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Brief Report

Children protest moral and conventional violations more when they believe actions are freely chosen

Marina Josephs [a,*], Tamar Kushnir [b], Maria Gräfenhain [a,c], Hannes Rakoczy [a]

[a] Institute of Psychology, University of Göttingen, D-37073 Göttingen, Germany
[b] Department of Human Development, Cornell University, Ithaca, NY 14853, USA
[c] Department of Child and Adolescent Psychiatry, Psychotherapy, and Psychosomatics, University of Leipzig, D-04103 Leipzig, Germany

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ABSTRACT

Young children spontaneously engage in normative evaluations of others' actions and actively enforce social norms. It is unclear, however, how flexible and integrated this early norm psychology is. The current study explored this question by testing whether children in their "real-life" normative evaluation of actions consider the actor's freedom of choice. Children witnessed different appropriate acts or mistakes (conventional or moral) by an agent under free or constrained circumstances. Across the two types of norms, participants protested less if a mistake occurred under constrained conditions than if it occurred under free conditions. Furthermore, they laid different weight on the actor's free choice in the two conditions. While refraining from blaming the agent for inappropriate constrained acts in the *moral* scenario, children still criticized a *social conventional* mistake under constrained conditions (although less than under free conditions), indicating that free choice is a more prominent factor in moral evaluations than in conventional evaluations. Thus, two domains of social cognition, normativity and theory of mind, are functionally integrated already early in development.

* Corresponding author. Fax: +49 551 39 9322.
E-mail address: marina.josephs@psych.uni-goettingen.de (M. Josephs).

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Introduction

Recent development research suggests that even very young children spontaneously engage in normative evaluations of others' actions, actively enforcing social norms by criticizing and teaching other agents and by sanctioning mistakes. Such spontaneous norm enforcement emerges from 2 or 3 years of age in the case of violations of different kinds of conventional norms pertaining, for example, to pretense and rule games (Rakoczy, 2008; Rakoczy, Warneken, & Tomasello, 2008), using artifacts (Casler, Terziyan, & Greene, 2009), language use (Rakoczy & Tomasello, 2009) or property (Rossano, Rakoczy, & Tomasello, 2011), and in the case of violations of moral norms pertaining to personal well-being and harm (Schmidt, Rakoczy, & Tomasello, 2012; Vaish, Missana, & Tomasello, 2011; see Rakoczy & Schmidt, 2013, for an overview).

This research, however, remains inconclusive as to how sophisticated and flexible such early norm enforcement is and whether it is systematically connected to children's general social cognition. We know from a huge body of research that young children make reasoned distinctions in their normative evaluations when explicitly interviewed about different kinds of norms (e.g., Smetana et al., 2012). Furthermore, our mature adult evaluation of acts vis-à-vis many forms of social norms essentially builds on the interpretation of the action and its underlying intentions; it is good or ill will that counts in moral evaluation and assignment of guilt and blame. Recent interview studies, in contrast to long-standing assumptions in the tradition of Piaget, suggest that in their abstract normative evaluations of story characters, even preschoolers are not completely blind to such connections. Confronted with story vignettes about different types of transgressions, children distinguish, for example, between acts based on good intentions and acts based on bad intentions even given the same outcomes in both cases (e.g., Harris & Núñez, 1996; Nobes, Panagiotaki, & Pawson, 2009; Núñez, 2011; Núñez & Harris, 1998; Zelazo, Helwig, & Lau, 1996). However, whether children's early norm enforcement in the form of spontaneous protest shows a similar sophistication is still an open research question.

An aspect in our moral practice that is intimately related to assessing agent intentionality (and assigning blame accordingly) is the agent's freedom of choice. Often performing a behavior under free choice and performing it intentionally amount to the same thing. However, although free choice and acting intentionally are indeed intimately connected, their relations are more subtle. Freedom of choice is typically a necessary (but not sufficient) condition for the intentionality of an action, and conversely the absence of choice warrants the inference that a given behavior was not intentional.

