

The Normative Turn in Early Moral Development

Michael Tomasello

Duke University, Durham, NC, USA

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Abstract

The Cooperation Theory of moral development starts from the premise that morality is a special form of cooperation. Before 3 years of age, children help and share with others prosocially, and they collaborate with others in ways that foster a sense of equally deserving partners. But then, at around the age of 3, their social interactions are transformed by an emerging understanding of, and respect for, normative standards. Three-year-olds become capable of making and respecting joint commitments, treating collaborative partners fairly, enforcing social norms, and feeling guilty when they violate any of these. The almost simultaneous emergence of a normative attitude in all of these interactional contexts demands explanation. We suggest a transactional causal model: the maturation of capacities for shared intentionality (adaptations for cultural life) makes possible new forms of cooperative social interaction, and these new forms of cooperative social interaction foster and guide moral development.

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Despite the challenges for organisms needing to pursue their individual interests, cooperative social interactions are ubiquitous in the animal kingdom. In many cases (e.g., ants and bees), cooperation makes sense because individuals are genetically related to one another, and so, in essence, they are working to maintain their own genes. With nonkin, cooperation makes sense when individuals are dependent on one another – they are interdependent – so that promoting the well-being of others promotes one's own well-being as well [Tomasello, 2016].

Humans' closest living relatives, great apes, cooperate with nonkin in a variety of situations. Most prominently, individuals cooperate in coalitions in order to com-

pete with groupmates in dominance contests. Most of their other cooperative activities, such as mutual grooming and some limited food sharing, are most often seen as building “friendships” so as to have reliable coalition partners that buttress their dominance status [Muller & Mitani, 2005]. In experiments, chimpanzees will help others attain their goals, if the situation is such that there are no self-interested or competitive motives in their way [Warneken & Tomasello, 2006].

But human cooperation with nonkin is on another level. Quantitatively, humans cooperate with nonkin much more often and in a wider variety of contexts than any other primate. As just one example, in virtually all nonhuman primates the first individual to touch some food is the one who consumes it, whereas in humans the sharing of food is frequent, widespread, and includes all kinds of nonkin – and this is true for all known cultures [Gurven, 2004]. Qualitatively, human cooperation is underlain by a unique set of psychological processes. As just one example, when humans share food with one another they often are motivated by a sense of fairness, and in many cultures there are powerful social norms governing the sharing of food. Fairness and social norms are essentially normative or moral notions, and so we may plausibly claim that human morality comprises the psychological dimensions of humans’ species-unique forms of cooperation [Tomasello, 2016].

In the current paper, I would like to describe, and to some limited degree explain, the ontogeny of early human morality from this evolutionary perspective. We may call the resulting account the *Cooperation Theory* of moral development. Methodologically, the focus is not on children’s verbally expressed moral judgments (as is typical in studies with older preschoolers and school-age children) or on their social preferences and evaluations (as is typical in studies with infants), but rather on toddlers’ and young preschoolers’ actions and reactions in social situations that instantiate in one way or another morally relevant issues. Following Tomasello and Vaish [2013], I assume two ontogenetic steps in children’s early moral development (modeled on Tomasello, Melis, Tennie, & Herrmann [2012], two steps in the evolution of human cooperation): second-personal and norm-based. The focus here is on the transition between these steps at around 3 years of age. Arguably, this is the key transition in early moral development, because it is the point at which children’s prosocial behavior and cooperative interactions take a normative turn, from what the child wants to do and wants others to do to what she and others *ought*, *should*, or *must* do.

Early Prosocial Behavior and Collaboration

From the time of Plato and Aristotle, moral philosophers have made a distinction between the morality of sympathy and helping, on the one hand, and the morality of obligation and fairness/justice, on the other: the good versus the right. Our argument here will be that whereas infants and toddlers are prosocial, the normative sense of obligation first emerges in human development in joint commitments to, and a sense of fairness with, collaborative partners at around 3 years of age [see also Dahl, this issue]. This transition is made possible by preparatory developments both in children’s sense of sympathy and in their new understandings of collaboration. We look first at these precursors.

