

## **We may be born with an urge to help**

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*Sylvio Tuepke - LENDING A HAND In research, a child helps an adult find an object dropped through a hole in a box. The evolutionary roots of altruism are complex.*

What is the essence of human nature? Flawed, say many theologians. Vicious and addicted to warfare, wrote Hobbes. Selfish and in need of considerable improvement, think many parents.

But biologists are beginning to form a generally sunnier view of humankind. Their conclusions are derived in part from testing very young children, and partly from comparing human children with those of chimpanzees, hoping that the differences will point to what is distinctively human.

The somewhat surprising answer at which some biologists have arrived is that babies are innately sociable and helpful to others. Of course every animal must to some extent be selfish to survive. But the biologists also see in humans a natural willingness to help.

When infants 18 months old see an unrelated adult whose hands are full and who needs assistance opening a door or picking up a dropped clothespin, they will immediately help, Michael Tomasello writes in "Why We Cooperate," a book published in October. Dr. Tomasello, a developmental psychologist, is co-director of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany.

The helping behavior seems to be innate because it appears so early and before many parents start teaching children the rules of polite behavior.

"It's probably safe to assume that they haven't been explicitly and directly taught to do this," said Elizabeth Spelke, a developmental psychologist at Harvard. "On the other hand, they've had lots of opportunities to experience acts of helping by others. I think the jury is out on the innateness question."

But Dr. Tomasello finds the helping is not enhanced by rewards, suggesting that it is not influenced by training. It seems to occur across cultures that have different timetables for teaching social rules. And helping behavior can even be seen in infant chimpanzees under the right experimental conditions. For all these reasons, Dr. Tomasello concludes that helping is a natural inclination, not something imposed by parents or culture.

Infants will help with information, as well as in practical ways. From the age of 12 months they will point at objects that an adult pretends to have lost. Chimpanzees, by contrast, never point at things for each other, and when they point for people, it seems to be as a command to go fetch something rather than to share information.

For parents who may think their children somehow skipped the cooperative phase, Dr. Tomasello offers the reassuring advice that children are often more cooperative outside the home, which is why parents may be surprised to hear from a teacher or coach how nice their child is. "In families, the competitive element is in ascendancy," he said.

As children grow older, they become more selective in their helpfulness. Starting around age 3, they will share more generously with a child who was previously nice to them. Another behavior that emerges at the same age is a sense of social norms. "Most social norms are about being nice to other people," Dr. Tomasello said in an interview, "so children learn social norms because they want to be part of the group."

Children not only feel they should obey these rules themselves, but also that they should make others in the group do the same. Even 3-year-olds are willing to enforce social norms. If they are shown how to play a game, and a puppet then joins in with its own idea of the rules, the children will object, some of them vociferously.

Where do they get this idea of group rules, the sense of "we who do it this way"? Dr. Tomasello believes children develop what he calls "shared intentionality," a notion of what others expect to happen and hence a sense of a group "we." It is from this shared intentionality that children derive their sense of norms and of expecting others to obey them.

Shared intentionality, in Dr. Tomasello's view, is close to the essence of what distinguishes people from chimpanzees. A group of human children will use all kinds of words and gestures to form goals and coordinate activities, but young chimps seem to have little interest in what may be their companions' minds.

If children are naturally helpful and sociable, what system of child-rearing best takes advantage of this surprising propensity? Dr. Tomasello says that the approach known as inductive parenting works best because it reinforces the child's natural propensity to cooperate with others. Inductive parenting is simply communicating with children about the effect of their actions on others and emphasizing the logic of social cooperation.

"Children are altruistic by nature," he writes, and though they are also naturally selfish, all parents need do is try to tip the balance toward social behavior.

The shared intentionality lies at the basis of human society, Dr. Tomasello argues. From it flow ideas of norms, of punishing those who violate the norms and of shame and guilt for punishing oneself. Shared intentionality evolved very early in the human lineage, he believes, and its probable purpose was for cooperation in gathering food. Anthropologists report that when men cooperate in hunting, they can take down large game, which single hunters generally cannot do. Chimpanzees gather to hunt colobus monkeys, but Dr. Tomasello argues this is far less of a cooperative endeavor because the participants act on an ad hoc basis and do not really share their catch.

