulation of adolescents. Different components of traits mindfulness have different impacts on the lasting effect of adolescent emotional regulation.

References

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- [2] Feng, C. L., Li, W. Q., Tian, T. X., Luo, Y., Gu, R. L., Zhou, C. L., & Luo, Y. J. (2014). Arousal modulates valence effects on both early and late stages of affective picture processing in a passive viewing task. *Social Neuroscience*, 9(4): 364-477.