Early Prosocial Behavior

Human infants begin actively helping others with their instrumental problems from at least 14 months of age [Warneken & Tomasello, 2006, 2007], and this helping is intrinsically motivated by a sense of sympathy. Using direct physiological measures of emotional arousal – pupil dilation and body posture – Hepach, Vaish, and Tomasello [2012, 2017a] found that young children are equally satisfied both when they help someone in need and when they see that person being helped by a third party (and more satisfied in both of these cases than when the person is not being helped at all). This suggests an intrinsic motivation that the other person be helped and not, for example, that the child herself do the helping (for some extrinsic benefit such as enhanced reputation). Infants also comfort others in one or another form of distress [Nichols, Svetlova, & Brownell, 2009], and 18-month-olds often show sympathy for others (in their facial expressions) before helping them [Vaish, Carpenter, & Tomasello, 2009] – suggesting that the underlying intrinsic motivation for helping others in need is indeed sympathy-based. Infants in this age range also share with one another relatively freely, if they encounter objects together such that neither one of them has to relinquish possession of anything [Ulber, Hamann, & Tomasello, 2015]. Before their second birthdays, then, infants are well on their way to a morality of sympathy and helping.

Early Collaboration

In addition to acts of sympathy for an individual in need, human morality also encompasses acts we perform because we think they are the right thing to do, and so we *ought* to do them. In recent moral philosophy, it is suggested that the sense of obligation to do the right thing arises in social interactions in which we naturally sense “what we owe to each other” [Scanlon, 1998]. Interacting with others and viewing them in this way rests on some prerequisite abilities and attitudes that, arguably, infants do not possess. Most important is a sense of respect for others as, in some sense, equivalent to the self, that is, as equally deserving *second-personal agents* [Darwall, 2006]. But infants are in the process of developing such abilities and attitudes, and, as we have hypothesized previously [Vaish & Tomasello, 2014], they are developing them especially in the context of collaborative interactions.

When young children collaborate with others, they form with them a joint agent “we” in order to pursue a joint goal, and maintaining this “we” is part of their continuing motivation. Thus, when 18-month-olds were collaborating with an adult, if the adult simply stopped interacting (experimentally controlled), infants made active attempts to re-engage him by doing such things as beckoning and pointing [Warneken, Chen, & Tomasello, 2006]. One possibility is that the children in this study created with their partner a joint agent “we” whose breakdown they sought to repair. In a follow-up study, Warneken, Graefenhain, and Tomasello [2012] found that 24-month-old toddlers attempted to re-engage their partner even when the activity was one they knew they could perform successfully on their own without him. The toddlers viewed their partner as more than a social tool; they attempted to re-engage him not to enlist his help in attaining an instrumental goal, but rather to try to reconstitute their lost “we.”

As young children are interacting collaboratively with others as a “we,” they are coming to understand and relate to them differently. Most importantly, collaboration implies a certain level of equality among partners. If you are coercing me, then it is not collaboration but domination or enslavement. If I am pretending to fully participate, but really letting you do all the work, then it is not collaboration but exploitation. Collaboration does not mean doing exactly the same amount of work, but it does mean working together on a more or less equal footing. As they are collaborating with others in their daily activities, 1- and 2-year-old toddlers are gradually coming to appreciate this equality in the situation, and indeed they are coming to have respect for others as equivalent to themselves as social beings. The social partners of infants and toddlers are most often adults, and obviously adults are not “equal” partners. But in the context of the collaborative activity they act as equals. That is to say, in rolling a ball back-and-forth partners are on an essentially equal footing with respect to the game – even if not in other ways – and so it is still a kind of equal partnership in a context-bracketed sort of way.

There are three aspects of toddlers’ collaborative interactions that foster an understanding of self-other equivalence or equality. First is the fact that in interdependent collaboration, both partners are necessary agentive forces in producing the jointly desired outcome – and either could just as easily derail it. Second, children of this age are beginning to recognize that the roles in a joint intentional activity are reversible, indeed agent-independent, such that, in principle, either partner could perform either role; they are interchangeable. Thus, in different tasks, Carpenter, Tomasello, and Striano [2005] and Fletcher, Warneken, and Tomasello [2012] found that after young children had played one role in a collaborative activity, they could easily switch to the other with understanding. They were able to simulate the role and perspectives of the partner during the collaboration by constructing an agent-neutral “birds-eye view” of the interaction in which the roles are interchangeable among partners. In a very straightforward sense, the partners are equivalent in the process. Third, when young children engage with a partner repeatedly in a particular collaborative activity, they come to construct with that partner a common ground understanding of the ideal way that each role must be played for joint success. These mutually understood role ideals are impartial in the sense that they apply to whoever may play a particular role. My mother, my peer, a puppet, it matters not; to build a block tower together one of us must do X, and the other must do Y. Impartiality in the application of role ideals assumes participants of equal status in the interaction.