An interesting bodily reflection of humans' shared intentionality is the sclera, or whites, of the eyes. All 200 or so species of primates have dark eyes and a barely visible sclera. All, that is, except humans, whose sclera is three times as large, a feature that makes it much easier to follow the direction of someone else's gaze. Chimps will follow a person's gaze, but by looking at his head, even if his eyes are closed. Babies follow a person's eyes, even if the experimenter keeps his head still.

Advertising what one is looking at could be a risk. Dr. Tomasello argues that the behavior evolved "in cooperative social groups in which monitoring one another's focus was to everyone's benefit in completing joint tasks."

This could have happened at some point early in human evolution, when in order to survive, people were forced to cooperate in hunting game or gathering fruit. The path to obligatory cooperation — one that other primates did not take — led to social rules and their enforcement, to human altruism and to language.

“Humans putting their heads together in shared cooperative activities are thus the originators of human culture,” Dr. Tomasello writes.

A similar conclusion has been reached independently by Hillard S. Kaplan, an anthropologist at the University of New Mexico. Modern humans have lived for most of their existence as hunter gatherers, so much of human nature has presumably been shaped for survival in such conditions. From study of existing hunter gatherer peoples, Dr. Kaplan has found evidence of cooperation woven into many levels of human activity.

The division of labor between men and women — men gather 68 percent of the calories in foraging societies — requires cooperation between the sexes. Young people in these societies consume more than they produce until age 20, which in turn requires cooperation between the generations. This long period of dependency was needed to develop the special skills required for the hunter gatherer way of life.

The structure of early human societies, including their “high levels of cooperation between kin and nonkin,” was thus an adaptation to the “specialized foraging niche” of food resources that were too difficult for other primates to capture, Dr. Kaplan and colleagues wrote recently in *The Philosophical Transactions of the Royal Society*. We evolved to be nice to each other, in other words, because there was no alternative.

Much the same conclusion is reached by Frans de Waal in another book published in October, “*The Age of Empathy*.” Dr. de Waal, a primatologist, has long studied the cooperative side of primate behavior and believes that aggression, which he has also studied, is often overrated as a human motivation.

“We’re preprogrammed to reach out,” Dr. de Waal writes. “Empathy is an automated response over which we have limited control.” The only people emotionally immune to another’s situation, he notes, are psychopaths.

Indeed, it is in our biological nature, not our political institutions, that we should put our trust, in his view. Our empathy is innate and cannot be changed or long suppressed. “In fact,” Dr. de Waal writes, “I’d argue that biology constitutes our greatest hope. One can only shudder at the thought that the humaneness of our societies would depend on the whims of politics, culture or religion.”

The basic sociability of human nature does not mean, of course, that people are nice to each other all the time. Social structure requires that things be done to maintain it, some of which involve negative attitudes toward others. The instinct for enforcing norms is powerful, as is the instinct for fairness. Experiments have shown that people will reject unfair distributions of money even if it means they receive nothing.

“Humans clearly evolved the ability to detect inequities, control immediate desires, foresee the virtues of norm following and gain the personal, emotional rewards that come from seeing another punished,” write three Harvard biologists, Marc Hauser, Katherine McAuliffe and Peter R. Blake, in reviewing their experiments with tamarin monkeys and young children.

If people do bad things to others in their group, they can behave even worse to those outside it. Indeed the human capacity for cooperation “seems to have evolved mainly for interactions within the local group,” Dr. Tomasello writes.

Sociality, the binding together of members of a group, is the first requirement of defense, since without it people will not put the group's interests ahead of their own or be willing to sacrifice their lives in battle. Lawrence H. Keeley, an anthropologist who has traced aggression among early peoples, writes in his book "War Before Civilization" that, "Warfare is ultimately not a denial of the human capacity for cooperation, but merely the most destructive expression of it."

The roots of human cooperation may lie in human aggression. We are selfish by nature, yet also follow rules requiring us to be nice to others.

"That's why we have moral dilemmas," Dr. Tomasello said, "because we are both selfish and altruistic at the same time."

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