The cognitive structure and development of our intuitions about freedom of choice have just recently begun to be explored in cognitive and developmental science (e.g., Baumeister, Masicampo, & DeWall, 2009; Chernyak, Kushnir, Sullivan, & Wang, 2013; Kushnir, 2012; Kushnir, Gopnik, Chernyak, Seiver, & Wellman, 2015; Nichols, 2004; Pizarro & Helzer, 2010). From a set of studies that measured freedom of choice indirectly while focusing on the child's understanding of other mental states (intentions and beliefs), one can conclude that even infants show a fundamental understanding of the different factors that can constrain actions (physical and mental) (see Behne, Carpenter, Call, & Tomasello, 2005; Gergely, Bekkering, & Király, 2002). A new line of research focusing on the explicit measurement of freedom of choice shows that the basic understanding develops to an explicit form at 4 years of age. By then, children can state whether or not a (constrained) action needed to occur the way it did (Kushnir et al., 2015; Nichols, 2004). We also know that preschoolers and young school-age children consider social and moral norms as constraints on choice; that is, they often consider social and moral norms as limiting alternative possibilities for action (Chernyak & Kushnir, 2014; Chernyak et al., 2013).

The current study investigated whether young children take into account the degree of an agent's freedom of choice when evaluating norm violations as worthy of protest or blame. According to adult intuition, freedom of choice has different weights in different normative domains. Freedom is crucial for ascribing intentionality and assigning moral guilt and blame—where the agent's intent is what counts (Guglielmo, Monroe, & Malle, 2009). Assume that a woman makes loud noises knowing that this will seriously annoy her neighbor suffering from a migraine. In one case, she chooses to do so deliberately and freely—a moral mistake worthy of blame. In another case, however, she cannot help making the noise, say, because a heavy object falls on her foot and she screams in pain. Is this a moral

mistake to be criticized as well? According to adult intuition, it clearly is not. The agent had no choice and did not perform the behavior intentionally and, therefore, is not blameworthy.

Regarding *conventional* social norms, in contrast, freedom seems to play a less important role. That is because, in the conventional case, it is arguably the outcome of the act, rather than the agent, that is the focus of criticism. Playing a folk song wrongly is an example of a conventional mistake that rightly can be criticized. But for the evaluation of such conventional acts as mistakes, assigning guilt and blame to agents is not the relevant issue. Indeed, this relates to a more general belief we hold as adults that not all forms of critique involve blaming. Other examples of domains where normative critique does not necessarily involve blame are epistemic norms and norms of instrumental rationality; false beliefs are normatively defective and, thus, are to be criticized (e.g., Velleman, 2000), but that does not mean the believer is guilty or needs to be blamed. The so-called "reactive attitudes" (Strawson, 1962)—the emotional and other interpersonal tendencies and responses going along with blameful critique versus with critique without blame—are very different (Southwood, 2011). The former involve feelings of moral indignation and the like, whereas the latter typically do not. In fact, one prominent recent account views the difference between moral and conventional norms grounded in the very fact that the two types of norms differ in the kinds of attitudes and responses accompanying their violations (Nichols, 2002); moral norm violations naturally engage strong interpersonal feeling of empathy, indignation, and the like, whereas conventional norm violations do not necessarily do so.

Consequently, according to adult intuitions, when actions violate moral norms, the focus is the *agent*, and the agent's freedom of choice and intentionality are the most relevant considerations for the assignment of guilt or blame. When actions violate conventional norms, however, the focus is the *outcome*. In such circumstances, the agent's freedom of choice, although relevant, is only one aspect of criticism; the other is simply the appropriateness of the outcome itself. In line with these intuitions that mental states play a more important role in evaluating moral norms than in evaluating conventional norms, a recent study showed that adults take the actor's knowledge more into account when evaluating moral rule transgressions than when evaluating conventional rule transgressions (Giffin & Lombrozo, in press).

In sum, we know that young children already understand and sanction moral and social conventional mistakes by protest and critique, and we know that adults' evaluations of moral and social conventional mistakes are differentially sensitive to the transgressor's mental states. What we do not know, and what is the guiding question of the current study, is how sophisticated young children's early norm understanding is in light of the agent's intentionality. Do children take into account the agent's intentionality when judging and sanctioning his or her mistakes? And do they do so differentially, in the way adults do, for transgressions of moral versus conventional norms? To address these questions, children were confronted with different types of appropriate acts or mistakes (conventional or moral) committed by an agent under free or constrained circumstances. The structure of the mistakes was such that an agent intended to perform a given action (operate two levers on an apparatus where operating one or two levers yielded different outcomes), but due to physical constraints could not succeed and ended up operating only one lever. This led to a conventional mistake in the conventional condition (mis-sorting of an object in a sorting game) and had a morally negative outcome in the moral condition (destruction of someone's property).

