The Cost of Helping: An Exploration of Compassionate Responding in Children

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Abstract

Children engage in prosocial behaviour from an early age. Whether children will reliably provide compassionate help to a suffering individual is unclear. To investigate this 73 four-years-olds were presented with three novel tasks in which they and a puppet had opportunity to win stickers by completing respective versions of the same tasks. In all cases, the puppets were unable to complete their tasks. The puppets 'reacted' by being either upset or not upset. While children provided help when it did not cost them, their inclination to do so was significantly diminished when it incurred a personal cost.

Keywords: *compassion, altruism, prosocial*

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Children show a tendency for prosocial helping, for example in their second year they will provide instrumental helping so others can accomplish an action-based goal (Dunfield & Kuhlmeier, 2013; Warneken & Tomasello, 2006). However, we know little about compassionate responding in children. Compassion is a complex prosocial motive defined as *the sensitivity to suffering in self and others, with a commitment to alleviate or prevent suffering* (Gilbert, 2014). Compassion includes a range of other prosocial competencies, including sympathy and empathy (Gilbert, 2014), which have been studied extensively in the developmental literature (Spinrad & Eisenberg, 2017). Despite overlap, compassion remains distinct as it is focused on alleviating suffering. Sympathy is defined as, a feeling of sorrow or concern for someone (Spinrad & Eisenberg, 2017), and although empathy can lead to prosocial helping (Spinrad & Stiffer, 2006), it can also be used to advance one's own personal ambition or self-interest (Zaki, 2014).

Few studies have examined helping behaviour in the context of suffering (compassion), and instead examine altruism or pro-sociality. In one exception, Svetlova, Nichols and Brownell (2010) found that 18-month-olds and 2-year olds are less likely to provide help to distressed individuals when it is costly, compared to a no cost scenario. However, the tasks used were based on common events that children may have had a history of being reinforced for responding positively to. Importantly, as there was no control condition in which distress did not occur, it is difficult to identify whether a motivation to alleviate suffering was driving children's helping behaviour. It thus cannot be established whether children are more likely to help another when they are distressed (i.e., compassionate) compared to when they are not (i.e., prosocial).

The current study aimed to determine whether children will be helpful (compassionate) or avoid distressed targets. To investigate this, we developed *the Compassionate Responding Paradigm* which advances previous research by manipulating cost (cost vs. no cost) and distress

(not upset vs. upset), thereby providing a comparison between prosocial helping (not upset/cost and not upset/no cost conditions) and compassionate helping (upset/cost and upset/no cost). We predicted the highest levels of helping behaviour would be in the Upset/No Cost condition with the lowest levels being in the Not Upset/Cost condition.

Compassion requires a sensitivity to the suffering of self and others, thus children must be capable of recognising the internal states of others (i.e., theory of mind). We chose to study 4-year-olds as it has been well established that children demonstrate this ability by this age (Carlson, Koenig, & Harms, 2013). Further, 4-year-olds have typically developed the necessary skills to provide spontaneous prosocial helping (House, Henrich, Brosnan, & Silk, 2012).

Method

Participants

Seventy-eight children participated. Five children were excluded from the final analysis due to experimenter error (n =1), participant error (n =1) or not engaging in the task (n =3). The final sample comprised 73 children (31 males, 42 females), aged between 41 and 64 months (M = 54.36, SD = 4.46), recruited via local daycare centres. This study was granted ethics approval within the School of Psychology Ethics Review Process, University of Queensland.

Materials

Puppets. Three puppets were used to enact stimulus vignettes (Appendix A). Depending on condition, the chosen puppet would either act Upset (i.e., crying, covered face) or Not Upset (i.e., nonchalant demeanour).

Tasks. Sorting, marble, and puzzle tasks were used (see Appendix B). In all tasks the children and puppet were presented with their own equipment, however, the puppet's copy was always "missing" two pieces ensuring the task could not be completed. Within each condition, the presentation order of the tasks was randomised.

Procedure

Test Tasks. For all tasks the experimenter placed one apparatus in front of the child and the duplicate in front of themselves. They then brought forward a puppet and said: "*This game is called <appropriate game>, and you're going to play it with <Puppet's Name>, can you say hello? <Puppet's Name> has never played this game either so I'll explain the rules to both of you so you know how to play*." Once it was established that the child understood the demands of the task, the puppet, controlled by the experimenter, completed it at a pace slightly behind that of the child. Once the child had completed the task the puppet "realised" they could not finish the game due to missing pieces and reacted in accordance with the given condition. The only way for the puppet to complete the task was for the child to help them and give them pieces from their own set. Children were randomly assigned to one of four conditions, a) Upset/Cost, b) Not-Upset/Cost, c) Upset/No-Cost, and d) Not-Upset/No-Cost. For a detailed description of these conditions see Appendix C.

Coding

Helping behaviour. Coding was completed from videotaped sessions. Each child was given three prompts after each of the tasks (three in total) to help the puppet (total of nine prompts for each child - See Table 1). If the child did not help the puppet at all on a task it was coded as a zero, if the child helped after the first prompt it was coded a three, the second prompt was coded a two, and the third prompt was coded a one. If the child helped prior to any prompts it was coded as a four. Each child could thus receive a helping score between 0-12.

