Journal of Experimental Child Psychology xxx (2013) xxx–xxx

Contents lists available at ScienceDirect

Journal of Experimental Child Psychology

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

# Young children understand and defend the entitlements of others

Marco F.H. Schmidt [a,*], Hannes Rakoczy [b], Michael Tomasello [a]

[a] Department of Developmental and Comparative Psychology, Max Planck Institute for Evolutionary Anthropology, 04103 Leipzig, Germany
[b] Institute of Psychology and Courant Research Centre, "Evolution of Social Behaviour", University of Göttingen, 37073 Göttingen, Germany

ARTICLE INFO

*Article history:*
Received 21 February 2013
Revised 31 May 2013
Available online xxxx

*Keywords:*
Entitlement
Rights
Norm enforcement
Social norms
Normativity
Ownership
Morality

ABSTRACT

Human social life is structured by social norms creating both obligations and entitlements. Recent research has found that young children enforce simple obligations against norm violators by protesting. It is not known, however, whether they understand entitlements in the sense that they will actively object to a second party attempting to interfere in something that a third party is entitled to do—what we call counter-protest. In two studies, we found that 3-year-old children understand when a person is entitled to do something, and so they actively defend this person's entitlement against unjustified interference from second parties. In some cases, they even enforce second-order entitlements, for example, in the case of ownership where an owner is entitled to entitle others to use the owner's property.



## Introduction

Social norms are the "glue" of human societies (Chudek & Henrich, 2011; Elster, 1989; Fehr & Fischbacher, 2004; Tomasello, 2009). These norms create not only *obligations* (participants of a social practice are expected to act in certain ways in certain circumstances) but also *entitlements* (participants of a social practice are empowered by the group to act in certain ways in certain circumstances). Typically, when someone has an entitlement to perform a certain act, others are obligated not to interfere (Hohfeld, 1913, 1917; Rainbolt, 1993; Searle, 2010).

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

0022-0965/$ - see front matter © 2013 Published by Elsevier Inc.
http://dx.doi.org/10.1016/j.jecp.2013.06.013

Recent developmental research has found that a basic understanding of social norms—in particular of simple obligations to act in certain ways in rule-governed social practices—develops very early in human ontogeny. Young children (from 2 or 3 years of age) not only follow social norms in their own actions but also enforce these same norms on others by spontaneously and normatively sanctioning mistakes through third-party protest, critique, and teaching in response to norm transgressions (Rakoczy, Warneken, & Tomasello, 2008; see Rakoczy & Schmidt, 2013, and Schmidt & Tomasello, 2012, for reviews). Moreover, they do this in a variety of contexts such as conventional games (e.g., Rakoczy et al., 2008; Schmidt, Rakoczy, & Tomasello, 2011), pretense (Rakoczy, 2008; Wyman, Rakoczy, & Tomasello, 2009), artifact use (Casler, Terziyan, & Greene, 2009), over-imitation (Kenward, 2012; Keupp, Behne, & Rakoczy, 2013), language (Rakoczy & Tomasello, 2009), and moral norms pertaining to harm or property (Rossano, Rakoczy, & Tomasello, 2011; Schmidt, Rakoczy, & Tomasello, 2012; Vaish, Missana, & Tomasello, 2011).

The mature normative structure characteristic of adult societies, however, clearly goes beyond obligations to follow simple rules of social practices. Mature normativity involves not only obligations but also entitlements, with entitlements and obligations being related to one another in systematic ways. Most fundamentally, there are interpersonal horizontal normative relations (*horizontal normativity*); entitlements by one agent are typically related to obligations by another agent and vice versa. Thus, a right-holder being entitled to perform a certain act correlates with a second party being obligated not to interfere with the right-holder's performing the act (Hohfeld, 1913, 1917; Rainbolt, 2006; Searle, 2010). For instance, the owner of a book may use the book, and others are obligated not to interfere. In addition, there may be second-order entitlements (*vertical normativity*) in the form of entitlements to entitle others to act in certain ways. In the case of ownership, an owner of Object O is entitled not only to treat O in certain ways (first-order) but also to entitle others (second-order) to treat O in certain ways (Hart, 1961; Hohfeld, 1913, 1917; Honoré, 1961). For example, the owner of a car has the (second-order) right to entitle a person to use the car (first-order) temporarily, and others are obligated not to interfere with that person's (first-order) entitlement to use the owner's car temporarily. Or, parents (in contrast to other adults) are institutionally entitled to entitle their children to engage in some activities, and government agencies are institutionally entitled to entitle citizens to engage in other activities (e.g., by issuing a visa to work abroad).

Among the domains involving horizontal and vertical normative relations, ownership might be something like a "zone of proximal development" (Vygotsky, 1978) for young children's learning about entitlements. For example, Kalish and Anderson (2011) argued that "ownership may be one of the critical entry points" (p. 65) for children's developing understanding of normative status as created and acknowledged by the group. Even before young children reason about ownership, they engage in disputes over possessions (Hay & Ross, 1982; Ross, 1996; see Ross, Concant, & Vickar, 2011, for a review), which are most likely based on egocentric concerns such as desires (Kalish, 2005). Between 2 and 3 years of age young children develop a basic concept of ownership (Friedman & Neary, 2008; Neary, Van de Vondervoort, & Friedman, 2012), and between 3 and 4 years of age children's notion of ownership becomes more broad and adult-like. They understand that owners control the use of an object and that ownership can be transferred by certain means such as gift giving and selling (Blake & Harris, 2009; Kim & Kalish, 2009; Neary, Friedman, & Burnstein, 2009; see Friedman, Neary, Defeyter, & Malcolm, 2011, for a review).

From around 3 years of age, young children understand something about the normative aspects of *obligations* in the context of ownership. For instance, they enforce non-owners' obligation not to throw away others' property (Rossano et al., 2011). But it is not known whether young children understand and enforce *entitlements*, that is, whether they understand that (i) horizontally, entitlements correlate with obligations by others, or that (ii) vertically, there are normative relations between higher and lower order entitlements such as the second-order entitlement of an owner to entitle non-owners (first-order) to use the owner's property. Understanding entitlement as a normative status is critical for developing a notion of entitlement as "immunizing" individuals from invalid objections or punishment because this immunity has been granted by some people or institutions recognized as having this power by the community at large (Feinberg, 1980).

In the current studies, therefore, we investigated whether young children (3-year-olds) understand entitlements proper, that is, as structured by both horizontal and vertical normativity. We tested this

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

understanding in several contexts including, but also going beyond, physical ownership. The most convincing evidence for an understanding of entitlement would be an agent-neutral third-party situation in which children, as unaffected observers, have the opportunity to defend a right-holder's entitlements against somebody who threatens those entitlements.

Children participated in a playful, yet authentic, situation with an adult and two puppets (a judge and an actor). First, the actor performed an act, in some cases one she had previously been entitled to by an adult and in other cases one with no such entitlement. Then, the judge protested in response to this act. Finally, children had the opportunity to protest in response to the judge's protest (and to take counteractions in some situations, e.g., to defend the actor's entitlement), thereby performing counter-protest. In the first study, we investigated this in scenarios involving entitlement to possess an object and entitlement to play a game in a conventional way. In the second study, we investigated how children understand vertical normativity, that is, who is entitled to entitle others, specifically, to possess things or do things in a certain way.

