

The Early Ontogeny of Social Norms

Hannes Rakoczy¹ and Marco F. H. Schmidt²

¹University of Göttingen and ²Max Planck Institute for Evolutionary Anthropology

5 **ABSTRACT**—Recent research has produced new insights into the early development of social cognition and social learning. Even very young children learn and understand social activities as governed by conventional norms that (a) are arbitrary and shared by the community, (b) have normative force and apply to all participants, and (c) are valid in context-relative ways. Importantly, such understanding is revealed both in the fact that children themselves follow the norms, and in the fact that they actively enforce them toward third parties. Human social cognition thus has a fundamental normative dimension that begins early. This norm psychology plausibly evolved due to its role in stabilizing group coordination and cooperation, and is one of the foundations of what is uniquely human social learning and culture.

Much developmental research documents that even very young children understand more about the social world than previously thought. They view others as rational agents (“theory of mind”), and they learn from others through observing, interpreting, and imitating their actions (e.g., Tomasello, Carpenter, Call, Behne, & Moll, 2005). Early human social cognition, however, is not exhausted by understanding and learning from conspecifics. Rather, from its early stages, social cognition incorporates a *normative stance*: Children not only interpret social activities as instances of individual intentional actions (“I see what she

intends”) but also learn idiosyncratic acts from observing individuals (“I do what she just did”). Rather, they view and acquire many social activities as actions that are governed by conventional, communally shared social norms (“This is how one does it”).

Social Norms

Most social activities are governed by conventional social norms¹ or rules that share a number of characteristic features:

1. Normative force and generality: Norms set standards of correctness and appropriateness, thus guiding participants’ actions in social practice and serving as reasons for justifications and as grounds for critique. Crucially, norms are applicable in *agent-neutral* ways to any participant in equivalent circumstances (Nagel, 1970). This means that a given norm can figure as both a reason for acting and grounds for evaluating and criticizing others’ acts.
2. Context-sensitivity: Most social norms apply only to specific contexts in which they are valid and prescribe what is appropriate. The same behavior (e.g., taking a ball into one’s hand) can be inappropriate in some contexts in which a norm sanctions this behavior (e.g., soccer), but perfectly appropriate in other contexts (e.g., everyday life, handball).
3. Conventionality: Conventionality has two key aspects. First, social norms exist due to shared assignment and acceptance. They are socially constructed; that is, they are brought into existence through the shared intentionality of a community (Searle, 1995; Tomasello & Rakoczy, 2003). Second, they are therefore to some degree arbitrary (i.e., they could have been different, (Diesendruck & Markson, 2011; Lewis, 1969). According to many philosophical and psychological accounts, such arbitrariness distinguishes social norms both from the constitutive norms of rationality (which could not have been different because they define what rationality is) and moral norms (which are nonarbitrary in being based on considerations of well-being, fairness etc.; (Korsgaard, 1996; Rawls, 1971; Turiel, 1983).

We would like to thank Michael Tomasello for comments on an earlier draft of this paper. Thanks are also due to Dana Barthel and Marina Josefs for help in preparing the manuscript. This work was supported by a “Dilthey Fellowship” of the Volkswagen Foundation and the Fritz Thyssen Foundation and by the German Initiative of Excellence.

Correspondence concerning this article should be addressed to Hannes Rakoczy, Institute of Psychology & Courant Research Centre, Evolution of Social Behaviour, University of Göttingen, Waldweg 26, Göttingen D-37073, Germany; e-mail: hannes.rakoczy@psych.uni-goettingen.de.

© 2012 The Authors
Child Development Perspectives © 2012 The Society for Research in Child Development
DOI: 10.1111/cdep.12010

¹We will focus here on conventional social norms (“social norms” hereafter) and will not deal with other types of norms (norms of rationality, moral norms) explicitly as this would go way beyond the scope of this article.

