A Person-Centered Approach to Emerging Prosocial Dispositions in Early Childhood

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Introduction

- Research has found that very young children are capable of quite remarkable acts of prosociality in response to another's distress in a variety of situations (Dunfield et al., 2011; Svetlova & Brownell, 2010; Warneken & Tomasello, 2006; Zahn-Waxler et al., 1992).

- However, past research on the nature of the relations between other-oriented prosocial behaviors has obtained inconsistent results.

- Some studies find low, but significant, relations (Eisenberg & Hand, 1979; Radke-Yarrow et al., 1976) and others find no association (Dunfield et al., 2011; Iannotti, 1985)

Current Study

- Is one of the first to investigate the consistency in individual differences in young children's prosocial behavior across several different tasks and over time using both variable- and person-centered approaches.
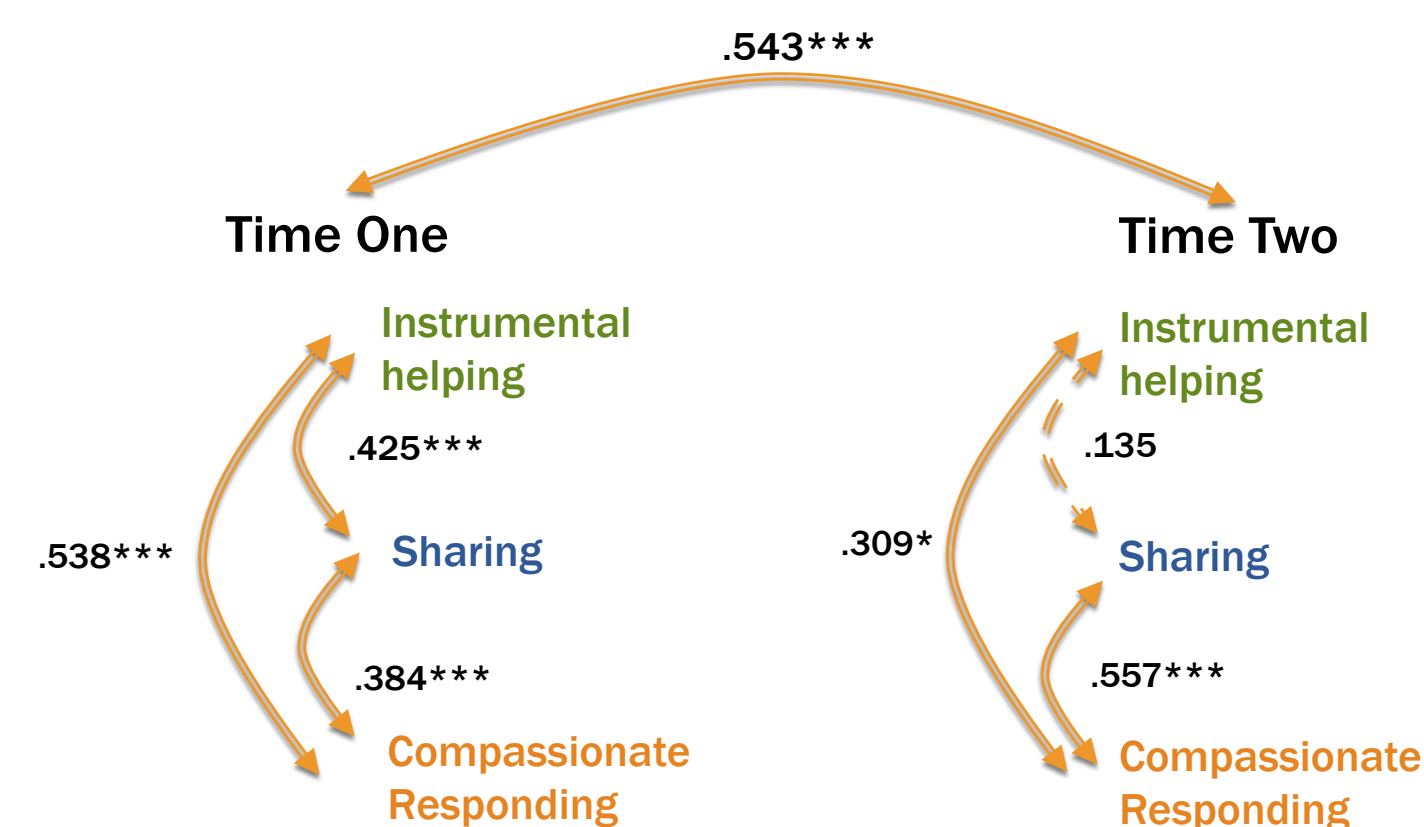

Figure 1. Correlations between prosocial behavior within and across time.

(*Note:* Solid lines indicate significant correlations, dashed lines indicate marginally significant correlations.)

Methods

- Short-term longitudinal study of children and their mothers at 4 years of age (Time 1) and 18 months later (Time 2, $N = 51$).

- Prosocial behavior was coded on 5-point scale.

- Time 1: Three tasks assessed instrumental helping, sharing, and compassionate responding, in counterbalanced order

- Time 2: Six tasks, two exemplars for each type of prosocial behavior were observed using three counterbalanced blocks

- Variable-centered analyses were conducted using correlations.

- Person-centered analyses were applied using Latent Profile Analysis (LPA).

Table 1. Time 1 fit indices for 1-, 2-, 3-, 4- and 5-class models.

