

PROSOCIAL BEHAVIOUR

Socio-Cognitive Correlates of Prosocial Behaviour in Young Children

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May 2015

Introduction

Prosocial behaviour refers to voluntary behaviour intended to benefit another.¹ Researchers have been interested in studying the normative patterns of prosocial development and in understanding the factors that may impact individual difference in prosocial behaviour. In his developmental theory, Hoffman² outlined a shift over time from infants' self-concern to toddlers' and young children's empathy and prosocial behaviour in response to others' distress. He argued that children's socio-cognitive skills, such as self-other differentiation and perspective taking, play a key role in the emergence of prosocial behaviour.

Subject

Recent evidence suggests that prosocial behaviour emerges early in life; toddlers as young as 14-18 months demonstrate prosocial behaviour such as helping, sharing, and comforting a distressed person,³⁻⁷ and these behaviours increase over the course of toddlerhood and early childhood.¹

There is also evidence that socio-cognitive skills, such as emotion understanding, perspective taking, and self-awareness are related to individual differences in children's prosocial behaviour. We focus on the relations of several important socio-cognitive skills to prosocial responding, including self-other differentiation, theory of mind, and emotion understanding.

Problems

One problem with current research is that it is unclear exactly when infants develop the socio-cognitive abilities needed to behave prosocially, such as self-other differentiation, and whether such abilities are necessary for prosocial responding.⁸

There is also a need to examine more nuanced questions regarding the relation of socio cognitive skills and children's prosocial behaviours. For instance, it is unclear whether the early emergence of socio-cognitive abilities in infancy or early toddlerhood predicts later prosocial behaviours. Further, research is limited in testing whether socio-cognitive skills directly or indirectly predict prosocial behaviour in young children. It is possible that such skills lead to prosocial responses through their impact on sympathy or social competence. Finally, although researchers assume that socio-cognitive skills are a prerequisite for prosocial behaviour, it is possible that socio-cognitive skills are not needed for all types of prosocial behaviour (i.e., such as instrumental helping) or that prosocial skills also influence children's socio-cognitive development. Few longitudinal studies have examined this possibility.

Research Context

Consistent with Hoffman's theory, there has been support for the notion that self-other differentiation is associated with toddlers' observed empathy toward mothers⁹ and peers,¹⁰ as well as non-costly sharing with adult experimenters.^{11,12} Using the classic mirror self-recognition task, researchers have shown a positive relation between self-awareness and children's prosocial behaviour.^{9,13} In a recent study, ownership understanding (i.e., the knowledge that something belongs to the self versus other) was positively related to non-costly sharing in toddlers.¹¹

Other aspects of socio-cognitive development have been associated with prosocial behaviour. For example, young children's abilities to understand emotions and to take another person's perspective have been positively related to prosocial behaviour and empathy.^{12,14-18} In addition, kindergarteners' false belief understanding (i.e., theory of mind) has been associated with relatively high ratings of prosocial behaviour,¹⁹ although in another study, preschoolers who

passed a theory of mind test were less likely to share stickers in a resource allocation game than children who failed the theory of mind assessment, perhaps because children may become more selective with whom they will share resources with as they develop such perspective taking skills.

20

Key Research Questions

There are a number of key research questions with regard to the relations of children's socio-cognitive skills to their prosocial development. First, researchers should address whether socio-cognitive skills are necessary for the emergence of prosocial behaviour. In other words, are skills such as self-other differentiation and perspective taking a necessary condition for children's prosocial behaviours? Next, it is important to consider whether the associations between socio-cognitive skills and prosocial behaviour direct or indirect. Third, understanding whether socio-cognitive skills differentially predict prosocial behaviour depending on the type (i.e., helping, sharing, comforting) or context of prosocial behaviour (e.g., costly versus non-costly, peers versus adult, friend versus non-friend) may clarify mixed findings in the literature. Finally, researchers need to consider the direction of effects in understanding the relations between these constructs using longitudinal designs.

Recent Research Results

Although there is evidence of a relation between self-other differentiation and prosocial behaviour, scientists have recently shown that infants demonstrate rudimentary self-other differentiation using implicit measures prior to when toddlers typically pass mirror self-recognition tasks.²¹ For example, children begin to demonstrate an understanding of others' intentions, goals, and desires between 9 and 12 months^{22,23} and have shown the ability to make judgments about others' moral character as young as 3 months of age.²⁴⁻²⁷

Longitudinal relations between socio-cognitive abilities and children's prosocial responding have been found. In one study, false belief understanding at 54 months was positively related to adult-reported prosocial orientation both concurrently and 18 months later.²⁸ The researchers also found that 42-month emotion understanding predicted prosocial responding concurrently and a year later. Interestingly, later emotion understanding and false-belief understanding were unrelated to prosocial responding, indicating that these abilities are most likely to predict later prosocial behaviour during a period in which the socio-cognitive skills are emerging.

