

ORIGINAL ARTICLE

Young children tattle to enforce moral norms

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Abstract

By 3 years of age, children tattle about rule violations they observe, even as unaffected bystanders. It is argued that tattling is one way in which children enforce norms and that in the long term, it helps sustain co-operation (e.g., Vaish, Missana, & Tomasello, 2011). However, an alternative explanation could be that children are worried that the victim might blame them and so feel the need to inform the victim about who caused the harm. The present study aimed to tease these possibilities apart. Children observed a puppet either causing harm to another puppet (e.g., destroying their artwork) or no harm (e.g., destroying a different object). Importantly, the situation was constructed such that children knew they could not be blamed for the transgressions. Nonetheless, 3-year-old children tattled on the transgressor more when the transgressor had caused harm than no harm. Thus, young children's tattling about third-party moral transgressions seems to be aimed at enforcing norms. An additional, exploratory goal of this study was to examine the relation between children's temperament and norm enforcement. Temperamental shyness negatively correlated with children's protesting and tattling behavior, though more research is needed to better understand the role of temperament in early norm enforcement.

KEYWORDS

individual differences, moral norms, norm enforcement, protest, tattling

1 | INTRODUCTION

Humans are a highly co-operative species. We co-operate not only with kin but even with strangers and often even at a cost to ourselves (Sober & Wilson, 1998). However, co-operation can result in a greater loss for co-operators (who invest resources such as time, energy, or material goods) than for non-co-operators or free riders (who do not invest any resources and yet benefit from the outcomes of the co-operation; Fehr & Fischbacher, 2004). This presents a puzzle: If co-operators have more to lose than non-co-operators, how can co-operation be maintained? One answer is norm enforcement, whereby those who violate the norms of co-operation are held accountable in some way. This encourages norm violators to co-operate more in subsequent interactions, thus helping to maintain co-operation in the group (Boyd & Richerson, 2009; Nowak, 2006).

Norm enforcement can take several forms. One form is punishment, or imposing costs on a transgressor. Children punish wrongdoers from an early age, and even do so in third-party situations, that is, when they themselves are unaffected by the transgression. For instance, 3- and 5-year-old children who observed a thief steal items from a victim intervened to take the items away from the thief and make them inaccessible or return them to the victim (Riedl, Jensen, Call, & Tomasello, 2015). Moreover, children even punish non-co-operators at a cost to themselves (McAuliffe, Jordan, & Warneken, 2015).

Young children also enforce norms by protesting against transgressors. For instance, by 3 years of age, children protest when an individual breaks the rules governing a game or destroys another individual's artwork (e.g., Hardecker, Schmidt, Roden, & Tomasello, 2016; Rakoczy, Warneken, & Tomasello, 2008; Vaish et al., 2011). Norm enforcement in the forms of third-party punishment and protest thus emerge early in development.

Interestingly, children also evince another enforcement-like behavior during norm transgressions, namely, tattling. Tattling is the act of reporting to a second party about norm violations committed by a third party (Ingram & Bering, 2010). In one of the few studies on tattling behavior, researchers observed children's responses to everyday norm violations committed by their peers as they naturally occurred in the preschool (Ingram & Bering, 2010; see also den Bak & Ross, 1996; Ross & den Bak-Lammers, 1998). Children tattled frequently about violations against themselves but rarely about violations against third parties. However, as the authors suggest, children may have refrained from tattling in third-party contexts because they expected the victims—who were typically present during the transgressions—to defend themselves.

Consequently, in two subsequent experimental studies on children's tattling, the victim was absent during the transgressions (Hardecker et al., 2016; Vaish et al., 2011). In one study, for instance, 3-year-olds saw an actor puppet destroying either a victim puppet's picture (Harm condition) or a blank paper (Control condition) while the victim was away. Upon the victim's return, children tattled significantly more to her in the Harm than Control condition (Vaish et al., 2011). Children's tattling behavior in these third-party contexts was interpreted as an additional way in which children enforce norms (Ingram, 2014; Vaish et al., 2011). Ingram (2014) further argued that over development, children move away from protesting using physical aggression, which puts them at risk for retaliation, to tattling to an authority figure, which is a more indirect and safer protest method.

Note, however, that in both Vaish et al. (2011) and Hardecker et al. (2016), the victim's absence meant that the victim did not know who caused the harm. Another interpretation of children's tattling could thus be that children were worried that the victim would blame them and so felt the need to inform the victim about who caused the harm. Indeed, this offers an alternative explanation for Ingram and Bering's (2010) finding that children rarely tattled about third-party transgressions: Since victims were generally present during such transgressions, children might have inferred that the victims would not blame them for the transgressions and so were not motivated to tattle. Children's tattling may thus be a self-serving act rather than an act of norm enforcement. A few observational and interview studies also hint at this possibility. For instance, children report their own transgressions far less than other children's transgressions (Dunn & Munn, 1985; Wilson, Smith, Ross, & Ross, 2004). Children thus seem keen to present a blameless image of themselves, raising the possibility that their tattling is motivated by self-interest. However, as these prior studies did not involve controlled experiments, they do not permit strong conclusions about the motivations behind children's tattling. To tease apart self-serving vs. co-operative motivations for tattling, we asked: If children know they cannot be blamed for a transgression, will they still tattle? If so, tattling would seem to serve to enforce norms. If not, then perhaps children tattle to get themselves out of trouble rather than for co-operative reasons.

In the present study (whose basic method was adapted from Vaish et al., 2011), 3-year-olds observed a transgressor puppet damaging an object (either a third party's belonging or a control object) and could enforce the norm during the property transgression (by protesting) or later, upon the victim puppet's return (by tattling). Importantly, the object that the transgressor would damage was placed in a locked box that the puppets had keys for but the child did not. During the procedure, the fact that the child could not open the box was reiterated multiple times. This ensured that both the child and other puppets clearly knew that the child did not have access to the objects and could thus not be held responsible for their damage.