The claim is thus that participation in joint intentional collaboration leads young children to respect others as, in some sense, equivalent or equal to themselves. In face-to-face collaboration, “you” and “I” (perspectively defined) are co-equal partners. The effects of this way of viewing things on children’s interpersonal relations are momentous. Nagel [1970] argues that recognition and respect for others as equivalent to oneself – such that the self is seen as just one agent among many – provide a reason for respecting their concerns as equivalent to one’s own. It is thus the cognitive basis for a sense of deservingness or fairness.

The Normative Turn at 3 Years

Arguably, none of these things that 1- and 2-year-old children are doing are governed by their sense of what is the right thing to do or what they owe to others or what others owe to them. They are showing compassion for persons in need, and they are beginning to develop a sense of respect for other individuals as, in important ways, equivalent to or equal to themselves. But building on these early prosocial and cooperative attitudes, at around the age of 3 we begin to observe the emergence of a number of distinct behavioral phenomena that suggest a new *normative* dimension to children's actions and judgments.

Philosophers argue endlessly about the proper characterization of "normative," but at a minimum it involves an evaluative judgment including a standard, or norm, of comparison. The Cooperation Theory argues that children's first mutually understood normative standards arise in their collaborative interactions with others in the form of collaborative role ideals: how one ought to perform one's role for "us" to have instrumental success. But to go beyond the instrumental to the moral, there must be a transformation in how partners' think about things; they must be thinking not just about instrumental success but about how collaborative partners ought to treat one another. Our argument here is that we first see this sense of how we ought to treat one another at around 3 years of age in the child's: (a) joint commitment to perform her role as "we" expect her to; (b) sense of obligation to share the spoils of a collaboration fairly based on the deservingness of partners; (c) sense of guilt for violating normative standards; and (d) enforcement of social norms from a third-party perspective.

Joint Commitment

With adults, collaborations are often begun with a joint commitment, typically initiated by something like "Let's X" and accepted with "OK." Young children do not often begin collaborations in this way spontaneously, but Gräfenhain, Behne, Carpenter, and Tomasello [2009, study 1] tested their ability to understand and comply. They had an adult begin a collaborative activity with 2- and 3-year-olds in one of two ways. For some children, the adult established a joint commitment by suggesting "Let's X" and only proceeded to collaborate if the child explicitly accepted (typically with "OK"). For others, the collaborative interaction was begun by the adult waiting for the child to begin doing something and then joining in unbidden. In both cases, at some point the adult abruptly stopped interacting. Three-year-olds who were party to the joint commitment were much more likely than the other children to try to re-engage the recalcitrant partner. These children seemingly reasoned: if "we" have a joint commitment, then "you" ought to continue as long as needed. The 2-year-olds, in contrast, did not behave differently when there was or was not a joint commitment.

Three-year-olds also seem to know what a joint commitment means for their own behavior as well. Thus, Hamann, Warneken, and Tomasello [2012] had 2- and 3-year-olds commit with a peer to a joint task, but then, unexpectedly, one child got access to her reward early. For her partner to benefit as well, this child had to continue to collaborate even though there was no further reward possible for her. Nevertheless, most 3-year-olds, but again not 2-year-olds, actively assisted their unlucky partner so that both ended up with a reward – and more often than if the partner just

asked for help in a similar situation but outside of any collaboration or commitment. Joint commitments thus make partners responsible to one another: each of them feels that each of them is responsible for the other's fate in the situation. In this spirit, Gräfenhain, Carpenter, and Tomasello [2013] helped pairs of 3-year-old peers to make a joint commitment to work on a puzzle together. (The adult got them to agree with each other that they would collaborate.) Having done so, they then behaved in response to experimentally induced perturbations in that context by doing such things as waiting for their partner when she was delayed, repairing damage done by their partner, refraining from tattling on their partner, and performing their partner's role for her when she was unable (i.e., they did these things more often than did pairs of children who simply played in parallel for the same amount of time). When young children make a joint commitment with a peer, they help and support her much more strongly, and in a wider variety of ways, than when they are just playing side by side.

