



ELSEVIER

Contents lists available at SciVerse ScienceDirect

Cognition

journal homepage: www.elsevier.com/locate/COGNIT

Young children enforce social norms selectively depending on the violator's group affiliation

Marco F.H. Schmidt^{a,*}, Hannes Rakoczy^b, Michael Tomasello^a

^a Max Planck Institute for Evolutionary Anthropology, Department of Developmental and Comparative Psychology, Deutscher Platz 6, 04103 Leipzig, Germany

^b University of Göttingen, Institute of Psychology & Courant Research Centre, "Evolution of Social Behaviour", Waldweg 26, 37073 Göttingen, Germany

ARTICLE INFO

Article history:

Received 14 February 2011

Revised 1 June 2012

Accepted 11 June 2012

Available online 4 July 2012

Keywords:

Social norms

Third-party norm enforcement

Social-cognitive development

Normativity

Parochialism

Ingroup–outgroup categorization

Moral-conventional distinction

ABSTRACT

To become cooperative members of their cultural groups, developing children must follow their group's social norms. But young children are not just blind norm followers, they are also active norm enforcers, for example, protesting and correcting when someone plays a conventional game the "wrong" way. In two studies, we asked whether young children enforce social norms on all people equally, or only on ingroup members who presumably know and respect the norm. We looked at both moral norms involving harm and conventional game norms involving rule violations. Three-year-old children actively protested violation of moral norms equally for ingroup and outgroup individuals, but they enforced conventional game norms for ingroup members only. Despite their ingroup favoritism, young children nevertheless hold ingroup members to standards whose violation they tolerate from outsiders.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

Social norms are an integral part of all human societies and form the basis for human cooperation (Fehr & Fischbacher, 2004; Tomasello, 2009). Human adults routinely enforce social norms on members of their own cultural group – sometimes at great personal cost – and thereby foster ingroup conformity and cooperation.

Norm enforcement is widely believed to be within adults' area of responsibility, so preschoolers have long been considered as norm followers only (Piaget, 1932). Recently, however, researchers have documented that in addition to respecting social norms, young children enforce them on third parties as well. They protest game and moral norm violations and, at least with game norms, do so in many different contexts and try to alter the norm transgressor's behavior, for instance, by teaching the "right"

way to do it (e.g., Rakoczy, Warneken, & Tomasello, 2008; Vaish, Missana, & Tomasello, 2011).

Two important questions about young children's norm enforcement have yet to be answered. The first is how young children, as norm enforcers, view the scope of social norms. In particular, does the norm transgressor's group affiliation (ingroup vs. outgroup) modulate children's norm enforcement, given that children are parochialists who favor members of their ingroup (Fehr, Bernhard, & Rockenbach, 2008; Nesdale & Flesser, 2001; Vaughan, Tajfel, & Williams, 1981). The second is whether, as norm enforcers, young children view the scope of different kinds of social norms differently? For example, do children enforce moral norms involving harm on all transgressors equally, but conventional, game-type norms only on ingroup members who could be expected to know and respect such conventions? Prior research using interview methods has not directly addressed these questions – especially not whether young children understand the normative force of social norms (a negative answer in an interview could be based, e.g., on personal dislike, and does not reveal whether the interviewee follows or enforces social norms) or the

* Corresponding author. Tel.: +49 (0)341 3550 437; fax: +49 (0)341 3550 444.

E-mail address: marco_schmidt@eva.mpg.de (M.F.H. Schmidt).

theoretically important comparison of ingroup and outgroup norm violators – and produced inconsistent results, with some studies finding that early school-aged children (6- to 7-year-olds) were intolerant of conventional norm transgressions even in outgroup members (e.g., Levy, Taylor, & Gelman, 1995; Song, Smetana, & Kim, 1987; Turiel, 1978).

In the current study, we investigated these two questions by presenting 3-year-old children with norm violations (committed by a puppet) in a real-life, naturalistic scenario, and giving them the opportunity to spontaneously protest or intervene. This novel, participatory methodology is particularly demanding, because the child must protest third-party, when she herself has not been harmed or directly affected in any way – and of course some children must overcome a natural shyness to intervene in this way. The experimental design was 2×2 (between-subjects). The first factor was the *norm violator's group affiliation*, so these violations were performed either by an *ingroup* puppet or by an *outgroup* puppet. The second factor was the *type of norm violation* presented: there were transgressions consisting of the destruction of another person's valued property (causing harm) which qualified them, according to many scholars, as *moral* norm transgressions that are non-arbitrary because they pertain to issues of well-being (Shweder, Much, Mahapatra, & Park, 1997; Turiel, 1983, 2002), and there were violations of arbitrary *game* norms (where a puppet played a game in a deviant, but equally possible, way) – norms that are usually considered paradigmatic cases of conventional norms that owe their existence to communal agreement and that are arbitrary in that they could have been different (Baker & Hacker, 1985; Lewis, 1969; Searle, 1995; Turiel, 1978). A follow-up experiment again focused on ingroup/outgroup game norm violations (see below for details).