## Study 1

In the first study, children observed the following situations (see Fig. 1 for a schematic). In the *possession task*, the judge prohibited and prevented the actor from using Experimenter 1's (E1's) toy, either unjustifiably (because E1 entitled the actor to use it; *actor–entitlement* condition) or justifiably (because E1 forbade the actor from using it; *actor–no entitlement* condition). In the *game task*, the judge protested against the actor (and anybody to whom the game norms apply) who played a game either correctly (*actor–entitlement* condition) or incorrectly (*actor–no entitlement* condition).

### Method

#### Participants

The participants were 20 3-year-old children (mean age = 37 months, range = 36–40, 10 girls and 10 boys). Children came from mixed socioeconomic backgrounds from a mid-sized German city and were recruited via urban day-care centers (in which testing took place). Parents provided written informed consent. An additional 2 children were excluded from the final sample due to uncooperativeness ($n = 1$) or technical error ($n = 1$).

#### Design

After a warm-up session, children received two types of task in a within-participants design: a possession task (four trials) and a game task (four trials). The order of type of task was counterbalanced,

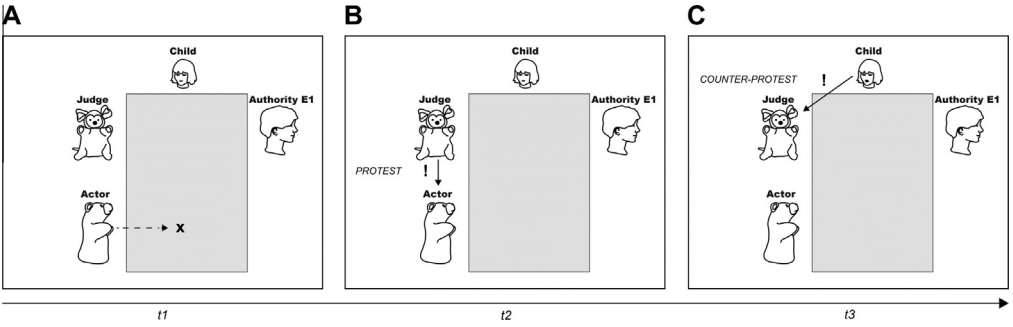


**Fig. 1.** Temporal schematic of the methodological approach. The parties were the child, two hand puppets (a judge and an actor), and an adult authority (E1) who was not witnessing the test situation. (A) First, children witnessed the actor doing some X (e.g., attempting to reach a toy to play with it). (B) Second, the judge protested normatively against the actor and prohibited her from doing X (e.g., took away the toy). (C) Third, children had the opportunity to counter-protest against the judge (and, in some situations, to take counteractions such as giving the actor an object back), and the two puppets did not react to children's interventions.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

and the within-task order was varied systematically. The order of conditions (actor–entitlement and actor–no entitlement) was varied in either type of task within and across children (twice AABB or twice BBAA).

*Materials*

In the possession task, four different objects were used: a piece of paper and a marker, a music box, a tiger toy, and a wooden toy with a turnable stick). In the game task, four different sets of objects were used (see Appendix A).

*Procedure*

Three experimenters conducted the study, which lasted roughly 20 min: E1, who was the adult authority and model; E2, who operated the actor (a polar bear puppet); and E3, who operated the judge (a mouse puppet). E1 sat to the child's left, the judge sat to the child's right, and the actor sat to the judge's right. Table 1 provides a procedural overview of the two types of task and the experimental manipulations. Importantly, during the test phase (in both Studies 1 and 2), E1 was turned away from the table writing something down to give children the opportunity to intervene spontaneously, and the two puppets did not react to children's interventions.

The warm-up session consisted of playing together with a ball and of two instrumental tasks in which E1 performed an instrumental action that the child could reproduce (e.g., using a hammer to hit on wooden balls to send them through holes of a cuboid). Then, the judge made an instrumental mistake by failing to use a conventional means necessary to achieve an aim (e.g., failing to use the hammer), and children had the opportunity to intervene and correct the judge in the absence of E1 (who turned away from the table to write something down). The purpose of the warm-up session was to familiarize children with the hand puppets and to make them feel comfortable interacting with them.

*Possession task.* During the introductory phase of the possession task, E1 demonstrated a toy ("Look here!") and prompted the child to play with it. Then, E1 put the toy in front of her, and the actor asked whether she may play with it ("May I now?"). In the actor–entitlement condition, E1 responded, "Yes, [actor's name] may play with it, [actor's name] may play with it," and looked to the child and said, "[Actor's name] may play with it." In the actor–no entitlement condition, E1 responded "No, [actor's name] may not play with it, [actor's name] may not play with it," and looked to the child and said, "[Actor's name] may not play with it." Thereafter, E1 said to the child, "And you watch, okay?" and turned away from the table to write something down. During the test phase, the actor and the judge approached the toy simultaneously, but before the actor could reach the toy, the judge pulled it away from the actor (toward the child) while protesting, "[Actor's name] may not play with this!" Thereafter, the actor lowered her head and responded with "Oh," and the judge went back to her initial position. After approximately 5 s, E1 put away the toy ("I put this away").

*Game task.* During the introductory phase of the game task, E1 demonstrated a simple game based on conventional (i.e., constitutive; Searle, 2010) norms and demonstrated how one is entitled to play the

**Table 1**
Procedural overview of the two types of task for each condition.

| | | Condition | |
|---|---|---|---|
| Task | Phase | Actor–entitlement | Actor–no entitlement |
| Possession | Introductory | *E1 entitles actor to use a toy* | *E1 forbids actor from using a toy* |
| | Test | Judge protests (normatively) against actor and takes away the toy | |
| Game | Introductory | E1 demonstrates how one may (A1) and may not (A2) play a game | |
| | Test | *Actor performs A1* | *Actor performs A2* |
| | | Judge protests (normatively) against actor | |

*Note:* The experimental manipulation in each type of task is highlighted in italics. A1, permitted game action; A2, prohibited action. The order of permitted/prohibited action and status of action were counterbalanced.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

game, such as "Daxing" (A1, permitted action; "This game is called Daxing. I'm going to show you now what one may do when Daxing. One may do like this, one may do like this. This is how one may do when Daxing. This is Daxing!"), and how one may not play the game (A2, prohibited action; "But in the game of Daxing, one may not do something. One may not do like this, one may not do like this! This is not Daxing!"). The order of permitted/prohibited action and status of action were counterbalanced. Then, E1 prompted the child to play the game (e.g., of Daxing). Thereafter, during the test phase, E1 entitled the actor to play the game and the actor performed either the permitted action (actor–entitlement condition) or the prohibited action (actor–no entitlement condition), and the judge protested twice against the actor ("One may not do it like that!"): once shortly after the actor had begun the action and once shortly before the actor had finished the action (and the actor showed no reaction to the judge's protest).

### *Coding and reliability*

All sessions were recorded, transcribed, and coded from videotape by a single observer. A second independent observer, blind to the hypotheses and conditions of the study, transcribed and coded a random sample of 25% of all sessions for reliability.