Table 1

Prompts for the Upset and Not Upset Conditions

	Upset Prompts	Not Upset Prompts
Prompt 1	"Oh no… I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to get a sticker... What am I going to do?"	"Oh, I don't have enough <appropriate to the task pieces> to finish the game. Now I'm not going to get a sticker... Oh well."
Prompt 2	"Oh no... The time is almost up and I can't finish the game. I really wanted a sticker but I'm not going to get one now. I'm missing pieces and can't finish the game!"	"The time is almost up and I can't finish the game. I guess I won't get a sticker now. I'm missing pieces and can't finish the game."
Prompt 3	"Oh no… I'm not going to get a sticker now… I really wanted one. I'm so upset, I think I am going to cry. Time is about to finish, what can I do? I don't have enough pieces to finish the game!"	"I'm not going to get a sticker now. Oh well, that's OK. Time is about to finish, and I don't have enough pieces to finish the game, but that's OK."

Reliability coding. A random sample of 15 participants were scored by a second coder. There was perfect agreement between coders ($\kappa = 1.00$, $p < .001$).

Results

Preliminary analyses indicated no effect of sex, age, task order, or task type on Helping Behaviour. These were not considered further.

To evaluate the effects of Cost and Puppet Demeanour on Helping Behaviour, a factorial between groups ANOVA was conducted. Means and standard deviations for each condition were Not Upset/Cost (M= .53, SD= 1.51), Upset/Cost (M= 1.00, SD= 2.70), Not Upset/No Cost (M= 8.67, SD= 4.42), Upset/No Cost (M= 8.65, SD= 3.79) (see Figure 1). There was a significant main effect of Cost, $F(1, 69) = 105.25$, $p < .001$, $\eta_p^2 = .604$, with participants in the Cost conditions (M= .78, SD= 2.21) having significantly lower Helping Behaviour scores than those in the No Cost conditions (M= 8.67, SD= 4.02). The main effect of Puppet Demeanour was non-

significant $F(1, 69) = .08$, $p = .78$, $\eta_p^2 = .001$, and there was no significant interaction between Cost and Puppet Demeanour $F(1, 69) = .11$, $p = .74$, $\eta_p^2 = .002$.

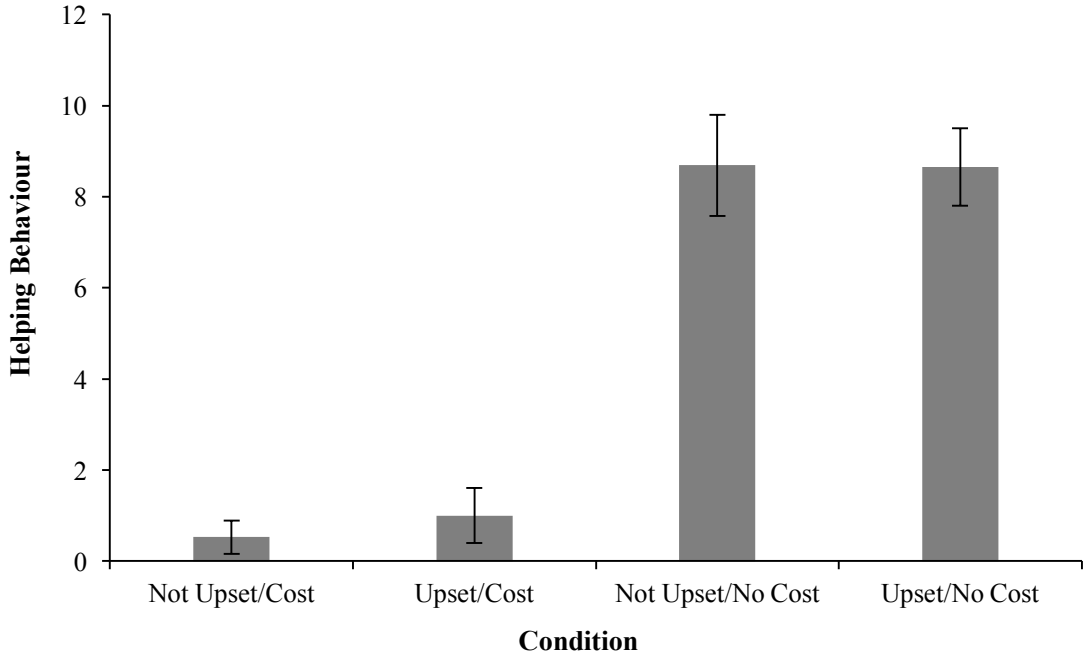

Figure 1. Mean level (and standard error) of helping behaviour across conditions.