Turiel and colleagues have drawn on a wealth of studies to argue that moral and conventional norms differ on a number of psychological dimensions; for instance, moral norms are viewed as authority-independent, general in scope, and their transgression is more serious than conventional violations (Smetana & Braeges, 1990; Turiel, 1983). Others have questioned the validity of this distinction (Kelly, Stich, Haley, Eng, & Fessler, 2007), stressed the importance of affective reactions, and proposed to draw the line between emotion-inducing and non-emotion-inducing transgressions (Haidt, Koller, & Dias, 1993; Nichols, 2002, 2004; Prinz, 2007). Whatever the resolution of this debate, in our study we violated norms that most adults would agree apply universally (against harming others for no reason; main experiment) and other norms that most adults would agree only apply to those who know and accept them (game rules; main and follow-up experiment).

As a baseline, we assessed children's tendency to intervene and protest when one of the puppets violated a non-arbitrary norm of instrumental rationality (prescribing the choice of the only effective means to a given end), in which case children should always intervene and help. At the end, we also asked children to choose one of the puppets in an affiliation test, and to allocate resources to the two puppets.

2. Main experiment

2.1. Method

2.1.1. Participants

Sixty-four monolingual 3-year-old children (age range = 40–44 months) participated in the study. The four

Table 1
Sequential overview of the experimental phases for each of the four between-subjects conditions.

Task/event	Game		Moral	
	Ingroup	Outgroup	Ingroup	Outgroup
1. Establishment of the ingroup–outgroup distinction	Ingroup puppet Max stays.	Ingroup puppet Max leaves. Outgroup puppet Henri appears and introduces himself.	Identical to game-ingroup condition	Identical to game-outgroup condition
2. Instrumental tasks	E1 models an instrumental action. Child may imitate. Respective puppet makes instrumental mistake.			
3. Target tasks	E1 models a game-like action. Child may imitate. Puppet (Max or Henri) performs an alternative action (game norm violation).		E1 creates something. Child may imitate. Puppet (Max or Henri) destroys E1's creation (moral norm violation).	
4. Establishment of the ingroup–outgroup distinction	Ingroup puppet Max leaves.	Max reappears.	Identical to game-ingroup condition	Identical to game-outgroup condition
	Outgroup puppet Henri appears and introduces himself. Max reappears.			
5. Affiliation test	E1 prompts the child to decide which puppet (Max or Henri) should play with a dolphin toy the child had played with before.			
6. Resource allocation task	E1 prompts the child to allocate four identical stickers to the puppets.			

Note: Except for the supplemental tasks (affiliation test and resource allocation task), only one puppet was present at a time (operated by E2). During the respective puppet's actions in the instrumental/target tasks, E1 was turned away from the table to allow for spontaneous third-party intervention, and to make clear that E1 was not witnessing the norm violation.

conditions each comprised 16 children (8 girls), each with a mean age of 42 months (42 months, 6 days; 42 months, 6 days; 42 months, 2 days; 41 months, 29 days, respectively). Children came from mixed socio-economic backgrounds and were recruited via urban daycare centers (in which testing took place). Four children were excluded from the final sample due to uncooperativeness ($n = 2$), or experimenter error ($n = 2$).

2.1.2. Design, materials and procedure

In each of the four between-subjects conditions (game-ingroup, game-outgroup, moral-ingroup, moral-outgroup), children first received two instrumental tasks (fixed order), followed by four game/moral target tasks (systematically varied via Latin-Squares), and two supplemental tasks (fixed order): a forced-choice affiliation test and a resource allocation task (see Table 1, for an overview of the experimental tasks). The puppets' group affiliation and position (left vs. right) in the supplemental tasks were counterbalanced across children.

Two experimenters conducted the study: E1, the model, and E2, who operated two distinct, human-like puppets "Max" (an ingroup individual with native accent) and "Henri" (an outgroup individual with French accent). E1, Max, and the child comprised the ingroup. The child became acquainted with both E1 and Max before she got to know Henri across conditions (see Section 2.1.2.1, for details). The ingroup-outgroup distinction was established via symbolic markers (E1, Max and the child wore one color bracelet, Henri a different color), linguistic markers ("We are Daxos"; "He is a Fendi"), accent (native vs. foreign), and familiarity (Max was known to E1 and to the child, Henri was "unknown", at test). Children were introduced to the outgroup individual "Henri" after the target tasks (ingroup conditions), or before the instrumental tasks (outgroup conditions; see Table 1).

2.1.2.1. Establishment of the ingroup-outgroup distinction. Across conditions, E1 first introduced the child to the ingroup individual Max and highlighted the group affiliation ("This is Max. Max is a Daxo, great, isn't it? We are Daxos!") to motivate the child to join the ingroup. E1, Max and the child then played with a ball, after which E1 gave the child an ingroup bracelet (if a child refused to put it on, it was placed close to the child throughout the experiment) and stressed that all three of them were "Daxos" from then on. The ingroup then solved a three-piece puzzle together.

Table 1 shows per condition (ingroup vs. outgroup) at which point in time during the study the outgroup individual Henri appeared after the ingroup member Max had left (Max said he was going to sleep). Henri greeted E1 and the child by saying in French "Hello! My name is Henri and I am from France." The rest of the conversation was in German with Henri having a French accent. E1 answered with surprise "Huh, well, who are you? I don't know you. You speak differently. What's your name and where are you from?". Henri replied "My name is Henri, and I am from very far away, from another country. I am a Fendi." Then, E1 said "Well, we are Daxos." Henri thereafter stated "I am no Daxo. I am a Fendi." E1 then pointed to Henri's

bracelet and said to the child (as if the scales fell from her eyes) "Ah, right, look. He doesn't have a multicolored bracelet like Max and we have. He has a black one. It's different from ours. He's no Daxo, he's a Fendi from very far away. Look, only we are Daxos, he's not."