CE: Rachika	Journal: CDEP	Dispatch: 17.10.12	Author Received:	CE: Rachika	Journal: CDEP	Dispatch: 17.10.12	Author Received:
PE: Karpagavalli	No. of pages: 5			PE: Karpagavalli	No. of pages: 5		
B				B			
C	D	E	P	1	2	0	1
Journal Name				Manuscript No.			
							

Although social norms are conventional, there are other forms of conventions—arbitrary social regularities shared by a community—that need not be normative, such as clothing conventions (Lewis, 1969). Recent research has shown that even young children understand some basic properties of conventionality, expecting that members of a community *will* know and act in accordance with conventions (Diesendruck & Markson, 2011). Beyond such *descriptive* expectations, however, social norms engender *normative* expectations—what others *ought* to do.

The Emergence of Understanding and Enforcing Social Norms

A proper understanding of a social norm with its general, agent-neutral structure reveals itself essentially in the capacity to *enforce* the same norm that one follows toward third parties, to criticize and sanction mistakes. Recently, new research with a novel method—investigating spontaneous forms of critique, protest, and other kinds of interventions in response to third-party mistakes—has produced evidence that in several domains such an agent-neutral grasp of social norms develops very early in human ontogeny.

Children as young as 2–3 years understand the constitutive rules governing social games, both rule games (games that are governed by explicit rules) and games of pretense (games that are governed by implicit rules). Regarding rule games, children not only learn how to play novel board games quickly (games in which, e.g., tokens need to be moved to certain places in certain ways like in pool), but they are equally quick in drawing normative, agent-neutral conclusions (Rakoczy, Brosche, Warneken, & Tomasello, 2009; Rakoczy, Warneken, & Tomasello, 2008, 2009; Schmidt, Rakoczy, & Tomasello, 2011): When a third party (usually a puppet) announces she is joining the game and performs an act that violates the game’s rules (such as moving a token to the right place in the wrong way), children often spontaneously protest, criticize, and teach the wrongdoer (but they do not do so when the same act is performed in a different context in which it does not constitute a mistake).

Regarding social pretense games, children as young as age 2 years understand the implicit norms of joint pretending. Social pretense games are characterized by implicit constitutive rules (Walton, 1990): When two actors set up a pretense scenario together (e.g., that a stone is soap), this defines the normative space of the game: The stone counts as fictional “soap” in the context of the game and is to be treated accordingly. Two- and 3-year-old children understand and enforce this normative structure in agent-neutral ways: They play the game appropriately themselves, and when a third party joins the game, they actively and spontaneously criticize, protest, and teach in response to actions violating the game norms (e.g., confusing the fictional identities of the objects). They do not show such protest, however, when the same act is performed in a different context where it is not subject to the norms of the game (e.g., when the new party announces it is playing a different game (Rakoczy, 2008; Wyman, Rakoczy, & Tomasello, 2009).

Children this age also understand some basic norms governing the use of tools and other artifacts, protesting against third parties using such objects in deviant ways (Casler, Terziyan, & Greene, 2009). Furthermore, they grasp some basic normative aspects of language use. They understand that different kinds of speech acts (e.g., assertions vs. imperatives) with the same propositional content can have different directions-of-fit and are thus subject to different normative constraints (Searle, 1995). When confronted with a speaker making either assertions or imperatives with the same content about or toward a listener (“the listener is doing X” vs. “listener, do X!”), they respond very differently in cases of the nonfulfillment of the semantic content of the speech act (listener is not doing X): They criticize the speaker for being wrong in the case of assertions (“No, listener isn’t doing X!”), but criticize the addressee for making action mistakes in the case of unfulfilled imperatives (“No! It is X you must do!”; Rakoczy & Tomasello, 2009).

Finally, recent research suggests that young children understand some aspects of the normative institution of property. Property itself is a system of constitutive rules that define under which conditions individuals own something and which rights and obligations this engenders (Snare, 1972). Toddlers begin to grasp some of the conditions under which ownership is established and altered over time (Blake & Harris, 2009; Kim & Kalish, 2009). A recent study showed that young children already conceive of property as normative and agent-neutral: When confronted with an agent treating an object in property-relevant ways (e.g., taking it without asking and throwing it away), 3-year-old children protested when both their own property and someone else’s was affected (but not when the agent performed the same acts on her own property; (Rossano, Rakoczy, & Tomasello, 2011).

