

The multidimensional nature of early prosocial behavior: A motivational perspective

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Abstract

A majority of current work indicates that the different types of prosocial behavior in young children (helping, sharing, comforting) are not related to each other. Here, I review recent studies that examined the relations between prosocial actions as well as the antecedents and correlates of the particular domains of prosociality. I argue that in addition to different social-cognitive demands also different motivations are involved in early prosocial action, and that prosociality is thus a concept that encompasses – at least early in development – heterogeneous behaviors and motivations.

Highlights

- Studies reported no relations between different prosocial behaviors early in development
- Different prosocial behaviors have unique antecedents and correlates
- Prosocial behaviors form a heterogeneous category early in development

The multidimensional nature of early prosocial behavior: A motivational perspective

Introduction

The early origins and development of prosocial behavior (i.e. actions apparently benefitting another agent without providing a direct pay-off for the actor) is a longstanding interest in developmental psychology. Whereas earlier research often used composite measures of prosocial behavior that summarized or averaged across a variety of more specific behaviors, recent research has started to emphasize the multidimensional nature of prosocial behavior and to study these different dimensions in greater detail [1]. This emphasis on the heterogeneous forms of early prosocial behaviors has fueled the current debate on the psychological mechanisms subserving prosocial actions in early childhood [2,3,4]. In early childhood research, most of the studies have focused on three specific forms – helping, sharing, and comforting – that will therefore be in the focus of the current article.

Dissociations in early prosocial behaviors

Young children engage in a variety of prosocial behaviors. Instrumental helping describes young children's tendency to help others in achieving an action goal. Sharing refers to the allocation of own resources to others. Comforting describes reactions to others' distress that aim at alleviating the negative emotions. All three forms of prosocial behavior have been shown to emerge in the second year of life [5].

Interestingly, a number of cross-sectional studies that assessed these behaviors in the same children have suggested that they, while showing some stability over time [6], are largely unrelated to each other. This is not only the case in 18-month-old children [7], but also in 2- to 4-year-old children [8]. In addition, longitudinal work across the first years of life reported no

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relation between early helping and later comforting and sharing [9]. These studies are complemented by findings that the dissociation between helping and sharing not also holds for children with ASD [10] and that different forms of prosocial behavior are related to different neurophysiological patterns [11]. Thus, studies using different age groups, measures, and populations suggest that early prosocial behaviors do not form a homogeneous category.

Antecedents and correlates of early prosocial action

Given the heterogeneity of early prosociality, recent research has attempted to examine the antecedents and correlates of its different forms in greater detail. One set of studies found that emotion talk, particularly the elicitation of emotion words [12], was correlated with behavioral assessments of young children's sharing and emotion-based helping, but not with instrumental helping [13]. Further research focused on specific social-cognitive skills and social experiences. One study showed that parent-reported joint attentional skills were correlated with instrumental helping at 15 months, whereas there was no relation to comforting behavior [6]. Another study reported that at 18 months, comforting was concurrently related to children's day care experiences, responsible parenting behavior, and temperamental fear, whereas none of them related to instrumental helping [14]. Yet, it should be noted that other studies found a relation between more specific parental scaffolding of simple instrumental helping activities and infants' helping [15-16]. That is, current research points to unique developmental patterns underlying the different forms of prosocial action.

Beyond these individual empirical studies, differential predictions have also been drawn from theoretical frameworks. From an attachment perspective, it has been suggested that although a secure attachment relationship might foster all forms of prosocial behavior, the

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underlying psychological mechanisms might be different for each type of prosocial behavior [17]. For example, children with secure attachment may show enhanced empathic responding as a secure attachment results in improved emotion regulation. In contrast, it may relate to instrumental helping as it supports children's inclination to attribute positive intentions to others and to consider them as part of their in-group. Both factors have been shown to increase helping behavior [18]. In addition, the relation could also depend on further contextual factors. It has been shown that in 5-year-old children attachment security was related to sharing with a disliked peer but not with a stranger or friend, and their inclination to engage in costly – but not non-costly – sharing [19]. Overall, these studies indicate that findings on one type of prosocial behavior cannot be generalized to other domains and that the developmental trajectory of each of these behaviors needs to be carefully studied.

Relations between different forms of prosocial behavior

While the previous sections summarized dissociations between early forms of prosocial behavior, there are also a few studies – mostly with older preschool or school-aged children [20-22] – that reported some modest relations. Some of them used other-report measures of children's prosocial behavior that have disadvantages when assessing subtle differences in behavioral phenomena [23]. One study investigated consistency in prosocial behavior from the preschool period to adulthood and found longitudinal relations between early and later sharing and comforting, whereas early low cost helping was not predictive for later prosocial behavior [20].