2.1.2.2. Instrumental tasks. In each instrumental task, E1 looked at the child announcing "We do it like this!" (raising her index finger) and performed an instrumental action which the child could reproduce. Then, the puppet made an instrumental mistake. In the first task, for instance, the puppet did not turn the crank of a music box (correct action), but pushed with its hands on the top of the box thus failing to produce music. If the child did not intervene spontaneously, the puppet asked "How does this work?". If the child still refrained from intervening, E1 prompted the child to help the puppet. After the two instrumental tasks, the puppet shortly played with a top, after which E1 highlighted the group affiliation of everybody (ingroup conditions: "We are Daxos!"; outgroup conditions: "Only we are Daxos, he's not, he's no Daxo, he's a Fendi from very far away!").

2.1.2.3. Target tasks – game/moral norm violations. In the target tasks, E1 looked at the child announcing "We do it like this!" (raising her index finger) and performed the action A_1 (see below) on partly novel objects (accompanying the action with long hums and finishing it with a "voilà-gesture" saying "Ta-da") which the child could reproduce. Then, in the test phase, the puppet looked at the objects announcing "These things, I have them now." and performed the action A_2 (see below) for about 20 s, and children had the opportunity to spontaneously respond to this action (e.g., protest) while E1 was turned away from the table "busily" writing something down.

The four game tasks each involved two alternative actions A_1 and A_2 on the same set of objects (see Appendix A, Table A.1). In one task, for example, the objects were a Styrofoam board with a gutter, a small building block, and a suction head. E1's action (A_1) was to put the building block on the board, and push it across the board with the suction head, until it fell into the gutter. The puppet's alternative action (A_2) was to put the block on the board, and lift the board so the block slid into the gutter. The moral tasks involved the creation of something (see Appendix A, Table A.2). In one task, for instance, E1's action A_1 was to draw a flower on a balloon which was attached to a building block. The puppet's action A_2 was to destroy E1's objects: first, the puppet pushed onto the balloon with its hands, and then it took a straightened paperclip to destroy the balloon.

2.1.2.4. Supplemental tasks – forced-choice affiliation test. E1 prompted the child to decide which puppet (ingroup or outgroup) should play with a dolphin toy, the child had played with before.

2.1.2.5. Supplemental tasks – resource allocation task. E1 put two little plates in front of the puppets (who were located vis-à-vis to the child), and prompted the child to allocate four identical stickers to the puppets and then turned away.

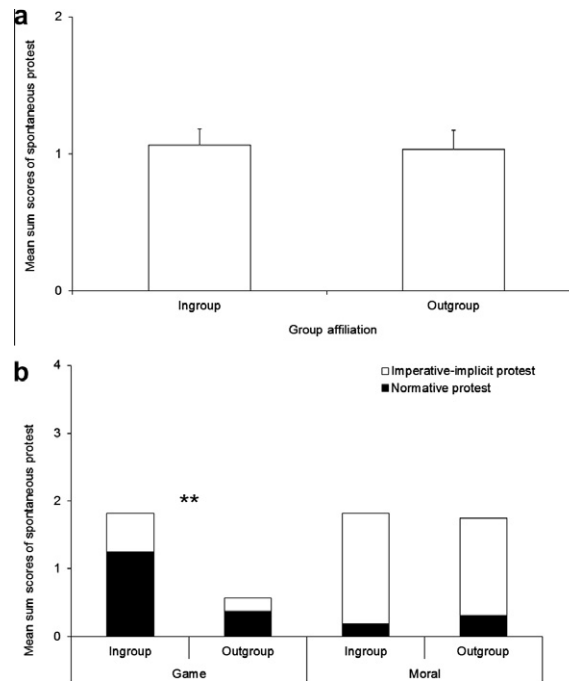


Fig. 1. Mean sum scores of (a) spontaneous protest (e.g., critique, teaching, correction) in the instrumental tasks as a function of the puppet's group affiliation collapsed across type of norm violation, and (b) spontaneous protest (imperative-implicit and normative protest) in the target tasks as a function of condition. Error bars represent standard error of the mean. Double asterisk indicates significance at $p < .01$.

2.1.3. Coding and reliability

All sessions were videotaped and coded by a single observer. A second independent observer coded a random sample of 20% of all sessions for reliability.

In the instrumental tasks, children's responses were categorized as spontaneous protest (on which the statistical analysis was based) or prompted helping (i.e., intervention after the puppet asked how it is done, or after E1 prompted the child to help). Reliability was very good: Cohen's weighted $\kappa = .97$. Note that we use the term "protest" in a wider sense in the instrumental tasks, since – besides critique and disapproval – it involves behaviors such as instructing or "helping someone how to do it right". The common denominator of these types of behavior is that the child in some sense corrects the actor who is getting the action wrong.

Children's verbal and behavioral responses in the test phase of each target task were categorized (hierarchically ordered) as (i) normative protest (highest category), that is, verbal and/or behavioral protest, critique, correction (including teaching) making use of normative vocabulary (e.g., "You should (not) do this!"), or (ii) imperative-implicit protest, that is, verbal and/or behavioral protest without normative vocabulary, but using norm violation-related positive/negative imperative phrases (e.g., "Take the thing!" or "Don't destroy it!"), or tattling to E1 (indignantly). There were two further categories: hints of protest (behaviors suggestive of protest, but not explicit enough; e.g., pointing gestures) and irrelevant (e.g., purely descriptive statements). Reliability was very good: Cohen's weighted $\kappa = .95$. Each task received as its final code the hierarchically highest category code. For the statistical

analyses, sum scores (0–4) of protest (i.e., normative or imperative-implicit protest) and of normative protest were computed over the four tasks for each child.

