

Human Nature, Part II

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Besides masks to prevent the spread of covid-19, the other thing that's hard to spot in ultra-Orthodox neighborhoods are images of Barney the Dinosaur. The fossil record of dinosaurs is hard to explain to children when one is committed to a six-day creation timeline. But children are always fascinated by dinosaurs. There is something about their immense size and power that is irresistible. And there is another thing about dinosaurs that captures the imagination: the fact, and mystery, of their disappearance. How could beings of such strength and such size die out, whereas we were left to inherit the earth. Or we and even smaller beings like ants, as I spoke about on the second day of Rosh Hashanah.

The extinction of the dinosaurs seems counterintuitive to what we have been led to understand about nature, that the strong and the mightiest are the ones who survive, the survival of the fittest. Humans grew to "fill the earth and master it," as the Book of Genesis has God command us, through our intelligence, our ability to build tools and weapons that put us at the top of the food chain. Charles Darwin's theory that nature favors, or selects, those who help themselves, has been interpreted, or misinterpreted I should say, to support the racist abuses of fellow humans that I talked about on the first day of Rosh Hashanah. The idea that strength prevails has been used to justify the worst acts of hatred and oppression in history. Is that really what nature intends, we may ask? Are we governed by purely selfish genes?

I talked on the second day of Rosh Hashanah about human nature. Are we innately good or innately evil? I want to answer that question today by arguing that Mencius was right and Hsün Tzu was wrong. That those who followed Rousseau were right and those who followed Hobbes were wrong. That Billy Joel got it wrong when he sang how only the good die young. It seems that way because of our sense of justice, because we want goodness to prevail. It is that instinct that reflects the inner truth that it does. That in our kishkes, in our innermost natures, we know that it does.

The Duke anthropologist Brian Hare has suggested an emendation of Darwin's idea of survival of the fittest. Hare coined the term "survival of the friendliest" in a 2017 article and it is the title of a new book that came out a few months ago that he co-wrote with his scientist and journalist wife, Vanessa Woods. His point is that it is not selfishness that wins the game of evolutionary survival, but friendliness. He talks about the research he began as a college student at Emory with the developmental psychologist Michael Tomasello on the unique ability of human babies, beginning at about nine months, to follow a gesture, to look where we point. For ten years Brian Hare worked with Tomasello on trying to teach chimpanzees how to do that. In what's called the object-choice test, there are two upside-down cups or bowls on the floor, but one has a food treat underneath. The experimenter stands between the two and points to the one with the treat, but the chimpanzees, as smart as they were and as closely related to us as they are genetically, just could not learn to follow the gesture and pick the cup with the treat. One day, as Hare tells the story in the book *Survival of the Friendliest*, he blurted out to his mentor, "I think my dog can do that." 'Sure.' Mike leaned back in his chair amused. 'Everybody's dog can do calculus.' It was reasonable for Mike to be skeptical. It was hard to be impressed with animals who drank out of the toilet and tangled their leashes around lampposts. Psychologists did not think dogs were interesting so there was almost no research on their cognition" (pp 7-8). Hare's dog Oreo passed the test. And so did the other dogs he studied. As his graduate advisor, Richard Wrangham, writes in his book, *The Goodness Paradox*, "Hare and a small team of researchers found that most dogs passed this test. For dog lovers, this was not a big surprise. What was interesting was that wolves failed the test" (pp. 186-187).

Why is that interesting? Because dogs evolved from wolves back in the Ice Age. Dogs are not as strong as wolves. They are not as vicious. You wouldn't want a pet wolf. And dogs are also much smarter than wolves. They are more highly evolved. And they are much friendlier.

Wolves were the only predator species, besides humans, to survive the Ice Age. People used to think that the prehistoric humans domesticated wolves to help with the hunt, but the new theory is that wolves self-domesticated themselves. They were attracted to human camps because they would find food in our garbage. The friendlier wolves, the one who looked less vicious, that were less intimidating, the ones that knew to wag their tails and show their puppy-dog-eyes to humans, were the ones who got thrown the good scraps of meat. The best bones to chew on. They were the ones who had the evolutionary advantage and evolved into dogs. As Brian Hare writes, "Those friendly wolves became one of the most successful species on the planet. Their descendants now number in the tens of millions and live with us on every continent, while the few remaining wild wolf populations, sadly, live under constant threat of extinction" (pp. 34-35).