Recent work is also beginning to focus on understanding the mediating role of socio-cognitive skills in predicting later prosocial behaviour. For example, Ensor, Spencer and Hughes²⁹ showed that emotion understanding at age 3 mediated the relations between early verbal ability and mother-child mutuality to prosocial behaviour at age 4.

Further, even if distress is not overtly expressed, young children's empathy or sympathy may mediate the relations between socio-cognitive and prosocial outcomes. Consistent with this notion, Vaish and colleagues³⁰ demonstrated that toddlers' showed more concern and prosocial behaviour towards an adult victim whose property had been harmed versus an unharmed victim, even in the absence of negative emotion. These results suggest that toddlers have the ability to take another person's perspective and in turn, feel concern for the harmed individual, resulting in subsequent prosocial behaviour; however, this mediational model has not been tested in a sample of young children. In a more direct test of this idea with older children, Brazilian adolescents' perspective taking was indirectly related to prosocial behaviour through its effects on sympathy and moral reasoning.³¹

Finally, children's general cognitive and language skills have been considered in relation to children's prosocial behaviours.^{32,33} Recent work indicated that young children's language skills were associated with relatively high empathic concern and low disregard for others, even after controlling for general cognitive ability.³³ Thus, language skills, as opposed to general cognitive ability, may play a specific role in explaining young children's empathy.

Research Gaps

There are a number of gaps in current research on prosocial behaviour. First, studies of prosocial behaviour in early infancy are very limited. Although one study noted that infants who were exposed to a peer's distress were more likely to cry themselves,³⁴ this behaviour may reflect emotional contagion, rather than empathy, per se. Only one study has shown that infants younger than 12 months show capacity for cognitive and affective components of empathy in addition to personal distress.⁸ Few studies have utilized more implicit measures of socio-cognitive skills that demand less cognitive skills than mirror self-recognition.³⁵ Second, researchers need to focus on a variety of socio-cognitive skills in their work in relation to a several type of prosocial behaviours (i.e., helping, sharing, comforting) and when prosociality is costly vs. non-costly, as it is unclear whether various types of prosocial responding have similar socio-cognitive correlates. Third, longitudinal data are needed to make more causal claims about the relations between socio-

cognitive skills and empathy/prosocial behaviour. There is a particular need for studies that control for the stability of constructs over time and to examine potential bidirectional relations. Finally, researchers should continue to focus on the potential complex relations between socio-cognitive skills and children's prosocial responding. For example, it is possible that the relations of socio-cognitive skills and prosocial responding are moderated by other factors such as sex or prosocial motivation, and mediated processes should also be examined in samples of young children.

Conclusions

There has been a great deal of interest in studying young children's positive social behaviours, such as prosocial responding. Developmental work indicates that prosocial responding emerges in toddlerhood and increases with age. Furthermore, the socio-cognitive skills hypothesized to be necessary for the development of empathy and prosocial behaviour have been positively related to individual differences in prosocial responding. Specifically, self-other awareness, perspective taking (including emotion understanding), and theory of mind have been associated with relatively higher prosocial behaviour and/or empathy. Researchers continue to question whether such skills may develop earlier than originally proposed by Hoffman.² Further, researchers are beginning to stress the importance of studying complex relations between children's socio-cognitive abilities and their prosocial behaviour, as well as examining the relations between earlier socio-cognitive skills and later prosocial responding. Future work is needed in determining the relations of socio-cognitive factors to different types of young children's prosociality in various contexts.

Implications for Parents, Services and Policy

A better understanding of the processes involved in predicting young children's prosocial behaviour has important clinical implications. For example, empathy training may be a promising direction to increase social understanding and prosocial skills, as well as to reduce children's aggression and bullying. Indeed, interventions to promote social skills or empathy training have been found to be effective in improving children's empathy and prosocial behaviour. More work is needed to understand the specific mechanisms involved in effective interventions, particularly whether socio-cognitive factors, such as perspective taking, are key features to enhancing children's prosocial behaviour, as well as how to identify young children at risk for developing impairment in these abilities. Further, interventions have typically focused on school-aged children; thus, it is unclear whether such techniques can be used in younger children;

developmentally-appropriate assessments of these constructs need to be evaluated with young children in future research. It is also important focus on how parents may impact children's prosocial skills either directly or indirectly through children's socio-cognitive abilities.

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