Moral By Nature: How Humans Get Good without God

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Abstract: Contrary to the assertion that without God there can be no morality, we can produce a coherent, evidentially well-supported account of morality requiring no appeal to gods. Human morality expresses itself as an intrinsic orientation to moral community, an orientation that is objective, because it is irreducibly social; heritable; and paradoxically clannish, yet permissive of dissent.

Atheists frequently confront the assertion that morality without God is impossible, and the stakes are high, as moral claims figure decisively in contests over church/state separation, and in Christian nationalism (Craig 2008; Goldberg 2007; Lienesch 2007; Seidel 2019; Stewart 2020; Warren 2002; Whitehead and Perry 2020). The case I make here is that, taking morality minimally to concern human treatment of and answerablity to one another, we can account for human morality without recourse to gods. This account examines how multilevel selection and obligate collaboration spawned morality, arguing that morality is an aspect of our evolutionary history. Studies of infant development, further, demonstrate our moral disposition embedded not as a faculty and not as conformity but as an orientation to moral community. Specifically, infants are concern with how we are answerable less in terms of loyalty and conformity than with respect to fairness, equitability, and justice.

Morality comes to us naturally. In the process of making this argument, though, I resist the temptation to understand morality simply as brain functions. Psychological and cognitive systems are not beside the point, but morality is not reducible to them. My position is, rather, that humans have evolved as social beings with an inherent orientation to moral community; that morality is irreducibly, naturally, social.

Irreducibly Intersubjective

The language of individuated, cerebral moral faculties appears widely in contemporary writing (e.g. Harris 2011). I propose something else, almost what Phil Zuckerman articulates, saying that we have an overriding, coalitional moral orientation, strongest among those we take as our own (2019 p.226). To bring out the distinctiveness of my proposal I approach it through an analogy with reason. Mercier and Sperber (2011; 2017) discuss reasoning as fundamentally argumentative, both to persuade others and to evaluate others' arguments (2011). Further, humans use reasons "not just in reasoning but also in explaining and justifying themselves," (2017 p.109). This implies that we evolved reasoning to pursue not truth but persuasiveness, and as such it is social, not just when we reason together, but because we reason with others in mind. Reason has the emergent potential of discerning truth from falsity, increasing "both in quantity and in epistemic quality the information humans are able to share," (2011 p.72), but it evolved to fulfill another function. Mercier and Sperber show reason to tie to reputation management (being able to justify one's actions), with its obvious evolutionary advantages (2011 p.72; 2017 p.123). This builds biases into reasoning that can compromise isolated reasoning, but reasoning in groups substantially diminishes them, more successfully directing reasoning toward truth (2011 pp.72-73; 2017 pp.320-321, 332-333).

Reasoning can seem to be an individualized faculty, but is fundamentally social, intersubjective. By analogy, it may appear that we have evolved a moral faculty, but what we have evolved is not reducible

to a faculty; rather, it is an orientation to moral community. This orientation confers advantages upon participants in moral community (collaboration, mutual protection, altruistic assistance) that the more recalcitrant do not enjoy, leaving them less likely to produce surviving young, and pass on their recalcitrant genes. I wish here to emphasize two things: morality is objective, not subjective, as reason is: it is social, and objective, in the way that social facts are, (Durkheim 1982). Second, the orientation to moral community is part of our evolutionary inheritance, endowing humans with distinct adaptive advantages.

Let us take the religious congregation as the paradigm example of moral community. Graham and Haidt (2010) argue that the social function of religion is to bind people into moral communities, which shows morality to be a universal human preoccupation, if plural in practice. In emphasizing religious behavior rather than belief, they employ the metaphor of the maypole to show that, though deities are the center of attention (the maypole), all the action occurs around the maypole, and this activity sustains the community. Two observations arise from this insight. First, participation in the community, not depth of belief, produces the pro-social benefits of religion (charitability, volunteerism, happiness), (2010 p.140). Others concur. Joey Marshall reports that being religiously active, rather than religiosity per se, correlates with the benefits of religion (Marshall 2019). Putnam and Campbell similarly conclude: "So important are these religiously based social networks that they alone account for most of the apparent effects of church attendance.... When we include this index of religious social networks in the analysis, religiosity becomes entirely insignificant as a predictor of virtually all measures of good neighborliness that we examined," (Putnam and Campbell 2010 p.472). Second, the maypole need not be deistic. Moral communities cohere around something, but that thing need not be supernatural. Participating in such secular and profane things as bowling leagues or a knitting groups predict charitability, for example, comparably with religious activity (Graham and Haidt 2010 p.146; Ruland 2010). There is a vital connection between prosocial or moral behavior and community membership, not the strength with which one holds moral precepts. Morality is intrinsically social, fundamentally a question of our engagement in moral community.