Children's spontaneous normative responses such as protest and critique in response to the agent's act were measured. The prediction was the following: If children do take freedom into account in normative evaluation, they should protest less if the mistake occurred under constrained circumstances than if it occurred under free circumstances. Furthermore, in line with adult intuitions, children should base their moral evaluations strongly on the agent's freedom, protesting only against mistakes performed under free conditions but not against inappropriate acts performed under constrained conditions as well as appropriate acts. In contrast, when evaluating conventional mistakes, freedom should play no role or a lesser role because the mistake itself should be more salient than in moral situations.

This study goes beyond previous work in three crucial respects. First, in contrast to interview methods used previously, the current study investigated children's understanding of the relation between the intentionality and normative status of an action not only in their abstract ratings of fictional scenarios; rather, their active and spontaneous norm enforcement and critique in response to third

parties' real actions were analyzed. Second, children were not explicitly told about an agent's intentions; rather, they needed to infer the intention underlying the action from whether the actor had free choice or not. Third, the current study tested for differential influences of perceived freedom and intentionality on different types of normative evaluation pertaining to conventional and moral transgressions.

Method

Participants

The participants were 48 3- and 4-year olds, 24 in the conventional condition (mean age = 47.7 months, 11 girls) and 24 in the moral condition (mean age = 46.9 months, 13 girls). An additional 4 children were tested but excluded from the final sample, 3 because of uncooperativeness and 1 because of a camera error. All children were recruited from local preschools in a small university town and a mid-sized rural town in the United States and a science museum for children. All children were native English speakers.

Design

Children were randomly assigned to the moral or conventional condition. In each condition, children saw three types of events—appropriate performance with free choice, inappropriate performance with free choice, and inappropriate performance with external constraint—with two trials per type of event in blocks, leading to a total of six trials. The order of the blocks was counterbalanced across children. As a dependent variable, we coded for children's utterances of protest and critique as responses to these events.

Materials and procedure

A hand puppet called "Bilbo" and a self-made marble run apparatus were used. The marble run had two levers, one on each side of the marble run. Pulling no lever or only one lever after inserting a marble sent the marble to the right exit, and pulling two levers yielded the left exit.

In the conventional condition, a red box was placed at the left exit and a yellow box was placed at the right exit. Red and yellow marbles were used and were supposed to be sorted into the respective boxes according to colors. A mistake here was to pull no lever or only one lever for a red marble and, thus, send it to the yellow box—a conventional mistake because only the rules of the game state that it should not be done like that.

In the moral condition, one exit—the one the marble would be sent to by pulling no lever or only one lever—was blocked so that marbles going there disappeared. Some marbles were introduced as belonging to Experiment 1's (E1) friend Temo, who "needs her marbles back and will be very sad if they are missing." Thus, the task with respect to Temo's marbles was to avoid their disappearance by pulling two levers. A mistake here was to pull no lever or only one lever and lose the marbles—a morally relevant mistake because it harms Temo (see Fig. 1 for a schematic structure of the two conditions).

All testing was done by two experimenters in a quiet area of the children's preschool or the museum. A warm-up phase where E1, Bilbo, and the child played a puzzle together to familiarize the child with the puppet was followed by a model phase where the rules regarding the marble run were established via demonstrating the function of the box and its levers. In the test phase, Bilbo performed the following actions according to the different events. To ensure that the child understood the rules/mechanism of the box, before every trial the child was asked (a) where the specific marble needed to go and (b) how many levers Bilbo needed to pull to achieve that:

- *Free correct:* Bilbo was free and performed appropriately (conventional: sorting correctly; moral: pulling both levers so that Temo's marbles do not disappear).

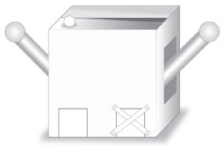
Condition	*Conventional*	*Moral*
Marble run		
Task	Sort red and yellow marbles according to color into the respective boxes	Avoid marble's disappearance by not letting it go to the blocked exit
Mistake	Pull only one lever to make a red marble go into the yellow box	Pull only one lever and thus lose the marble

Fig. 1. Schematic structure of the two conditions.