Two studies found moderate consistency across some prosocial behaviors even in 12- and 18-month-old infants [24-25]. In one study [24], 18-month-old infants were presented with a

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sharing task and two kinds of instrumental helping tasks (one without emotional cues and one with emotional cues). There were some correlations, most strongly between the different instrumental helping tasks. Interestingly, when conducting a latent class analysis the results suggested that children could be grouped into three different classes depending on the frequency with which prosocial behaviors were shown. However, in this study only few children shared at all. Consequently, the results of the latent class analysis were mainly driven by consistency between the instrumental helping tasks and do therefore not allow to draw strong conclusions about relations between different forms of early prosocial behaviors.

Interpreting relations and non-relations between prosocial behaviors: Theoretical perspectives

How should we interpret the findings of relations and non-relations between prosocial behaviors? Let us first consider accounts focusing on *relations* between tasks.

First, one source of potential overlap between different behaviors could be due to general, task-unspecific processes. For example, sociability - the ease in establishing contacts and enjoying the interaction with others - could be related to a whole range of prosocial behaviors as it may enhance concern for others in need, raise the likelihood to engage in reciprocal exchange, and the concern about how others perceive oneself. Indeed, a recent study showed that 18- and 24-month-olds were quicker to provide help the more sociable they were [16]. A relation between different tasks could thus be due to a general trait of engaging in social interactions. This mediating variable could also account for the relations reported between prosocial and antisocial behavior early in development [26] as more sociable children are also more likely to get in conflicts with others [27].

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Second, to the extent that different tasks rely on similar cues, relations between tasks could be due to this overlap. For example, some studies used an outstretched hand of the experimenter in different prosocial tasks and children's target behavior was, *inter alia*, to place an object in this hand. The clear gesture makes it challenging to differentiate prosocial behavior from compliance with the experimenter's gestural request. One possibility is that the similarity in task affordance could explain potential relations between tasks. Indeed, recent work shows that by 12 months infants understand the social signals of give-me gestures in give-and-take interactions [28]. One corollary of this view is that further insights into early prosocial action could be gained by more closely analyzing commonalities and differences of the social affordances that are embedded in the different prosocial tasks.

Third, another interpretation invokes a genuine developmental perspective. In line with classical approaches to personality development [29], it is possible that an increasing interrelation between prosocial behaviors indicates a hierarchical integration of the originally heterogeneous forms. This integrative process could, for example, be driven by children's increasing grasp of normative views on how to act towards others. In addition, children's developing strive for a coherent self-concept and the centrality of being a good person for one's own identity [30-31] might support the hierarchical integration of the different forms of prosocial action.

Two different accounts focus on explaining the *lack of relations* between early prosocial behaviors. The first account, here presented as the *cue-based account*, focuses on the different social-cognitive constraints that are imposed by helping, comforting, and sharing [2]. That is, it is assumed that a general motivation to alleviate the negative state of others drives young children's prosocial actions, but that it requires particular social-cognitive skills to successfully

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do so in the different contexts. More specific, it is proposed that instrumental helping relies on the ability to recognize goal-directed behavior, that sharing relies on the ability to represent the problem in terms of unequal access to resources, and that comforting relies on an understanding of others' negative emotional states [4]. The non-relation between prosocial tasks could thus be explained by individual differences in the different social-cognitive abilities that are necessary for the different domains and the assumptions that these abilities are not related to each other. It remains, however, an open question how the proposed motivation to alleviate the negative state of others emerges, how it is implemented in infants' limited cognitive system, and how to demonstrate that it is the same motivation underlying the unrelated forms of prosocial action.

The second account, a *motivation-based account*, contends that the heterogeneous forms of prosocial behavior are driven by different motivations [3,5]. That is, in addition to different social-cognitive skills, there are different inducements of why young children engage in these behaviors. This is the position I am taking and I will elaborate on it in the following subsection.

A multidimensional approach to early prosocial behavior

The earliest forms of helping can be located in the second half of the first year of life where infants seem to support their parents' attempts to dress them and care for them [32]. In its early emergence, parents scaffold infants' helping behavior, which indeed leads to enhanced helping [15, 33]. Towards the end of the second year of life it becomes a routinized behavior [34-35]. Scholars have suggested that a variety of processes could be involved in early helping behaviors. One possibility is that helping is subserved by altruistic responses towards others [36]. Given that infants have been shown to also help non-human agents, scholars have argued that the earliest instances of helping behavior could be subserved by goal contagion [37] and goal

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slippery [38]. Others proposed that a general social motivation to interact and affiliate with others could subserve helping behavior [3,39]. It is not unlikely that all of these mechanisms play a role, but that the relative impact of each of these mechanisms might vary depending on the social context and the type of cues emitted by the helpee, and that these mechanisms follow different developmental trajectories.