Reliability of the supplemental tasks was very good: the first and second observer achieved 100% agreement for each task.

2.2. Results and discussion

2.2.1. Main tasks

In the two instrumental tasks, children spontaneously protested against the puppet's actions about half the time ($M = 1.05$, $SD = 0.72$, collapsed across conditions) irrespective of the puppet's group affiliation as indicated by an independent samples t -test (collapsed across type of norm violation), $t(62) = 0.17$, $p = .86$ (Fig. 1a). This demonstrates that children were comfortable interacting with either puppet, and not indifferent to or afraid of the outgroup individual. Further, this finding suggests that children apply norms of instrumental rationality (i.e., using the sole efficient means to achieve an end) universally, irrespective of the group affiliation of the norm violator.

With respect to children's protest responses in the test phase of the four target tasks (Fig. 1b), children spontaneously protested (normative protest or imperative-implicit protest) more against ingroup ($M = 1.81$, $SD = 1.28$) than against outgroup ($M = 0.56$, $SD = 0.81$) norm transgressions in the game tasks, $t(30) = 3.30$, $p = .002$, $d = 1.17$ (normative protest only: $t(21.11) = 2.34$, $p = .027$, $d = 0.84$). In the moral tasks, in contrast, children protested equally against ingroup ($M = 1.81$, $SD = 1.64$) and outgroup ($M = 1.75$, $SD = 1.69$) norm transgressions, $t(30) = 0.11$, $p = .92$ (nor-

mative protest only: $t(30) = -0.56, p = .58$). These group-level results held on the individual level for both the game conditions (protest in at least one task: 13 of 16 children in game-ingroup condition vs. 6 of 16 children in game-outgroup condition, $\chi^2(1, N = 32) = 6.35, p = .01$, two-tailed), and the moral conditions (11 of 16 children in moral-ingroup condition vs. 11 of 16 children in moral-outgroup condition, $\chi^2(1, N = 32) = 0, p = 1$). More specifically, in the game tasks, 9 of 16 children (ingroup condition) versus 3 of 16 children (outgroup condition) uttered forms of protest, such as critique (e.g., “That is not how it is done!”) or normative tattling (“Look, he’s doing it wrongly!”), which are unambiguously indicative of disapproving of a norm violation, $\chi^2(1, N = 32) = 4.80, p = .03$. These findings suggest that whereas young children apply moral norms universally to both ingroup and outgroup violators, they view game norms as limited in scope to their ingroup (they selectively protested more against ingroup than against outgroup transgressors).

2.2.2. Supplemental tasks

In the affiliation test, children reliably preferred the ingroup puppet Max in all conditions (14 of 16 children, game-ingroup condition, binomial test, $p = .004$; 13 of 16, game-outgroup condition, $p = .021$; 13 of 16, moral-outgroup condition, $p = .021$), unless Max had transgressed moral norms in the prior target tasks – then, only about half of the children chose Max (7 of 16 children, moral-ingroup

condition, $p = .80$), $\chi^2(3, N = 64) = 9.85, p = .02$. (Fig. 2a). This suggests that only moral transgressions were able to cancel children’s ingroup favoritism. Interestingly, those children (in the moral-ingroup condition) who chose the ingroup puppet had protested more ($M = 2.71, SD = 1.60$) in the prior moral tasks than those who chose the outgroup puppet ($M = 1.11, SD = 1.36$), $t(14) = 2.16, p = .048, d = 1.08$. What this might suggest is that taking the opportunity to protest immediately when witnessing an ingroup moral transgression made it possible for children to subsequently favor their ingroup member. Little or no protest, in contrast, might have led the other children to choose the outgroup puppet Henri, maybe as a compensatory means of indirect protest (by shunning the ingroup puppet).

With respect to children’s allocating the stickers, the vast majority allocated them equally to the two puppets irrespective of whether they had violated moral or game norms in the prior target tasks (binomial tests: 15 of 16 children, game-ingroup condition, $p < .001$; 15 of 16, game-outgroup condition, $p < .001$; 15 of 16, moral-ingroup condition, $p < .001$; 13 of 16 moral-outgroup condition, $p < .001$; Fig. 2b), $\chi^2(3, N = 64) = 2.21, p = .53$.

3. Follow-up experiment

In the main experiment, the model announced “We do it like this!” in all types of task (instrumental, game, and moral) before performing the actions. It is possible that