- *Free mistake:* Bilbo was free and made a mistake (conventional: sorting incorrectly by pulling only one lever; moral: making Temo's marbles disappear by pulling only one lever).
- *Constraint mistake:* Actions identical to free mistake except that Bilbo was unable to reach both levers because the puppet's hands were tied together. Note that although pulling one lever or no lever each yielded the same outcome, we chose to let Bilbo act (i.e., pulling one lever) in the constraint condition to give a clearer impression of the puppet's good intentions. Because not acting could be interpreted as not caring, pulling one lever while trying to reach for the second one clearly indicates the puppet's good will to avoid the mistake that was about to happen.

Observational and coding procedure

All sessions were coded by a single observer from videotape. A second independent coder who was blind to the hypotheses coded a random sample of 25% of all the sessions for reliability. Children's spontaneous responses to the puppet's actions were first described with a verbatim transcription of their utterances. A given behavior was coded as *explicit* protest when the child showed clear criticism ("You did it wrong"), correction ("It has to go into the yellow box"), or rebuke. A given behavior was coded as *implicit* protest if the child showed in an implicit way that he or she judged the action as wrong by uttering a positive imperative ("Pull two levers!"), a negative imperative ("No! Not like that!"), or expressions that by a complaining or disapproving tone imply that a mistake was made ("The yellow marble went into the red box!").

Following previous work with such protest methodology (e.g., Casler et al., 2009; Rakoczy et al., 2008), for each trial it was then determined whether the child showed explicit or implicit protest, and for subsequent analyses sum scores of the number of trials per condition in which children showed protest (0–2) were computed. Interrater reliability over these scores was excellent ($\kappa = .81$).

Results

The mean sum scores of the number of trials per condition in which children showed implicit or explicit protest (0–2) are depicted in Fig. 2. In the moral condition, only 13.1% of the protest shown by the children could be coded as explicit protest. In the conventional condition, children protested explicitly about half of the time (48.7%). Consequently, for the main analyses we combined the two forms of protest into one protest category.

First, looking at children's protest behavior in the different conditions, Wilcoxon tests indicate that in both the moral and conventional conditions children protested more in the free mistake condition

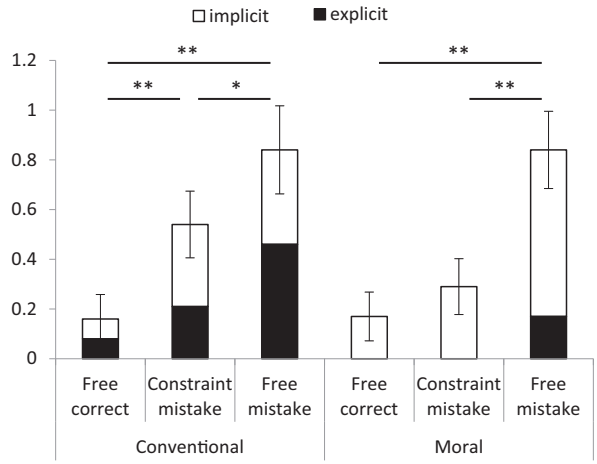


Fig. 2. Mean sum scores (0–2) of trials with protest in the test phase. *Note:* $^{*}p < .05$; $^{**}p < .01$; one-tailed Wilcoxon signed-rank test. Error bars indicate standard errors.

(moral: $M = 0.83$, $SD = 0.76$; conventional: $M = 0.83$, $SD = 0.87$) than in the constraint mistake condition (moral: $M = 0.29$, $SD = 0.55$, $z = -2.60$, $p < .01$, $r = .38$; conventional: $M = 0.54$, $SD = 0.66$, $z = -1.71$, $p < .05$, $r = .25$) and the free correct condition (moral: $M = 0.17$, $SD = 0.48$, $z = -3.09$, $p < .01$, $r = .45$; conventional: $M = 0.17$, $SD = 0.48$, $z = -2.86$, $p < .01$, $r = .41$). In the moral case, however, the amount of protest in the constraint mistake condition did not differ from that in the free correct condition ($z = -0.91$, $p = .18$, $r = .13$), whereas in the social conventional scenario children protested significantly more in the constraint mistake condition than in the free correct condition ($z = -2.50$, $p < .01$, $r = .36$).

