A Natural History of Human Morality by Michael Tomasello

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In *A Natural History of Human Morality*, evolutionary anthropologist Michael Tomasello provides the most comprehensive account of the evolution of morality to date. Walking readers through the major milestones, Tomasello proves to be an expert guide along this uncharted path because much of the evidence he presents comes from his own extensive research on the cognition and cooperative abilities of human children and nonhuman primates. This book will be a challenging but rewarding read for the general public, as well as an excellent entry point for evolutionary-minded scholars who may have thought the topic of morality was solely the domain of philosophy and religious studies.

The story begins six million years ago with the last common ancestor of apes and humans. Tomasello imagines that this primate was much like present-day nonhuman apes. Based on a wide body of research on chimpanzees and bonobos, he infers that it was likely to cooperate in fighting coalitions, experience social anger at being treated unsympathetically, and have bidirectional sympathy for kin and friends. Bidirectional sympathy, he states, would have been its only prosocial attitude (arguing against primatologist Frans de Waal's view that nonhuman primates have a sense of fairness and justice). Above all, these ancestral primates were built for competition, not cooperation.

The first major step in the evolution of morality would bring our ancestors out of a social world structured by dominance and into a new one structured by cooperation. This transition began with an ecological change that occurred two million years ago: a global cooling that made collective foraging obligatory for our ancestors' survival. Here, Tomasello envisions a span of over one million years where humans foraged in pairs, developing new social tools for collaboration and cooperation along the way. Partners developed *joint intentionality*, which enabled individuals to form a shared goal, and realized their roles could be interchanged: I can play your role, you can play mine, and the goal can still be achieved. This new concept of role-reversal, he argues, gave rise to a sense of self-other equivalence and a feeling of equality between two collaborating partners. Partners now viewed one another as equally deserving "second-personal agents," and a *natural morality* was born.

The second major step was triggered by a demographic change 150–100 thousand years ago: human populations grew in size, and individuals became members of a new and larger "us," which was their cultural group. Group size soon surpassed the number of individuals that one person can socially keep track of (Dunbar's number: 150) and humans transitioned from a life of collaborating only with well-known partners to a life that included collaborations with strangers in their cultural group. Such collaborations depended even more on the conventional cultural practices of the group to work. Thus, the joint intentionality of early humans scaled up to become the *collective intentionality* of modern humans. This marked the emergence of *objective morality*, with culturally defined "right" and "wrong" ways to interact with one another.

For his postecological change model of human cognition, Tomasello uses contemporary children, who have not yet acquired the conventions of their specific cultures.

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He argues that the behavior of young children provide insight into the unique psychological competencies that evolved for collaborative foraging in our species (p. 76). Research shows that children, but not chimps, form joint goals with others, commit to a collaboration until the goal is achieved, repair broken commitments, divide resources equally among collaborators, and behave more cooperatively when being watched. Contemporary children are a reasonable model for early human natural morality. However, one can argue that modern culture and its accompanying morality begin to be acquired at birth. As Tomasello notes (p. 77), the inclusion of cross-cultural research on the variation in children's cooperative and moral behavior will be an important addition to his natural history.

Cross-cultural comparison is also useful for other parts of the story. Tomasello states, "Second-personal responsibility and second-personal guilt were thus the first socially normative attitudes of the human species" (p. 74). However, there is cross-cultural variation in the way guilt and shame relate to morality. For example, Bedford and Hwang (2003) argue that the primary morality-based mechanism for social control in Western individualism is guilt, whereas in Confucian relationalism it is shame. Shame is closely connected to fear of expulsion from one's social group and is an equally good candidate as the first socially normative attitude in our species. Although guilt is experienced as a moral transgression by many people in the United States (Lindsay-Hartz 1984), the same may not be true of other cultures, contemporaneously or historically, and we should therefore not assume that guilt preceded shame in the evolutionary history of morality until this issue is settled with cross-cultural comparison.

Tomasello's natural history can also be augmented with archaeological and historical data. At some point, early humans transitioned from solving problems with dominance to solving them with cooperation. Tomasello treats this step briefly with reference to self-domestication and a decrease in aggressive behavior circa two million years ago (p. 42). There is ample research connecting the remarkably low levels of aggression in our species to our low testosterone levels (in males and females), and a selective reduction in testosterone was still in progress as recently as eighty thousand to thirty thousand years ago (Cieri et al. 2014), indicating a long, gradual, and possibly ongoing transition into less aggressive societies. Yet, Tomasello states our ancestor's first step away from a dominance-based primate social structure lead directly into equality-based pairwise interactions. What exactly was the role of equality in early human cooperation, and why do modern-day cooperating societies exhibit so much inequality?

All in all, Tomasello's account of the evolution of morality goes above and beyond our best accounts to date (reciprocal altruism and inclusive fitness) in a very specific way. To explain, I will draw a distinction between *sparse* and *complete* accounts of evolution by natural selection. The sparsest-possible account goes something like this: *thing X* exists (in such large numbers today) because *thing X* was selected for. At this low level of detail, natural selection is a circular explanation. However, as soon as we unpack the presumed selection pressures into actual environmental causes and their effect on a population of individuals, then we have a complete explanation for why *thing X* exists. Reciprocal altruism and inclusive fitness have shown that cooperation can be selected for in individuals. However, these accounts do not go much farther than reserving a place for cooperation in a sparse evolutionary explanation. The strength of Tomasello's account is how it grounds our species' cognitive and social evolution in specific causal factors: changes to the ecological and demographic environment of early humans.

At the end of Tomasello's story, our species is left with a patchwork of different moralities (a likely product of an evolutionary process), which explains oddities such as moral dilemmas: should I save my sister, collaborator, or fellow citizen from a fast-

approaching train? And the reader is left with some interesting questions as to where our rapidly changing social environments will send the evolution of morality next.

REFERENCES CITED

Bedford, Olwen, and Kwang-Kuo Hwang. 2003. "Guilt and Shame in Chinese Culture: A Cross-Cultural Framework from the Perspective of Morality and Identity." *Journal for the Theory of Social Behaviour* 33 (2): 127–44.

Cieri, Robert L., Steven E. Churchill, Robert G. Franciscus, Jingzhi Tan, Brian Hare. 2014. "Craniofacial Feminization, Social Tolerance, and the Origins of Behavioral Modernity." *Current Anthropology* 55 (4): 419–43.

Lindsay-Hartz, Janice. 1984. "Contrasting Experiences of Shame and Guilt." *American Behavioral Scientist* 27 (6): 689–704.

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