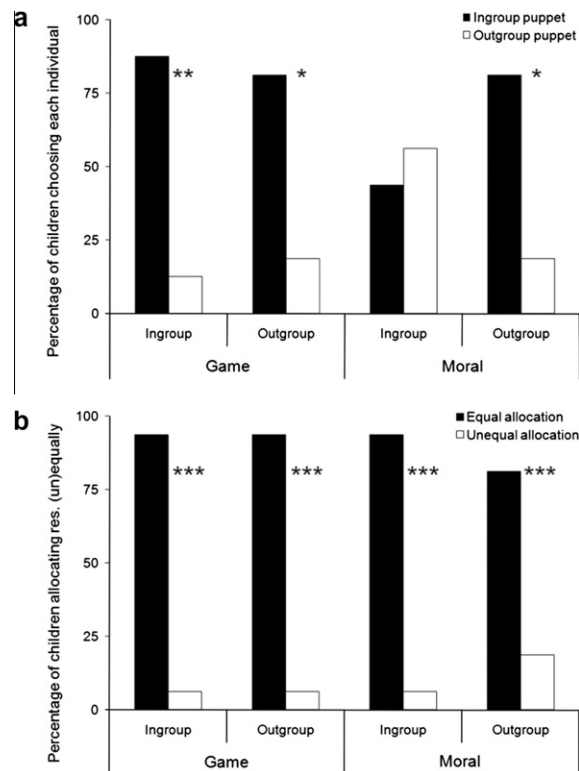


Fig. 2. Supplemental task results of the (a) forced-choice affiliation test with mean percentages of children choosing the ingroup/outgroup puppet as a function of condition, and (b) the resource allocation task with mean percentages of children allocating the resources (four stickers) equally/unequally to the ingroup and outgroup individual as a function of condition. Asterisk indicates $p < .05$; double asterisk indicates $p < .01$; triple asterisk indicates $p < .001$.

children differentially interpreted this announcement, although it was identical for all three tasks. For instance, it could be that children already knew that one does not wreck another's property (in the moral task) or avoid the one effective means to an end (in the instrumental task) – and so they thought the scope of the “we” was everyone in the world in these conditions. In contrast, with conventional game norms children may have had no such pre-existing knowledge, and so they interpreted the “we” as somehow exclusionary. Further, it is possible that children thought that the outgroup puppet's foreign accent prevented him from understanding the model's announcement – and this might have led them to protest less in the game-outgroup condition, whereas understanding the model's announcement might have been irrelevant in the instrumental and moral tasks because of the aforementioned reasons. Thus it is possible that children's differential protest in the game-ingroup and game-outgroup conditions was a result of the model's announcement and/or the outgroup puppet's foreign accent. We tested for this possibility in a follow-up experiment (based on the game tasks of the main experiment) in which (i) the model made a neutral, non-exclusionary announcement before performing an action, and (ii) we omitted foreign accent, that is, the outgroup puppet's accent was native and thus equal to the ingroup puppet's accent. If neither of these factors was driving children's group-specific game norm enforcement in the main experiment, children should show the same differential protest behavior in the follow-up experiment. Furthermore, in the main experiment there were some minor potential confounds (e.g., the highlighting of group identities was slightly different) that were controlled for the in the follow-up experiment.

3.1. Method

3.1.1. Participants

Thirty-two monolingual 3-year-old children (age range = 40–44 months) participated in the study. The two conditions each comprised 16 children (8 girls), each with a mean age of 42 months (41 months, 23 days; 42 months, 2 days, respectively). Two children were excluded from the final sample due to experimenter error ($n = 1$), or procedural error ($n = 1$).

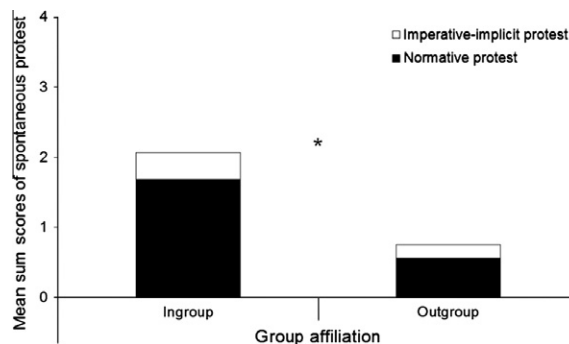


Fig. 3. Mean sum scores of spontaneous protest (imperative–implicit and normative protest) in the game tasks as a function of the puppet's group affiliation. Asterisk indicates significance at $p < .05$.

3.1.2. Design and procedure

The follow-up experiment adopted the design and procedure of the game conditions (ingroup vs. outgroup; between-subjects) of the main experiment. In contrast to the main experiment, the ingroup–outgroup distinction was established without foreign accent, that is, the outgroup puppet spoke in the same (native) accent as the ingroup puppet. Therefore, the model E1 did not say “You speak differently.” when getting to know the outgroup puppet. The outgroup puppet was named “Kumaschankar” (to make his name more distinct from “Max”), and came “from a different country”. In the main experiment, E1 introduced and highlighted the ingroup puppet's group affiliation slightly more positively (“Max is a Daxo, great, isn't it?”) than the outgroup puppet's (“He's a Fendi from very far away.”), so in the follow-up experiment, E1's highlighting of group identities was kept constant (“Max is a Daxo, great, isn't it?”; “We are Daxos, great, isn't it?”; “He's a Fendi from very far away, great, isn't it?”). Instead of using the phrase “We do it like this!” (and raising her index finger), E1 said to the child “Look what I have here!” before performing the instrumental/game actions (which were not accompanied with hums, a concluding “voilà-gesture”, or the interjection “Ta-da”).

3.1.3. Coding and reliability

Coding and reliability followed the same logic as in the main experiment. In both the instrumental and game tasks, reliability was very good: Cohen's $\kappa = 1.0$ (instrumental), and weighted $\kappa = .93$ (game). Reliability of the supplemental tasks was very good: the first and second observer achieved 100% agreement for each task.