Second, to compare directly whether the actor's freedom of choice played a different role in the moral condition than in the conventional condition, individual performance patterns were analyzed. In particular, the number of children was determined in each condition conforming to two idealized response patterns:

- Pattern A in which freedom has less weight (more appropriate for responding to conventional mistakes than to moral mistakes); there is protest in the free mistake and constraint mistake conditions but not in the free correct condition.
- Pattern B in which freedom counts (more appropriate in response to moral mistakes); there is protest in the free mistake condition but not in the constraint mistake and free correct conditions.

Of the 48 children tested, 34 showed a protest reaction in at least one of the trials.[1] Two thirds of these children conformed to one of these patterns. In the conventional condition, 7 children conformed to Pattern A, whereas only 4 children conformed to Pattern B. In the moral condition, only 2 children conformed to Pattern A, with 10 children conforming to Pattern B. Crucially, the distributions of the patterns differed significantly between conditions, $\chi^2(1, N = 23) = 5.32$, $p < .05$.

Third, we looked at the distribution of the two types of protest in the moral and conventional conditions. For that, we computed sum scores (0–6) combining the three conditions (free correct, free mistake, and constraint mistake) separately for explicit and implicit protests. Analyzing these patterns revealed that children showed more implicit protest ($M = 1.13$, $SD = 0.99$) than explicit protest

[1] Note that this response rate is comparable to other studies using the dependent measure of normative protest (e.g., Rakoczy et al., 2008). Furthermore, the group of nonprotesters was not noticeable concerning gender (9 boys and 5 girls), age (mean age = 48.5 months), or the condition they were in (eight conventional and six moral). Whether or not a child protested was significantly related to the child's behavior in the warm-up game ($r = .42$, $p < .01$), an indicator for shyness.

(M = 0.17, SD = 0.57), z = –3.21, p < .01, r = .46, in the moral condition. No difference between the two types of protest could be found in the conventional condition (explicit: M = 0.75, SD = 1.07; implicit: M = 0.79, SD = 0.98), z = –0.13, p = .92, r = .02. Furthermore, children showed more explicit protest in the conventional condition than in the moral condition (Mann–Whitney U = 195, p < .05, r = .37). The amount of implicit protest did not differ between the two types of norms (U = 228, p = .22, r = .19).

Fourth, in exploratory ways, we analyzed the patterns of results in the two age groups separately (note, however, that these analyses build on only 12 children per condition and, therefore, should be treated cautiously). Wilcoxon signed rank tests (one-tailed) revealed that for the 3-year-olds in both the moral and conventional conditions children protested more in the free mistake condition (moral: M = 0.92, SD = 0.79; conventional: M = 1.08, SD = 0.79) than in the constraint mistake condition (moral: M = 0.33, SD = 0.65, z = –1.93, p < .05, r = .39; conventional: M = 0.58, SD = 0.79, z = –2.12, p < .05, r = .43). For the 4-year-olds, the pattern slightly differed between norm types. In the moral condition, children protested more in the free mistake condition (M = 0.75, SD = 0.75) than in the constraint mistake condition (M = 0.25, SD = 0.45), z = −1.73, p < .05, r = .35, with the latter not differing from the free correct condition (M = 0.25, SD = 0.62), z = −0.00, p = .50, r = .00. In the conventional condition, however, the pattern was the reverse; whereas the free mistake condition (M = 0.58, SD = 0.90) did not differ from the constraint mistake condition (M = 0.50, SD = 0.52), z = –0.33, p = .37, r = .07, the protest in the latter differed from that in the free correct condition (M = 0.08, SD = 0.29), z = –2.24, p < .05, r = .46.

Discussion

The current findings suggest that some of our fundamental adult intuitions concerning the relation of free choice (or lack thereof) and different forms of normative evaluation develop very early in ontogeny. First, young children in the current study took into account an agent's freedom of choice in evaluating the agent's acts. They protested less if the same mistake occurred under free conditions than if it occurred under constrained conditions. Second, they did so in context-sensitive ways, putting differential weight on free choice when applying different types of norms. They based their moral evaluation of actions on the actor's free choice, refraining from blaming agents for inappropriate acts performed under constrained conditions. They did not weigh an actor's freedom equally, however, in evaluating violations of social conventional norms. Exploratory analysis of an age trend suggests that 4-year-olds included the information about the actor's freedom of choice more differentially between the two types of norms than 3-year-olds.