In all of these domains, then, children very early in development (by age 2–3 years) reveal basic forms of understanding of social norms and some of their essential properties: First, they see norms as having force in a general agent-neutral way that both guides their own behavior and sets evaluative standards for criticizing and teaching others.

Second, children view norms as context-relative; they understand, for example, that the same behavior counts as a mistake if performed in the context of a game, but is perfectly appropriate outside of this context where no such norm is in operation. Furthermore, they even understand that the same kind of behavior can be subject to quite different norms in different contexts: In a recent study, for example, children understood that different pretense games that went on in parallel and between which they switched back and forth licensed quite different acts with the same object (Wyman et al., 2009). Not all norms are created equal, though, with respect to context-relativity or in the scope of the contexts in which they apply. Whereas conventional social norms often have a rather well defined and limited context pertaining to the social group in question, more general norms of rationality and moral norms are often taken as applying

1 universally to all rational beings (Korsgaard, 1996; Turiel,
 2 1983). Young children already seem to share this intuition: In a
 3 recent study, 3-year-olds witnessed actions by in- and out-group
 4 members that violated (a) norms of instrumental rationality
 5 (using inefficient means to pursue an end), (b) conventional
 6 social norms of a game (playing the game the wrong way), or
 7 (c) moral norms (harming someone without reason). Children
 8 protested against the instrumental mistakes and moral transgressions
 9 of in- and out-group members alike, but criticized in-group
 10 members significantly more than out-group members for conven-
 11 tional mistakes (Schmidt, Rakoczy & Tomasello, in press).

12 Third, the studies reviewed here suggest that children under-
 13 stand some aspects of the conventionality of social norms: that
 14 such norms come into being through the joint creation of some
 15 participants (e.g., in a fictional game that children invent
 16 together with a play partner) and that they are shared by and
 17 valid for these and other participants. Converging evidence
 18 comes from studies showing that young children assume that
 19 social conventions (e.g., linguistic knowledge) are shared across
 20 members of a community, whereas idiosyncratic matters
 21 (e.g., personal preferences) need not be (Diesendruck & Mark-
 22 son, 2011). Less is known about children's understanding of the
 23 arbitrariness of social conventions (i.e., the fact that social con-
 24 ventions could have been different). One interesting possibility
 25 is that children, unlike adults, understand the force and general-
 26 ity of social norms initially without a full grasp of their arbitrariness—
 27 equating them to natural (and thus not socially constructed) states of affairs (Kalish, 2005).

30 How are New Norm-Governed Activities Acquired?

31 Recent research also suggests that children pick up social
 32 norms quickly, easily, and in systematic and flexible ways. First,
 33 children do not learn social norms invariably from any model.
 34 Rather, they systematically learn them from more competent
 35 members of their culture (Rakoczy, Hamann, Warmeken, &
 36 Tomasello, 2010; Rakoczy et al., 2009). Second, children not
 37 only quickly pick up norms that have been introduced explicitly
 38 but they equally swiftly infer norms that are implicitly intro-
 39 duced, such as in pretense games (where “this is now soap”
 40 implicitly defines the game) or in matters of property (where
 41 “this is mine” implicitly introduces normative implications).
 42 Third, children quickly make inferences from single action
 43 observations about the general normative structure of a type of
 44 action. And such rapid inductive rule learning occurs even after
 45 merely incidental observations of an action (e.g., seeing someone
 46 playing a game by herself (Schmidt et al., 2011).