Evolved Morality

Moral community rests (necessarily but not sufficiently) on eusociality, characterized by high levels of cooperation, division of labor with differential opportunities for reproduction, and altruism, (E.O. Wilson 2019 p.35). The form of eusociality characteristic of humans (as distinct from, say, ants) depended on the development of relatively large, land-based, bipedal bodies, with grasping hands; a meat-rich diet; control of fire, and around it, lasting campsites with their corresponding division of labor (E.O. Wilson 2012 p.45-47). The decisive culmination of the steps enabling human eusociality and its branching off from other primates came with Homo erectus (p.48). This is illustrated in a striking example described by Walker and Shipman with the discovery of a female Homo erectus skeleton named 1808, who died a surely excruciating death from hypervitaminosis A. Ossifying blood clots formed as the periosteum tore from her bones at each muscle contraction, causing immobilizing pain. But the very extensiveness of ossified clots indicated that she had, astonishingly, survived for weeks or months. The only plausible explanation is that someone cared for her and protected her from predators, all 'for no good reason except human concern.... Her bones are poignant testimony to the beginnings of sociality, of strong ties among individuals that came to exceed the bonding and friendship we see among baboons or chimps or other nonhuman primates,' (Walker and Shipman 1996 p.165).

This sort of care, beyond altruistic, was costly behavior for the sake of an individual who could not pay back her caretakers. Humans, here, were evolving morality as concern for human relationships. Before

the evolution of Homo sapiens our predecessors engaged in eusocial behavior that, if not fully moral, was a pre- or proto-morality (Waal 1996; Tomasello 2012 pp.20-39). While humans, like chimps and bonobos, inherit culture from our common ancestor (E.O. Wilson 2012 p.213), with humans we get coeval, co-constitutive cultural and moral development. An apposite explanation of moral-cultural evolution is multilevel selection.

E.O. Wilson describes an "iron rule... in genetic social evolution. It is that selfish individuals beat altruistic individuals, while groups of altruists beat groups of selfish individuals," and dominance by either would destroy moral community (2012 p.243). Natural selection is multilevel in terms of units (genes constituting heredity code) and targets (traits encoded by heredity units that the environment favors or disfavors), such that 'it acts on genes that prescribe targets at more than one level of biological organization, such as the cell and organism, or organism and colony, (E.O. Wilson 2012 p.162). Multilevel selection appears in cooperative groups because, given internal genetic diversity, selfish behavior benefits cheaters or free-riders, but "colonies of cheaters lose to colonies of cooperators," allowing cooperating colonies to prevail; "the genes prescribing their performances will spread through the population of colonies with the passing of each generation of colonies," (p.163). He draws the implication that culture evolved for humans as an aspect of multilevel selection, (p.213). Among the most crucial adaptations for cultural evolution are increased long-term memory, especially as it enables strategizing and constructing scenarios, but above all, the capacity to read intentions and cooperate within groups and predict competing groups' actions (p.224). (I return later to the moral, evolutionary centrality of reading intentions in my discussion of infant studies.) Within this framework, morality becomes a favorable adaptation.

These central capabilities, foundational for moral community, depended upon the establishment of campsites, with the corresponding division of labor between campsite defenders and foragers, and foragers' novel practice of distributing their spoils to the entire group, which exerts a claim on it. All of this entailed advanced social intelligence, (p.114). Further, the forms of prolonged social interaction facilitated by the campsite – planning activities, creating myths, sharing stories and food – were key to the evolution of larger brains and greater intelligence, (E.O. Wilson 2019 p.125).

Multilevel selection theory highlights four features of cultural evolution: Specialized mechanisms (trial and error, rational thought, imitation); the operation of many of these mechanisms below conscious awareness, obscuring cultural evolution to those it affects; multi-person mechanisms (as cognition entails the coordinated firing of neurons, so people cognize together); and its occurrence at the group level, amplifying selection among groups and reducing the impact of selection within groups, (D.S. Wilson 2002 pp.32-35). Cultural evolution produced durable social traits, pertinently the egalitarianism of hunter-gatherer societies that characterized human life for millennia. D.S. Wilson characterizes such societies as, above all, moral communities organized around a strong sense of right and wrong, equating right with group welfare, (pp.21-22). (Below, with Killen's discussion of infants' privileging of moral ideals over unjust norms, I describe prioritizing group welfare arising as dissent rather than conformity.) This development rests on "a specialized, genetically evolved cognitive architecture" that prepares groups to "bind themselves into functional units," (p.26). Accompanying this evolved genetic component is another: the open-ended cultural component facilitating comparatively rapid and variable adaptation to different environmental conditions (say, encountered through long-distance migrations). The cultural component is especially important when the adoption of agriculture produced sedentary, expanding communities. Our ancestors had hundreds of thousands of years of evolution as small bands of huntergatherers numbering at most in the hundreds of individuals (Tomasello 2016 p.44). Only for about 10,000 years have humans lived in agricultural communities (E.O. Wilson 2012 p.92), of 'unnatural' size

"as far as genetic evolution is concerned because to the best of our knowledge they never existed prior to the advent of agriculture. This means that culturally evolved mechanisms are absolutely required for human society to hang together above the level of face-to-face groups," (D.S. Wilson 2002 p.119).