Although children showed protest behavior in both the moral and conventional conditions, the forms of protest in response to moral and conventional rule transgressions were different. Children showed more implicit protest in the moral condition and more explicit protest in the conventional condition. This finding might seem counterintuitive on first glance; if moral transgressions lead to stronger reactions, should these reactions not also elicit more explicit protest? However, explicitness and strength of reactions are not necessarily related in this way. One can clearly have a strong negative reaction of moral outrage without explicit normative language (e.g., "No, stop, this hurts!"). In addition, normative language per se does not make a reaction strong; one can express really calmly, "No, this is wrong. In chess, one must not move the king more than one field!" Furthermore, the pattern of explicit/implicit normative responses we found in our children makes perfect sense in light of the conceptual differences between moral and conventional norms. Imagine that you see someone crossing the street while the light is red. The most obvious response would be to tell her, "Stop, you have to wait until the light is green!" On the other hand, if you see someone hitting someone else, there is no need to give an extra instruction. Simply saying, "Stop, don't hit him!" should be sufficient because everyone knows what the right thing to do would be. The logic here goes back to the nature of the two kinds of rules. Whereas moral norms are more self-explanatory, social conventional norms are more arbitrary and, therefore, stand in need of more explanation.

One interesting question for future research is what children understand about the different ways in which free choice (or lack thereof) and intentionality of an action can affect the normative status of an action. There are at least three different ways in which free choice can be a prerequisite for intentionality and in which a lack of freedom of choice can mean that an action was not intentional:

a. *No choice → no intentional action.* First, a participant might not have any control over a given type of behavior and, therefore, might have no choice when it comes to the question of whether to perform that behavior or not; the behavior is then not intentional at all. Reflexes and other involuntary behaviors are the paradigm here.
b. *No choice → acting with an intention, but not an intention to perform the behavior performed.* Second, a person may act intentionally, but due to some constraint and the resulting lack of choice may end up performing an action that the person did not intend to perform. Think of a person intending to play a song on a piano that turns out to have a completely different tune. What the person ends up playing is not the song at all but rather some completely different song (or no song at all). The person did act intentionally but did not intend the specific action he or she performed or the result that was brought about.
c. *No choice → a given behavior was intentional, but only under a certain description.* Finally, a person may act intentionally and intend to perform the action performed—but only under a certain description X. Due to some constraints, however, the agent has limited choice; performing X is preferred to alternative courses of action, but performing X means performing Y. Hence, the person chooses to perform X but does not intend to perform Y in itself. Think of the trolley cases much discussed recently in moral philosophy and psychology. Faced with the constrained decision to either kill five people or kill one person, the actor will probably choose to kill just one person but only under description X—"avoid killing five people"—and not under the description "kill the other person" (that the person gets killed is foreseen but not in itself intended) (Foot, 1967; McIntyre, 2011).

In the current study, only cases of the second type were investigated; the puppet agent acted intentionally (operating the apparatus and sorting), but due to external constraints ended up performing actions (pulling only one lever and thereby sorting incorrectly/making a marble disappear) the puppet did not intend to perform in this way. It will be interesting for future research to explore more systematically whether children track the relations among lack of free choice, agent intentionality, and normative evaluation in similar ways for the other types as well.

The current findings have some more general theoretical implications. First, the fact that children differentially tracked free choice in evaluating moral and conventional norm violations reinforces the claim that the moral–conventional distinction is a psychologically real, robust, and early developing phenomenon (irrespective of whether this distinction is psychologically primitive or derives from some more fundamental other distinction; see, e.g., Nichols, 2002). Second, the findings of the current study show that two domains of social cognition studied mostly in isolation from each other—normative or deontic reasoning, on the one hand, and theory of mind, on the other—are functionally integrated in quite systematic and flexible ways already from early in development (see Wellman & Miller, 2008). Children in this study not only were sensitive to the information about the constrained freedom of choice of the actor in general but also used this information differentially in the two norm conditions.

Some fundamental adult intuitions to the effect that the intentional interpretation of an action has influence on how to normatively evaluate the action are present already early in ontogeny. Thus, children are not blind to the relations between freedom and normative status; they clearly do think about such relations in normative evaluations.

The current study is, to our knowledge, the first to document a differential influence of the judgment of intentionality and freedom of choice on moral and social conventional norm evaluations in preschoolers. What remains to be investigated in future research is whether this early influence of mental state judgment on normative evaluation extends, in the way it does in adults (Giffin and Lombrozo, in press), to other types of mental states as well such as knowledge of the norm in question.

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