Fit Index	1 Class	2 Classes	3 Classes	4 Classes	5 Classes
AIC	608.50	488.57	391.66	375.31	401.64
BIC	621.55	470.31	422.10	414.45	449.48
Sample Adjusted BIC	602.66	438.84	378.03	357.79	380.23
Entropy	N/A	1.00	1.00	0.96	0.98

Table 2. Time 1 mean scores for 4-class model.

Indicator	Overall Mean (5-pt. scale)	High Prosocial	Moderate Prosocial	Low Prosocial	Helpers of Convenience
Instrumental Helping	4.59	5.00	3.50	2.00	5.00
Sharing	3.71	4.27	4.00	2.43	3.90
Compassionate	3.99	4.40	3.75	1.86	2.33
Proportion	N/A	63%	6%	11%	20%

Results

- Correlations: All three task types are significantly inter-correlated at Time 1 and there is reasonable coherence across types at Time 2 (Figure 1).

- Latent Profile Analyses: Both time points identified parallel prosocial profiles (Tables 1 and 3).

- Time 1: The 4-class model had the best fit, containing groups we have classified as high, moderate, low, and "helpers of convenience" who scored highly on the instrumental helping task with the lowest cost and lower on the more costly sharing and compassionate responding tasks (Table 2).

- Time 2: Again, the 4-class model provided the best fit for the data containing four parallel groups to Time 1 (Table 4).
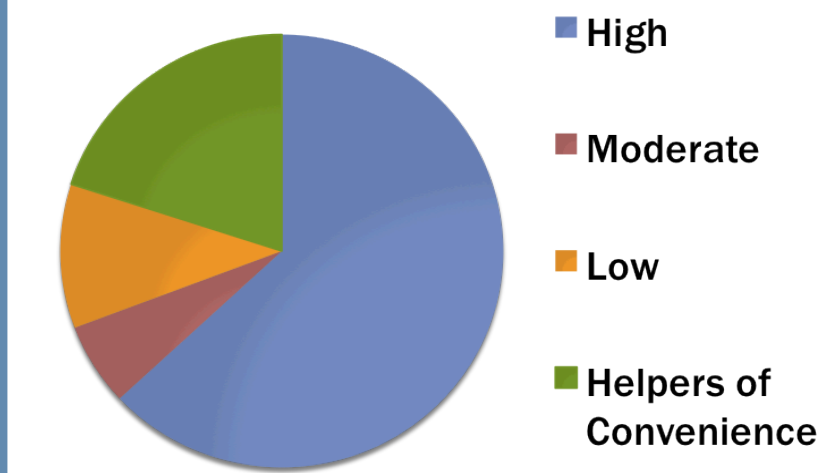
Table 3. Time 2 fit indices for 1-, 2-, 3-, 4- and 5-class models.

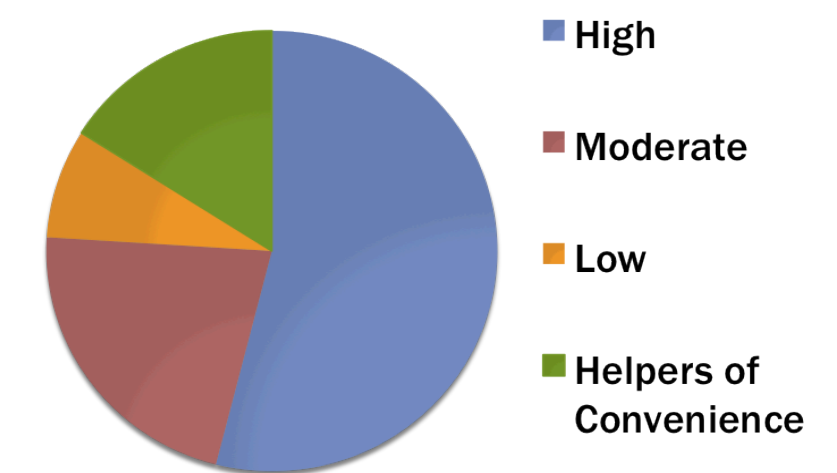| Fit Index	1 Class	2 Classes	3 Classes	4 Classes	5 Classes
AIC	689.12	664.94	654.34	637.07	639.90
BIC	700.59	684.06	681.11	671.49	681.96
Sample Adjusted BIC	681.75	652.68	637.16	614.99	612.91
Entropy	N/A	0.97	0.91	0.88	0.90

Table 4. Time 4 mean scores for 4-class model.

Indicator	Overall Mean (10-pt. scale)	High Prosocial	Moderate Prosocial	Low Prosocial	Helpers of Convenience
Instrumental Tasks	8.56	9.83	6.78	2.75	9.52
Sharing Tasks	6.16	6.84	6.69	4.25	4.20
Compassionate Tasks	7.08	8.23	7.23	4.75	4.29
Proportion	N/A	54%	22%	8%	16%

Time 1 Prosocial Profiles — High, Moderate, Low, Helpers of Convenience

Time 2 Prosocial Profiles — High, Moderate, Low, Helpers of Convenience

Conclusions

- In contrast with some other studies (Dunfield et al., 2011; in press), we find that considerable consistency in individual differences in prosocial behavior.

- These results suggest that individual differences in prosocial dispositions do in fact begin to emerge in early childhood

- However, they do so in ways that suggest the growing complexity of their prosocial motivation, illustrated by the "helpers of convenience" pattern.

- Variable- and person-centered analyses both supported evidence of prosocial dispositions; however, the person-centered analyses provide a more nuanced picture of the nature of children's prosocial profiles.

- Future work is need to replicate these results with a larger sample followed over multiple time points.

Acknowledgements

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