In the same vein, Gräfenhain et al. [2009, study 2] had a child and an adult make a joint commitment to play a game together. Then, another adult enticed the child away to a new, more attractive game. In response, 2-year-olds simply dropped everything and took off for the new game. But 3-year-olds understood their joint commitment; before taking off (if they did in fact take off), they hesitated and looked to the adult and often did something overt to "take leave," for example, looking to the adult and handing over the tool or even verbally apologizing (much more than in the same situation with no prior joint commitment). The children recognized that they had a joint commitment, and because breaking it would harm and disrespect their partner, they had a responsibility to her to acknowledge that they were breaking it and/or to express regret. Three-year-olds, but again not 2-year-olds, recognize that a joint commitment can be broken only if both parties agree. Overall, then, whereas toddlers encourage recalcitrant partners to rejoin a collaborative activity – and want and expect them to continue – for 3-year-olds a joint commitment normatively binds both partners to perform the actions to which they have committed, unless they agree to terminate the commitment.

The content of the joint commitment is that each partner plays her collaborative role diligently and in the mutually understood ideal way until both have benefited. But what happens if one partner does not? The answer is that she gets sanctioned, and, of crucial importance, it comes from "us." It is of the essence of joint commitments that "we" agree not only to act together, but also to sanction together whichever of us does not fulfill her role, because a defector is showing a lack of respect for the partnership. This gives the sanctioning legitimacy: we agree that defection by either of us *deserves* sanctions. When one partner protests against the other – what we may call second-personal protest – it carries a socially normative force, coming from "us" and our agreement, and so acts as a self-regulatory device to keep the joint activity on track despite individual temptations to defect.

In a recent experiment, Kachel, Svetlova, and Tomasello [2017] orchestrated a joint commitment to collaborate between two 3-year-olds (an adult got them to agree with each other that they would collaborate). Then, in one condition, one of them seemed to intentionally not play her role in the mutually known way (her deviant behavior was actually experimentally induced). The other child then objected. Importantly, she did not object by physically confronting the partner or demanding compliance, but rather by simply pointing out the deviance, often resentfully, and leaving it up to the wayward partner to voluntarily self-correct. The language the aggrieved

child used was often normative, for example, “It doesn’t go like that” or “One must do it like this” (insistent intonation). Importantly, children did not protest if the partner was seemingly ignorant of how the apparatus worked (in which case they often taught her how to do it) or if the apparatus accidentally broke.

The children in these studies are not just protesting that the partner is not doing what they want her to do; they are protesting that she is not doing what they both know she *should* do. Their common ground understanding of what they jointly committed to do hangs in the air above them, as it were, as an impartial arbiter to which either of them, by second-personal protest, may refer the other. Second-personal protest may thus be seen as an explicit expression of a cooperative partner’s demand to be treated as an equally deserving individual, a second-personal agent who is party to a joint commitment. It is typically performed by the partner who has been aggrieved, but it assumes that the aggriever will, of her own free will, recognize the validity of the claim and ameliorate the situation because, ultimately, it is coming from “us”. I protest directly to you – with resentful second-personal address demanding respect – but it is coming from our “we.” Recognizing the legitimacy of the protest, the derelict partner does not try to avoid sanctioning but rather joins her partner in judging herself as deserving of it, perhaps even feeling guilty (see below). Joint commitments thus create a sense of responsibility to a second-personal partner. “We” self-regulate each of us as partners.

Fairness

If children are given some resources and told that they can divide them with others in any way that they want (e.g., in the dictator game), they do not do so in an equal fashion until well into school age, and not always then [see Ibbotson, 2014, for a review]. But the dictator game is a poor test for measuring a sense of fairness: by telling the child that she can do with the resources whatever she wants, the adult implicitly sanctions selfishness. Moreover, it is well known that all humans experience an endowment effect such that objects already in their possession are seen as more valuable than others.

McAuliffe, Blake, Steinbeis, and Warneken [2017] reviewed studies using another task to investigate young children’s sense of fairness in distributing resources. The basic task [as used by, e.g., Blake & McAuliffe, 2011, and McAuliffe, Jordan, & Warneken, 2015] is that an adult sets up a potential distribution between the child and some other child on an apparatus. The child can either accept the distribution or reject it (into an inaccessible trash can) so that no one gets anything. The basic finding is that children normally accept unequal distributions – especially if they are getting more than the partner – well into school age. But the problem here is that the cost for rejecting unfair distributions is extremely high: rejection means that neither child gets anything and the resources are completely wasted. So perhaps this is not the best way to measure children’s emerging sense of fairness either.