For the test phase of each trial of either type of task, all relevant verbal and behavioral responses were described and assigned to one of two counter-protest categories (hierarchically ordered): (a) *direct counter-protest*, that is, verbal counter-protest making use of normative vocabulary (e.g., using the modal verbs "can" and "may" or the German word "doch" that is used to contradict a negative statement; e.g., "Yes, [actor's name] may play with it! You may play with it, [actor's name]!"); or (b) *indirect counter-protest*, that is, (i) verbal phrases that indicate disagreement with the judge on a less explicit level—for instance, by indirect critique to the judge (e.g., "[Actor's name] did a great job!" or "But this is okay!"), tattling to E1 ("[Actor's name] played the game!"), or prohibiting the judge from playing ("You may not play!")—or (ii) *behavioral counter-protest* (e.g., giving/offering the actor the toy with or without comments; possession task only because the judge did not take away any objects in the game task). There were two further categories: hints of protest (behaviors suggestive of protest but not explicit enough, e.g., "He put it away!") and irrelevant (e.g., purely descriptive or ambiguous statements, e.g., "Look!"). Reliability was very good (Cohen's weighted $\kappa = .97$). Each trial received as its final code the hierarchically highest category code that appeared during its test phase; for example, if a child performed both indirect and direct counter-protests on a given trial, the code direct counter-protest was given for that trial. Furthermore, for each trial, we coded *affirmative responses* (agreement with the judge's negative protest clause, e.g., "No" or "Exactly, [judge's name]!", or protest against the actor, e.g., "You must do it with the building block!") independent of children's counter-protest. Reliability was very good (Cohen's $\kappa = .88$). For each type of task, we computed sum scores (0–2) per condition of direct counter-protest, counter-protest (i.e., direct *or* indirect counter-protest), behavioral counter-protest (possession task only), and affirmative responses for each child.

### *Data analysis*

For each coding category (i.e., dependent measure), the data were analyzed collapsed across type of task (yielding four trials per condition) if preliminary analyses yielded no significant interaction between condition (actor–entitlement or actor–no entitlement) and type of task (possession or game). We used both an analysis of variance (ANOVA) and a generalized linear mixed model (GLMM) with binomial error structure to test for these interactions because the data partly deviated quite clearly from the assumptions of an ANOVA. In case the ANOVA and/or GLMM yielded a significant interaction, the analyses were conducted separately for each type of task. All statistical tests were run two-tailed, and $r_{\text{equivalent}}$ (based on the sample point biserial correlation; Rosenthal & Rubin, 2003) was computed to estimate effect sizes. Because the data partly deviated clearly from the assumptions of a paired-samples $t$ test, we used Wilcoxon signed rank tests for comparisons of related samples.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

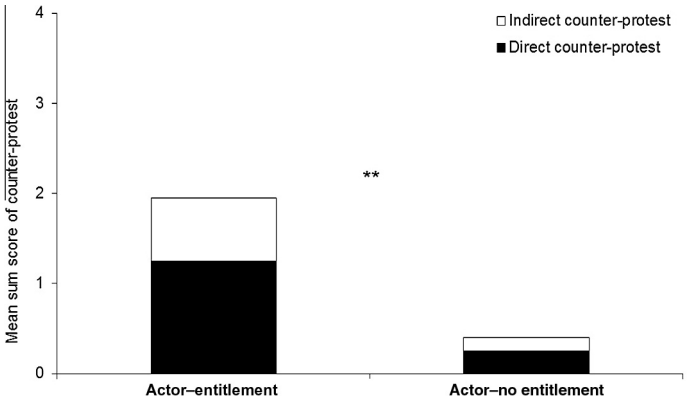


**Fig. 2.** Mean sum scores (over four trials) of counter-protest (i.e., direct counter-protest such as verbal protest using normative vocabulary or indirect counter-protest such as indirect critique to the judge or behavioral counter-protest) as a function of condition. $^{**}p < .01$.

## Results and discussion

Fig. 2 depicts children's counter-protest (pooled across type of task, yielding four trials per condition; see also "Data analysis" section above) against the judge's protest against the actor as a function of condition. The most convincing—but also demanding—measure is direct counter-protest. This category included normative language, and is thus a clear indication that children rejected the judge's protest and behavior and stood up for the actor's entitlement. Children performed significantly more direct counter-protest against the judge in the actor–entitlement condition ($M = 1.25$, $SD = 1.21$) than in the actor–no entitlement condition ($M = 0.25$, $SD = 0.55$), $Z = 3.13$, $N = 20$, $p = .002$, $r_{equivalent} = .64$. Children's counter-protest (i.e., direct or indirect counter-protest) showed the same pattern, $Z = 3.45$, $N = 20$, $p = .001$, $r_{equivalent} = .68$.[1] In the possession task, children performed significantly more behavioral counter-protest (e.g., giving the actor the toy) in the actor–entitlement condition ($M = 1.15$, $SD = 0.93$) than in the actor–no entitlement condition ($M = 0.25$, $SD = 0.64$), $Z = 3.04$, $N = 20$, $p = .002$, $r_{equivalent} = .65$.

On an individual level (collapsed across type of task), 8 children performed direct counter-protest in the actor–entitlement condition (but not in the actor–no entitlement condition) and no child showed the opposite pattern (4 children performed direct counter-protest in either condition, and 8 children did so in neither condition), McNemar's test, $\chi^2(1, N = 20) = 8$, $p < .01$. Children's counter-protest (i.e., direct or indirect) showed the same pattern, with 10 children performing counter-protest in the actor–entitlement condition (but not in the actor–no entitlement condition) and no child showing the opposite pattern (6 children performed counter-protest in either condition, and 4 children did so in neither condition), $\chi^2(1, N = 20) = 10$, $p < .01$.

Children's affirmative responses (i.e., agreement with the judge or protest against the actor; sum scores over four trials) showed the opposite pattern of their counter-protest behavior. Children performed more affirmative responses in the actor–no entitlement condition ($M = 1.65$, $SD = 1.27$) than in the actor–entitlement condition ($M = 0.40$, $SD = 0.82$), $Z = 3.54$, $N = 20$, $p < .001$, $r_{equivalent} = .76$.

These results provide evidence that 3-year-old children understand what it means to have an entitlement. With respect to horizontal normativity, children defended the actor's entitlement in two contexts: (a) the entitlement to possess an object and (b) the entitlement to play a game in a conventional way.

