Individual Differences in Toddlers' Prosocial Behavior

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Abstract

The present study builds on recent research showing that 18-month-olds are capable of helping unfamiliar adults without extrinsic reward. In this study, the unfamiliar adult expressed either neutral affect or sad affect when needing help. Individual differences expected to predict 18-month-olds' prosocial behavior were assessed, including children's emotion vocabulary and anxious support seeking. Both of these variables significantly predicted prosocial behavior in trials where the experimenter expressed sad affect, but not in trials where the experimenter expressed neutral affect. These findings have implications for future study of individual differences in early prosocial behavior.

Introduction

Theorists have speculated that very young children are egocentric and unable to understand or appropriately respond to the wants and needs of others (Kholberg, 1969; Piaget, 1932). Work by Warneken and Tomasello (2006) has shown that 18-month-olds are capable of helping an unfamiliar adult with no extrinsic reward. Research on toddlers' prosocial behavior has been limited, and few studies have examined toddlers' helping behavior in relation to individual differences such as characteristics of the parent-child relationship. The literature on children's empathy at this age has shown a mixed pattern of results, likely because of the conflicting cues between an unfamiliar adult's need state and the capability of a toddler to assist (e.g. if the adult pinches a finger, a toddler can do little to assist).

The purpose of the present study was to examine individual differences in toddlers' prosocial response to an unfamiliar adult while varying the emotional expression of the person in need. With the expectation that the mother-child relationship would influence children's prosocial behavior, we measured children's "anxious support-seeking behavior"—their tendency to seek out the support of the parent in a non-threatening situation. We also expected that children's emotion word vocabulary would be a rudimentary marker of their emotion understanding at this age. To this end, we expected that children's emotion word vocabulary would positively predict their prosocial behaviors when an unfamiliar adult expressed sadness.

Research Questions:
- Will children respond differently to an experimenter expressing sad versus neutral affect?
- Are aspects of the parent-child relationship, including anxious support seeking, predictive of young children's prosocial behavior?
- Does emotion understanding in 18-month-olds influence their ability to respond prosocially in emotionally evocative situations?

Method

Participants:
- 36 18- to 20-month-olds and their mothers (17 males)

Demographics:
- Mothers ranged in age from 23 to 39
- 55% of mothers were working
- 86% of families had incomes over $40,000 per year
- 28% of toddlers were in childcare

Helping Tasks
Each child saw:
- Two neutral trials
- Two sad trials

In the **neutral trials**, the experimenter entered the room and performed a task while expressing neutral/confused affect (straight mouth, furrowed brow, and non-word vocalizations such as "hmmm").

In the **sad trials**, the experimenter entered the room and performed a while expressing sadness (down-turned mouth, wide eyes, and non-word vocalizations such as "awwww"). Each trial lasted for 30 seconds.

Prosocial behavior was coded on a 5-point scale with a score of 1 indicating no attention to the experimenter and a 5 indicating that the child helped the experimenter reach her goal (instrumentally helped). Children's prosocial scores were summed for neutral and sad trials separately.

Table 1. Descriptions of Helping Tasks.

Task	Description	Behavior indicating need for help
Marker	The experimenter reaches for her marker in order to draw a picture and knocks the marker to the floor.	The experimenter reaches for the marker.
Clothespin	The experimenter drops a clothespin as she attempts to clip a cloth to a clothesline.	The experimenter reaches for the clothespin.
Basket	As the experimenter attempts to put her story book inside a basket, she knocks the basket to the floor.	The experimenter reaches for the basket.
Tape	The experimenter drops her roll of tape as she attempts to affix a poster to the wall.	The experimenter reaches for the tape.
Cabinet	The experimenter attempts to put a stack of magazines into a cabinet, but the cabinet doors are closed and her hands are full.	The experimenter bumps the magazines into the door of the cabinet.
Cupboard	The experimenter attempts to put a heavy bowl into a small cupboard, but the cupboard door is closed and her hands are full.	The experimenter bumps into the door of the cupboard with the bowl.
Bin	The experimenter attempts to put a blanket into a plastic bin, but the lid is on the bin and her hands are full.	The experimenter bumps the lid with the blanket.
Drawer	The experimenter attempts to put a bulky sweater into a drawer, but the drawer is closed and her hands are full.	The experimenter bumps the face of the drawer with the sweater.