The dynamics of cultural evolution in group selection involve a feedback-loop between two sorts of traits: one that alters the parameters of multilevel selection, another that evolves from that alteration, in the process of which "morality emerges as a central phenomenon.... [I]n the past morality and evolution have tended to occupy opposite corners of human thought. Now it appears that they must be studied together, and that even from a purely biological standpoint morality is part of the essence of what it means to be human," an implication being that morality influences multilevel selection, biasing it toward group selection, (D.S. Wilson 2002 p.223-224). Morality has persisted as a human preoccupation (perhaps as far back as Homo erectus, as skeleton 1808 suggests) because it is an evolutionarily inherited, self-sustaining cultural feedback process that favors group selection.

Many hesitate to endorse multilevel selection, asserting selection at the level of the gene, or at most, the individual organism. How could we overcome the obstacle of selfish individuals not only to hazard altruism in the first place, still less to develop it as a basic human trait? It feels counterintuitive. It seems that whoever 'first' extends an altruistic hand to selfish others will lose the evolutionary race to produce the next generation. The notion that we have to address the problem of the first altruistic act may, however, misconstrue our evolutionary path, needlessly leading down a blind alley. What if the move to human mutuality and reciprocity arose not through altruism, but collaboration (from which altruism and cooperation then spring)?

Michael Tomasello formulates an answer that contests contractarian models of mutuality, which are particular variants of the prioritization of cooperation, as they imagine individuals contracting with one another for future reciprocation of present altruistic acts, fair treatment, sharing and so forth. Such models, though, require the human attributes they seek to explain (Tomasello 2016 p.13). Rather, studies with ants, bees, chimpanzees, and other primates confirm that altruism arose among our primate ancestors long before there were humans, hobbling the explanatory force of contractarian accounts.

Another way to approach mutualism is through the pressure it puts on individuals' psychological mechanisms, especially with respect to shared intentionality and interdependence. Here, we start to see phenomena that bear the hallmarks of what Durkheim (1982), distinguishing them from biological or psychological facts, called social facts. To clarify the psychological/social distinction (which is not to say opposition) I am trying to sketch out, we can take two facets of Tomasello's description. On the one hand, the ability of the parties to recognize their interdependence and equality – their mutuality – is a cognitive achievement. Their acknowledgement of their mutuality, however, is a social achievement. Recognizing you as my hunting partner is something I can do on my own. Acknowledging you as my hunting partner is something I do with you. The former is the psychological substrate morality requires, while the latter is the site of morality's emergence. As such, it is inherently social, as the smallest possible unit for shared intentionality or interdependence is the dyad, and what this highlights is the way that "mutual investments among independent friends, who help one another not in order to pay back past acts but in order to invest in the future," involve acts that are motived not as responses to previous acts, but to maintain the relationship (Tomasello 2016 p.17). This symbiotic model avoids the dilemma of the first reciprocal act, that reciprocity's temporality requires one actor to bestow the first favor with no guarantee of later reciprocation. Interdependence has explanatory power that reframes mutualism to cast altruism in a new light. "Altruism is not an improbable achievement against

individualizing forces of natural selection, rather, it is an integral part of the social lives of beings that live with others interdependently," (p.18).

Tomasello accounts for interdependence by starting his analysis with the emergence of collaboration, not altruism. This displaces the question of how altruism leaps from kin to generalized others with an explanation showing collaboration to be the seedbed, not the product, of altruism. Early humans, facing stiff competition from other primates for scarce fruit and vegetation, started hunting large game, which was beyond the capabilities of individuals, but feasible with collaboration (p.44). Consider the features of a stag hunt: "(i) individuals must collaborate with others to benefit, (ii) the benefits of the collaboration are greater than those of any solo alternatives, and (iii) all solo alternatives must be forsaken (risked) in order to collaborate," (Tomasello et al. 2012 p.674). I hunt small game, as do you, independently. We spot a stag and we both benefit if we capture and share it. Circumstances force collaboration upon us.