[1] A preliminary ANOVA—but not a GLMM (see "Data analysis" section above)—on counter-protest (direct or indirect) indicated that the difference between conditions was significantly larger in the possession task ($Z = 3.29$, $N = 20$, $p = .001$, $r_{equivalent} = .68$) than in the game task ($Z = 2.64$, $N = 20$, $p = .008$, $r_{equivalent} = .57$), which can be explained by the fact that behavioral counter-protest was applicable and present only in the possession task because the judge did not take away any objects from the actor in the game task. Because the difference between conditions was significant in either type of task, we present children's counter-protest (i.e., direct or indirect) pooled across type of task.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

Regarding vertical normativity, however, it is possible that children just blindly and heteronomously took what the adult (E1) said at face value. They might have misunderstood her speech act, "[Actor's name] may [not] play with it," as an assertive speech act simply reporting some fact about a first-order entitlement (that the actor is entitled to X) and might not have understood that it was actually a declaration (not only reporting an independent fact, but also making it the case that the actor is entitled to X by declaring it; Searle, 2010). In other words, they might have tracked first-order entitlements only. For instance, children might have interpreted E1's speech act as merely describing the preexisting "rules of the game" in the game task. Reasoning about second-order entitlements, in contrast, would require some reasoning as to under which conditions who is entitled to entitle whom to do something—to distinguish valid speech acts of entitlement from invalid ones. Again, ownership is a prominent example. If the owner of an object says to a person, "You may use this object for a while," this is a valid declaration and the person may in fact use the object for a while. However, if a non-owner says the very same thing, no entitlement for the person follows. Moreover, right before the test phase, E1 said to the child, "And you watch, okay?" This might have led children to guard E1's giving the actor an entitlement versus proscription and could make their counter-protest seem less spontaneous and autonomous.

In Study 2, therefore, we modified the design in two crucial respects. First, we varied the validity of the (second-order entitlement) speech act ("Actor may do X") and, thus, whether the transfer of entitlement was effective. In one type of case, the speaker was the owner and, therefore, entitled to entitle the actor (valid transfer of entitlement). In the other type of case, the speaker was not the owner and, therefore, not entitled to entitle the actor (invalid transfer of entitlement). Second, we included a neutral phrase before the test phase ("Have a look here") to examine how deep, autonomous, and spontaneous children's understanding and defending of entitlements is. If children took into account ownership in evaluating whether the act of entitling another person to do something is valid or invalid, this would provide strong evidence that they understand some basic properties of second-order entitlement as well.

## Study 2

The second study focused on vertical normativity and involved more clear cases of second-order entitlements (Hart, 1961; Hohfeld, 1913, 1917). Children witnessed situations in which (a) E1 entitled the actor to do X and (b) the judge subsequently protested and forbade the actor from doing X (taking away a toy from the actor in some tasks). We experimentally varied ownership (physical or intellectual; see Fig. 3). In the *owner–entitles* condition (Fig. 3A–C), E1 was the owner and, therefore, entitled to entitle the actor to do X, and the judge's (non-owner's) protest was unjustified. In the *non-owner–entitles* condition (Fig. 3D–F), E1 was the non-owner and, therefore, not entitled to entitle the actor to do X, and the judge was the owner. Thus, there was no real transfer of entitlement to the actor, and the judge's protest was justified.

Four types of task followed the above logic. In two property tasks (*property* and *property–authority*; see below for details), either E1 (owner–entitles condition; Fig. 3A) or the judge (non-owner–entitles condition; Fig. 3D) was the physical owner of a toy. In both conditions (owner–entitles and non-owner–entitles), E1 entitled the actor to use the toy (Fig. 3B and E), followed by the judge protesting against the actor and taking the toy away from her (Fig. 3C and F). In two intellectual property tasks (*game* and *pretense*; see below for details), either E1 (owner–entitles condition; Fig. 3A) or the judge (non-owner–entitles condition; Fig. 3D) was the intellectual owner (i.e., the creator) of a game. In both conditions, E1 entitled the actor to play the (just-invented) game in a different way (Fig. 3B and E), followed by the judge protesting against the actor who followed E1's instruction (Fig. 3C and F).

### Method

#### Participants

The participants were 52 3-year-old children (mean age = 38 months, range = 36–40, 13 girls and 13 boys in each of two conditions). An additional 2 children were excluded from the final sample due to experimenter error.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

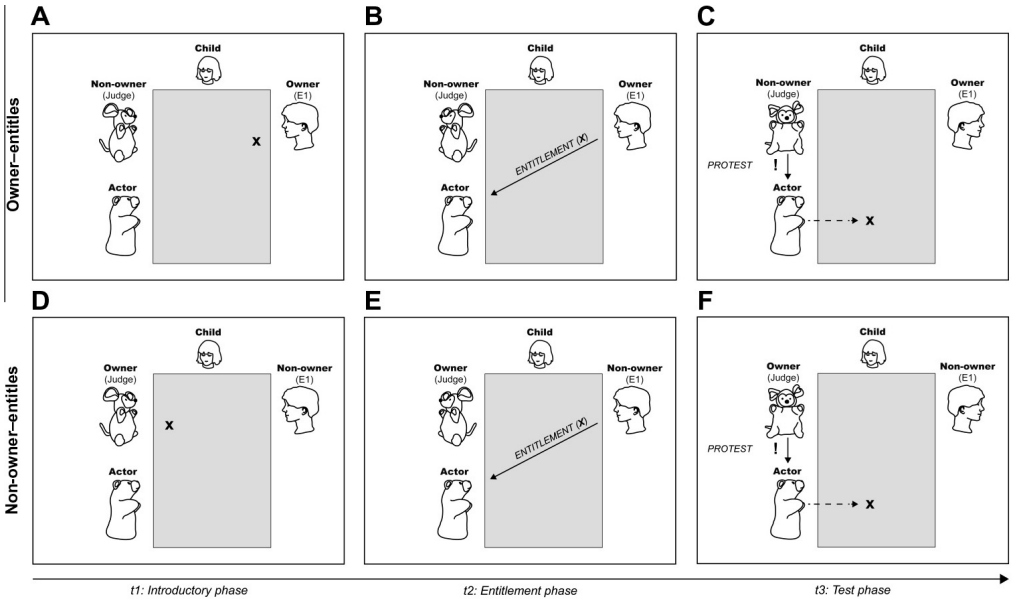


**Fig. 3.** Schematic of the main experimental manipulation in Study 2. (A) Introductory phase. In the owner–entitles condition, E1 was the physical/intellectual owner of some X and the judge was the non-owner, whereas in the non-owner-entitles condition (D), the judge was the physical/intellectual owner of some X and E1 was the non-owner. During the entitlement phase of either condition (B and E), E1 entitled the actor to do something with X (in the absence of the judge). During the test phase of either condition (C and F), the judge protested normatively against the actor, forbade her from following E1's instruction, and in some tasks took away X from the actor (all in the absence of E1, who was writing something down).

*Design*

All children first received a warm-up session followed by four different types of tasks (property, property–authority, game, and pretense; two trials each for a total of eight trials; within-task trial order counterbalanced), the order of which was systematically varied across children. Children were randomly assigned to one of the two conditions.

*Materials*

The property and property–authority tasks each involved two objects (the same objects as in Study 1 except for a monkey toy instead of a piece of paper and a marker). The game task included the games Daxing and "Lafting" from Study 1. In Lafting, the A2 action was modified to make it more distinct from A1; the action was not to hit the back of the platform but rather to shake the whole object (from the back) so that the ball (including the peg) fell off. The pretense task included a little doll, a soup game (a curved plastic stick and a wooden ball cut in half), and an ice cream game (a wooden block). The game and pretense tasks each involved an invented game action (A1) and an alternative action (A2; see Appendix B for an overview of the pretense task).