Method Continued

Emotion Word Vocabulary
A parent-report measure, the Internal State Language Questionnaire (ISLQ, modified from Bretherton & Beeghly, 1982), assessed infants' use of 17 words related to emotions (e.g. happy, funny, scared) and affect expression (e.g. laugh, cry).

Anxious Support Seeking
Children's anxious support seeking was assessed as the number of seconds (subtracted from a possible 180 seconds) the child played independently with a novel toy without seeking the attention of the mother.

Results

As hypothesized, we replicated the findings of Warneken and Tomasello (2006) that 18-month-olds instrumentally helped the experimenter without external reward. Specifically, children helped in 36% of the trials.

A paired-sample t-test examined differences in prosocial behavior in the sad and neutral conditions. There were no significant differences in the rate of prosocial behavior in the sad and neutral conditions ($t(35) = -.56$, p = ns).

There were no significant correlations between the variables and age in months, so age was not included in any analyses.

Prosocial behavior in the sad condition was significantly correlated with emotion language ($r = .35$, $p < .05$) but not with anxious support seeking ($r = -.23$, p = ns). Emotion language and anxious support seeking were not correlated with each other or with prosocial behavior in neutral conditions (all p's = ns).

In a simultaneous regression, children's use of emotion language and their anxious support seeking behavior predicted prosocial behavior in sad conditions but not in neutral conditions (Table 2).

Table 2. Simultaneous regression analysis predicting children's prosocial behavior in sad and neutral conditions from anxious support seeking and emotion language.

	Sad			Neutral		
Variable	B	SE B	β	B	SE B	β
Emotion Language	.310	.112	.441**	.077	.119	
	.115					
Anxious Support Seeking	.012	.006	-.342*	.008	.006	
	.242					
R^2		.238			.058	
F for change in R^2		4.993*			.993	

* $p < .05$, ** $p < .01$

Conclusions

These findings, taken together with prior research, suggest that when sadness is expressed within a concert of other cues indicating that an adult needs help—accidentally dropping an object, reaching for it, and looking toward it—**the emotion of the adult does not seem to add any new information for the toddler.** Toddlers are equally likely to respond prosocially to a neutral or sad unfamiliar adult.

Although there were no group level differences, the findings suggest different mechanisms leading toddlers to act prosocially in each of the conditions. When the adult expressed sad affect in addition to the typical cues of need, children with more emotion words in their vocabularies and less anxious support seeking were more likely to respond prosocially.
- Children's **emotion language** may indicate greater emotion understanding in toddlers, and thus greater sensitivity to the emotional cues of the adult.
- Children's **greater capacity to use their mothers as a secure base** in an unfamiliar laboratory environment likely enabled them to remain more responsive to the unfamiliar experimenter and to that adult's emotional cues, heightening their prosocial responding.

By contrast, neither of these variables was a significant predictor of prosocial behavior when the experimenter displayed neutral affect, suggesting that toddlers individual differences were influential in the more emotionally evocative or complex trials.

This is the first study to examine individual differences in prosocial behavior in children this young. The main indication of this research is that **differences in children's emotion understanding and support-seeking from their mothers are mediators of helping in certain conditions.** These findings merit follow-up study.

Future research should:
- Use a larger sample
- Assess attachment security
- Use a battery of prosocial tasks, including traditional empathy tasks, in order to compare prosocial behavior in situations where instrumental helping is and is not possible
- Study these behaviors over the course of the second year to see if prosocial behavior is consistent

References

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