47 It is even possible that children initially jump to normative
 48 conclusions too quickly, operating with what could be called
 49 “promiscuous normativity,” similar to their “promiscuous teleol-
 50 ogy,” the tendency to jump too quickly to conclusions about the
 51 functions of objects (Kelemen, 1999). One phenomenon that
 52 suggests such a possibility is so-called “over-imitation” (Lyons,
 53 Young, & Keil, 2007), the faithful reproduction of causally irrel-

evant elements of action sequences. The initial interpretation of
 over-imitation viewed it as a result of children's confused causal
 reasoning (Lyons et al., 2007). However, more recent data sug-
 gest that in many cases, children are fully aware of the causal
 irrelevance of the reproduced elements, but imitate them
 nonetheless because of a normative assumption that they belong
 to a conventional, rule-governed action (Kenward & Karlsson,
 2011). **1**

Evolutionary and Comparative Aspects

From an evolutionary perspective, the central question is why
 and how such a norm psychology evolved. The capacity to take
 the normative stance likely evolved as proximate mechanism for
 ensuring group coordination. According to theoretical models of
 culture-gene coevolution, social norms are an important and
 adaptive way of achieving and maintaining within-group confor-
 mity and cooperation, thus enabling processes of genetic and
 cultural group selection (Chudek & Henrich, 2011). This evolu-
 tionary process probably occurred relatively recently: From a
 comparative perspective, although some forms of social expecta-
 tions in nonhuman primates might be remote precursors of nor-
 mative expectations proper (Rudolf von Rohr, Burkart, & van
 Schaik, 2011), the norm psychology with which we operate from
 early in ontogeny seems to be a uniquely human cognitive
 capacity (Chudek & Henrich, 2011; Tomasello, 2009). No other
 species shows any indication of following social norms and at
 the same time enforcing them in agent-neutral ways toward
 others.

Regarding the psychological infrastructure underlying the nor-
 mative stance, one reason for its absence in other animals might
 be that the capacity to take the normative stance presupposes
 robust capacities for shared intentionality (Rudolf von Rohr
 et al., 2011; Tomasello, 2009). Social norms, after all, are essen-
 tially created and maintained through shared assignment and
 acceptance. And much recent comparative research suggests
 that shared intentionality is a uniquely human achievement:
 Even chimpanzees, although capable of some simple theory of
 mind, do not develop anything close to the capacities for shared
 intentionality that humans develop from the second year (Rudolf
 von Rohr et al., 2011; Tomasello, 2009; Tomasello et al., 2005).

The human norm psychology plausibly lies at the heart of
 humans' unique forms of social learning and culture: By taking
 the normative stance, young children learn how things ought to
 be done in a given community and thus participate in processes
 of faithful tradition building. Such processes enable the dia-
 chronic stability necessary for the cumulative cultural evolution
 that sets human traditions apart from their precursors in other
 primates (Tomasello, 1999). And the capacity for the collective
 construction of rules (so-called constitutive rules) that create
 new states of affairs (institutional facts) opens up for humans a
 new cultural habitat unknown to any other animal: institutional
 reality—the reality of objects and facts merely existing because
 we take them to exist (Searle, 1995).

Open Questions: The Cognitive Structure of the Normative Stance and its Relation to Other Cognitive Capacities

Humans share with other primates remarkable social cognitive capacities: rudimentary forms of theory of mind and of observational learning. However, even early in development, human social cognition goes beyond this by incorporating a normative stance. The research reviewed here documents that very young children quickly learn about novel norms, follow such norms and enforce them toward others in agent-neutral ways, understand some of their essential logical properties (their normative force, sharedness, and context-relativity), and reason about them systematically. But beyond this, little is known about the cognitive deep structure of the normative stance and its development on a more fine-grained level.

Inductive Learning of Conventional Social Norms

One fundamental question is how general norms (concerning a type of action) are inductively learned from single observations (of tokens of the action). Regarding causal learning, recent work has shed considerable light on the developing mechanisms underlying the inductive learning of causal *regularities* from limited observations (Gopnik et al., 2004). Are the same mechanisms at work in the inductive learning of *rules*? More generally, what are cognitive commonalities and differences in the inductive learning of rules versus regularities?