*Procedure*

The basic setup and the warm-up session were the same as in Study 1. Table 2 provides a procedural overview of the four types of task and the experimental manipulations. In the owner–entitles condition, E1 was the owner and the judge was the non-owner (Fig. 3A). In the non-owner–entitles condition, the judge was the owner and E1 was the non-owner (Fig. 3D).

*Property task.* During the introductory phase of the property task, the owner (E1 or the judge, varied according to condition; see Fig. 3A and D and Table 2) announced, "I take my toy out of my bag," put her toy on the table, said to the child, "Look, this is mine, this belongs to me!" and demonstrated the toy (the tiger, e.g., growled when a button was pressed) while saying, "Great, isn't it?" Thereafter, the

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

**Table 2**
Procedural overview of the four types of task (property, property–authority, game, and pretense) for each condition.

| | | Condition | |
|---|---|---|---|
| Task | Phase | Owner–entitles | Non-owner–entitles |
| Property | Introductory | *E1 demonstrates her toy* | *Judge demonstrates her toy* |
| | Entitlement | E1 entitles actor to play with the toy | |
| | Test | Judge protests (normatively) against actor and takes away the toy | |
| Property–authority | Introductory | E1 demonstrates *her/judge's* toy | |
| | Entitlement | E1 entitles actor to play with the toy | |
| | Test | Judge protests (normatively) against actor and takes away the toy | |
| Game and pretense | Introductory | *E1 invents (conventional or pretense) game (A1)* | *Judge invents (conventional or pretense) game (A1)* |
| | Entitlement | E1 entitles actor to play (the game) in a different way (A2) | |
| | Test | Judge protests (normatively) against actor who performs A2 | |

*Note:* The experimental manipulation in each type of task is highlighted in italics. The game task and the pretense task are pooled in this table due to their similarity. A1, invented game action; A2, alternative action.

non-owner (see Fig. 3A and D) turned away from the table (the judge went to sleep in the owner–entitles condition; E1 wrote something down in the non-owner–entitles condition). Then, the owner entitled the child to play with the toy ("Now you may play with my toy") and thereafter put the toy back in front of her while saying, "I put my toy here. This belongs to me!" In the non-owner–entitles condition, the owner (the judge) then went to sleep (in the owner–entitles condition, the judge was still asleep). During the entitlement phase (Fig. 3B and E), E1 put the toy in front of her, announced "Hmm, [actor's name] may play with this. [Actor's name] may," said to the child, "Have a look here," and turned away from the table to write something down (and the judge came back). During the test phase (Fig. 3C and F), the actor and the judge approached the toy simultaneously, but before the actor could reach the toy, the judge pulled it away from the actor to her position (to the child's right) while protesting, "[Actor's name] may not play with this." Thereafter, the actor shortly lowered her head and responded with "Oh," and then lifted her head again while looking toward the child (while the judge stayed at her position). After approximately 5 s, the owner put away her toy ("I put my toy away").

*Property–authority task.* The rationale of the property–authority task was to de-confound ownership and order of demonstration (i.e., the owner was also the first person who demonstrated something in each condition in the property task). That is, children might apply a primacy rule (i.e., trusting the first person who demonstrates something) instead of focusing on ownership and second-order entitlement. The property–authority task followed the same structure as the property task except for the following modifications. During the introductory phase, the judge went to sleep, and then E1 took a toy out of her bag (owner–entitles condition: "Oh, I have something here" and saying to the child, "Look, this belongs to me!"; Fig. 3A) or out of the judge's bag (non-owner–entitles condition: "Oh, [judge's name] has something here" and saying to the child, "Look, this belongs to [judge's name]!"; Fig. 3D). Then, E1 demonstrated the toy ("Ah!") and entitled the child to play with it ("Now you may!"). Thereafter, E1 put the toy in the respective owner's position ("I put this there again") and said to the child, "This is my toy. This belongs to me!" (owner–entitles condition; Fig. 3A) or "This is [judge's name] toy. This belongs to [judge's name]!" (non-owner–entitles condition; Fig. 3D). In the non-owner–entitles condition, E1 then put the toy in front of her (where the toy was located in the owner–entitles condition). The entitlement and test phases were identical to those of the property task.

*Game task.* During the introductory phase of the game task, the intellectual owner (E1 or the judge, varied according to condition; see Fig. 3A and D and Table 2) announced, "Look what I have here in my bag," and put some objects on the table ("Look here, wow!"). Then, the intellectual owner said, "Hmm, I make up a new game. Ah yes, I call the game Daxing. Exactly, this is called Daxing, and I'm going to show you how Daxing goes." The intellectual owner then demonstrated the action A1 and accompanied it with "Hmm, well, one may do this way and this way. This is how one may do when Daxing." After the action, the intellectual owner said, "This is how Daxing goes, and I have come

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

up with this all by myself! Great, isn't it?" Then, the intellectual non-owner (see Fig. 3A and D) turned away from the table (the judge went to sleep; E1 wrote something down), and the intellectual owner entitled the child to play the game (e.g., "Now you may dax!"). Thereafter, the intellectual owner put the objects in front of her while saying, "I put this here, [actor's name]," and the actor replied, "Yes!" In the non-owner–entitles condition, the intellectual owner (the judge) then went to sleep (in the owner–entitles condition, the judge was still asleep). During the entitlement phase (Fig. 3B and E), E1 said, "Hmm, what is [actor's name] playing?" and took the objects and said, "Ah, [actor's name] may play this way" and performed the action A2 and then said, "This is how [actor's name] may play," and gave the actor the objects and said to the child, "Have a look here," and turned away from the table to write something down (and the judge came back). During the test phase (Fig. 3C and F), the actor performed the action A2 and the judge protested twice against the actor ("[Actor's name] may not play like this!"): once shortly after the actor had begun the action and once shortly before the actor finished the action (and the actor showed no reaction to the judge's protest). Then, the intellectual owner put the objects away ("I put this away").

*Pretense task.* The pretense task followed the same structure as the game task except for the following differences. During the introductory phase, the intellectual owner did not use the word "new" (in "new game") but rather said, "Hmm, I make up a game. Ah yes, we now play the soup game, and I show you how this goes." Then, the intellectual owner took an object and said, "Now, this is our spoon, and this is how one may do," while performing the action A1. After that, she said, "This is how the soup game goes, and we play it like this!" During the entitlement phase (Fig. 3B and E), E1 referred to the new pretend identity ("Ah, this is now a saw, and [actor's name] may play like this") and demonstrated the action A2.

*Coding and reliability*

Coding and reliability followed the same logic as in Study 1. Reliability for the main response category of counter-protest was very good (Cohen's weighted $\kappa = .93$). In addition, we coded explicit agreement, including short affirmative phrases such as "Yes" and "Exactly" ($\kappa = .94$), and disagreement, including phrases such as "No, this is Daxing. This is not how it goes," "That's a spoon!" and "You cannot do that!" ($\kappa = 1.0$), with E1's giving the actor entitlement during the entitlement phase. For each type of task, we computed sum scores (0–2) per condition of direct counter-protest, counter-protest (i.e., direct *or* indirect counter-protest), behavioral counter-protest (property tasks only), agreement, and disagreement for each child.