What is needed is a situation in which (a) the child does not have to give up resources already in her possession, and (b) the child can correct an unequal distribution to make it equal, rather than just trashing everything. An especially good situation – that seems quite natural from an evolutionary point of view – is collaborating to produce resources, which must then be divided among the collaborators. Collaboration might evoke a sense of fairness because it activates a sense of self-other equiv-

alence among partners, as noted above, and in some cases is structured by a joint commitment and its normative force. And, initially at least, neither partner “owns” the resources. Thus, Warneken, Lohse, Melis, and Tomasello [2011] found that in the context of a collaborative activity, 3-year-old children most often divided the spoils equally. Importantly, if one of the children attempted to take more than half the rewards, she was met with protest from her partner, and the greedy child almost always relented – presumably because she knew that this is not the way we agreed to treat each other. It is not right.

Hamann, Warneken, Greenberg, and Tomasello [2011] added a twist to this paradigm. Pairs of 2- and 3-year-olds always ended up in a situation in which one of them had three rewards (the lucky child) and the other had only one (the unlucky child) so that to create an equal distribution the lucky child would have to sacrifice. What differed across three experimental conditions was what led to the asymmetrical distribution. In one condition, the unequal distribution resulted from participants simply walking into the room and finding three versus one reward at each end of a platform. In this case, the lucky child almost never shared with the partner. In a second condition, each child pulled her own separate rope, and this resulted in the same asymmetrical rewards. In this case, the lucky child shared sometimes. But in a final condition, the asymmetrical rewards resulted from an equal collaborative effort on the part of the two children pulling together. In this case, lucky 3-year-olds, but not 2-year-olds, shared with the unlucky child (to create an equal 2:2 split) the vast majority of the time. Presumably, they felt that if they both worked equally to produce the rewards, then they both deserved them equally. In the vernacular, 3-year-olds, but not 2-year-olds, are averse in this situation even to advantageous inequity [see also Ng, Heyman, & Barner, 2011, for a similar finding as children make third-party judgments]. When, in the same situation, one child works harder than the other, 3-year-olds compute deservingness to take account of unequal effort [Hamann, Bender, & Tomasello, 2014].

Guilt

Some sense of deservingness – as opposed to, say, a simple expectation or preference [as in the infant studies of Geraci & Surian, 2011, and Schmidt & Sommerville, 2011] – is crucial for the development of a morally grounded sense of fairness. The reason is that divvying up the spoils in a fair manner is only partly about the resources themselves; it is more directly about the resources one receives as compared to those received by others. That is, the issue is at bottom one of social comparison. The result that produced dissatisfaction in both the Warneken et al. [2011] and Hamann et al. [2011] collaboration studies was not the amount received, but rather the amount received relative to what the other received. Children’s sense of fairness is thus not about resources, it is about being treated with the respect they deserve [Honneth, 1995]. In the context of mutualistic collaboration, we both deserve the same amount, and so an unequal distribution shows a lack of respect for whoever received less. This is why collaborating children are not just disappointed to receive less than others, but positively resentful, and this shows up clearly in their second-personal (resentful) protest. It is also not fair if I receive more than you because I ought to show you the respect you deserve as well; I feel obliged to share fairly (even giving up resources to do so) because I genuinely see you as an equally deserving partner. Collaborators do

not just prefer that we share the spoils equally, but they feel that we owe it to one another as mutually respectful second-personal agents.

An especially good indicator of a sense of moral responsibility is a sense of guilt for harming others. Observational studies have established that preschool children often show sympathy for a victim after they have done something antisocial toward her [e.g., Zahn-Waxler & Kochanska, 1990]. But these studies have not distinguished clearly between sympathy for the harmed person and actual guilt. Guilt is a joint function of sympathy for the harmed person and regret that I caused it. In a recent experimental study Vaish, Carpenter, and Tomasello [2016; see also Hepach, Vaish, & Tomasello, 2017b] sought to disentangle guilt from sympathy. In a 2×2 design, they varied whether the breaking of a toy was perceived by the child as a result of his own actions or those of others, and whether the person who owned the toy cared about whether it was broken or not (i.e., whether harm was done or not). The result was that when 3-year-olds – but not 2-year-olds – thought that they had caused harm, they quite often attempted to repair it (much more than if someone else broke the toy and also much more than if no harm resulted). The 3-year-olds thus were not just sympathetic to a victim, and did not just feel the need to repair damage they had done, they felt *guilty* for causing harm and wanted to make up for it. In contrast, 2-year-olds repaired the damage whenever harm was caused, no matter by whom, thus showing only sympathy. Guilt as a distinct motivator of prosocial behavior thus seems to emerge at about 3 years of age. It is possible that at this age it is still a kind of second-personal guilt (a form of second-personal normativity) aimed only at the victim, whereas later children will experience a more “objective” guilt when they fail to conform to the moral norms of the community at large.