Similarly, sharing behavior is a manifold process. Infants' earliest experiences of transferring items to others develop in social routines and social games like giving-and-taking, which build on the exchange of positive emotions and gestural learning in social interactions [40]. Thus, the give-me gesture might be well known from these social routines. This is interesting as recent studies reporting sharing behavior in 18-month-olds have exactly used this gesture in sharing trials [7,41]. Other work shows that give-and-take games, but not mere modeling promote infant sharing [42]. Studies relying on different setups found that even non-costly sharing did not emerge before 25 months and required that the other verbalized her desire [43]. It seems therefore plausible to interpret these earliest instances of sharing as infants being either compliant with an adult's request or as infants perceiving the experimental set-up as part of a give-and-take game activity. From a motivational point of view, early sharing could thus be subserved by compliance with a direct request or a social motivation to joyfully interact with others.

Comforting behavior has usually been linked to empathy-related responding. The primary motivation underlying comforting is well captured by the empathy-altruism hypothesis according to which the perception of others' negative emotional state can trigger empathic concern for the other, which in turn motivates comforting behavior [44]. Yet, empathy-based responding is not restricted to consoling actions. There are contexts in which adequate empathy-related responding

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requires the child to share own resources or to help the other person. Empathy is thus a motivation that could underlie all different forms of prosocial behavior depending on whether or not they are based on an emotional reaction to the others' perceived need [45].

Another motivational component seems to be added when children start to consider moral norms and fairness principles in their actions. Empirical evidence shows that by 2.5 to 3 years children hold the normative view that resources should be distributed equally [46-47] and by 5 years that one ought to give more to a poor than to a rich individual [48]. Although the translation of this normative stance into actual sharing behavior might sometimes emerge later [49], it seems that a commitment to moral principles or concrete moral norms starts to play a role in children's life.

Taken together, recent research suggests a broad and heterogeneous motivational basis subserving young children's prosocial behavior (see Figure 1). Some of these psychological bases relate to early emerging phenomena (e.g., learning to engage in social routines), whereas others (e.g., normative considerations) relate to later developments. The different motivations are not mutually exclusive and do not necessarily supersede each other.

Conclusions

Taken together, I contend that the earliest forms of prosocial behavior may be subserved by a variety of different mechanisms and motivations. These include goal contagion and compliance to adult requests, a social motivation to interact with others, a commitment to moral norms and empathy. Some motivations are more strongly tied to a specific behavioral instance of prosocial behavior (e.g., goal contagion to helping), whereas others (e.g., empathy) could play a role in different forms. Later in development, these heterogeneous forms of behavior become integrated

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into a more coherent personality trait [50], potentially to the extent that the child interprets different prosocial behaviors as being good (i.e. subsumes them under one concept of goodness), and/or to the extent that being a good person becomes central to the child's self-concept. Thus, the heterogeneity of the motivations next to the different social-cognitive demands could explain the substantial number of findings on no relations between the different prosocial behaviors early in development.

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Figure

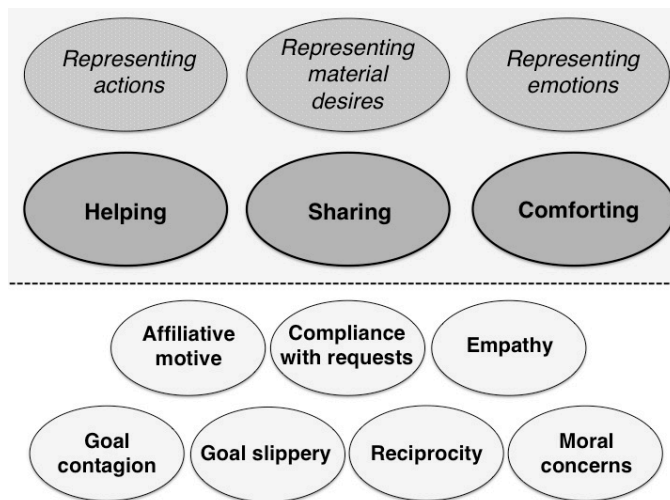


Figure 1. Visualization of the psychological processes involved in early prosocial behavior. The three circles in dark gray (located in the midline of the figure) depict the three forms of prosocial action discussed in this paper. The three circles in mid gray describe the different forms of social understanding involved in the three forms of prosociality. The seven circles in light gray (lower part of the figure) describe the potential motivational forces that could be involved in early prosocial action.

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