3.2. Results and discussion

3.2.1. Main tasks

In the two instrumental tasks, children spontaneously protested equally against the ingroup ($M = 1.25$, $SD = 0.68$) and outgroup ($M = 1.13$, $SD = 0.81$) puppet's actions, $t(30) = 0.47$, $p = .64$. This demonstrates – as in the main experiment – that children were comfortable interacting with either puppet, and not indifferent to or afraid of the outgroup individual.

With respect to children's protest responses in the test phase of the four game tasks (Fig. 3), children spontane-

ously protested (normative protest or imperative–implicit protest) more against ingroup ($M = 2.06$, $SD = 1.44$) than against outgroup ($M = 0.75$, $SD = 1.24$) game norm transgressions, $t(30) = 2.77$, $p = .01$, $d = 0.97$ (normative protest only: $t(30) = 2.65$, $p = .013$, $d = 0.94$).¹ On the individual level, 12 of 16 children protested at least once in game-ingroup condition, and 6 of 16 children did so in the game-outgroup condition, $\chi^2(1, N = 32) = 4.57$, $p = .03$. Moreover, 10 of 16 children (ingroup condition) versus 3 of 16 children (outgroup condition) disapproved of the game norm violations (e.g., via critique or normative tattling), $\chi^2(1, N = 32) = 6.35$, $p = .01$. These results suggest that – as in the main experiment – children view game norms as limited in scope to their ingroup.

3.2.2. Supplemental tasks

In the affiliation test, children reliably preferred the ingroup puppet Max in either condition (12 of 15 children, game-ingroup condition, binomial test, $p = .035$; 12 of 15, game-outgroup condition, $p = .035$), Fisher's exact test, $p = 1$.² The vast majority of children allocated the four stickers equally to the ingroup and outgroup puppet in either condition (binomial tests: 15 of 15 children, game-ingroup condition, $p < .001$; 14 of 16, game-outgroup condition, $p < .001$), Fisher's exact test, $p = .48$.

Taken together, these results replicate the findings of the main experiment and rule out the possibility that the model's phrase ("We do it like this!") and/or the outgroup puppet's foreign accent in the main experiment were driving children's differential protest in the game-ingroup versus game-outgroup condition.

4. General discussion

In the current study we used a novel, participatory methodology to investigate the characteristics of young children's understanding and enforcement of social norms. The main finding was that whereas 3-year-olds viewed game norms as limited in scope to their ingroup (they selectively protested more against ingroup than against outgroup transgressors), their parochialism did not extend to moral norm (or instrumental norm) violations (in which case they protested and treated ingroup and outgroup transgressors equally). This finding thus reveals a less noted side of parochialism, namely, the holding of ingroup members to higher standards than outgroup individuals for some types of norms. It is also noteworthy that children showed this selectivity in the application of norms at a very young age, when they are first beginning to enforce social norms.

Young children's parochialism is selective, and hence their norm enforcement is selective. They enforce game

norms selectively and context-specifically on ingroup members only, presumably because only ingroup members are expected to be in the scope of these norms. It is conceivable that children thought that the outgroup member did not know the game norm and therefore could not be expected to follow it. But in our study both puppets observed while all types of norms were being introduced, and in previous studies (involving game norm transgressions) even ignorant actors were reprimanded by children of this age (Rakoczy et al., 2008; Schmidt, Rakoczy, & Tomasello, 2011). Thus it is also possible that they simply assumed that game norms only apply to those who in some sense belong to the group in which the norms are agreed upon and hence exist by convention.

The findings of the follow-up experiment rule out the possibility that children's group-specific game norm enforcement was driven by their differential interpretation of the model's announcement "We do it like this!", which might have been interpreted as exclusionary ("we" vs. "him") in the game-outgroup condition but as inclusive in the game-ingroup condition. Children's selective enforcement, however, was unaffected by the model using a neutral, non-exclusionary phrase ("Look what I have here!"). Further, keeping accent constant (native) did not modulate children's group-specific norm enforcement either, which rules out the possibility that children thought that the outgroup puppet did not understand the model's announcement in the main experiment.

Could it be the case that, in the game tasks, children's protest reflects an inclination to preferably help ingroup members play the game correctly? While this is an intuitively plausible explanation, and observed behaviors such as teaching and giving directives on how to act correctly are, *prima facie*, reminiscent of helping, there are two arguments that speak against a helping interpretation: (i) More than two-thirds of protesting children in the game-ingroup conditions of both experiments uttered clear disapproval (e.g., critique or normative tattling), and children did so preferably against ingroup members. These forms of protest seem not reconstructable as mere helping. One can compare this to a referee calling a foul in a sporting game which one would not conceptualize as merely "helping a rule violator to play correctly". (ii) If children were more inclined to help ingroup members than outgroup individuals in the game tasks, we would expect to find the same inclination in the instrumental tasks. In fact, one would even expect to find a stronger effect, since the puppet was clearly not reaching a goal, which is closer to a helping situation than the context in the game tasks. Instead, children treated ingroup and outgroup individuals equally in these tasks. Taken together, the present findings suggest that children viewed the different types of norms differently. That is, as having different foundations and scope in rational human action in cultural contexts.

The children in our study also showed the expected ingroup favoritism in the affiliation test, with this bias being hard to cancel: only when there were moral norm transgressions performed by the ingroup individual did children – and in particular those who had not criticized the ingroup transgressor for her action – not affiliate more with the ingroup individual. This is in line with young children's

¹ One child in the game-ingroup condition provided no data point on the fourth trial of the game tasks due to uncooperativeness. This trial was included in the data analyses as "no protest" (against our hypothesis), since the results would remain the same if proportional data were used, and to facilitate comparability with the main experiment.

