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The influence of intention, outcome and question-wording on children's and adults' moral judgments

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ABSTRACT

The influence of intention and outcome information on moral judgments was investigated by telling children aged 4–8 years and adults ($N = 169$) stories involving accidental harms (positive intention, negative outcome) or attempted harms (negative intention, positive outcome) from two studies (Helwig, Zelazo, & Wilson, 2001; Zelazo, Helwig, & Lau, 1996). When the original acceptability (wrongness) question was asked, the original findings were closely replicated: children's and adults' acceptability judgments were based almost exclusively on outcome, and children's punishment judgments were also primarily outcome-based. However, when this question was rephrased, 4–5-year-olds' judgments were approximately equally influenced by intention and outcome, and from 5–6 years they were based considerably more on intention than outcome primarily intention-based. These findings indicate that, for methodological reasons, children's (and adults') ability to make intention-based judgment has often been substantially underestimated.

1. Introduction

Piaget (1932/1965) investigated whether children's moral judgments are based on intention or outcome by asking them about pairs of stories. In one of each pair a well-intentioned action accidentally resulted in a bad outcome, and in the other an ill-intentioned action led to a better outcome. He found that most children below about 10 years of age judged the well-intentioned agent to be the naughtier; in contrast to adults' intention-based evaluations, children judged actions and agents according to consequence.

Although subsequent research has established that children's moral judgments are not *exclusively* outcome-based, and that children are often aware of and sensitive to agents' intentions, many researchers have supported the claim that young children's moral judgments are *primarily* outcome-based (e.g., Buchanan & Thompson, 1973; Cushman, Sheketoff, Wharton, & Carey, 2013; Elkind & Dabek, 1977; Farnill, 1974; Gummerum & Chu, 2014; Helwig, Zelazo, & Wilson, 2001; Imamoğlu, 1975; Killen, Mulvey, Richardson, Jampol, & Woodward, 2011; Margoni & Surian, 2016; Walden, 1982; Yuill, 1984; Zelazo, Helwig, & Lau, 1996). However, others have reported that even young children's moral judgments can be strongly influenced by intentions (e.g., Baird & Astington, 2004; Bearison & Isaacs, 1975; Chandler, Greenspan, & Barenboim, 1973; Gvozdic, Moutier, Dupoux, & Buon, 2016; Leon, 1982; Nelson, 1980; Nobes, Panagiotaki, & Pawson, 2009; Nummedal & Bass, 1976; Vaish, Carpenter, & Tomasello, 2010). Hamlin (2013) has recently reported that 8-month-olds prefer well-intentioned to successful agents (toys); that is, like adults, they prioritize intention over outcome. Hamlin suggests that her "results are inconsistent with past research suggesting that young children focus mainly on outcomes (e.g., Piaget, 1932/1965), and support the possibility that young children fail to privilege intention in their social and moral judgments [...] due to methodological difficulties, not psychological ones." (p. 460). This echoes Keasey's (1978) view that: "the absence of intentionality [could be] merely an artefact of some feature of the assessment paradigm" (p. 237).

Despite the fundamental importance of intention-based moral judgment – Gray, Young, and Waytz (2012) describe our sensitivity to others' intentions and experiences as the very essence of human morality – there remains considerable disagreement between researchers about its development, and substantial discrepancies in findings. After decades of research, and scores of studies, it is still unclear whether the claim that children's moral judgment is primarily outcome-based is correct. The key issue now facing

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researchers is not so much to establish whether evidence can be found to support either "side" (or, more accurately, the various sides) of the debate – each can already refer to a large body of research – as to determine the reasons why researchers report such contrasting findings. Only when this is done will we have a clearer idea of their relative validity. Unfortunately, there has been little if any attempt to resolve in this direct way the long and continuing debate about the development of intention-based moral judgment.

Duncan, Engel, Claessens, and Dowsett (2014) report that, despite replication being a key component of the scientific method, it is often overlooked in the developmental literature. They argue that replicability and robustness should be assessed by comparing results from studies conducted by independent researchers, using different methods, across varying populations, and at different times. In this study we took this approach to examine the reasons for the findings of two of the most frequently-cited studies in this area (Helwig et al., 2001; Zelazo et al., 1996). Both provide strong evidence for the prevailing view that children's moral judgments are primarily outcome-based (see for example, Cushman, 2008; Killen et al., 2011; Smetana, Jambon, & Ball, 2014; Young & Saxe, 2008). Yet the robustness of their findings has rarely, if ever, been questioned, neither have these studies been replicated, nor alternative explanations of their findings investigated. We sought to address these issues by conducting replications 15–20 years after the original studies, in a different country, and examining the effects of making one change to the methods. If it were found that their findings could not be replicated, or that the methodological change resulted in children's judgments becoming primarily intention-based, then the prevailing view would receive a substantial challenge.