There were no rewarding alternatives to such collaboration, leading to obligate collaborative foraging, which imposed interdependence on individuals. This, in turn, placed a premium on choosing a competent collaborator. In contrast to chimps and bonobos, "early humans experienced much stronger pressures to selectively seek good partners and avoid poor ones – again due to the paucity of fallback options – so social selection for good collaborators gradually emerged. Only individuals who could work well with others ate well and so passed on their genes prolifically," (Tomasello 2016 p.45). A natural consequence of obligate collaborative foraging was the direct benefit I enjoyed by helping my partner. On one hand, I did better if I stopped to help my partner find or mend a spear, which improved our chances of landing the stag. On the other, my partner had no incentive to defect after receiving the help, because our interdependence was still in play, our collaboration still crucial. It follows that my criteria for selecting and helping my partner concern our ability to collaborate effectively and need not prioritize kinship relations. I may risk losing my prey when helping my partner delays me, but when mutualistic activity is my broader goal, I get direct benefit from pausing to help my partner. In this way, "in early humans sympathetic concern and helping extended beyond kin to friends to collaborative patterns in general, independent of any relatedness or personal history of cooperation" (p.46).

We can see memory, planning and scenario building in a new light now. I have to be able to remember who collaborated well in the past, plan forthcoming collaborations with my partner in mind. I have a stake in the well-being of potential collaborators, because my well-being depends on them. Further, I have both to be able to note and recall good collaborators, and selectively help them in anticipation of future collaborations. Memory and anticipatory planning are not questions of balancing the ledger of debts for altruistic acts, but of who collaborates well. The unit of consideration is not the individual but, minimally, the interdependent pair. In contrast to the model of reciprocity, obligate collaborative foraging "does not depend on reciprocity because I am repaid for my altruistic acts not by reciprocated altruistic acts from others, but rather by their later mutualistic collaboration, which costs them nothing (actually benefits them)," (Tomasello et al. 2012 p.680).

We can see how mutualistic collaboration, with its accompanying interdependence, and selection for those reputed to be good collaborators would work to embed a specifically human form of cooperation in our ancestors' evolution. 'Good' starts to develop a moral valence, as it connotes good collaboration, reliability, fairness, and equitability, at least within communities small enough to know everyone's collaborative reputation (which, again, converges with D.S. Wilson's claim that, early on, 'right' equated with group welfare). We seem, however, to have internalized this more expansively. Kuroda and Kameda (2019) corroborate Tomasello's thesis about dyadic cooperation but show it to apply in

anonymous pairs. In their experiments, individuals unknown to each other, working for rewards through a shared, computerized exercise (foraging, with the danger of snake attacks), spontaneously cooperated, in spite of the risk to each of a diminished or lost reward if the partner did not reciprocate. They credit this to mutual trust (p.428). They conclude that participants alternated roles of vigilance (watching for snakes, and so forsaking the rewards of foraging), and foraging with low vigilance (pursuing high risk self-interest), noting that "the pairs who frequently alternated roles earned more by achieving the collectively most-efficient state with just one risk monitor in each hunt. These results indicate that collective risk monitoring by role alternation can emerge in two-person interactions that allow no explicit verbal agreement," (p.433). To achieve this collective risk monitoring, participants had to take a bird's-eye view of the task as a whole, embracing joint intentionality, through which individuals form a 'we' (Tomasello 2016 p.50). The scenario that Kuroda and Kameda describe reveals an internalization of the processes that Tomasello depicts with obligate collaborative foraging. Turn-taking relies here on the kind of scenario-formation that E.O. Wilson explores, and, given a bird's-eye view, the ability to understand an important aspect of joint intentionality: role interchangeability. It is not that both players independently have the same goal of accumulating as many rewards as possible, but that they have a joint goal – one that requires that they work together as a unit, 'we'.

Tomasello concurs with Kuroda and Kameda that the formation of a joint goal relies on trust, and extends the observation, noting that the mutual sense of trust enables the generation of joint intentionality, of a 'we'. As an example, consider experiments with fourteen- to eighteen-month-olds who engage in a fun, collaborative task with an adult. When the adult abruptly abandons the task, the infant, who could complete the task alone, instead tries to reengage the adult in the task. The children are primarily intent not in returning to the fun activity but in reconstituting the lost 'we' (Tomasello 2016, 51). A further feature of the 'we' in both Tomasello's and in Kuroda and Kameda's descriptions is that both parties understand their roles as interchangeable. That is, each participant not only trusts the other to play the complementary role, but also that they can reverse roles, as they are open, not identified with a particular individual. Echoing Kuroda and Kameda, Tomasello writes, 'An understanding of role interchangeability suggests that the participating individuals conceptualize the collaborative activity as a whole from a 'bird's eye view,' with both the self's and the partner's perspective and role in the same representational format,' (p.52). This encompassment of 'I' and 'you' by the 'we' of joint intentionality is the wellspring of human morality (p.53). The evidence and analysis above do not point to morality as a cognitive or psychological property or achievement of isolated individuals, but as, at a minimum, dyadic, such that moral agents' orientation is to participation in, and maintenance of the 'we' of joint goals and joint intentionality.