² Two children did not provide data in the affiliation test due to uncooperativeness ($n = 1$) or missing preference ($n = 1$), and one child did not participate in the resource allocation task due to uncooperativeness.

view that moral transgressions are more severe than conventional ones (Smetana, 1981; Turiel, 1983). The relation between protest and group preference suggests that protesting may serve an important role in regulating children's interpersonal relations, and that refraining from protesting might call for subsequent compensatory means of indirect protest (e.g., by shunning the transgressor). Taken together, children's strong ingroup favoritism and selective parochialism (including clear criticism and considerable annoyance about ingroup game violations) provide a new developmental perspective on, and an extension of, the "black sheep effect" (Abrams, Rutland, & Cameron, 2003; Marques & Yzerbyt, 1988; Marques, Yzerbyt, & Leyens, 1988), in which people judge misbehaving ingroup members more harshly than comparably misbehaving outgroup individuals. Our study shows that the type of norm violation (moral vs. conventional/game) is important for predicting whether ingroup members will be reprimanded more harshly and that harsher criticism of ingroup individuals does not necessarily lead to less affiliation with them. Children's egalitarian bias in the resource allocation task, finally, fits with current data showing that adults have strong egalitarian motives, which might have developmental roots in the second year of life (Dawes, Fowler, Johnson, McElreath, & Smirnov, 2007; Geraci & Surian, 2011; Schmidt & Sommerville, 2011), and that young children prefer equal divisions when the amount of resources allows for equality (Olson & Spelke, 2008), which suggests a strong sense of "third-party fairness".

Interesting questions for future research pertain both to the role of the group affiliation and status (perpetrator or victim) of different participants involved in norm transgressions, and to children's understanding of less paradigmatic cases of different kinds of norms. Regarding the former, for example, are young children equally inclined

to intervene in moral norm violations when the victim is an outgroup individual? If so, does the group affiliation of the perpetrator matter in such a context? Regarding the latter, in the present study, we used paradigm cases of what researchers have coined "moral", "conventional", and "instrumental rationality" norms. It is an open empirical question, however, how young children understand and apply the scope of less clear cases of norms (e.g., transgressions that induce disgust but are not traditionally considered moral; see, e.g., Nichols, 2002). More generally, it remains an open question how normative phenomena are to be conceptualized and categorized: whether along Turiel's moral-conventional lines (Smetana & Braeges, 1990; Turiel, 1983), along emotional/non-emotional lines (Nichols, 2004; Prinz, 2007), or along yet to be defined boundaries. Nonetheless, in the current study we found that almost as soon as young children begin to enforce social norms, they do so in context-specific and group-specific ways.

Acknowledgments

Thank you very much to E. Siegert, I. de Gaillande-Mustoe, C. Markmann, and I. Wetzig for helping in recruiting children, collecting data, and coding, and many thanks to Amrisha Vaish and Manuela Missana for helpful discussion. We also thank all daycare centers and children for their friendly cooperation. The first author was supported by a fellowship from the *Studienstiftung des deutschen Volkes* (German National Academic Foundation).

Appendix A

This appendix contains an overview of the target tasks (including materials and actions) used in this study.

Table A.1
Overview of the game tasks.

Task	Material	Procedure
"Board"	Styrofoam board (covered with red adhesive foil) with gutter at one side, wooden building block, black suction cup	A ₁ : Put the building block on the board, use suction cup to push building block across the board into the gutter A ₂ : Put the building block on the board, lift the board so that the block slides into the gutter
"Catapult"	Glass container covered with air cushion material attached to a paper basement, kitchen roll paper tube attached to container via elastic bands, rectangular paperboard platform on top of the tube, tennis ball cut in half, peg	A ₁ : Attach the peg to the tennis ball, put both on the platform, grab the black region at the tube and pull it down, then release, so the ball and peg are catapulted away A ₂ : Attach the peg to the basement, put the tennis ball onto the platform, and turn the container around, hit the back of the platform, so the ball is catapulted away
"Frogs"	Cylindric plastic case with 2 pink (connected) cords, two frogs each on a small red paperboard	A ₁ : Put the 2 frogs into plastic case, take the cord and pull the case around, lift the cord, so frogs fall out A ₂ : Put the frogs close together, cover them with the upside-down positioned plastic case, slide the case back and forth, push and lift it so the frogs fall out
"Bucket"	Little bucket with cover and triangular basement, rolling wheel with bell, rubber brick	A ₁ : Put the bucket on the side (horizontally), use the rubber brick to push the wheel into the bucket, put the bucket up and put the cover on top A ₂ : Put the bucket upside down, push the wheel (without using the brick) close to the bucket, take the wheel and put it on top of the bucket, put the cover onto the wheel

Table A.2

Overview of the moral tasks.