Note that during the transgression, the child was in the room with not only the transgressor (as in previous work) but also an additional (neutral) puppet. We included this additional puppet to ensure ambiguity about who the transgressor was. That is, if only the child and transgressor were present during the transgression, and everyone knew that the child could not have caused the damage, it would be clear that it must have been the transgressor, thus obviating the need for the child to tattletale to the victim. The presence of an additional individual who had access to the objects meant that the victim could not know who the transgressor was, thus increasing the need for children to tattletale.

Our central question concerned the function of tattletaling. If tattletaling primarily serves self-serving functions (to get the tattletaler out of trouble by making clear that s/he did not cause the damage), then children should tattletale similarly in Harm and Control conditions. However, if tattletaling primarily serves to enforce norms (Ingram, 2014; Vaish et al., 2011), then children should tattletale more in the Harm than Control condition even though they cannot be blamed for the transgression.

A second, exploratory goal was to examine individual variation in children's norm enforcement behavior. Although on average, children begin to engage in third-party norm enforcement by 3 years, no prior work has accounted for individual variation in this behavior. As a first step in this direction, we examined the associations between children's temperament and their tendency to protest and tattletale.

We were particularly interested in two aspects of children's temperament. The first was shyness, that is, slow or inhibited approach in situations involving novelty or uncertainty. This was based on the fact that norm enforcement is considered a form of prosocial behavior because it helps ensure future co-operation (Fehr & Fischbacher, 2004; Vaish, Herrmann, Markmann, & Tomasello, 2016), and children's prosocial behavior might be linked to children's shyness. For instance, 3-year-olds' prosocial behavior is negatively correlated with shyness (Knafo & Israel, 2012; Stanhope, Bell, & Parker-Cohen, 1987; but see Gross et al., 2015). Moreover, this negative correlation is especially evident when children help others achieve social goals (e.g., helping someone get another person's attention) rather than instrumental goals (e.g., handing someone an out-of-reach object; Beier, Terrizzi, Woodward, & Larson, 2016). As norm enforcement also entails prosocial behavior in the social rather than instrumental domain, we explored whether shyness is negatively related to norm enforcement.

Secondly, we asked whether children's protesting and tattletaling are associated with their impulsivity because, although these behaviors may look purposeful, they might instead be impulsive responses that children 'blurt out' when they see a transgression. Individual differences in young children's norm enforcement may thus partially emerge from their difficulty in inhibiting such prepotent responses. Indeed, temperamental factors such as impulsivity are argued to interfere with children's social information processing, causing them to spontaneously respond to social situations instead of thinking deeply about how to respond (Arsenio & Lemerise, 2004). Moreover, parent and teacher ratings of children's impulsivity correlate negatively with children's socially appropriate behavior (Spinrad et al., 2006). Accordingly, we reasoned that children's norm enforcement behaviors might not be purposeful actions designed to enforce norms but rather impulsive acts, and thus that more impulsive children might show more of these behaviors. We thus explored whether children's norm enforcement is positively associated with impulsivity.

2 | METHODS

2.1 | Participants

Participants were 32 3-year-olds in either the Harm or Control condition (16 per condition; 16 girls; age range: 36 months, 9 days to 47 months, 12 days; $M_{\text{age}} = 40$ months, 23 days; $SD = 3$ months, 9 days; Harm condition: 7 males; $M_{\text{age}} = 40$ months, 18 days; $SD = 3$ months, 0 days; Control condition: 9 males; $M_{\text{age}} = 40$ months, 27 days; $SD = 3$ months, 18 days). Our sample size matched that of Vaish et al. (2011). Five additional children were tested but excluded due to experimenter error ($N = 1$), fussiness ($N = 2$), and themselves causing damage to the target object ($N = 1$; note that for one additional child, one of the two trials was excluded because he damaged the target object on that trial). Participants were recruited from a medium-sized university town in North America. Of the families that

provided information about race ($N = 23$) and education ($N = 24$), 90.5% of the parents were White and 95.9% were at least college educated.

2.2 | Materials and setting

Three hand puppets (a fox, a bunny, and a dog), each controlled by a different experimenter, were assigned one of the three roles: actor, victim, and moderator. The experimenters always played the same roles but the puppets they controlled were counterbalanced across children. (We used puppets based on previous studies showing that children protest and tattle against puppets but may be more reluctant to speak up against adults, especially in face-to-face interactions when the risk of negative repercussions is higher; Heyman, Loke, & Lee, 2016; Kenward & Östh, 2012; Schmidt, Rakoczy, & Tomasello, 2012; Vaish et al., 2011.) Paper, crayons, and clay were used for the activities. A plexiglass box ($19 \times 13 \times 3$ inches) with a lock, as well as three keys that opened the lock and one key that did not open the box, were also used.

2.3 | Procedure

Children came to the reception area of the laboratory with their parents and played with one experimenter (who would control the moderator puppet in the study). Once children were comfortable, the experimenter introduced the moderator puppet. Children were then escorted alone into the testing room, where the moderator puppet introduced children to the two other animal puppets (who would be the actor and victim puppets). To minimize the possibility of children perceiving the experimenters as separate individuals from the puppets, children were not introduced to the experimenters playing the actor and victim puppets, and these experimenters always stayed in their puppeteer roles throughout the study, speaking and acting only through the puppets.

Of the 32 children tested, 3 refused to stay in the testing room alone and thus had their parents accompany them. These parents sat behind the children and pretended to be asleep throughout the procedure.

