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Introduction

- Cognitive conflict: a perceptual state in which one notices the discrepancy between one's cognitive structure and external information (Lee & Kwon, 2003).
- ✓ The advocates suggested that conflicts could lead to uncertainty and curiosity, which lead to deeper thinking and better learning (Johnson & Johnson, 2009).
- ✓ The opponents argued that conflicts could create stress and anxiety, which could result in disaffections, and reductions in learning (Zohar & Aharon-Kravetsky, 2005).
- Problems:
 1. Most studies didn't directly explore the relationship between cognitive conflict and student engagement.
 2. Cognitive conflicts are often controlled by researchers rather than perceived by students.
 3. Many studies are laboratory experiments, which lacked ecological validity.

Aim

Examining the effects of students' perceived cognitive conflict on engagement and transfer of learning in a real problem-solving context.

Method

- Subjects: Undergraduates (n=96) from Beijing Normal University who registered for Learning Psychology course in 2012.
- Conflict situation: Students are asked to apply knowledge learned from class to interact with the children with autism aged 8-14 for 8 weeks.
- Measurement: This task provided the students with the opportunities to perceive conflicts between the theoretical knowledge and practical experience.
- Cognitive conflict scale (12-item, 4-point, $\alpha=0.74$) (Lee & Kwon, 2003)
- Behavior engagement (10-item, 7-point, $\alpha=0.79$) (Skinner, Kindermann, & Furrer, 2009)
- Transfer of learning (Self-developed coding system, 5 points, contains two components-quantity & quality, $\alpha=0.83-0.89$)

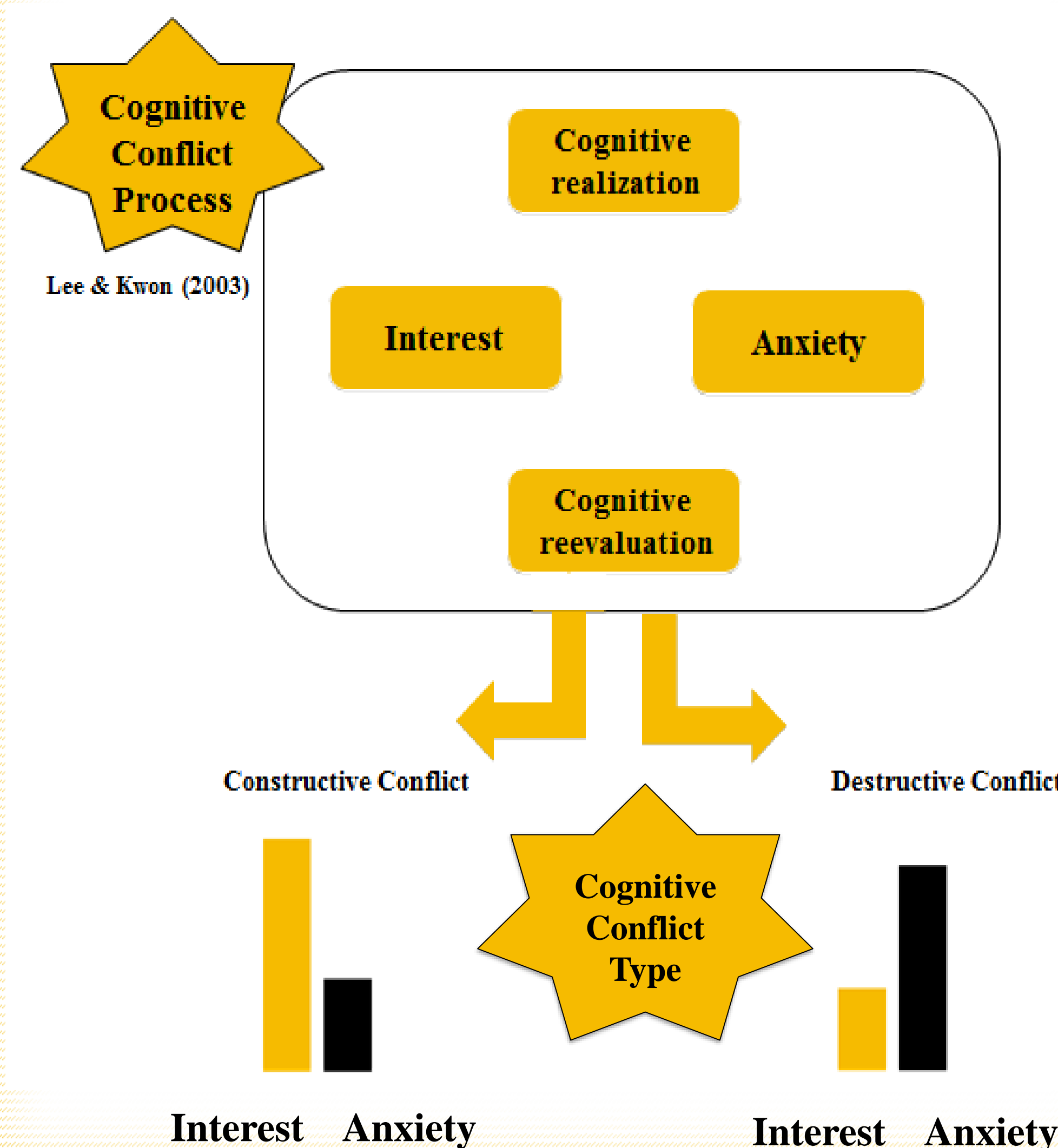
Discussion

- Provided a more effective method to classify cognitive conflict.
- Supported and specified the positive effects of cognitive conflict.
- Explored the working mechanism of cognitive conflict.