*Data analysis*

The data were analyzed as in Study 1. Preliminary analyses yielded no significant interaction effects of condition and type of task; therefore, subsequent analyses were conducted collapsed across type of task (note that this yielded eight trials per condition unless stated otherwise). Because the data partly deviated clearly from the assumptions of a Mann–Whitney *U* test or an independent-samples (Student's) *t* test (regarding homogeneity of variances), we used Welch's unequal variance *t* test with adjusted degrees of freedom (Ruxton, 2006) for comparisons of independent samples.

## Results and discussion

*Test phase*

Fig. 4 displays the mean sum scores (0–8) of children's counter-protest against the judge's protest against the actor. Children performed significantly more direct counter-protest against the judge in the owner–entitles condition (when E1 was the owner and the judge was the non-owner; $M = 1.85$, $SD = 2.52$) than in the non-owner–entitles condition (when the judge was the owner and E1 was the non-owner; $M = 0.46$, $SD = 1.30$), $t(37.44) = 2.49$, $p = .018$, $\eta_p^2 = .11$. Children's counter-protest (i.e., direct or indirect counter-protest) showed the same pattern, $t(38.69) = 3.15$, $p = .003$, $\eta_p^2 = .17$ (Fig. 4).

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

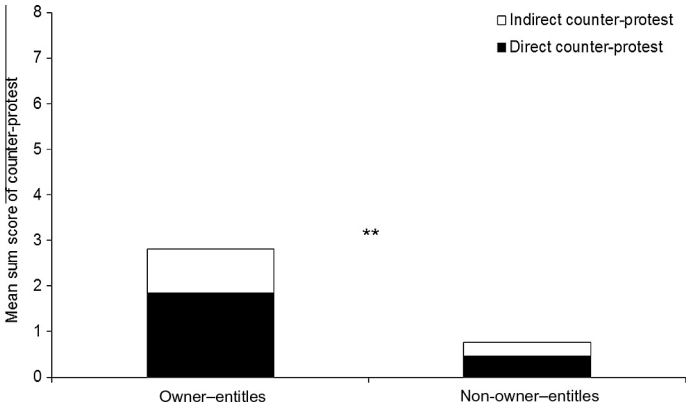


**Fig. 4.** Mean sum scores (over eight trials) of counter-protest as a function of condition. $^{**}p < .01$.

Furthermore, children's behavioral counter-protest (e.g., giving the actor the object) in the two property tasks (collapsed, yielding four trials per condition) showed a similar pattern as well.[2] Children performed significantly more behavioral counter-protest in the owner–entitles condition ($M = 1.27$, $SD = 1.66$) than in the non-owner–entitles condition ($M = 0.46$, $SD = 1.07$), $t(42.61) = 2.09$, $p = .043$, $\eta_p^2 = .08$. On an individual level, 13 of 26 children performed direct counter-protest in the owner–entitles condition versus 5 of 26 children in the non-owner–entitles condition, $\chi^2(1, N = 52) = 5.44$, $p = .02$. The same pattern was found for counter-protest (direct or indirect: 17 of 26 children in the owner–entitles condition vs. 7 of 26 children in the non-owner–entitles condition), $\chi^2(1, N = 52) = 7.74$, $p = .005$. These results suggest that children did not just follow the adult E1 but also took into account normative criteria such as ownership when deciding whether the judge's protest was justified. In particular, children defended the actor's entitlements selectively. If the actor was entitled by the owner E1 (owner–entitles condition), they defended her entitlements, but if the actor was entitled by the non-owner E1 (non-owner–entitles condition), they did not defend her (illegitimately acquired) entitlements. Moreover, children even took into account physical ownership when the non-owner E1 demonstrated the toy of the owner (the judge in the property–authority task), suggesting that children did not apply a primacy rule (i.e., trusting the first person who demonstrates something). These findings indicate that young children understand not only first-order entitlement but also second-order entitlement (e.g., that an owner of an object is entitled to entitle others to use the owner's property).

*Entitlement phase*

Children showed more disagreement with E1's entitling the actor to X in the non-owner–entitles condition ($M = 0.35$, $SD = 0.85$) than in the owner–entitles condition ($M = 0$), $t(25) = 2.09$, $p = .047$, $\eta_p^2 = .08$. Conversely, children showed more agreement with E1 in the owner–entitles condition ($M = 0.92$, $SD = 1.52$) than in the non-owner–entitles condition ($M = 0$), $t(25) = 3.09$, $p = .005$, $\eta_p^2 = .16$. This suggests that children's reasoning about the actor's entitlement can be traced back to the entitlement phase in which the adult E1 entitled the actor to X (see Fig. 3B and E). Thus, children's differential agreement and disagreement with E1 indicates that they considered whether E1 was actually entitled to entitle the actor, that is, whether E1 had a second-order entitlement (Hohfeld, 1913, 1917).

## General discussion

The current findings provide the first evidence that young children understand and defend the entitlements of others. Children defended a third party's entitlements in a variety of contexts against

[2] Note that behavioral counter-protest was a coding category in the property tasks only because the judge did not take away any objects from the actor in the game and pretense tasks.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

a second-party judge who challenged those entitlements. The current studies dovetail with prior work that has found that young children are motivated to intervene in third-party norm violations (Rakoczy & Schmidt, 2013; Rakoczy et al., 2008; Schmidt & Tomasello, 2012). This previous work, however, dealt with children's understanding of the normative force of social norms in the context of simple obligations, for example, regarding the participants of a game or non-owners in a property context (Rakoczy et al., 2008; Rossano et al., 2011). The current work goes beyond such enforcement of simple obligations by showing that 3-year-old children will actually counter-protest against someone who protests and violates a right-holder's entitlements. Indeed, they protest against someone who protests illegitimately. These findings are remarkable from both cognitive and moral–motivational points of view.

In cognitive terms, our findings suggest that children have some basic grasp of the complex logical structure of social normativity regarding rights. They understand not only that social norms create obligations but also that social norms engender entitlements going along with systematic interrelations between entitlements and obligations. In particular, the concept of simple obligations tested in prior work involves only *one* party who violates a norm (not) to act in certain ways (i.e., Party A is obligated to X in Context C). The concept of a right or entitlement, however, requires at least *two* parties and pertains to their normative interrelation (Hohfeld, 1913, 1917; Searle, 2010), here dubbed horizontal normativity. Within horizontal normativity, a right-holder being entitled to perform a certain act typically correlates with a second party being obligated not to interfere with the right-holder's performing the act. The current findings suggest that young children understand this *horizontal* normativity and, furthermore, that they even track *vertical* normative relations between higher and lower order entitlements such as that an owner has the second-order entitlement to entitle someone (first-order) to use the owner's property. Do children think that only an owner is entitled to entitle others to use the owner's property or that owners are in the best position to do that? Although this is an empirical question to be addressed in future research, our findings lend support to the hypothesis that children believe that only owners are entitled to entitle others. Consider that during the entitlement phase of Study 2 (when the adult entitled the actor to do something), children disagreed more with the adult when she was the non-owner (vs. the owner) and, conversely, they agreed more with the adult when she was the owner (vs. the non-owner). This pattern suggests that children evaluated the act of entitling over and above the judge's act of prohibiting the actor from doing something.