2.3.1 | Warm-up

Puppets and the child first warmed up by playing with a ball. The moderator then brought out an eight-piece wooden puzzle and said that they would take turns putting in the puzzle pieces. On the first round (with the first four pieces), each puppet 'mistakenly' put a puzzle piece in the wrong place. If the child did not spontaneously correct these mistakes within a few seconds, one of the other puppets prompted the child by asking her if the piece was in the right place. This was done to ensure that children knew that they could intervene and correct the puppets and felt comfortable doing so. The puppets did not make mistakes on the second round.

2.3.2 | Box demonstration phase

The moderator placed the (empty) plexiglass box on the table. She then gave everyone a key for the box. In fact only the three puppets' keys opened the box; the child's key did not. Each puppet and the child took turns trying out their keys, at which point it became apparent that the child's key did not open the box. The moderator reiterated this to the child and noted that the child's key opened a different box outside the room. Then the moderator used her key to open the box and said, 'So, I have a key to open the box, [victim] has a key to open the box, and [actor] has a key to open the box. But your key opens the other fun box outside'. (We gave children a key because piloting revealed that not receiving any key at all made children somewhat upset and feel left out of the activity. Receiving a key that opened a different box outside the room ensured not only that children could not be blamed for the transgression but also that they were not too disappointed about their key.)

2.3.3 | Testing phase

The testing phase consisted of two trials per child, one involving drawing and one involving sculpting with clay (order of drawing and clay was counterbalanced across children). The first trial began with the moderator distributing a sheet of paper or a ball of clay to each puppet and the child. In each case, there was an extra sheet of paper or ball of clay

(control objects), which the moderator put in the plexiglass box. Everyone now worked on drawing or making a clay sculpture. While doing so, each puppet excitedly showed off her artwork, and the other puppets praised it. The puppets also praised the child's artwork.

After approximately 2 min, the victim puppet announced that she was done with her artwork (a picture of a flower or a clay snail). She then said, 'Oh! I just remembered that I need to go outside. I'm going to put my flower/snail in the box and lock the box so nothing happens to it while I'm gone. [Child], I know your key doesn't open this box. But [moderator] and [actor], your keys do. So if you're opening the box, make sure nothing happens to it. I don't mind if something happens to this extra paper/clay. That's not mine. But I really don't want anything to happen to my lovely flower/snail. I'm going to put mine in the box now, and lock the box too'. After the victim left, the remaining two puppets and the child continued their artwork.

Briefly thereafter, the moderator announced that she was tired and needed a nap, and she (and the respective experimenter) turned away from the table and pretended to sleep. The child was thus alone with the actor puppet (and the respective experimenter; although this experimenter could be perceived as a witness to the actor's actions, as noted above, we minimized this possibility by making sure that the child never saw the experimenter acting or talking separately from the puppet). Now, the actor proceeded to either destroy the victim's artwork (Harm condition) or the control object (Control condition). In the Harm condition, the actor first announced in a neutral but firm manner, 'Well, I don't like the flower/snail that [the victim] made'. She then opened the box with her key, took the picture/sculpture out, and placed it between herself and the child (approx. 5 s). She then said, 'Yes, I don't like the flower/snail that [victim] made. I'm going to tear/break it now'. After 5 s, she repeated her intentions and proceeded to tear or break the artwork, put the pieces back into the box, and lock the box (approx. 10 s). In the Control condition, the actor behaved identically except she said, 'Well, I don't like the extra paper/clay', and 'Yes, I don't like the extra paper/clay. I'm going to tear/break it now'. The actor's intentions were repeated and her actions were presented in this stepwise manner to provide children with ample occasions to protest.

Once the actor finished the transgression, the victim returned. At this point, the moderator puppet (and the respective experimenter) was still asleep. Before noticing the damaged object, the victim announced that she would now get her picture/sculpture out of the box and reiterated that she knew that the child's key did not open the box. She then neutrally said 'Hmm' and sat down. Once she opened the box, she noticed the damaged object and took the torn or broken pieces out. She said in a mildly sad tone, 'That was my flower/snail' (Harm) or 'That was the extra paper/clay' (Control), and then put the pieces on the floor.

Approximately 4 s later, the moderator woke up and announced that they would now do the other activity (sculpting or drawing). The second trial began with the moderator taking the remaining object out of the box and putting it away, and distributing the new materials to the puppets and child. The second trial was identical to the first except for the materials used.

While children participated in the study, parents completed the Very Short Form of the Child Behavior Questionnaire (CBQ; Putnam & Rothbart, 2006).

2.4 | Coding and reliability

All children were videotaped during the study. A primary coder (blind to hypotheses) carried out the coding for all children, and a reliability coder coded a randomly selected 25% of videos ($N = 8$).

2.4.1 | Comprehension

To assess whether children understood that their key did not open the plexiglass box, we coded children's explicit statements (e.g., 'My key opens the other box' or 'Oh I see the problem, my key is not the right shape' or 'I just want to get outside and lock this into that [other] box') as well as indications of implicit understanding (e.g., nodding or saying 'Yes' when the moderator informed or reminded them) for the entire study duration. Reliability on this measure was perfect ($\kappa = 1$).

TABLE 1 Coding scheme for tattling

| Category | Tattling score | Behaviors |
|-------------------|----------------|---|
| Clear tattling | 2 | Child tells victim that the actor destroyed the target object ('The fox tore it up' or 'She tore up your beautiful flower!'). Child may explicitly name and/or point to the actor |
| Hints of tattling | 1 | Child informs the victim about the damaged object without indicating who caused the damage ('It's broken' or 'Look what happened!') |
| No tattling | 0 | Child does not tattle |

2.4.2 | Puzzle

When the puppets made mistakes during the puzzle, we coded whether children intervened spontaneously, after being prompted, or not at all. Reliability was excellent ($\kappa = 0.88$).

