Emotion Regulation, Empathy, and Prosocial Behavior in Early Childhood

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Introduction
A strong association between prosocial behavior and greater well-being, health, and longevity exists in adult populations [1]. Empathy, the capacity to identify what another being is experiencing, is also present in childhood.

Methods
Participants
• Community sample of 93 (52 female) school aged children 5-8 years old (M= 7.00, SD = 1.14) and one parent per child.

Materials
• Children self reported empathy through BEI (Bryant Empathy Index)
• Prosocial behavior in children was assessed based on how many pieces of candy they chose to donate to a sick child
• Emotion Regulation Checklist (ERCL), a parent report of child ER.

Donation Task: The child was given 7 Swedish Fish candies with the option of donating some of their candy to a sick child (of the same gender). The number of candies the child wished to donate were recorded.

Results
Hypothesis 1
Pearson correlation revealed child age was significantly positively correlated with self-reported empathy (BEI), r = .283, p = .05

Hypothesis 2
Bonferroni's correction was used to control for multiple comparisons, resulting in the new critical p value of 0.016.
Prosocial behavior, indexed by number of candies donated, significantly differed among empathy behavior groups, F(2,63) = 4.65, p = .013
Children in the moderate empathy group (M = 3.46, SD = 2.00) donated significantly more candies compared to the high empathy group (M = 1.80, SD = 1.47), t(41) = 2.82, p = .007.
Children in the low empathy group (M = 2.91, SD = 1.41) did not donate a significantly different amount of candies than the moderate empathy group did, t(49) = 1.10, p = .273.
Children in the low empathy group did not donate a significantly different amount of candies than the high empathy group did, t(36) = 23.33, p = .025.

Hypothesis 3
There was no moderation effect involving our behavioral measure of empathy; we then investigated if ER played a moderating role on the relationship between the self-reported measure of empathy and prosocial behavior.
Results showed that child positive regulation moderated the effect between child empathy and prosocial behavior. Child ER X Empathy: F(1, 87) = 2.95, p = .08, n(2)2 = .03.
For children with high ER (t = 3.01, p = .003) as well as moderate ER (t = 2.29, p = .024), greater empathy predicted significantly more candies donated during the donation task.
However, this correlation was not significant for children with low ER (t = -27, p = .78).
The dysregulation subscale of the ERCL did not significantly moderate the association between child empathy and prosocial behavior (p > .05).

Discussion
H2. The finding that older children had higher levels of empathy aligns with previous studies demonstrating that empathy develops with age [4,5,6].
H2. When divided into groups of low, moderate, and high empathic behavior response, the moderate group had significantly higher scores on the donation task than the high empathy group did.
ER did not have a moderating effect on the relationship between empathic behavior response and prosocial behavior. This may be because only a subsample of the empathy task was used (coded 67 videos out of 93).
H2. The correlation between self-reported empathy and prosocial behavior was strongest for children with high and moderate ER, and not significant for children with low ER.
ER moderated the relationship between self-reported empathy and prosocial behavior [3]. This moderation effect appears to be unique in children as opposed to adults.

This study revealed that some level of positive regulation is needed to engage in prosocial behavior even when a high degree of empathy because they have difficulty regulating their emotions, and thus need to focus on themselves in distressing situations rather than helping the one in need. It is also possible that because prosocial behavior was measured with a donation task involving candy, those children with low ER could not regulate their positive emotions about receiving candy; and therefore donate the same amount of candy whether they have high or low empathy.

Further exploration of the mechanisms underlying ER may explain why children with moderate levels of ER demonstrated a more similar moderation effect to those high in ER than to those low in ER.
Such investigation may also help clarify why the moderation effect was only apparent for the positive regulation subscale and not the dysregulation subscale.

References