In moral–motivational terms, standing up for another's entitlements is remarkable in light of the fact that children themselves were in no way directly affected. No one challenged their own personal entitlements, so their standing up for another's entitlements has a clear selfless quality. It might even be considered an early and simple form of "civil courage," potentially underlain by a basic sense of obligation toward others, which is thought to be essential to human morality (Deutsch, 1982; Van Lange & Kuhlman, 1994). Furthermore, the notions of entitlement and freedom are tightly interrelated. Entitlements entail the freedom to act in certain ways and limit the freedom of others who should not interfere with the entitled party. The entitled party has a claim to be free from invalid interference (Hohfeld, 1913, 1917; Searle, 2010). Therefore, children's motivation to defend others' entitlements might be an important step toward understanding issues such as the right to free speech to be of moral relevance as older children and adults do (Helwig, 1997, 1998; Searle, 2010). Children in the current studies not only engaged in disinterested third-party critiques (by criticizing others' mistaken acts) but also did so in a second-order way by criticizing invalid critiques of appropriate acts. Such higher order forms of third-party sanctioning are clearly an essential element of mature social life. They allow humans to negotiate the interplay of rights and obligations and even more intricate matters such as conflicting rights in a group or society.

Importantly, children in the current studies engaged in all of this systematic sanctioning behavior regardless of whether the behavior to be sanctioned was harmful in itself or not. In previous work, young children's third-party sanctioning of moral violations has been demonstrated exclusively with acts that were harmful in themselves (Schmidt et al., 2012; Vaish et al., 2011). Our studies, in contrast, involved acts (by the judge and by the actor) that were not intrinsically harmful. However, these acts did or did not constitute norm violations merely as a function of the different first- and second-order entitlements underlying them in the different conditions. Thus, children truly tracked the externally assigned normative status of the acts and not some simpler intrinsic properties (e.g., harming someone by taking away an object from her).

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

An interesting question is whether children's appreciation of second-order entitlement in the intellectual property tasks of Study 2 really amounts to understanding intellectual property per se at this early age. Recent work has found that it is not until around 5 or 6 years of age that children understand aspects of intellectual property such as the inappropriateness of copying ideas and the notion that having an idea first leads to owning it (Olson & Shaw, 2011; Shaw, Li, & Olson, 2012). In our intellectual property tasks, physical and intellectual ownership were confounded: The objects in the intellectual property tasks were located in the same bag as the objects in the physical property tasks. Thus, it might have been the case that children used (mainly) physical ownership—not intellectual ownership—to determine second-order entitlement. Given the pervasiveness of dealing with and understanding physical ownership issues during early childhood (Friedman et al., 2011) and its potential for fostering an understanding of normative status (Kalish & Anderson, 2011), we believe that it is likely that children used physical ownership in the intellectual property tasks to assess second-order entitlement.

Taken together, the current findings demonstrate that even 3-year-old children grasp the basic normative structure of entitlements and correlative obligations, in particular that entitlements "immunize" the person entitled from invalid criticism and punishment, and that they typically go along with the obligation of others not to interfere. Children's active enforcement of such entitlements suggests that they conceive of them as having truly normative force enforceable against others (Feinberg, 1980; Searle, 2010).

## Acknowledgments

We thank the research assistants at the Max Planck Institute for Evolutionary Anthropology, especially Eva Siegert, for help in recruiting children, collecting data, and coding. Thank you to Roger Mundry for statistical advice, and to all daycare centers and children for their friendly cooperation. The first author was supported by a grant from the German National Academic Foundation (Studienstiftung des deutschen Volkes).

## Appendix A.

Overview of the games used in the game task.

| Game | Material | Procedure |
|---|---|---|
| Daxing | Styrofoam board (covered with red adhesive foil) with gutter at one side, wooden building block, and wooden cylinder (covered with blue adhesive foil) | A1: Put the building block on the board and use the cylinder to push the building block across the board into the gutter<br>A2: Put the cylinder onto the board and lift the board so that the cylinder slides into the gutter |
| Lafting | 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, and peg | A1: Attach the peg to the tennis ball, put both on the platform, grab the black region at the tube and pull it down, and release so that the ball and peg are catapulted away<br>A2: Attach the peg to the basement, put the tennis ball onto the platform, turn the container around, and hit the back of the platform so that the ball is catapulted away |
| Schacking | Cylindric plastic case with two pink (connected) cords and two frogs each on a small red paperboard | A1: Put the two frogs into plastic case, take the cord and pull the case around, and lift the cord so that the frogs fall out<br>A2: Put the frogs close together, cover them with the upside-down positioned plastic case, slide the case back and forth, and push and lift it so that the frogs slide away |
| Toffing | Little bucket with cover and triangular basement, rolling wheel with bell, and rubber brick | A1: Put the bucket on the side (horizontally), use the rubber brick to push the wheel into the bucket, put the bucket upright, and put the cover on top<br>A2: Put the bucket upside down, put the wheel and the brick on top of the bucket, and put the cover on top of the wheel and brick |

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

## Appendix B.

Overview of the games used in the pretense task.

| Game | Material | Procedure |
|---|---|---|
| Soup game | Curved plastic stick, wooden ball cut in half, and little doll | A1: Use the stick and pretend to feed the doll with a spoon (accompanied by a "slurp" sound)<br>A2: Use the stick and pretend to saw through the wooden ball (accompanied by a "saw" sound). |
| Ice cream game | Wooden block and little doll | A1: Use the block and pretend that the doll licks an ice cream (accompanied by a "smack" sound)<br>A2: Use the block and pretend to shower the doll (accompanied by a "sh" sound). |

## References

Blake, P. R., & Harris, P. L. (2009). Children's understanding of ownership transfers. *Cognitive Development, 24*, 133–145. http://dx.doi.org/10.1016/j.cogdev.2009.01.002.

Casler, K., Terziyan, T., & Greene, K. (2009). Toddlers view artifact function normatively. *Cognitive Development, 24*, 240–247. http://dx.doi.org/10.1016/j.cogdev.2009.03.005.

Chudek, M., & Henrich, J. (2011). Culture–gene coevolution, norm psychology, and the emergence of human prosociality. *Trends in Cognitive Sciences, 15*, 218–226. http://dx.doi.org/10.1016/j.tics.2011.03.003.

Deutsch, M. (1982). Interdependence and psychological orientation. In V. Derlage & J. Grzelak (Eds.), *Cooperation and helping behavior: Theories and research* (pp. 15–42). New York: Academic Press.

Elster, J. (1989). *The cement of society: A study of social order*. Cambridge, UK: Cambridge University Press.

Fehr, E., & Fischbacher, U. (2004). Social norms and human cooperation. *Trends in Cognitive Sciences, 8*, 185–190.

Feinberg, J. (1980). *Rights, justice, and the bounds of liberty: Essays in social philosophy*. Princeton, NJ: Princeton University Press.

Friedman, O., & Neary, K. R. (2008). Determining who owns what: Do children infer ownership from first possession? *Cognition, 107*, 829–849. http://dx.doi.org/10.1016/j.cognition.2007.12.002.