2.4.3 | Protest

The coding scheme for protest was based on prior work (e.g., Rakoczy et al., 2008; Vaish et al., 2011). Specifically, in the period between the moderator going to sleep and the victim returning to the room (~90 s), children's verbalizations were given the following scores: 'normative protest' (3), 'imperative protest' (2), 'hints of protest' (1), and 'no protest' (0). 'Normative protest' involved intervening in a normative way, using normative vocabulary, references to the rule (e.g., 'No, you cannot do that'), or references to the victim's emotional state (e.g., 'Now when doggy comes back, she will be so sad'). 'Imperative protest' involved expressing an imperative, such as a command to stop the action, without use of normative elements (e.g., 'No! Don't tear it!'), or expressing simple disagreement with the actor's action (e.g., 'No!'). 'Hints of protest' were protests that could not clearly be assigned to the other two categories, including using a protesting tone of voice in exclamations ('Hey!'), questions ('Why are you doing that?'), or statements ('But I like the dog's flower'). A score of 0 ('No protest') was assigned if the child exhibited no protest behaviors. Reliability on protest as a binary (yes/no) measure and on highest protest scores was good ($\kappa = 0.75$ and $\kappa = 0.78$, respectively).

2.4.4 | Tattling

Tattling was coded between the time the victim returned to the room and the moderator woke up (approx. 1 min). We developed a new coding scheme to assess level of children's tattling (see Table 1). Children received the highest code of 'clear tattling' if they pointed to and/or named the actor. 'Hints of tattling' was assigned when children simply notified the victim about what happened to the object without naming anyone. Reliability on tattling as a binary measure and on highest tattling scores was perfect ($\kappa = 1$ for both).

2.4.5 | Selfish tattling

Finally, we coded for children's 'selfish tattling', that is, tattling solely to avoid being blamed (e.g., 'It wasn't me' or 'I didn't do it'). However, no child showed this behavior.

3 | RESULTS

Preliminary analyses revealed no effects of gender (Fisher's exact tests; for protest, $p = .135$; for tattling, $p = .252$). There were also no differences between the first and the second trial for any measure, all $ps > .6$. During the warm-up phase, all children intervened at least once when the puppets put a puzzle piece in the wrong place (30 intervened spontaneously and 2 after being prompted). Thus, all children felt comfortable correcting the puppets. Moreover, nearly all children (27 of 32) spontaneously showed comprehension of the fact that their key did not open the box. Specifically, 14 children made explicit statements (12 repeated the information after hearing the puppets talk about it during the box demonstration phase, and 2 made explicit statements before the victim left and upon the victim's

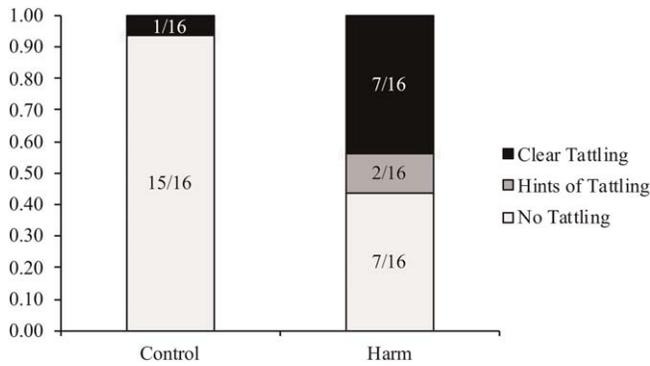


FIGURE 1 Proportion of children in each condition who showed each form of tattling as their highest form of tattling. * $p < .005$

return) and another 13 showed implicit understanding. Of the five children who did not show comprehension, four were in the Control condition. Analyses conducted with and without these five children did not produce different results, with only one exception (described below). Thus, these five children were retained for all analyses. All reported p values are two-tailed.

We hypothesized that children would protest more in the Harm than Control condition. However, a chi-square test revealed that only a non-significant majority of children protested on at least one trial in the Harm ($N = 7$, or 44%) than the Control condition ($N = 4$, or 25%), $\chi^2(1, N = 32) = 1.25, p = .264$.

Our primary hypothesis was that children would tattle more in the Harm than Control condition despite knowing that they would not be blamed for damaging the victim's object in the Harm condition. Using a chi-square test, tattling was first analyzed as a binary variable (tattling/no tattling). As predicted, a significantly greater number of children tattled on at least one trial in the Harm (9 of 16, or 56%) than Control condition (1 of 16, or 6%), $\chi^2(1, N = 32) = 9.31, p = .002, \phi_{\text{Cramer}} = 0.539$ (Figure 1).

Additionally, we compared children's highest tattling scores across conditions with a Mann-Whitney U test. As predicted, the test revealed condition differences, Mann-Whitney $U = 65, N_{\text{Harm}} = N_{\text{Control}} = 16, p = .003$, indicating that children were more likely to engage in clear tattling in the Harm than Control condition (Figure 1). To assess whether children tended to either engage in both types of norm enforcement behaviors (protesting and tattling) or in neither, we conducted a phi-correlation on the binary tattling and protest measures. This did not reveal a significant effect ($\phi = 0.22, p = .21$), suggesting that children tended to engage in one or the other behavior but not both (see Table 2).