Task	Material	Procedure
"Drawing"	Sheet of paper, colored felt pens	A ₁ : Draw a colorful fish A ₂ : Tear apart E1's drawing
"Clay"	Clay in three different colors prepared to model a face	A ₁ : Model a flat circular face A ₂ : Tear apart E1's modeled face
"Bracelet"	Chenille wire, wooden flower to thread in, a ring made out of aluminum foil	A ₁ : Take the wire and thread in the aluminum ring and the flower, then form a bracelet A ₂ : Tear off aluminum ring and crumple it up, then open the bracelet and run off the flower
"Balloon"	Balloon attached to wooden block, permanent marker, straightened paperclip	A ₁ : Draw a flower on the balloon A ₂ : Push onto the balloon twice, then take the paperclip and sting the balloon

References

- Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development, 74*(6), 1840–1856.
- Baker, G. P., & Hacker, P. M. S. (1985). *Wittgenstein: Rules, grammar and necessity: Essays and exegesis of 185–242*. Oxford: Blackwell Publishers Ltd.
- Dawes, C. T., Fowler, J. H., Johnson, T., McElreath, R., & Smirnov, O. (2007). Egalitarian motives in humans. *Nature, 446*(7137), 794–796.
- Fehr, E., Bernhard, H., & Rockenbach, B. (2008). Egalitarianism in young children. *Nature, 454*(7208), 1079–1083.
- Fehr, E., & Fischbacher, U. (2004). Social norms and human cooperation. *Trends in Cognitive Sciences, 8*(4), 185–190. <http://dx.doi.org/10.1016/j.tics.2004.02.007>.
- Geraci, A., & Surian, L. (2011). The developmental roots of fairness: Infants' reactions to equal and unequal distributions of resources. *Developmental Science, 14*(5), 1012–1020. <http://dx.doi.org/10.1111/j.1467-7687.2011.01048.x>.
- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? *Journal of Personality & Social Psychology, 65*(4), 613–628.
- Kelly, D., Stich, S., Haley, K. J., Eng, S. J., & Fessler, D. M. T. (2007). Harm, affect, and the moral/conventional distinction. *Mind & Language, 22*(2), 117–131. <http://dx.doi.org/10.1111/j.1468-0017.2007.00302.x>.
- Levy, G. D., Taylor, M. G., & Gelman, S. A. (1995). Traditional and evaluative aspects of flexibility in gender roles, social conventions, moral rules, and physical laws. *Child Development, 66*(2), 515–531.
- Lewis, D. K. (1969). *Convention. A philosophical study*. Cambridge, MA: Harvard University Press.
- Marques, J. M., & Yzerbyt, V. Y. (1988). The "black sheep effect": Judgmental extremity toward ingroup members in inter- and intra-group situations. *European Journal of Social Psychology, 18*, 287–292.
- Marques, J. M., Yzerbyt, V. Y., & Leyens, J. P. (1988). The "black sheep effect": Extremity of judgments toward ingroup members as a function of group identification. *European Journal of Social Psychology, 18*, 1–16.
- Nesdale, D., & Flessler, D. (2001). Social identity and the development of children's group attitudes. *Child Development, 72*(2), 506–517. <http://dx.doi.org/10.1111/1467-8624.00293>.
- Nichols, S. (2002). Norms with feeling: Towards a psychological account of moral judgment. *Cognition, 84*(2), 221–236.
- Nichols, S. (2004). *Sentimental rules: On the natural foundations of moral judgment*. Oxford: Oxford University Press.
- Olson, K. R., & Spelke, E. S. (2008). Foundations of cooperation in young children. *Cognition, 108*(1), 222–231. <http://dx.doi.org/10.1016/j.cognition.2007.12.003>.
- Piaget, J. (1932). *The moral judgment of the child*. London: Routledge and Kegan Paul.
- Prinz, J. J. (2007). *The emotional construction of morals*. Oxford: Oxford University Press.
- 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. <http://dx.doi.org/10.1037/0012-1649.44.3.875>.
- Schmidt, M. F. H., Rakoczy, H., & Tomasello, M. (2011). Young children attribute normativity to novel actions without pedagogy or normative language. *Developmental Science, 14*(3), 530–539. <http://dx.doi.org/10.1111/j.1467-7687.2010.01000.x>.
- Schmidt, M. F. H., & Sommerville, J. A. (2011). Fairness expectations and altruistic sharing in 15-month-old human infants. *PLoS One, 6*(10), e23223. <http://dx.doi.org/10.1371/journal.pone.0023223>.
- Searle, J. R. (1995). *The construction of social reality*. New York: Free Press.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The "big three" of morality (autonomy, community, divinity), and the "big three" explanations of suffering. In A. Brandt & P. Rozin (Eds.), *Morality and health* (pp. 119–169). New York: Routledge.
- Smetana, J. G. (1981). Preschool children's conceptions of moral and social rules. *Child Development, 52*, 1333–1336.
- Smetana, J. G., & Braeges, J. L. (1990). The development of toddler's moral and conventional judgments. *Merrill-Palmer Quarterly, 36*, 329–346.
- Song, M. J., Smetana, J. G., & Kim, S. Y. (1987). Korean children's conceptions of moral and conventional transgressions. *Developmental Psychology, 23*(4), 577–582.
- Tomasello, M. (2009). *Why we cooperate*. Cambridge, MA: MIT Press.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge: Cambridge University Press.
- Turiel, E. (2002). *The culture of morality: Social development, context, and conflict*. Cambridge: Cambridge University Press.
- Turiel, E. (1978). Social regulations and domains of social concepts. In W. Damon (Ed.), *New directions for child development. Social cognition* (Vol. 1, pp. 45–74). San Francisco: Jossey-Bass.
- 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.
- Vaughan, G. M., Tajfel, H., & Williams, J. (1981). Bias in reward allocation in an intergroup and an interpersonal context. *Social Psychology Quarterly, 44*(1), 37–42.