Prorata Analysis

It is possible that children in the No Cost Conditions did not help for altruistic or compassionate reasons, but rather due to having an excess of resources to provide. To address this, a prorata analysis was conducted to evaluate the effect of Condition on Helping Behaviour, excluding all trials where children helped prior to the first prompt. All trials where children helped after the first prompt were coded as one, and any subsequent helping after additional prompts was coded as zero. Using these adjusted scores, a total score was calculated and divided by the number of included trials for each participant (see Figure 2).

This analysis also revealed a significant main effect of Cost, $F(1, 69) = 75.25$, $p < .001$, $\eta_p^2 = .540$, with participants in the Cost conditions ($M = .05$, $SD = .18$) having significantly lower Prorata Helping Behaviour scores than those in the No Cost conditions ($M = .73$, $SD = .42$). The main effect of Puppet Demeanour was non-significant $F(1, 64) = .36$, $p = .55$, $\eta_p^2 = .006$, and there was no significant interaction between Cost and Puppet Demeanour $F(1, 64) = .05$, $p = .83$, $\eta_p^2 = .001$.

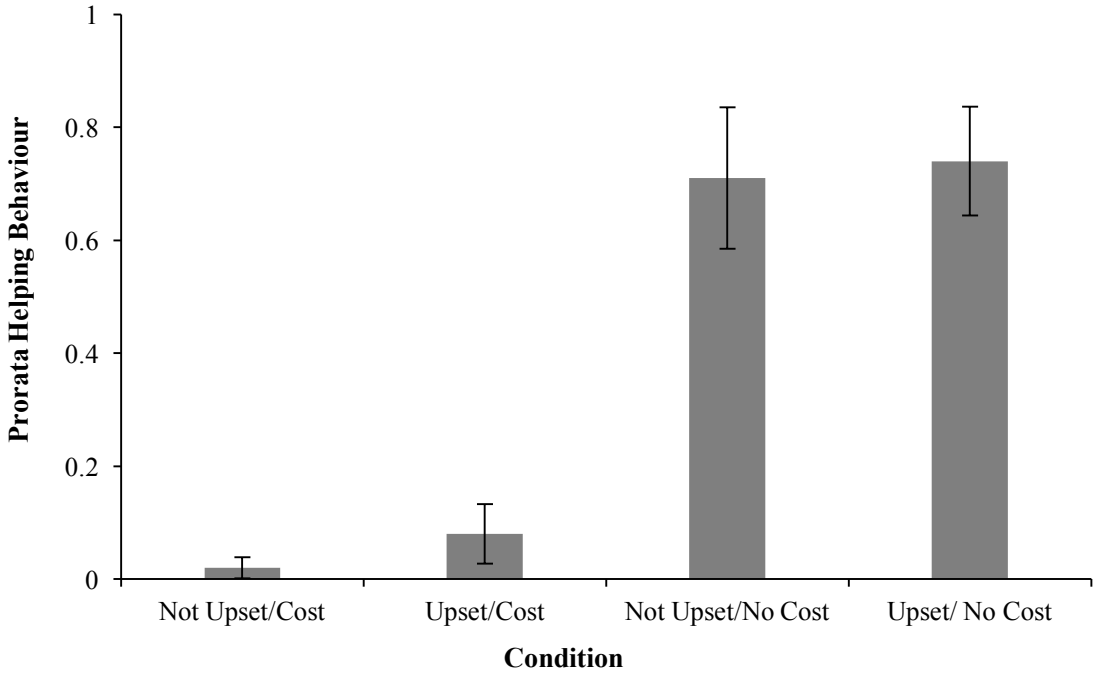

Figure 2. Mean level (and standard error) prorata helping behaviour across conditions.

Discussion

We expected the highest levels of helping behaviour in the Upset/No Cost condition because there is both strong compassionate motivation and opportunity to help. We found that children helped at equivalent levels in the Upset/No Cost and Not Upset/No Cost conditions, with both being significantly higher than in both Cost conditions. This indicates that cost underpins the observed differences in helping behaviour. Furthermore the pro-rata analysis replicated this

pattern of results, indicating that higher levels of helping behaviour were not underpinned by having an excess of resources to share. These findings indicate that the act of engaging in altruistic and compassionate behaviour is blocked when helping incurs a cost.

Our main finding is consistent with past research, which has found children's helping behaviour is reduced when it comes at a cost (Svetlova et al., 2010). Some children, whilst not providing resources, hugged or stroked the puppet after stickers were allocated. The current study was not designed to measure passive forms of compassionate responding (i.e., consoling, soothing), which are evolutionarily altruistic as they benefit another at a cost to the giver (Preston, 2013). Future research should examine this further.

We suggest here that while children are strongly motivated to provide compassionate or altruistic help to others, this response is blocked when helping incurs a personal cost. While four-year-old children remain generally prosocial when presented with the opportunity to help, they may be less spontaneous to engage in helping than previously thought. When helping is costly, four-year-old children may be unable to ignore their self-interests, and hence find it difficult to sacrifice the opportunity to receive a reward in order to help another. Our findings provide compelling insight into how cost may influence children's readiness to provide aid to others, and provide a foundation for future endeavours aimed at understanding children's motivations for compassionate responding.

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