Finally, to explore the associations between norm enforcement behavior and temperament, we focused on two subscales of the CBQ Surgency/Extraversion factor: shyness and impulsivity. Total scores for shyness and impulsivity were calculated by summing the scores from the three 7-point Likert scale questions for shyness and impulsivity, respectively. Children's total shyness and impulsivity scores showed good variability (shyness range = 3–21 points, $M = 11.81, SD = 4.14$; impulsivity range = 5–18 points, $M = 10.81, SD = 2.39$). Non-parametric tests of correlation revealed that children's shyness correlated negatively with their binary protest and binary tattling behavior (Kendall's tau = $-0.33, p = .030$; Kendall's tau = $-0.38, p = .014$, respectively) whereas their impulsivity did not correlate with either (both $ps > .1$). Note that when we excluded the five children who did not spontaneously show comprehension

TABLE 2 Distribution of children's protest and tattling responses in each condition

| | Control | | Harm | |
|----------------|-----------|-----------------|-----------|-----------------|
| | Protested | Did not protest | Protested | Did not protest |
| Tattled | 1 | 0 | 4 | 5 |
| Did not tattle | 3 | 12 | 3 | 4 |

about their key, the negative correlation between protest and shyness was no longer significant, Kendall's tau = -0.24 , $p = .150$, but the correlation between tattling and shyness remained significant, Kendall's tau = -0.36 , $p = .030$.

4 | DISCUSSION

The enforcement of norms is critical for maintaining and promoting co-operation (Boyd & Richerson, 2009; Nowak, 2006). Prior work showed that by the age of three, children often tattle about third-party moral transgressions. This behavior was interpreted as a way for children to enforce moral norms (Ingram & Bering, 2010; Vaish et al., 2011). However, because children in prior studies faced the possibility of being blamed for the transgression, their tattling behavior might have been motivated by a more selfish desire to get themselves out of trouble (see also Dunn & Munn, 1985; Wilson et al., 2004).

The current study teased apart whether 3-year-olds tattle to avoid being blamed or to enforce norms. We devised a situation in which children had no access to the objects that would be damaged. Children thus knew they could not be blamed for any damage caused to those objects. Nonetheless, children tattled more when the transgressor had caused harm than no harm. Moreover, none of the children engaged in 'selfish tattling' to clear themselves of any potential blame. Rather, children's tattling was entirely focused on informing the victim about the transgression and/or the transgressor. Our results indicate that children's tattling serves the co-operative function of enforcing norms rather than the more selfish function of getting themselves out of trouble.

An alternative but related possibility is that children did not tattle to enforce norms on the transgressor but to protect the reputation of the moderator puppet, who had access to the objects and who was sleeping when the victim returned to the room and thus could not deflect blame from herself. Although we saw no evidence of tattling to defend the moderator, our procedure was not designed to (and thus cannot conclusively) rule out this possibility. We note, though, that even if children did tattle to protect the moderator, the motivation underlying their tattling would still be co-operative, both immediately (ensuring the wrong person is not sanctioned) and in the long run (ensuring the transgressor is sanctioned and is thus less likely to transgress again).

Another possibility is that children's tattling was motivated by concern for the victim rather than (or in addition to) a desire to enforce norms. However, the content of the tattling suggests that children were doing something more than expressing concern for the victim. Specifically, our coding of tattling focused on instances in which children pointed out who caused the damage. If children were only expressing concern for the victim, they need not have mentioned the transgressor at all. Rather, they could have shown their concern by comforting, helping, or sharing with the victim (e.g., Svetlova, Nichols, & Brownell, 2010; Vaish, Carpenter, & Tomasello, 2009), which children did not generally do (except one child who offered to draw a picture for the victim). This suggests that children's tattling was at least partially a form of norm enforcement.

An important question is whether children truly understood that their key did not open the box containing the objects and that everyone else knew this. We think it likely that they did, for a few reasons. Firstly, the fact that children's keys did not open the box containing the objects was clearly stated and reiterated by the puppets a total of six times during the procedure. Furthermore, as our Comprehension results indicate, nearly all children showed either explicit or implicit understanding that their key did not open the box. (However, future work could include a comprehension question about the box and keys in order to have all children explicitly state their understanding before the transgression occurs, and include a memory check later in the procedure—perhaps after the first trial—to ensure that children retain the information.)

Note also that one of the reminders about the child's lack of access to the box (and thus lack of culpability) was provided just before children could tattle. Specifically, immediately after the victim returned to the room and before she noticed the damaged object, she said to children that she knew that their key did not open the box. Thus, even if children had forgotten this fact (or believed that others might have forgotten it), they were reminded of it before they tattled. If children's tattling served primarily to avoid blame, this reminder should have eased their concerns and allowed them to not tattle. These aspects of our procedure and children's spontaneous responses strongly indicate

that children did indeed understand that they could not be blamed for the transgression. The fact that children nonetheless tattled when a moral norm had been broken supports our proposal that tattling is a way for children to enforce such norms (Ingram & Bering, 2010; Vaish et al., 2011).

As a secondary measure, we examined children's protest behavior. In contrast to prior work (Schmidt et al., 2012; Vaish et al., 2011), children in our study did not protest more in the Harm than Control condition. In particular, whereas the number who protested was identical in our and in Vaish et al.'s Control condition (4 of 16), the number who protested in our Harm condition (7 of 16) was substantially lower than in the Harm condition in Vaish et al. (12 of 16) or Schmidt et al. (11 of 16).

There are at least two possible reasons for this disparity. Firstly, children in prior studies may have protested in higher numbers because they thought they could be blamed for the transgressions (Hardecker et al., 2016; Vaish et al., 2011). They may have been highly motivated to protest in order to try and prevent the transgressions from occurring, even if that meant possibly facing retaliation from the transgressor. On the other hand, because children in our study knew they could not be blamed, they may have found tattling to be a safer, more peaceful way to enforce the norm. Indeed, because direct intervention can prove dangerous, over development, children may start utilizing more indirect ways to intervene (Ingram, 2014). One such indirect way is tattling, which leaves the riskier aspects of norm enforcement (e.g., punishing the transgressor) to others (Hawley & Geldhof, 2012). Thus, under some circumstances, indirect forms of norm enforcement such as tattling may be more appealing for young children than direct intervention. Relatedly, the lack of correlation in our study between protesting and tattling hints that both behaviors serve similar functions and that children may rely on one or the other depending on context (though see Heyman et al., 2016).