Friendly wolves, or dogs, are an example of what evolutionary anthropologists and psychologists call the domestication syndrome, where a species becomes domesticated, tamer, less violent, less physically intimidating, and also friendlier and smarter than their more wild ancestors. When Brian Hare went to Harvard for graduate school, his advisor Richard Wrangham told him that it was one thing to prove intelligence in dogs who evolved to live and respond to humans. What about a more wild animal that is not considered domesticated? Brian Hare made the mistake of impressing his professor. As a reward, he got sent to Siberia. Literally.

The Soviet geneticist Dmitry Belyaev directed a Soviet scientific institute in Novosibirsk from 1959 until his death in 1985, officially to study foxes and minks so that they could be better bred to supply the Soviet fur industry. But what Belyaev really devoted his life to in his Siberian institute was an extraordinary experiment. He selected the foxes that were less afraid of people and bred those, so that over multiple generations he had created what we could consider a new species of friendly foxes. At the same time he bred a control population of foxes not specially selected for friendliness. The friendly foxes evolved over the decades to inherit curled-up tails and floppy ears, becoming dog-like foxes. The work was continued after his death by his student and successor Lyudmila Trut, and half a century after the experiment began, Brian Hare visited and administered the object-choice test. The friendly foxes were able to follow the pointing gestures and pick the upside-down bowl with the food underneath. The control population of foxes could not. The friendlier foxes, while less vicious, were much smarter. They were the ones who got the treats.

Our closest genetic relatives in the animal kingdom are chimpanzees. Or until a few decades ago when more research was done on bonobos, a great ape almost identical to chimpanzees. Both chimpanzees and bonobos are genetically closer to humans than to gorillas. Chimpanzees, while perhaps not as smart as dogs, are still very smart. But they can also be violent, especially with each other. Bonobos, however, are much friendlier and have found a way to live without the violence known among chimpanzees. In studies comparing chimpanzees and bonobos, two bonobos in a room with a limited supply of bananas will share, whereas the more aggressively dominant chimpanzee will take all the bananas for himself. A bonobo will actually open a door to let another bonobo in and share food, even if that means less bananas for the original ape. What separates them from chimpanzees, beside behavior—and there are more behavioral differences that are not appropriate to discuss on Yom Kippur—and slight anatomical differences, is the Congo River across equatorial Africa, with chimpanzees living on the northern bank while bonobos live on the southern bank. Are we more like chimpanzees or more like

bonobos? We certainly have a history filled with violence and oppression. But we also have a history filled with lovingkindness and mutual care. Which is more innate?

Perhaps it is because of my Jewishness with its optimism toward life that convinces me that we more like bonobos. But after some quarantine-enforced reading in anthropology I am comfortable saying that what I hoped to be true may in fact be true. That we are by nature good, that the altruistic impulse is the key to our survival. The studies in genetic domestication are important because of the theory that humans are a domesticated species. We are tamer, less violent and intimidating than our prehistoric hominid ancestors. And we are much more evolved. "The human self-domestication hypothesis," write Brian Hare and Vanessa Woods in *Survival of the Friendliest*, "proposes that friendliness is the spark that ignited Homo sapiens' technological revolution. The human self-domestication hypothesis posits that natural selection acted on our species in favor of friendlier behavior that enhanced our ability to flexibly cooperate and communicate" (p. 65).

The key to success is language, the ability to communicate. In the Book of Genesis, God disperses the builders of the Tower of Babel by confusing their speech so they could not understand each other. An implication of that story is that the use of language is the ultimate act of hubris. The ability to communicate intention is what makes us Godlike, or to put it more piously, in the image of God. Angry, abusive violent people are not good communicators. Communication requires empathy, the understanding and comprehension of others. That's why on Yom Kippur we are reminded that the way to find atonement before God is to ask forgiveness of each other, to communicate together. What science can teach us is that friendliness is the evolutionary trait that made us human. Dogs can follow our gazes like human babies because dogs are indeed our best friends. Because they learned how to look into our eyes and win our love.

Let's talk about eyes for a moment. In the rabbinic midrash Tanhuma on the verse from 2 Samuel "For you are my lamp, oh God" (2 Sam 22:29), Rabbi Yohanan teaches: "The eye is white with a black part in its middle. Out of what part would one be expected to see? Out of the white part surely. But no, one sees out of the black part. Since you cannot fathom the light in your eyes, how can you attempt to fathom the way of the Holy One?" The lesson is that since we cannot even see through the light part of our own eyes, how are we supposed to comprehend God, who is the light of the universe.