Social Norms

Adult caregivers are constantly regulating young children’s behavior in accordance with the group’s social norms, and children usually comply. It is possible, however, that early in development children experience adults enforcing social norms not as an expression of group-minded expectations or standards, but only as the adult expressing her individual preference or desire.

A key phenomenon in determining when children understand social norms as group expectations is their active enforcing of norms themselves, which almost certainly belies a new level of understanding. The point is that norm enforcement may be thought of as a kind of scaled up second-personal protest: the enforcer, as representative of the group (instead of the partnership), calls the violator to task for her violation of a social norm (instead of a joint commitment) presumed to be in the interest of the group (instead of the partnership) and in the cultural common ground of the group (instead of the partners’ personal common ground). Because enforcers of social norms are enforcing from a third-party perspective – calling a violator to task for an act that does not necessarily affect them personally – this suggests that they are motivated by something more than immediate self-interest.

From as young as 3 years of age, children will intervene to sanction others for social norm violations on behalf of third parties. For example, Vaish, Missana, and Tomasello [2011] found that if a puppet begins attempting to destroy someone else’s property, 3-year-olds will intervene to stop the transgression. Because the child herself

is not being affected, this is not second-personal protest; she is not protesting how “you” are treating “me.” What she is protesting is a lack of conformity to the group-minded social norm for how one should treat others. This interpretation is bolstered by the observation that young children also intervene against individuals who violate mere conventions [albeit with less emotion; Hardecker, Schmidt, Roden, & Tomasello, 2016]. Thus, Rakoczy and colleagues [Rakoczy, Warneken, & Tomasello, 2008; Rakoczy, Hamann, Warneken, & Tomasello, 2010] found that if 3-year-olds learn that on this table we play the game this way (while on another table we play it differently), and then a puppet plays the game the wrong way for this table, children intervene and stop him, even though no harm is being done to anyone. The child is not defending either her own or any other individual’s self-interest; the immediate goal is simply for the wayward actor to conform to the correct way of doing it. Importantly for our developmental hypothesis, although 2-year-olds in these studies did sometimes respond negatively to the deviant puppet, they did not protest normatively.

In all types of third-party norm enforcement 3-year-olds quite often use generic normative language, as in “One can’t do it like that” or even “That’s wrong!” [Köyemen, Engelmann, Rakoczy, Warneken, & Tomasello, 2014, for more on the normative language children use in norm enforcement]. Such generic language suggests that the enforcer is not just acting as an individual expressing a personal opinion, but rather, as in the case of intentional pedagogy, as a kind of representative of the cultural group conveying impartial and objective knowledge (in this case about how “we” act). In principle, anyone in the culture may enforce social norms; in principle, anyone in the culture may be their target (perhaps within some demographic or contextual specifications), and, in principle, the standards themselves are “objective” (not subjective). Norm enforcers are thus, in effect, referring the violator to an objective world of values that he himself may consult to see that his behavior is wrong.

Norm enforcement is thus not a personal act, but a group-minded cultural act – the goal is to bring others into line with how “we” do things – and 3-year-old children have begun to understand this. Thus, Schmidt, Rakoczy, and Tomasello [2012] used the basic norm enforcement experimental paradigm but with an in-group/out-group manipulation, as well as a moral/conventional manipulation. The finding was that 3-year-olds enforced moral norms equally often on both in-group and out-group violators, reinforcing the finding that children of this age see moral norms as universally applicable. But they enforced conventional norms selectively on in-group violators because conventional norms apply only to “us,” who should know better (the so-called “black sheep” effect). The underlying rationale was thus something like: our conventional norms were created by us for us, and so they are good for the group and its functioning, and this makes it a good thing, a legitimate group-minded thing, for me to enforce them on members of our group (and only our group).