A consequence of collaboration is the development of common understandings of ideal ways to perform specific collaborative roles. Failure to perform one's present role ideally not only threatens joint failure in the given task, but also throws into question the collaborators' future together in practical terms (having game to eat), and also in having a social future together. The performance of one's role, as measured against a collaborative role ideal, develops a moral cast: "We may think of this commonground understanding of ideal role performance – virtuous performance, if you will – as constituting the strategic roots of socially shared normative standards," (p.54). This moral quality emerges because the ideal comes from the joint agent, 'we', and is not just the coincidence of independent individuals who happen to arrive at the same goal conceived in terms of the same ideal. "The common-ground role ideals of joint intentional activities transcend [individual instrumentality] because they are socially shared standards that the role performer himself endorses... and the upholding of which facilitates success not only for the individual himself but for his valued partner and partnership," (p.55).

The idea that I act in respect of a standard that I can recognize, and acknowledge, as shared, but have not authored for myself; that I can project myself into the perspective of my partner and imagine how my partner sees me (as well as how my partner sees him- or herself aspiring to the pertinent role ideal); alongside the recognition that roles are reversible, sets the stage for self-other equivalence (p.55). The acknowledgement of this equivalence disqualifies either my partner or me from claiming priority in consuming the spoils of our foraging. Following from this, collaborators – actual or potential – treated one another "with mutual respect, as equally deserving partners," with corresponding expectations about how they would treat and be treated by each other (p.56). This laid the foundations for the morality of fairness. That we have inherited concern for fairness as an imperative, a basis for our social worlds, and that we do not each need to learn it anew from others is well attested in a range of studies with infants.

Judging Children

While it is tempting to think we learn morality the way we learn language – as children, from those around us – much recent research shows children to be concerned with pro-sociality from infancy. This research unavoidably complicates views of morality that tether it to reason, which necessitate that morality is beyond those who do not (yet) reason. The implication of such research is that for humans moral acts are of issue to us even as toddlers, but further, these moral judgments are always social in nature. That is, the research shows infants to have moral concerns in social circumstances, rather than in isolation. Our innate moral tuning appears in this way to be persistently intersubjective.

Paul Bloom opens Just Babies with the sort of puppet-based experiment that features in much of the literature below. Some involve pushing an object up an incline, or across a surface, but this one sat a one-year-old in front of three puppets playing with a ball. The middle one rolled it to the puppet on the right, who rolled it back. Then, to the puppet on the left, who absconded with it. The puppets were then brought down from the stage and placed in front the one-year-old, with a treat before each. The child could choose one treat to take away, and most of the toddlers who played this role opted to take it away from the 'naughty' puppet. In a case Bloom describes, the boy then added a bop on the head of the puppet. Through such experiments Bloom argues that "some [not all] aspects of morality come naturally to us," (Bloom 2013 p.7). The 'natural endowments' he finds us to have are a moral sense (some capacity to distinguish between kind and cruel actions), empathy and compassion (suffering at the pain of those around us and the wish to make this pain go away), a rudimentary sense of fairness (a tendency to favor equal divisions of resources), and a rudimentary sense of justice (a desire to see good actions rewarded and bad actions punished), (p.5). We are, from early in life, social in such a way that we make moral judgments even of situations we have never encountered and do not directly affect us. Indeed, he points out that infants "are sensitive to the good and bad acts of others long before they are capable of doing anything good or bad themselves. It seems likely, then, that the 'moral sense' is first extended to others and then at some later point in development turns inward. At this point, children come to see themselves as moral agents..." (p.56).

In no small part, our social disposition as manifest in compassion and empathy are the necessary conditions of morality. Empathy and compassion motivate caring and concern that is one aspect of morality, but also, entail 'putting yourself in the person's shoes' (or, perspective-taking), (Bloom 2013 ch.2). We might extrapolate empathy-as-perspective-taking to imply that another's perspective and condition should matter to me. Bloom affirms this when he points out that babies are responsive to others' expressions of pain, and will cry in reaction to others', especially babies' crying, (pp.47-48).

Toddlers, however, do not just find the distress of others distressing, they also spontaneously offer help to others in apparent need.

This helpfulness suggests that toddlers act on something like an 'ought' – I ought to help out this struggling person – without yet being able to formulate such imperatives. That is, they help spontaneously, feel a motivation strong enough to get them in motion to assist, but do so in the absence of – or even possibility of formulating – anything like a categorical imperative.

As children grow, they change from indiscriminately cooperative to selectively cooperative (Tomasello 2009 p.4). Herein we discover a clannish quality to morality that can appear from an early age over completely arbitrary groupings. What matters is that the people around us take the distinctions seriously. "We start off prepared to make distinctions, but it's our environments that tell us precisely how to do so," (Bloom 2013 p.119). This presents a complication for my assertion that we develop an orientation to moral community. It seems that when we align our moral judgments with those of a community what we are really performing is conformity: that we evolved not morality, but conformity, which we express through adherence to group norms. Melanie Killen's research, though, simultaneously supports the argument that we orient to moral community, and that such orientation appears, at times, as non-conformity.