A second possible reason for the disparity in protest results is the fact that unlike in prior studies, in which children were alone with the transgressor during the transgression (Hardecker et al., 2016; Vaish et al., 2011), in our study, a third individual (the moderator) was also present in the room. As everyone knew that the child's key did not open the box, we reasoned that the moderator puppet's presence during the transgression would create ambiguity for the victim about who caused the damage (as both the actor and the moderator had keys to the box), which would give children reason to tattle in order to inform the victim about the transgressor. Although the moderator (and the respective experimenter) pretended to be asleep, children may nonetheless have felt a diffusion of responsibility, perhaps expecting the moderator to wake up and intervene. This might be especially true if, despite our effort to minimize the sense that the moderator was an authority figure, children nonetheless perceived the moderator in this way (as she was responsible for managing the entire procedure, handling all materials, and so on). Children may thus have seen the moderator as someone who could and should intervene, which may have reduced their own protest. This possibility can be further examined by systematically varying whether a third individual is present in the room during the transgressions, and whether that individual is an authority figure.

An exploratory goal of our study was to examine individual variation in norm enforcement behavior by investigating the relations between parental reports of children's temperamental shyness and impulsivity and their tendency to enforce norms by protesting and tattling. We found that shyness was negatively correlated with both protesting and tattling whereas impulsivity did not correlate with either.

The negative correlation between temperamental shyness and the tendency to enforce norms makes sense, for two reasons. Firstly, protesting and tattling about moral transgressions, particularly in an unfamiliar situation with unfamiliar individuals, require children to not be overly timid in novel or uncertain situations (Beier et al., 2016). It thus follows that children who are less temperamentally shy would show greater norm enforcement behaviors. Secondly, norm enforcement is considered a form of prosocial behavior (Vaish et al., 2016) and some prior work indicates that children's prosocial behavior correlates negatively with temperamental shyness, particularly in social helping situations (Beier et al., 2016; Knafo & Israel, 2012; though see Gross et al., 2015). As such, our finding is consistent with the broader literature on the relation between temperamental shyness and prosocial behavior.

Interestingly, it could be argued that the immediate goal (or subgoal) of norm enforcement is a punitive one (e.g., to punish antisocial partners), and thus that the negative correlation between shyness and norm enforcement in fact reflects a negative association between shyness and antisocial or aggressive behavior. It will be fascinating to unpack

this possibility in future work and to compare the role of shyness (and other temperamental factors) in punitive vs. prosocial behaviors.

This raises the broader question of whether norm enforcement is in fact a prosocial behavior, that is, a behavior that benefits others. On their surface, norm enforcement behaviors such as punishment do not appear to be prosocial, as they involve causing some negative consequence for the transgressor. However, a behavior can arguably be considered prosocial if it ultimately provides a benefit, even if it does not do so immediately. Consider the case of 'paternalistic' helping: Young children often refuse to give a recipient a desired object if that object is broken, instead giving an object that the recipient has not requested but that will ultimately be more useful for them (Martin & Olson, 2013). Similarly, although the immediate outcome of norm enforcement might be a negative one (e.g., making the transgressor sad), if the transgressor ultimately co-operates more, then norm enforcement can still be considered prosocial.

It could also be argued that the outcomes of norm enforcement are not always prosocial, as in the case of antisocial punishment (i.e., punishing individuals for behaving prosocially; Herrmann, Thöni, & Gächter, 2008). Indeed, norm enforcement can stabilize not only prosocial norms but any kind of norms in large groups (Boyd & Richerson, 1992). When strong social norms of co-operation exist, however, norm enforcement is effective in promoting them (Fehr & Fischbacher, 2004; Herrmann et al., 2008). Thus, although norm enforcement might not account for the origins of co-operation, it helps explain how co-operation is sustained and spread. There is thus reason to consider norm enforcement a prosocial act. Still, future work should examine the fascinating question of whether norm enforcers are primarily driven by prosocial, antisocial, or perhaps purely normative motivations.

We found no significant correlation between norm enforcement and impulsivity. This hints that children do not protest and tattle about transgressions because they cannot inhibit such responses, but rather do so purposefully, perhaps with the intention of enforcing norms. However, we caution that this is the first examination of links between temperament and norm enforcement behavior and is based on a relatively small sample size; it needs to be replicated with a larger sample, and perhaps extended by including other dimensions of temperament, before strong conclusions can be drawn. Note also that we assessed children's temperament using a parental questionnaire (CBQ; Putnam & Rothbart, 2006). Although this instrument is validated and widely used, it does not directly assess children's temperament and might underestimate the links between temperament and norm enforcement. Future research could employ more direct tests of temperament.

Interestingly, two children intentionally destroyed the victim's artwork (the trials on which they did so were excluded from analyses). Whereas one did so only after the transgressor announced her intention to destroy it, the other began to do so even before the transgressor announced her intention. This suggests that in addition to enforcing norms, children are occasionally also motivated to break norms. It will be fascinating to explore such rule-breaking behavior as a source of individual variation in future work.

