Individual Differences in Toddlers' Helping, Sharing, and Repairing Behaviors: The Role of Maternal Mental State Language

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Introduction

The early ontogeny of prosocial behavior is a growing area of interest in developmental and evolutionary science. A substantial research literature has shown that toddlers willingly help and share with others (e.g. Rheingold, 1976, 1982) yet some research shows that different types of prosocial behaviors may have different sources of motivation and require different types of competence (Dunfield et al., 2011). In addition, studies have shown that there are individual differences in early prosociality with some children helping more readily or often than others (Newton et al., submitted). We are just starting to investigate the origins of these differences. This study addressed the following questions.

Research Questions:

- ✧ Are 18-month-olds' prosocial behaviors consistent across different task types including instrumental helping, sharing, and repairing tasks (which vary in emotional demands)?
- ✧ Do differences in maternal mental state language when infants are 12 months old and 18 months old relate to individuals differences in 18-month-olds' prosocial behaviors in different types of tasks?

Method

Participants were 86 infants and their mothers (44 boys).

Maternal Mental State Language (MMSL):
When infants were 12 months old and 18 months old, they visited the lab with their mothers where they participated in a book reading task. Mothers "read" two wordless picture books to their infants, and the resulting maternal verbalizations were coded for semantic content including references to emotions, desires, and thinking/knowing. In addition, the referent of the maternal comment (either the mother or the child) was also coded for each verbalization.

Figure 1. Example pages from a wordless story book adapted from *Feelings* by Aliki.

Method

Toddler Prosocial Behavior:
At 18 months of age, each child participated in two trials of each of the following task types with an unfamiliar, female experimenter.

Instrumental Helping, Sad Condition: The experimenter needed help to complete a task (either hanging something up or putting something away). She either dropped a necessary tool or bumped into an obstacle in her way. The child had 30 seconds to respond while the experimenter displayed *sad affect*.

Instrumental Helping, Neutral Condition: These tasks were exactly the same as those in the other instrumental helping task, but the experimenter displayed *neutral affect*.

Repairing: A favorite toy of the experimenter's falls apart, and she is very sad about it. Children had 60 seconds to respond while the experimenter displayed *sad affect*.

Sharing: The child had many toys (or crackers), but the experimenter had none. Children had 60 seconds to respond while the experimenter displayed *neutral affect*.

Prosocial behavior in each trial was coded on a scale of 0 (ignoring the situation) to 5 (target behavior: sharing with, repairing the toy of, or instrumentally helping the experimenter). Scores from the two trials of each task type were summed, and the resulting scores could range from 0-10.

Results

	2.	3.	4.	*M (SD)*
1. Helping (S)	.45***	.29**	.15	5.37 (2.79)
2. Helping (N)	---	.30**	.20^	5.70 (2.78)
3. Repairing (S)		---	-.01	5.69 (1.81)
4. Sharing (N)			---	4.84 (2.26)

Table 1. Correlations between different types of prosocial tasks with means and standard deviations. ***$p < .001$, **$p < .01$, ^ $p < .10$

Correlations between the four types of prosocial tasks are presented in Table 1. Behavior in both helping tasks and the repairing task were all significantly correlated, but sharing was only related to the other neutral task. Correlations between prosocial behavior in each of the four task types and MMSL at 12 and 18 months are presented in Tables 2 and 3, respectively.

Results

	Helping (S)	Helping (N)	Repairing (S)	Sharing (N)
Child's Emotions	.13	.26*	.05	.24*
Child's Desires	.09	.00	-.17	-.01
Child's Thinking/Knowing	-.07	.05	-.08	.02
Mother's Emotions	-.14	.01	.02	.01
Mother's Desires	-.01	.08	.06	.09
Mother's Thinking/Knowing	-.07	-.01	-.01	.28*

Table 2. Correlations between MMSL with their **12-month-olds** and children's prosocial behavior at 18 months. * $p < .05$

	Helping (S)	Helping (N)	Repairing (S)	Sharing (N)
Child's Emotions	-.12	.07	.09	-.07
Child's Desires	.08	.11	.01	.08
Child's Thinking/Knowing	-.08	.05	-.10	.10
Mother's Emotions	---	---	---	---
Mother's Desires	-.19^	-.06	.10	.10
Mother's Thinking/Knowing	.13	.10	.21^	.11

Table 3. Correlations between MMSL with their **18-month-olds** and children's concurrent prosocial behavior. ^ $p < .10$

Discussion

The present study shows that:

- ✧ Not all prosocial behaviors relate to each other
- ✧ The emotional and social context of the situation may be differentiating motivational factors for children's prosociality
- ✧ MMSL relates to children's prosocial behaviors
- ✧ These relationships differ depending on the child's age, the type of MMSL, the referent of the MMSL, and the type of prosocial behavior

Future research should examine the motivational complexities and social and emotional competencies required to engage in different types of prosocial behaviors, as well as the ways that parental interactions support the development of prosociality. In addition, both developmental and evolutionary scientists must consider that while "prosocial behavior" is a useful umbrella term, the behaviors within the construct differ in their development.

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