The Relation of the Normative Stance to the Intentional Stance

Another fundamental question concerns the relation between the intentional stance (theory of mind) and the normative stance. Common sense and much research suggest that intentional stance information (e.g., what someone intended) can influence the normative evaluation of actions. The studies reviewed here add to this impression by showing that children take into account (a) the intentionality of the demonstration of a token of an action in drawing normative inferences about its type (Schmidt et al., 2011), and (b) the intentionality of a third party's act in evaluating whether it is to be criticized (Rakoczy et al., 2008). Another line of recent research, however, suggests that children and adults often reason about social norms, using them to explain and predict behavior without taking into account intentional stance information (e.g., Clément, Bernard, & Kaufmann, 2011; Kalish & Cornelius, 2007). Finally, yet another line of reasoning suggests influences in the other direction: Normative evaluations of an action affect the intentional interpretation of this action (Knobe, 2010). In light of these different lines of research, a fundamental question for future inquiry is how exactly the intentional stance and the normative stance are functionally related in principle and how they play together in different kinds of situations.

Reasoning About Different Types of Norms

Previous research suggested that children (and adults) understand social norms as context-specific, and as more so than other

kinds of norms, such as moral ones (Turiel, 1983). The studies reviewed here also show that children follow and enforce social norms in context-specific ways, and do not do so in the same way for nonarbitrary norms such as norms of rationality or moral norms. However, this still leaves open the question of whether reasoning about conventional versus other kinds of norms reflects (a) fundamental psychological differences in kind or (b) just gradual differences. Regarding the first possibility, children might consider only conventional social norms as socially constructed (Turiel, 1983). Regarding the second, however, it has been claimed that all types of norms are equally understood as socially constructed, but that moral norm violations (and violations of conventional norms with emotional implications, such as disgusting actions) go along with stronger feelings and thus stronger, less context-sensitive responses (Nichols, 2002). More research is needed to decide between these accounts.

CONCLUSION

Human social cognition early in development is characterized and set apart from that of other primates by incorporating the capacity to take the normative stance: to jointly follow, respect, and to maintain social norms in a variety of domains. The research reviewed here documents that very young children follow such norms, actively enforce them toward others in agent-neutral ways, and grasp some of their essential logical properties (their normative force, sharedness, and context-relativity). Future research will need to explore the phylogeny of these capacities (e.g., which building blocks or precursors of these capacities might exist in other animals, and which evolved more recently), the cognitive mechanisms underlying the normative stance (e.g., how normative reasoning is related to inductive reasoning in other domains), and their protracted developmental course.

REFERENCES

- Blake, P. R., & Harris, P. L. (2009). Children's understanding of ownership transfers. *Cognitive Development, 24*(2), 133–145.
- Casler, K., Terziyan, T., & Greene, K. (2009). Toddlers view artifact function normatively. *Cognitive Development, 24*(3), 240–247.
- Chudek, M., & Henrich, J. (2011). Culture-gene coevolution, norm-psychology and the emergence of human prosociality. *Trends in Cognitive Sciences, 15*(5), 218–226.
- Clément, F., Bernard, S., & Kaufmann, L. (2011). Social cognition is not reducible to theory of mind: When children use deontic rules to predict the behaviour of others. *British Journal of Developmental Psychology, 29*(4), 910–928. doi:10.1111/j.2044-835X.2010.02019.x
- Diesendruck, G., & Markson, L. (2011). Children's assumption of the conventionality of culture. *Child Development Perspectives, 5*(3), 189–195. doi:10.1111/j.1750-8606.2010.00156.x
- Gopnik, A., Glymour, C., Sobel, D. M., Schulz, L. E., Kushnir, T., & Danks, D. (2004). A theory of causal learning in children: Causal maps and bayes nets. *Psychological Review, 111*(1), 3–32.