Future research should also consider additional sources of individual variation. One source is likely parenting style. Prior work shows that authoritative parenting supports prosocial behavior whereas authoritarian parenting undermines it (e.g., Eisenberg, Fabes, & Murphy, 1996; Hastings, Rubin, & DeRose, 2005). This might be especially relevant to norm enforcement given that authoritative parents establish clear expectations and guidelines for behavior and provide explanations for those expectations, which might increase the likelihood that their children learn to respect norms and not only follow them but also enforce them. On the other hand, authoritarian parents provide fewer explanations for rules and use strict and punitive discipline; this might not encourage as much intrinsic respect for norms (Hoffman & Saltzstein, 1967; see also Smetana, 1997). Authoritative parenting might thus result in greater norm enforcement among children than authoritarian parenting. In line with this prediction and with our finding that shyness correlates negatively with norm enforcement, authoritative parents tend to have more socially competent children whereas authoritarian parents tend to have shier and more withdrawn children (Barber, Olsen, & Shagle, 1994; Mills & Rubin, 1998).

Additionally, there is cross-cultural variation in both adults' and children's punishment of transgressors that depends on the norms and institutions of their groups (e.g., Henrich et al., 2006), and differences in parents' cultural values are associated with differences in children's protest against norm violations (Gampe & Daum, 2018). It is thus imperative to examine cultural and parental influences on children's norm enforcement.

Children's norm enforcement might also vary depending on their experience in 'norm-heavy' settings such as day care or preschools. Finally, children's receptive and expressive language abilities could limit children's understanding of norms and their reactions to norm violations. In order to paint a richer and more complete picture of early norm enforcement, future work should focus not only on the normative pattern of development but also on the many fascinating sources of individual variation.

5 | CONCLUSIONS

We set out to understand the motivations underlying children's tattling behavior and its temperamental correlates. Our findings indicate that children tattle about third-party moral transgressions even when they cannot be held responsible for those transgressions, suggesting that children's tattling serves co-operative rather than self-serving functions. Moreover, temperamental shyness seems to underlie some of the individual variation in children's tendency to intervene in norm transgressions, although more research is needed to more thoroughly tease apart the role of temperamental factors and other sources of individual variation. This provides important insights into the functions of children's tattling behavior, and highlights the impressive ways in which children enforce moral norms and thus help maintain co-operation.

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REFERENCES

- Arsenio, W. F., & Lemerise, E. A. (2004). Aggression and moral development: Integrating social information processing and moral domain models. *Child Development, 75*(4), 987–1002. <https://doi.org/10.1111/j.1467-8624.2004.00720.x>
- Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development, 65*(4), 1120–1136. <https://doi.org/10.1111/j.1467-8624.1994.tb00807.x>
- Beier, J. S., Terrizzi, B. F., Woodward, A. M., & Larson, E. G. (2016). Shyness and social conflict reduce young children's social helpfulness. *Child Development, 88*(6), 1922–1929. <https://doi.org/10.1111/cdev.12681>
- Boyd, R., & Richerson, P. J. (1992). Punishment allows the evolution of cooperation (or anything else) in sizable groups. *Ethology and Sociobiology, 13*(3), 171–195. [https://doi.org/10.1016/0162-3095\(92\)90032-Y](https://doi.org/10.1016/0162-3095(92)90032-Y)
- Boyd, R., & Richerson, P. J. (2009). Culture and the evolution of human cooperation. *Philosophical Transactions of the Royal Society of London B: Biological Sciences, 364*(1533), 3281–3288. <https://doi.org/10.1098/rstb.2009.0134>
- den Bak, I. M., & Ross, H. S. (1996). I'm telling! The content, context, and consequences of children's tattling on their siblings. *Social Development, 5*(3), 292–309. <https://doi.org/10.1111/j.1467-9507.1996.tb00087.x>
- Dunn, J., & Munn, P. (1985). Becoming a family member: Family conflict and the development of social understanding in the second year. *Child Development, 56*(2), 480–492. <https://doi.org/10.2307/1129735>
- Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development, 67*(5), 2227–2247. <https://doi.org/10.1111/j.1467-8624.1996.tb01854.x>
- Fehr, E., & Fischbacher, U. (2004). Third-party punishment and social norms. *Evolution and Human Behavior, 25*(2), 63–87. [https://doi.org/10.1016/S1090-5138\(04\)00005-4](https://doi.org/10.1016/S1090-5138(04)00005-4)