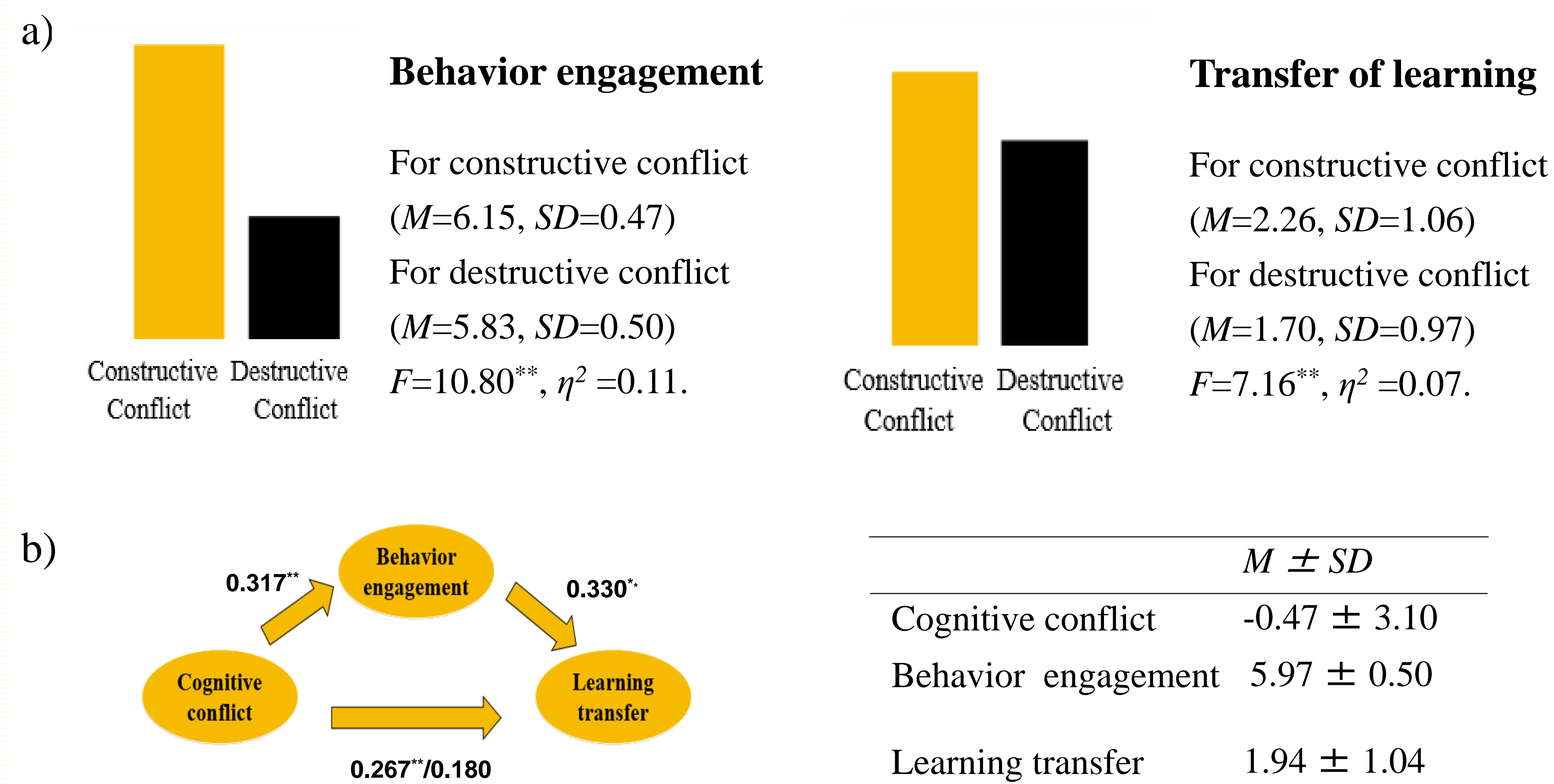
Conclusion

- Students who perceived constructive cognitive conflicts performed better in behavior engagement and transfer of learning than students who suffered destructive cognitive conflicts.
- Behavior engagement mediated the relationship between cognitive conflicts and transfer of learning.

Theoretical Background



Result



Note: Cognitive conflict scores consist of two parts: the absolute value of the sum of the cognitive realization, interest, anxiety and cognitive reevaluation, and the quality of cognitive conflict. Constructive conflict is positive, and destructive conflict is negative.

Literature cited

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