Killen takes Tomasello's work on morality to be pathbreaking but diverges on crucial issues. She argues that young children do not consult external sets of rules to decide on their moral courses of action, but rather they, and people generally, base moral judgments on their inferences about others' intentions (Killen 2018 p.770). Inferring others' intentions applies not only to infants' judgments of others, but to how they themselves should respond to others. (For example, studies show that toddlers seeing an adult struggle to put books in a cabinet infer his intention and his need for assistance, and spontaneously rise to help). She finds, further, that children's moral responses are organized not by rules (and so, are not initially a matter of learning how to identify right and wrong, good and bad via rules), but by a sense of fairness and a sense of equitability.

So far, she converges with Tomasello's claim that children are "born social and socially predisposed," (p.774). She differs in her evaluation of the place of conformity. Tomasello, she thinks, too closely associates morality with conformity and convention, especially once the analysis moves from the dyad to the group level. This leaves insufficient room to account for infants' independent, autonomous judgments that can lead them to impugn the group if, for example, it should treat members unfairly (p.779). She explains that as infants and children begin to collaborate, they develop their own ideas of how people should treat each other, ideas of fairness and justice. They "construct concepts about the wrongfulness of harm and the necessity of fairness very early, prior to direct teaching and transmission," meaning that they are not simply internalizing cultural practices and norms (p.782). The inflection of joint or collective intentionality I mentioned above that Killen evokes here is one that is not instrumental, organized by the technical demands of particular tasks, but moral in a specific way. The children insist not on group norms, but that their group maintain moral principles of fairness and justice. The idea of right as the welfare of the group aspires not to instrumental ends but to a moral ideal.

Children's autonomous thoughts about justice and fairness sometimes prompt children to dissent from the group. This undermines the 'groupthink' model of morality, which misses children's "ability to think independently from the group and to critically evaluate the acts and intentions of others with reference to fairness, justice, and equality," (p.784, original emphasis). Killen shares the view that humans are predisposed to value others, and that cooperation is the necessary condition for the formation of

morality. The modification she introduces is that children discern between cooperation upholding or antagonistic to moral goals (p.786). Assent to or dissent from cooperation on the grounds of the moral value of group goals defeats straight-forward conformity theses, revealing that individual infants exercise judgment in given cases.

Infant non-conformism highlights a facet of the position I promote. Even when it is costly to their status within their group, children are willing to dissent, openly withholding their cooperation when it would enable inequitable distribution of resources, unfairness, or injustice. Daring to dissent resembles Thoreau's withholding of his consent from the government "which is the slave's government also," preferring jail to supporting this government with taxes (Thoreau 2008 p.230). His civil disobedience is not a condemnation of his community, and a subsequent decision to disobey. He judges that to be a good neighbor he must be a bad citizen: "I have never declined paying the highway tax, because I am as desirous of being a good neighbor as I am of being a bad subject; and, as for supporting schools, I am doing my part to educate my fellow-countrymen now," (p.242). He wishes, by his example, to show them their moral errancy, force them to acknowledge it, and its cost. When he asks if every citizen should surrender his or her conscience to the legislator – and if so, why each has a conscience in the first place – he illuminates the cost of obedience to a government that is the slave's government also. Respecting the law is no replacement for respecting the right, and he accepts as his obligation to do what he thinks right, (p.228). When the subject or the citizen surrenders conscience, she or he relinquishes exactly this capacity to think what is right, and so surrenders morality, and thus humanity, as such (pp.228-229).

The education he wishes to offer his neighbors is a kind of moral economics that confronts them with the price of their obedience and in so doing to help them recover their mortgaged humanity. The nonconforming children Killen describes engage in a similar work:

[E]ven preschool children are willing to go against an in-group norm (i.e. act 'uncooperatively') in order to ensure that resources are distributed equally between groups.... What's important about this finding is that preschool children are doing 'the right thing' by challenging their group to treat others equally despite the group norm of getting more resources for their own group. This is distinct from doing 'the right thing' to conform to group norms. (Killen 2018 p.792)

They have a picture of (fair, just, equitable) moral community, and through their dissent they try to restore their peers to this ideal. This reveals that what is in-born is not (not just) a tendency to conformity, but a picture of the moral community, or collective morality, and a concern that I and my group organize ourselves with respect to, and in maintenance of that picture. Killen concludes that objective morality appears not in the form of conformity to norms and institutions, but by challenging one's group members when they neglect to treat others justly, equitably and fairly (p.793).

