## The influence of Compassion and Self-Compassion on Perspective-Taking and Conflict Resolution in learning contexts

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**Abstract:** Emotions and their regulation are relevant in conflict situations that arise in collaborative learning. We investigated the role of emotions in collaborative argumentation. We tested how the psychological constructs compassion, and self-compassion influence perspective taking and conflict regulation. Effects were found on compromising, and perspective taking influenced problem-solving and mediated the effect of compassion on compromising.

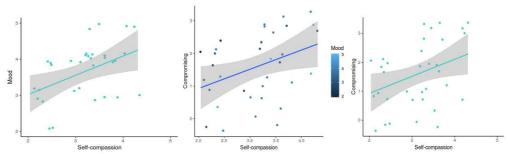
## Introduction

Conflict regulation may lead learners to explore alternative perspectives and foster knowledge co-construction, and perspective-taking can help learners resolve conflicts in argumentative learning (Kuhn & Udell, 2007). *Perspective-taking (PT)* refers to engaging with a person's mental state, and *own* and *other perspective-taking* can be critical for conflict regulation and argumentation (Kuhn & Udell, 2007). *Conflict regulation* involves negotiating perceived opposing interest, beliefs, values, or practices (Gelfand, Leslie, Keller, & de Dreu, 2012). Concern for self and for the others (Rahim, 2001) can motivate *conflict regulation strategies (CRS)*: *smoothing* (high concern for others), *forcing* (high concern for self), *compromising* (medium concern for both), *withdrawing* (low concern for both); *problem-solving* (high concern for both). *Compassion*, is the knowledge that human beings are prone to emotional distress that motivates concern and a desire to help others. *Self-compassion*, is the view of a compassionate other towards the self, can foster interpersonal perspective taking (Yarnell & Neff, 2013) and conflict regulation (Neff & Vonk, 2009). We test how compassion (self and other) predict PT and CRS when experiencing conflict in collaborative learning.

## Methods

An observational study (N=36; 21 females, 14 males, 1 unspecified; 21-38 years; M = 26.88, SD = 3.95) was conducted. Data was collected anonymously in http://soscisurvey.de. In 30 mins., participants were presented with the conflict scenarios, filled in the *Self-Compassion Scale* (SCS, Neff, 2003), the *Compassion Scale* (CS, Pommier, 2010), and socio-demographic questionnaires. Three mini scenarios (Järvenoja & Järvelä, 2009) were used as stimulus to represent task, process, and relationship situational conflict. As an example, the task scenario was: "Imagine yourself doing a group assignment with a few more students. You differ in your understanding of the content of the task. You have problems agreeing on what content to cover and ideas to include in the project. You have a strong opinion about how to solve the task, but a half of the group thinks that you are wrong." Content analysis of open-items was used to measure PT and CRS. *Situation-specific use of PT* was operationalized as addressing the third party's opinion when explaining the conflict to a group newcomer. *CRS* were operationalized by asking participants how they would resolve the conflict. Two independent annotators scored the open items for own and other perspective (94% and 78%; *Cohen's k=*.93 (p<.001) and .71 (p<.001)), and for CRS (81% to 92%; *Cohen's k=*.81 to .91, p<.001). Valency of emotion (mood), and perceived conflict were controlled.

Multivariate linear regression with self-compassion as a predictor and forcing, problem-solving, and compromising as outcomes results in statistical significance, F(1,32)=3.05, p=.04,  $R^2=.14$ . Self-compassion added to the prediction of compromising CRS,  $\beta=.59$ , p=.03, but not of forcing and problem-solving. Adding mood to the model post-hoc was a significant predictor of self-compassion. The variance explained for compromising increased to 21% (adjusted for multiple regressors, F(2,32)=5.41, p=.009), and there was no interaction effect  $(F(1,30)=.73, p=.54, \eta^2=.07)$ , which is evidence of confounding – higher mood causes higher self-compassion, which causes higher compromising ( $\rho=.39, p=.02$ ) – (Fig. 1). Multivariate linear regression with compassion as predictor showed no significant effect (F(1,32)=1.95, p=.14, partial  $\eta^2=.16$ ) on other-orientation CRS (accommodating, problem-solving and compromising). The effect of compassion on compromising only is significant effects of frequencies of PT (own and other perspectives) on compromising (F(2,31)=.30, p=.75,  $F^2=.02$ ) (Fig. 2). Perspective-taking was not related to compromising. Multiple linear regression with two predictors showed a moderate significant negative effect of own PT on problem-solving ( $\beta=-.46$ , p=.02). The overall model missed significance (F(1,31)=3.01, p=.06,  $R^2=.16$ ). Addressing own perspective was negatively



<u>Figure 1.</u> Regression plot for self-compassion and mood, 95% CI; The contribution of mood to self-compassion and the use of compromising; relationship of self-compassion and compromising CRS.

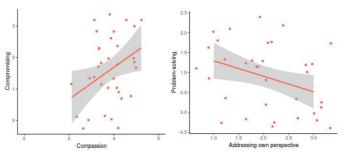


Figure 2. Relation between compassion and compromising; addressing own perspective and problem-solving.

linked to problem-solving:  $\rho$ =-.38, p=.03 (Fig. 2). The higher own perspective was the lower the use of problem-solving, while other perspective has no effect. Mediation models based on percentile bootstrap and 1000 bootstrap samples showed no indirect effect of compassion on PT, or of PT on compromising and problem-solving. There was a direct effect of compassion on compromising (CI lower=.024, CI upper=1.7, p=.04) and a total mediation effect of PT on the effect of compassion on compromising (CI lower=.062, CI upper=1.72, p=.04).

The results indicate that self-compassion and compassion may contribute to compromising, that is accepting losses, whereas stepping back from one's own point of view (less own PT) may increase creative problem-solving, particularly important in argumentative learning (Kuhn & Udell, 2007). Self-compassion but also compassion may promote emotion regulation through compromising and free up cognitive capacity for productive PT and problem-solving (Gelfand et al, 2012). Fostering PT and problem-solving, while taking into account socio-emotional determinants of conflict regulation may counter-balance possible negative effects. Supporting (self)-compassion may also reduce own PT may inhibit attitude polarization (Lord & Ross, 1979).

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