Friedman, O., Neary, K. R., Defeyter, M. A., & Malcolm, S. L. (2011). Ownership and object history. *New Directions for Child and Adolescent Development, 2011*, 79–89. http://dx.doi.org/10.1002/cd.298.

Hart, H. L. A. (1961). *The concept of law*. Oxford, UK: Oxford University Press.

Hay, D. F., & Ross, H. S. (1982). The social nature of early conflict. *Child Development, 53*, 105–113.

Helwig, C. C. (1997). The role of agent and social context in judgments of freedom of speech and religion. *Child Development, 68*, 484–495. http://dx.doi.org/10.1111/j.1467-8624.1997.tb01953.x.

Helwig, C. C. (1998). Children's conceptions of fair government and freedom of speech. *Child Development, 69*, 518–531. http://dx.doi.org/10.1111/j.1467-8624.1998.tb06205.x.

Hohfeld, W. N. (1913). Some fundamental legal conceptions as applied in judicial reasoning. *Yale Law Journal, 23*, 16–59.

Hohfeld, W. N. (1917). Fundamental legal conceptions as applied in judicial reasoning. *Yale Law Journal, 26*, 710–770.

Honoré, A. M. (1961). Ownership. In A. G. Guest (Ed.), *Oxford essays in jurisprudence* (pp. 107–147). Oxford, UK: Oxford University Press.

Kalish, C. W. (2005). Becoming status conscious: Children's appreciation of social reality. *Philosophical Explorations, 8*, 245–263.

Kalish, C. W., & Anderson, C. D. (2011). Ownership as a social status. *New Directions for Child and Adolescent Development, 2011*, 65–77. http://dx.doi.org/10.1002/cd.297.

Kenward, B. (2012). Over-imitating preschoolers believe unnecessary actions are normative and enforce their performance by a third party. *Journal of Experimental Child Psychology, 112*, 195–207. http://dx.doi.org/10.1016/j.jecp.2012.02.006.

Keupp, S., Behne, T., & Rakoczy, H. (2013). Why do children over-imitate? *Journal of Experimental Child Psychology, 116*, 392–406.

Kim, S., & Kalish, C. W. (2009). Children's ascriptions of property rights with changes of ownership. *Cognitive Development, 24*, 322–336. http://dx.doi.org/10.1016/j.cogdev.2009.03.004.

Neary, K. R., Friedman, O., & Burnstein, C. L. (2009). Preschoolers infer ownership from "control of permission". *Developmental Psychology, 45*, 873–876.

Neary, K. R., Van de Vondervoort, J. W., & Friedman, O. (2012). Artifacts and natural kinds: Children's judgments about whether objects are owned. *Developmental Psychology, 48*, 149–158. http://dx.doi.org/10.1037/a0025661.

Olson, K. R., & Shaw, A. (2011). "No fair, copycat!": What children's response to plagiarism tells us about their understanding of ideas. *Developmental Science, 14*, 431–439. http://dx.doi.org/10.1111/j.1467-7687.2010.00993.x.

Rainbolt, G. W. (1993). Rights as normative constraints on others. *Philosophy and Phenomenological Research, 53*, 93–111.

Rainbolt, G. W. (2006). *The concept of rights*. Dordrecht, The Netherlands: Springer.

Rakoczy, H. (2008). Taking fiction seriously: Young children understand the normative structure of joint pretence games. *Developmental Psychology, 44*, 1195–1201. http://dx.doi.org/10.1037/0012-1649.44.4.1195.

Rakoczy, H., & Schmidt, M. F. H. (2013). The early ontogeny of social norms. *Child Development Perspectives, 7*, 17–21. http://dx.doi.org/10.1111/cdep.12010.

Rakoczy, H., & Tomasello, M. (2009). Done wrong or said wrong? Young children understand the normative directions of fit of different speech acts. *Cognition, 113*, 205–212. http://dx.doi.org/10.1016/j.cognition.2009.07.013.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013

Rakoczy, H., Warneken, F., & Tomasello, M. (2008). The sources of normativity: Young children's awareness of the normative structure of games. *Developmental Psychology, 44*, 875–881. http://dx.doi.org/10.1037/0012-1649.44.3.875.

Rosenthal, R., & Rubin, D. (2003). $R_{equivalent}$: A simple effect size indicator. *Psychological Methods, 8*, 492–496. http://dx.doi.org/10.1037/1082-989X.8.4.492.

Ross, H. S. (1996). Negotiating principles of entitlement in sibling property disputes. *Developmental Psychology, 32*, 90–101. http://dx.doi.org/10.1037/0012-1649.32.3.560.

Ross, H. S., Concant, C., & Vickar, M. (2011). Property rights and the resolution of social conflict. *New Directions for Child and Adolescent Development, 132*, 53–64. http://dx.doi.org/10.1002/cd.296.

Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. *Cognition, 121*, 219–227. http://dx.doi.org/10.1016/j.cognition.2011.06.007.

Ruxton, G. D. (2006). The unequal variance *t*-test is an underused alternative to Student's *t*-test and the Mann–Whitney *U* test. *Behavioral Ecology, 17*, 688–690. http://dx.doi.org/10.1093/beheco/ark016.

Schmidt, M. F. H., Rakoczy, H., & Tomasello, M. (2011). Young children attribute normativity to novel actions without pedagogy or normative language. *Developmental Science, 14*, 530–539. http://dx.doi.org/10.1111/j.1467-7687.2010.01000.x.

Schmidt, M. F. H., Rakoczy, H., & Tomasello, M. (2012). Young children enforce social norms selectively depending on the violator's group affiliation. *Cognition, 124*, 325–333. http://dx.doi.org/10.1016/j.cognition.2012.06.004.

Schmidt, M. F. H., & Tomasello, M. (2012). Young children enforce social norms. *Current Directions in Psychological Science, 21*, 232–236. http://dx.doi.org/10.1177/0963721412448659.

Searle, J. R. (2010). *Making the social world*. Oxford, UK: Oxford University Press.

Shaw, A., Li, V., & Olson, K. R. (2012). Children apply principles of physical ownership to ideas. *Cognitive Science, 36*, 1383–1403. http://dx.doi.org/10.1111/j.1551-6709.2012.01265.x.

Tomasello, M. (2009). *Why we cooperate*. Cambridge, MA: MIT Press.

Vaish, A., Missana, M., & Tomasello, M. (2011). Three-year-old children intervene in third-party moral transgressions. *British Journal of Developmental Psychology, 29*, 124–130. http://dx.doi.org/10.1348/026151010X532888.

Van Lange, P. A. M., & Kuhlman, D. M. (1994). Social value orientations and impressions of partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology, 67*, 126–141. http://dx.doi.org/10.1037/0022-3514.67.1.126.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wyman, E., Rakoczy, H., & Tomasello, M. (2009). Normativity and context in young children's pretend play. *Cognitive Development, 24*, 146–155. http://dx.doi.org/10.1016/j.cogdev.2009.01.003.

Please cite this article in press as: Schmidt, M. F. H., et al. Young children understand and defend the entitlements of others. *Journal of Experimental Child Psychology* (2013), http://dx.doi.org/10.1016/j.jecp.2013.06.013