A separate study ran computer simulations of animated figures in aggressive conflicts. They found that children consistently showed approval for third parties who intervened to defend the 'victim' from the aggressor (Kanakogi et al. 2017). One of the important implications of this study is that preverbal infants, so young that social conditioning, instruction in social norms, or absorption of moral lessons from the social environment would be absolutely minimal, nonetheless had judgments about the figures they observed. A second instructive implication is that infants from as young as six months make judgments about how others should behave. This dovetails with Killen's argument that children embrace moral ideals that they apply to others, even as dissenters who risk insisting upon them publicly, transgressing group members' expectations of conformity. Kanakogi et al. bolster the inherent

affirmation of such ideals (fairness, cooperation, equitability, and assisting victims of aggression) by showing it to precede infants' physical capability of acting in favor of the ideals. We are hardwired from the earliest age for pro-sociality, (Kanakogi et al. 2017 p.4).

We can return now to the idea that morality need not rest on reason (which follows if infants as young as six months make moral judgments). Van de Vondervoort and Hamlin (2016) demonstrate that this is the case, starting with the proposition that "moral intuitions may emerge early because they have been built into the species as a result of the benefits they confer on cooperative systems," (p.143). Infants as young as three months presented with a puppet show with a protagonist struggling to perform a task respond negatively to puppets who hinder the protagonist, and older infants also responded positively to puppets assisting the protagonist. As infants grow older (up to ten months in these experiments), they develop preferences for helpful agents – not just actors performing a specific action, but doing so in a social situation, helping another agent – showing that three features of the scenario matter to them: its social nature; the agent's intention (to assist or to hinder); and that the actors behave in morally relevant, pro-social (helpful) or anti-social (obstructionist) ways (pp.143-144). When infants witnessed scenes showing victimization, they evaluated the antisocial actor negatively, but, further, when that same actor received assistance later, they again reacted disapprovingly, revealing their convictions about who should receive help, rewards, and punishments. They conclude that infants' assessments of prosocial and antisocial behavior align with adults' moral judgement by focusing on mental states and differing with context, supporting the claim "that moral intuitions support evaluations of behaviors that sustain and undermine cooperative systems," (p.147). The observation that automatic, emotion-based moral intuitions begin early, and endure throughout our lives rests on the premise of moral heritability. That moral heritability favors pro-social behaviors, and punishment of anti-social behaviors, and allows for dissent from demands for conformity to anti-social practices reinforces the argument that we inherit a preoccupation with moral community.

Morality in Groups

Where dyadic collaborations emerged around 400,000 years ago, the process of scaling up cooperative relationships to the level of communities began around 150,000 years ago, producing groups that competed with one another for resources, and forcing interdependence beyond dyads to involve "the entire cultural group," which became the relevant collaborative unit on which all members relied to fare well, (Tomasello 2016 pp.85-86). There followed shifts in cognitive organization, commitment and orientation from the dyad to the group:

Cognitively, what modern humans did to adapt to their new social reality was to transform a joint intentionality geared for dyadic collaboration into a collective intentionality geared for cultural collaboration. Thus, the dual-level structure now came to comprise, on one level, again, the individual, but now, on the other level, the group-mindedness and collectivity of all who shared a common cultural life. There was thus also a transition from seeing an equivalence between oneself and one's collaborative partner, as did early humans, to seeing an equivalence among all who would be a member of the cultural group, that is to say, all rational beings. (Tomasello 2016 pp.92-93)

The moral consequence of this transition is that moral consideration extended to one's group, but seldom beyond. We are, as a result, compulsively concerned with belonging, and "hence an intensely tribal animal," (E.O. Wilson 2012 pp.244-245). The companion piece to our compulsive tribalism is an enduring predisposition to suspect, or feel hostility, towards outsiders (Tomasello 2016 p.85). The move from the 'we' of dyadic intentionality to the 'we' of collective intentionality, in the context of inter-

group competition generated pro-social dispositions but simultaneously constrained the orientation to moral community to a community, paradigmatically against other communities.

We can see two sorts of processes, neither fully in tune nor fully in tension with one another, taking place through these transitions. At first, the advantages corresponding to the capacity for planning, perspective-taking, and joint intentionality generated foundational mutualistic principles like equitability and fairness. As the advantages of obligate collaboration grew in scale on the same foundations but in increasingly anonymous ways, such notions as equitability, fairness and justice were pivotal to the maintenance of community. A second set of social forces emerged alongside the transition from collaborative alliance among small groups of familiars to larger groups in which any member could not know all others. The move to collective intentionality demanded loyalty to group norms, conventions and institutions (Tomasello 2016 p.87). Layered onto, and refracting the earlier imperatives of fairness, justice and equitability, are new ones: conformity and exclusiveness. Keeping in mind the studies of children, what these descriptions of moral development suggest is less that morality is clannish than that conformity (and its co-conspirator loyalty) is, and its social potency conditions the orientation to moral community, restricting it to a moral community. A brilliant experiment in 1954 at Robbers Cave demonstrates this.