Rabbi Yohanan was right that we see with the pupil, the dark part of the eye. What he did not realize is that it is the white part of the eye that helps us be seen, and understood, by others. Humans and domestic animals are actually the only animals that have different colored pupils. And, according to Hare and Woods,

Our own colorful irises are visible because they are displayed on a unique white canvas, the sclera. Our sclerae are white because they are missing pigment. Chimpanzees, bonobos, and all other primates produce pigment that darkens their sclerae so that they blend in with their irises. This reduced contrast makes it difficult to see where or what they are looking at. We are the only primates with white sclerae....From the moment we are born, we depend on eye contact. We are born much more helpless than other animals that even a few moments alone can be dangerous. To enlist the help we need to survive, we use our eyes. A baby's gaze...when parents look into the eyes of their babies....We are the only species that prefers white sclerae or relies on eye contact. Human babies can follow the direction of someone's gaze even when a person just moves their eyes. Chimpanzees and bonobos follow gaze direction

only when a person moves their whole head, and they will even follow that direction when the person has their eyes closed. For all their understanding of what others can and cannot see, chimpanzees and bonobos do not seem to understand that sight depends on eyes,...Our eyes are designed for cooperative communication. Most animals hide their sclerae to prevent their competitors from guessing what they might do next. But white sclerae give human babies an advantage” (pp. 72-75).

What separates us from the other apes? Intellectually, it the use of sophisticated language. Physically, it is the white in our eyes. Rabbi Yohanan in the midrash Tanhuma was on to something. The white of the eye, the sclera, is what helps us communicate, it is what makes us most human, or most god-like. It reveals rather than hides our gaze, and beyond that, our intentions. The only other animals with white sclerae are the domesticated animals like dogs. Being able to look at another, to gaze into one’s eyes, is what supports compassion. That is the essence of our nature.

We are meant to be compassionate. We are designed that way. The thirteen attributes of God that we sing over and over as a refrain on Yom Kippur are not heavenly attributes of God that are unattainable by mere mortals. They are the ways of God that we are meant to walk in. Yom Kippur is not about overcoming our human natures, it is about achieving them, about remembering who and what we are. We are more like dogs than wolves. We are more like bonobos than chimpanzees. We are much stronger than dinosaurs.

Those of us sitting here in person are all wearing masks. Last week I was struck by a sign while crossing the Mario Cuomo Bridge: “One small ask—wear a mask!” It is so easy to do and yet so hard to achieve universal compliance. Maybe it is not only because it entails some discomfort, but also because it is more effective at preventing our spreading the disease to others than protecting ourselves. There is in the mask-wearing an element of self-protection, but there is a greater element of altruism, of kindness and friendliness to others. My son Laurence just took the SAT at a remote location in Pennsylvania—it was not easy to find available tests because of the backlog from covid-19. The proctor was reading the instructions that all must wear a mask at all times or they will be disqualified until Laurence interrupted him saying, “Excuse me, but I would be more comfortable if you also wore yours.” Unlike pigmented sclerae which serve to hide an animal’s intentions, a mask reveals our true humanity. Yom Kippur does that as well. We who are here today remember that we are human beings, and that we owe kindness and compassion to each other. That that is what God demands of us.

The word for human being in German is *Mensch*. But in Yiddish, the word *Mentsh* means more than that. A Mensch is not just a person, but a *good* person. The brilliance of the Yiddish is that it uses the German word to signify that a true human being is a good human being. As Moshe Waldoks wrote, “The central contribution of the Yiddish usage of *mentsh* is the distinction it stresses between what human beings are and what they should be” (in Cohen and Mendes-Flohr, *Contemporary Jewish Religious Thought*, pp. 587-588).

We fast on Yom Kippur, and we often wonder why, on such a holy day, our thoughts need to wander to the hunger pangs in our stomachs. But we fast to remind us that we are indeed human beings, and that our true nature is not just to feed our stomachs but others. We fast to remind ourselves that God did not put us here to bully others, but to be compassionate one to another. We don’t fast alone, we come together—as best as we can even in a pandemic—to remind us that being human is to live with others in community, and to care about others. That is the best of our human nature, and that is how we survive.