- Gampe, A., & Daum, M. M. (2018). How preschoolers react to norm violations is associated with culture. *Journal of Experimental Child Psychology*, 165, 135–147. <https://doi.org/10.1016/j.jecp.2017.06.009>
- Gross, R. L., Drummond, J., Satlof-Bedrick, E., Waugh, W. E., Svetlova, M., & Brownell, C. A. (2015). Individual differences in toddlers' social understanding and prosocial behavior: Disposition or socialization? *Frontiers in Psychology*, 6, 600. <https://doi.org/10.3389/fpsyg.2015.00600>
- Hardecker, S., Schmidt, M. F., Roden, M., & Tomasello, M. (2016). Young children's behavioral and emotional responses to different social norm violations. *Journal of Experimental Child Psychology*, 150, 364–379. <https://doi.org/10.1016/j.jecp.2016.06.012>
- Hastings, P. D., Rubin, K. H., & DeRose, L. (2005). Links among gender, inhibition, and parental socialization in the development of prosocial behavior. *Merrill-Palmer Quarterly*, 51(4), 467–493. <https://doi.org/10.1353/mpq.2005.0023>
- Hawley, P. H., & Geldhof, G. J. (2012). Preschoolers' social dominance, moral cognition, and moral behavior: An evolutionary perspective. *Journal of Experimental Child Psychology*, 112(1), 18–35. <https://doi.org/10.1016/j.jecp.2011.10.004>
- Henrich, J., McElreath, R., Barr, A., Ensminger, J., Barrett, C., Bolyanatz, A., ... Lesorogol, C. (2006). Costly punishment across human societies. *Science*, 312(5781), 1767–1770. <https://doi.org/10.1126/science.1127333>
- Herrmann, B., Thöni, C., & Gächter, S. (2008). Antisocial punishment across societies. *Science*, 319(5868), 1362–1367. <https://doi.org/10.1126/science.1153808>
- Heyman, G. D., Loke, I. C., & Lee, K. (2016). Children spontaneously police adults' transgressions. *Journal of Experimental Child Psychology*, 150, 155–164. <https://doi.org/10.1016/j.jecp.2016.05.012>
- Hoffman, M. L., & Saltzstein, H. D. (1967). Parent discipline and the child's moral development. *Journal of Personality and Social Psychology*, 5(1), 45–57. <https://doi.org/10.1037/h0024189>
- Ingram, G. P. (2014). From hitting to tattling to gossip: An evolutionary rationale for the development of indirect aggression. *Evolutionary Psychology*, 12(2), 343–363. <https://doi.org/10.1177/147470491401200205>
- Ingram, G. P., & Bering, J. M. (2010). Children's tattling: The reporting of everyday norm violations in preschool settings. *Child Development*, 81(3), 945–957. <https://doi.org/10.1111/j.1467-8624.2010.01444.x>
- Kenward, B., & Östh, T. (2012). Enactment of third-party punishment by 4-year-olds. *Frontiers in Psychology*, 3, 373–379. <https://doi.org/10.3389/fpsyg.2012.00373>
- Knafo, A., & Israel, S. (2012). Empathy, prosocial behavior, and other aspects of kindness. In M. Zentner & R. L. Shiner (Eds.), *Handbook of temperament* (pp. 168–182). New York, NY: The Guilford Press.
- Martin, A., & Olson, K. R. (2013). When kids know better: Paternalistic helping in 3-year-old children. *Developmental Psychology*, 49(11), 2071–2081. <https://doi.org/10.1037/a0031715>
- McAuliffe, K., Jordan, J. J., & Warneken, F. (2015). Costly third-party punishment in young children. *Cognition*, 134, 1–10. <https://doi.org/10.1016/j.cognition.2014.08.013>
- Mills, R. S., & Rubin, K. H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 30(2), 132. <https://doi.org/10.1037/h0085803>
- Nowak, M. A. (2006). Five rules for the evolution of cooperation. *Science*, 314(5805), 1560–1563. <https://doi.org/10.1126/science.1133755>
- Putnam, S. P., & Rothbart, M. K. (2006). Development of short and very short forms of the children's behavior questionnaire. *Journal of Personality Assessment*, 87(1), 102–112. https://doi.org/10.1207/s15327752jpa8701_09
- Rakoczy, H., Warneken, F., & Tomasello, M. (2008). The sources of normativity: Young children's awareness of the normative structure of games. *Developmental Psychology*, 44(3), 875–881. <https://doi.org/10.1037/0012-1649.44.3.875>
- Riedl, K., Jensen, K., Call, J., & Tomasello, M. (2015). Restorative justice in children. *Current Biology*, 25(13), 1731–1735. <https://doi.org/10.1073/pnas.1203179109>
- Ross, H. S., & den Bak-Lammers, I. M. (1998). Consistency and change in children's tattling on their siblings: Children's perspectives on the moral rules and procedures of family life. *Social Development*, 7(3), 275–300. <https://doi.org/10.1111/1467-9507.00068>
- Schmidt, M. F., Rakoczy, H., & Tomasello, M. (2012). Young children enforce social norms selectively depending on the violator's group affiliation. *Cognition*, 124(3), 325–333. <https://doi.org/10.1016/j.cognition.2012.06.004>
- Smetana, J. G. (1997). Parenting and the development of social knowledge reconceptualized: A social domain analysis. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and the internalization of values* (pp. 162–192). New York, NY: Wiley.
- Sober, E., & Wilson, D. S. (1998). *Unto others: The evolution and psychology of unselfish behavior*. Cambridge, MA: Harvard University Press.

- Spinrad, T. L., Eisenberg, N., Cumberland, A., Fabes, R. A., Valiente, C., Shepard, S. A., . . . Guthrie, I. K. (2006). Relation of emotion-related regulation to children's social competence: A longitudinal study. *Emotion, 6*(3), 498–510. <https://doi.org/10.1037/1528-3542.6.3.498>
- Stanhope, L., Bell, R. Q., & Parker-Cohen, N. Y. (1987). Temperament and helping behavior in preschool children. *Developmental Psychology, 23*(3), 347–353. <https://doi.org/10.1037/0012-1649.23.3.347>
- Svetlova, M., Nichols, S. R., & Brownell, C. A. (2010). Toddlers' prosocial behavior: From instrumental to empathic to altruistic helping. *Child Development, 81*(6), 1814–1827. <https://doi.org/10.1111/j.1467-8624.2010.01512.x>
- Vaish, A., Carpenter, M., & Tomasello, M. (2009). Sympathy through affective perspective taking and its relation to prosocial behavior in toddlers. *Developmental Psychology, 45*, 534–543. <https://doi.org/https://doi.org/10.1037/a0014322>
- Vaish, A., Herrmann, E., Markmann, C., & Tomasello, M. (2016). Preschoolers value those who sanction non-cooperators. *Cognition, 153*, 43–51. <https://doi.org/10.1016/j.cognition.2016.04.011>
- Vaish, A., Missana, M., & Tomasello, M. (2011). Three-year-old children intervene in third-party moral transgressions. *British Journal of Developmental Psychology, 29*(1), 124–130. <https://doi.org/10.1348/026151010x532888>
- Wilson, A. E., Smith, M. D., Ross, H. S., & Ross, M. (2004). Young children's personal accounts of their sibling disputes. *Merrill-Palmer Quarterly-Journal of Developmental Psychology, 50*(1), 39–60. <https://doi.org/10.1353/mpq.2004.0008>

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