Twenty-two fifth-graders from comparable backgrounds participated in the experiment, staged at a summer camp at Robbers Cave State Park, Oklahoma. Arbitrarily divided into two groups that did not know about one other, they spent a week playing in the park, and coming up with their group names. At this point, they were exposed to each other for the first time, and "a small series of subtle but significant manipulations, immediately drove them into states of mutual hostility," (Zuckerman 2019 p.241). They were pitted against one another in competitions, objected to dining with one another, created group symbols like flags, destroyed the other group's symbols, and so on. Effortlessly, the experimenters shaped otherwise similar boys into warring tribes with distinct identities, norms and conventions. For example, in the Eagles (the other group being the Rattlers), it became convention that the first boy awake would rouse Clark, who brought a trumpet, to play reveille, marking the beginning of the Eagles' day (Sherif et al. 1954 p.80). The boys, further, disciplined group members for deviating from group norms (like clowning around during baseball practice, baseball being serious stuff), (p.81). The groups developed clannishness internally (policing norms), and externally (mutual hostility). So far, forming moral community appears to entail exclusiveness and conformity.

The experimental twist came at the height of animosities. The researchers contrived a crisis affecting both teams that required cooperation to resolve: vandalization of the water supply. The boys discovered a common cause (locating the problem required twenty-five people), and clannishness – the imperatives of conformity and exclusiveness – melted away, while the willingness to collaborate, as equals, on a shared project prevailed. Thereafter, further communal events that were previously scenes of open hostility exhibited a communal, cooperative character instead (Sherif et al. 1954 p.161-167).

Dissidence, can, however, happen in the absence of an external, overarching threat. In 1996, for example, the Ku Klux Klan held a rally in Ann Arbor, Michigan. Hundreds of protestors turned out to confront the cluster of Klansmen, separated by a barrier erected for the event. On the protesters' side of the barricade, though, appeared a middle-aged man in a sleeveless Confederate Flag T-shirt, an SS tattoo on his shoulder. The crowd turned on him, and incapable of escaping, he ended up on the ground, beaten by protesters. Keshia Thomas, a Black eighteen-year-old from Ann Arbor threw herself on top of him to protect him from the onslaught, bringing the beating to an end. She later explained, "When people are in a crowd they are more likely to do things they would never do as an individual.

Someone had to step out of the pack, and say, 'This isn't right'... violence is violence – nobody deserves to be hurt, especially not for an idea," (Wynne 2013). Recalling Killen, Kanakogi et al., and Thoreau, turning from your group can be a way not just of remaining answerable to moral community, but of calling on your community to answer to an ideal it is unjustified in neglecting.

In both the Robbers Cave and the Keshia Thomas cases, we can see 'groupishness' and hostility between groups demanding internal conformity and group loyalty. We also see distinctions between conformity and morality. In Robbers Cave, the Eagles and Rattlers abandoned their antagonistic prejudices to cooperate, and even to engage in inter-group altruism, (Sherif et al. 1954 p.166). Keshia Thomas broke ranks with her group not just to protect its enemy, with no assurance that she would remain uninjured, but also to restore her group to its moral senses. This is still an orientation to moral community, then, but it is not one in which conformity is identical with morality. Thomas's righteous dissent was powerful: Months the man's son approached her in a coffee shop, thanking her, but further, a photographer among the protesters later said "We would all like to be a bit like Keshia, wouldn't we? She didn't think about herself. She just did the right thing," (Wynne 2013). As Thomas or Thoreau show, dissenting exemplars can induce in a group chagrin at its behavior.

Conclusion

We may be held captive by a picture of morality, as if it could only get its importance from transcendental origins. I am, of course, aware that religious conceptualizations of morality, organized around transcendental notions of sin, or merit and so forth exist. I claim, simply, that we do not need them to account for morality. Are we in a position to denigrate the wonder of language, and ourselves as language-users sometimes possessing language and sometimes possessed by it, just because we can give it an ordinary, or immanent, or evolutionary account? Morality should be no different, especially given how tightly it is bound up with our condition as language-users: wonderous, but explicable, without recourse to the supernatural, as a feature of humans' eusocial, collaborative, multilevel evolution, evident even before we can talk.

Our evolution has made us social in a way that preoccupies us with how we are answerable to one another, foundationally in terms of fairness, equitability, and justice. We have not just an orientation to community, nor do we have an orientation to eusocial community exhaustively defined by conformity. That is an ant colony. While our social evolution rewards conformity, typically valuing it, we conduct ourselves in relation to moral community, meaning that we seek community with a moral character, and just as each of us is answerable to the members of our communities, so communities are answerable to the moral claims (justice, fairness, equitability) inherent in the ideal of moral community. As such, we remain pervasively oriented to moral community, as a matter of our nature.

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