- Kalish, C. (2005). Becoming status conscious: Children's appreciation of social reality. *Philosophical Explorations*, 8(3), 245–263.
- Kalish, C. W., & Cornelius, R. (2007). What is to be done? Children's ascriptions of conventional obligations. *Child Development*, 78(3), 859–878.
- Kelemen, D. (1999). The scope of teleological thinking in preschool children. *Cognition*, 70, 241–272.
- Kenward, B., Karlsson, M., et al. (2011). Over-imitation is better explained by norm learning than by distorted causal learning. *Proceedings of Biological Sciences*, 278, 1239–1246.
- Kim, S., & Kalish, C. W. (2009). Children's ascriptions of property rights with changes of ownership. *Cognitive Development*, 24(3), 322–336.
- Knobe, J. (2010). Person as scientist, person as moralist. *Behavioral and Brain Sciences*, 33(4), 315–329.
- Korsgaard, C. M. (1996). *The sources of normativity*. Cambridge: Cambridge University Press.
- Lewis, D. K. (1969). *Convention: A philosophical study*. Cambridge, MA: Harvard University Press.
- Lyons, D. E., Young, A. G., & Keil, F. (2007). The hidden structure of overimitation. *Proceedings of the National Academy of Sciences of the United States of America*, 104, 19751–19756.
- Nagel, T. (1970). *The possibility of altruism*. Princeton, NJ: Princeton University Press.
- Rakoczy, H. (2008). Taking fiction seriously: Young children understand the normative structure of joint pretend games. *Developmental Psychology*, 44(4), 1195–1201.
- Rakoczy, H., Brosche, N., Warneken, F., & Tomasello, M. (2009). Young children's understanding of the context relativity of normative rules in conventional games. *British Journal of Developmental Psychology*, 27, 445–456.
- Rakoczy, H., Hamann, K., Warneken, F., & Tomasello, M. (2010). Bigger knows better – young children selectively learn rule games from adults rather than from peers. *British Journal of Developmental Psychology*, 28, 785–798.
- Rakoczy, H., & Tomasello, M. (2009). Done wrong or said wrong? Young children understand the normative directions of fit of different speech acts. *Cognition*, 13(2), 205–212.
- 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.
- Rakoczy, H., Warneken, F., & Tomasello, M. (2009). Young children's selective learning of rule games from reliable and unreliable models. *Cognitive Development*, 24, 61–69.
- Rawls, J. (1971). *A theory of justice*. Harvard, MA: Harvard University Press.
- Rossano, F., Rakoczy, H., & Tomasello, M. (2011). Young children's understanding of violations of property rights. *Cognition*, 121, 219–227.
- Rudolf von Rohr, C., Burkart, J. M., & van Schaik, C. P. (2011). Evolutionary precursors of social norms in chimpanzees: A new approach. *Biology and Philosophy*, 26(1), 1–30.
- Schmidt, M., Rakoczy, H., & Tomasello, M. (2011). Young children attribute normativity to novel actions without pedagogy or normative language. *Developmental Science*, 14(3), 530–539.
- Schmidt, M., Rakoczy, H., & Tomasello, M. (in press). Young children enforce social norms selectively depending on the violator's group affiliation. *Cognition*, ??, ??–??. doi:10.1016/j.cognition.2012.06.004
- Searle, J. (1995). *The construction of social reality*. New York: Free Press.
- Snare, F. (1972). *The concept of property American Philosophical Quarterly* (Vol. 9, pp. 200–206). ?????: University of Illinois Press.
- Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.
- Tomasello, M. (2009). *Why we cooperate*. Cambridge, MA: MIT Press.
- Tomasello, M., Carpenter, M., Call, J., Behne, T., & Moll, H. (2005). Understanding and sharing intentions: The ontogeny and phylogeny of cultural cognition. *Behavioral & Brain Sciences*, 28, 675–735.
- Tomasello, M., & Rakoczy, H. (2003). What makes human cognition unique? From individual to shared to collective intentionality. *Mind and Language*, 18(2), 121–147.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, MA: Cambridge University Press.
- Walton, K. L. (1990). *Mimesis as make-believe*. Cambridge, MA: Harvard University Press.
- Wyman, E., Rakoczy, H., & Tomasello, M. (2009). Normativity and context in young children's pretend play. *Cognitive Development*, 24(2), 146–155.