Obviously, young children see adults enforcing norms all of the time, and so we may ask whether child enforcers are just imitating adults. In the experiments just cited the norms that children are enforcing are novel, and so they are not imitating enforcement of those specific norms. But still social learning may be playing some role. There is one relevant study with preschoolers. Hardecker and Tomasello [2017] had young children observe an adult enforcing norms for how to operate an artifact in three conditions. In one condition, the child operated the artifact however she wished, and the adult corrected her and showed the correct way (second-party condition). In another condition, a third-party operated the artifact, and then the adult

corrected him and showed the correct way (third-party condition). In a baseline condition, the adult just operated the artifact but without any norm enforcement. Both 2- and 3-year-old children subsequently corrected a new puppet who operated the artifact incorrectly more if they had witnessed adult norm enforcement (of either type) than if they had not. But, in addition, 3-year-olds also corrected the puppet at high levels in the baseline condition, when they had previously observed no norm enforcement at all, and they also corrected the puppet in a subsequent scene in which the puppet performed a completely novel action with the artifact. The conclusion is thus that 2-year-olds are capable of socially learning from adults how to insist on a particular course of action, but 3-year-olds do not need to see adults enforce a norm to enforce it themselves; they get the idea that people should follow norms, and they generalize quite readily to deviations involving novel actions.

Summary

For all four of these fundamental moral phenomena – joint commitment, fairness, guilt, and enforcing social norms – we have good evidence for competence in children at 3 years of age. And importantly, in every single case we have good evidence for a lack of competence in children at 2 years of age, in that they failed in exactly the same experimental paradigm in which older children succeeded. This suggests some common underlying competence or propensity that is emerging at this age. Further evidence for this proposal is that we have similarly positive evidence for 3-year-olds, accompanied by negative evidence for 2-year-olds, in several related behaviors. For example, Liebal, Carpenter, & Tomasello [2013] found that 3-year-olds, but not 2-year-olds, understand when something is or is not in the cultural common ground of the group, an ability needed to understand social norms as collective agreements. Rossano, Rakoczy, & Tomasello [2011] found that 3-year-olds, but not 2-year-olds, understand ownership and normatively protest when someone breaches ownership norms. And Butler and Tomasello [2016] found that 3-year-olds, but not 2-year-olds, take pedagogy to be coming from the authoritative voice of the culture at large, another prerequisite for the understanding of social norms.

What Explains the Normative Turn?

There thus seems to be a kind of normative turn in children's social development – manifest in multiple ways in multiple domains of activity – at around 3 years of age. The Cooperation Theory of early moral development hypothesizes that at least part of the explanation is maturational. Tomasello [2016] proposed that with the emergence of modern humans, some 150,000 years ago, individuals had to be adapted for functioning in a cultural group in various group-minded ways. Psychologically, this meant skills and motivations of collective intentionality for thinking of things objectively and normatively. The paradigm cases are pedagogy and social norms, which embody the “right” way to do things or the “right” way to behave, that is, how “we” understand things and do things, where “we” does not just mean a plurality of people but all rational and moral beings who would be one of us. But there is also second-personal normativity where “we” is collaborative partners.

The evidence we have presented suggests that, in ontogeny, the adaptation for objective and normative thinking emerges at around 3 years of age. This does not mean that normativity is “innate” as some developmentalists might have it. What we have previously called simplistic nativism – where the goal is simply to claim “its innate” and be done with it – is antithetical to an evolutionary approach. Biological adaptations always come into being in an individual through ontogenetic processes. A given ontogenetic pathway may be more plastic and open, or more fixed and closed, to individual experience. For example, all songbirds are biologically adapted for singing their species-typical song. But some species learn it from their parents (chicks raised in isolation do not sing as adults), whereas others clearly do not (chicks raised in isolation sing away as adults). The fact that something is a biological adaptation tells us precisely nothing about the relative plasticity and openness to experience of the ontogenetic pathway by which it comes into being.

And so developmental pathways with a strong maturational component can at the same time involve much individual learning and experience. Of special importance in the current context, many of children’s most complex competencies come into being as they interact with other people, and indeed such interactions are necessary for normal development. We thus advocate a transactional model of causality [Sameroff, 2009]. Maturation factors within the individual organism determine the kind of experiences it can have. Thus, other animals (and 2-month-old infants), for example, cannot participate in linguistic interactions with others, or joint attentional interactions with others, or collaborative interactions in which they share with their partner a joint goal, because they have not evolved the requisite capacities. In contrast, from around 9 months of age, children are able to experience these things because they have been evolutionarily adapted for doing so. *But then it is the experiences themselves that are the proximate causes of moral development.* Said another way: what matures is capacities for certain kinds of social experience – as enabling cause – but the actual proximate causes are the experiences themselves. A child coming to maturity on a desert island would not develop a moral sense.