1.1. The Helwig et al. (2001) and Zelazo et al. (1996) studies

Helwig et al. and Zelazo et al. explored children's and adults' evaluations of actions in which the valence – positive or negative – of intentions and consequences was varied systematically. In Helwig et al. the outcomes were psychological: for example, a boy wanted to make his friend happy by giving him a puppy, but accidentally gave him a tarantula, which scared him (accidental harm); another boy wanted to give a tarantula, but accidentally gave a puppy (attempted harm). In Zelazo et al. the consequences were physical: for example, a girl wanted to stroke a pet animal but accidentally hit it (accidental harm); another girl wanted to hit a pet animal but stroked it by mistake (attempted harm). After each story participants were asked an "act acceptability" (wrongness) question such as "Is it okay for Kevin to give Rob a puppy?" and a "punishment" question, such as "Should Kevin get in trouble?"

Helwig et al. and Zelazo et al. also sought to address the separate issue of whether children and adults judge according to acts (e.g., petting, hitting) or the harm that resulted from these acts. They did this by comparing responses in a "normal" condition (e.g., hitting causes pain) with responses in a "non-canonical" condition, in which, for example, a boy was scared when he received a puppy, and a pet was happy when it was hit. Their acceptability questions were also worded with this issue in mind (see Section 1.2).

Helwig et al. reported that 68.7% of 3–7 year olds, and Zelazo et al. that 80.7% of 3–5 year-olds, based their acceptability judgments solely on outcome.[1] No children in either study based their acceptability judgments on intention alone. Similarly, according to Helwig et al., when intention was positive and outcome negative (accidental harm), children's mean acceptability ratings were 1.79 (i.e., *bad*) on a 1–5 scale, and when intention was negative and outcome positive (attempted harm), 4.64 (approaching *really*, *really good*), indicating that these judgments were influenced much more by outcome than by intention. The equivalent mean ratings in Zelazo et al. are very similar. Intriguingly, adults also showed a strong tendency to make outcome-based acceptability judgments: 92% (Helwig et al.) and 75% (Zelazo et al.) used only outcome information, and none based their judgments on intention alone. And, like the children, adults also considered accidental harms much worse than attempted harms (1.75 vs. 4.83 in Helwig et al.).

Regarding punishment judgments, Helwig et al. and Zelazo et al. respectively reported that children rated accidental harms more punishable (0.71 and approximately 0.58, where 1 is 'a little' punishment) than attempted harms (0.19 and approximately 0.28, where 0 is no punishment), which again indicates greater influence of outcome than of intention. However, some children in Zelazo et al. took intention into account: actions with negative intentions and negative outcomes were rated more punishable than actions with positive intentions and negative outcomes (approximately 1.30 vs. 0.58), and actions with positive intentions and positive outcomes were rated less punishable than actions with negative intentions and positive outcomes (approximately 0.04 vs. 0.28). Moreover, six of Zelazo et al.'s 33 children based their punishment judgments entirely on intention, eight only on outcome, and nine on both intention and outcome (the other children were not consistently influenced by either intention or outcome). In contrast, punishment judgments by children in Helwig et al. showed little or no sign of being influenced by intention: actions with negative outcomes were rated almost as punishable when the intention was positive as when it was negative (0.71 vs. 0.80), and actions with positive outcomes were rated only slightly more punishable when the intention was negative as when it was positive (0.19 vs. 0.16). Only one of the 33 children in Helwig et al. made punishment judgments solely according to intention, compared with 12 solely according to outcome, and four who based their punishment judgments on both intention and outcome.

All the adults in both studies based their punishment judgments either solely on intention or on both intention and outcome. While none in either study thought that accidental harms should be punished, the influence of outcome on adults' punishment judgments was also evident from their rating actions with negative intentions considerably more punishable if the outcome was negative than when it was positive (1.75 vs. 0.92 in Helwig et al.; approximately 1.85 vs. 0.35 in Zelazo et al.)

In sum, according to both studies children's and adults' acceptability judgments were almost exclusively outcome-based; children's punishment judgments were also based considerably more on outcome than on intention in Helwig et al., and somewhat more on outcome than intention in Zelazo et al.; and adults in both studies judged punishment primarily – but by no means solely – according to intention.

While these findings indicate that children's judgments are not *exclusively* outcome-based, they are consistent with the view that children's judgments are *primarily* outcome-based since they indicate that, at least until 7 years of age, children tend to base their acceptability and punishment judgments considerably more on outcome than on intention. They also show an outcome-to-intention shift in punishment judgments, since adults assessed the punishability of actions primarily (though not exclusively) according to intention. Much more surprising is that these two studies also suggest that, even by adulthood, there is no outcome-to-intention shift in acceptability judgments.

One advantage of including adults in samples is that it enables developmental researchers to establish the "mature" response

[1] These and the following figures refer to the normal condition in both studies, and to Helwig et al.'s animal scenario. Figures for the non-canonical condition and clothing scenario are similar.