But what kinds of experiences are crucial for moral development? We can imagine three main possibilities. First, in some cases children learn individually. In their social and moral interactions, they individually learn by noting the effects of their actions on others, including how others react in response; for example, taking a peer’s toy makes him cry. Second, in other cases children learn vicariously by observing and socially learning from others and their social interactions. This could involve actions directed toward themselves (e.g., the child watches as an adult helps her) or third-party interactions (e.g., the child observes one peer helping another). And third, in still other cases, children learn through the intentional socialization and pedagogical interventions of adults; for example, an adult might encourage the child to help (even citing a rule) or else admonish her for not helping.

Our hypothesis is that socialization, instruction, and other forms of adult intervention are not so important in early moral development before 3 years of age. Before this age the key is children’s participation in social interactions – and perhaps their observation of the social interactions of others – enabling them to develop such things as a recognition and respect for others as equal to the self. But after 3 years of age, adult socialization and pedagogy become important, and indeed they grow in importance from early to middle childhood and on into adulthood. The point is that adult efforts at moral socialization and pedagogy only work after young children have de-

veloped naturally, through their own interactions, certain moral notions and predispositions independent of such adult efforts (and which thereafter structure their understanding of adult instruction). One cannot socialize or instruct a normative sense of fairness in a 1-year-old.

As a concrete example, our interpretation of the results of Hamann et al. [2011] – in which the lucky child sacrifices one of her rewards to equalize them across her and her collaborative partner (which she does not do in a control condition not involving collaboration) – is that in the context of a joint intentional activity young children feel that they and their partner both *deserve* an equal share of the spoils: we obtained them together, so we share them together. It could be supposed that these children were only following a sharing rule taught them by their parents. But in this case, they should have divided the rewards with the other child equally in all conditions – unless, implausibly, the rule they were taught was to share resources only after collaboration and not otherwise. More plausibly, in the current view, the act of collaboration engendered a sense of “we” that led children to see their partner as equally deserving of the spoils. It was this sense of equal deservingness that made the 3-year-olds – but not the 2-year-olds – feel that they *ought* to hand over a resource already in their possession, which they would not otherwise do.

A logical consideration is that, following Piaget, the significant developments in children’s sense of morality simply have to come from individual experience (often with peers), not adult instruction. Piaget [1932/1965] argued that behaving morally by simply following adult instruction and/or social norms is not really morality at all, as it is motivated by prudence and conformity. If such things as keeping joint commitments, being fair to others, and following and enforcing social norms are to be moral at all, they must be done for the right reasons, for example, by considering the effects of one’s actions on others and being motivated to enhance their well-being. Adults can assist this process by pointing out, for example, a consequence of the child’s actions that she might not otherwise have noticed; but they cannot create the underlying motivation. One line of research that might help to clarify some of these issues is cross-cultural research, since the relation between children and adults (and peers) can vary widely in different cultural contexts.

Our account is thus that the key process accounting for the normative turn at 3 years of age is the emergence of a new kind of maturationally structured experience. Maturation of capacities of collective intentionality make possible certain kinds of experiences (as kind of enabling cause), and then the experiences themselves are the direct proximate causes [Tomasello, in press]. After 3 years of age, as the child enters the two social worlds of childhood, two sets of processes are crucial to further moral development: (a) interactions with peers involving reciprocity and perspective-taking and (b) adult normative instruction, which the child after 3 years is ready to comprehend and respond to as coming from the culture at large.

Conclusion

To make progress in the study of children’s moral development, we need contributions from all of the different methods and theoretical paradigms currently available. Infant capacities for social evaluation [as studied by, for example, Wynn & Bloom, 2014] build the necessary foundation. And children’s verbally expressed mor-

al judgments [and studied by, for example, Smetana, Jambon, & Ball, 2014] are necessary for the transition to an adult morality in which individuals are not only able to make culturally appropriate moral judgments, but to defend them verbally with reasons and justifications, which is necessary in a dynamically changing moral community.

My argument here is simply that whatever the methods or paradigm, it is an empirical fact that at around 3 years of age, young children make a fundamental transition from prosocial beings to moral beings. The key is that they begin to understand normativity as something that transcends personal opinion and attitudes both in its scope and in its force. It is this normative turn that is the decisive transition from the complex social interactions and evaluations of infants to a truly human morality based on a sense of what we owe to one another.

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