

THE REAL ORIGIN OF THE SPECIES

By Richard D. Alexander June 28, 1987

THE MOST mysterious and compelling unanswered question about ourselves is how we came to be.

What caused us to evolve our marvelous intellects, our unsurpassedly complex social life? Why are we so different from our closest relatives? What happened to all of our extinct ancestors, so that for five or 10 million years, while other rapidly evolving forms of life were speciating prolifically, no part of the evolving human line has survived as -- or perhaps even became -- a different species?

Why are we all alone at the pinnacle of the particular direction of rapid evolutionary change that led to such traits as a huge brain, complex intelligence, upright posture, concealed ovulation, menopause, virtual hairlessness, physically helpless but mentally precocious babies, and above all our tendency and ability to cooperate and compete in social and political groups of millions?

Biologists take it as given that all forms of life have come about through an organic evolution guided by natural selection, which implies reproductive advantage. But there are whole suites of human activities that seem to have nothing to do with reproduction. How does one explain art, music, opera, literature, humor, politics, or religion, using arguments from biological evolution? Conversely, why should we take evolution seriously, in trying to understand ourselves, if such important activities seem immune to its probings?

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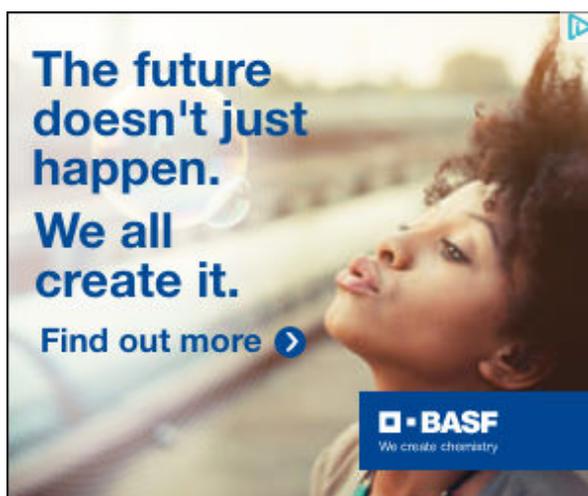
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Of course, social competition is by no means unique to humans. It occurs more or less throughout the animal world. What might have been different about the human line that could have made social competition paramount? And why should humans have remained social if their interactions were leading to mounting behavioral complexities and a centrality of social competition and manipulation?

Humphrey did not answer these questions. But others unaware of his theory have. Anthropologists have long described humans as the species that, rather than simply living in a certain environment, or choosing one, most explicitly creates its own. As a result, humans have long been able to live almost anywhere they pleased on the face of the earth, and have become so ecologically dominant that they can manipulate or even remove aspects of their environment -- including other living forms -- more or less at will. That is, humans have so reduced the significance of what Charles Darwin saw as the external "hostile forces of nature," or the forces of natural selection, that other humans have assumed that role -- at least most of the time -- insofar as evolution of the intellect is concerned.

Cooperating to Compete



If other humans became potentially the most detrimental force with respect to the lives and success of their fellows, then why didn't humans evolve to live apart from one another? There are thousands of species that do not live socially. With humans, ecological dominance and social

knowing more about our history will contribute to a solution to this most pressing of all human problems.

So now, perhaps, we know why our closest relatives always became extinct, and failed to live alongside us in the way that many similar species of animals and plants do co-exist. They were extinguished -- or the collections of traits that identified them disappeared -- partly through the group-against-group cooperation to compete that we conduct so frightfully well.

I believe that our closest existing relatives -- chimpanzees, gorillas, and orangutans -- not only have been severely restricted by human predation and competition, but may have had their social structure virtually determined by humans. If they had been more like us, or perhaps less able to diverge from us in the face of evolutionary competition, they too would probably be extinct. On the other hand, if we were to disappear from the planet even now, and leave them to their own devices, I have little doubt that chimpanzees, at least, would evolve many attributes paralleling those of modern humans. Chimpanzees have already evolved specialized group-against-group competition. Their brains are most like ours, and they and orangutans alone share with us the ability to recognize themselves in mirrors, suggesting a kind of conscious self-awareness. At least among males, chimpanzees show signs of the extraordinary and complex within-group cooperativeness that, in a primate, probably represents the adequate initial kick for the runaway social process here envisioned.

Altruists and Deceivers

Philosophers and social scientists have often written as if evolution had caused us to become indiscriminate altruists who continually sacrifice our own life interests for those of others. Similarly, ecologists and animal behaviorists once supposed that the individuals of nonhuman species evolve to do things for the good of their populations or species, even at the expense of their own "genetic survival." Now we know that evolution has not been doing any such things. It only seems that way -- in humans partly because of kin-helping and partly because of the enormous importance of reputation in social success. Self-beneficial reputations can be acquired through beneficence to others, and humans alone have sorted out their common interests within groups and translated them into cultural or moral rules.

Because of our social competition, and because of the importance of reputation in reciprocal interactions, deception has also become a prominent aspect of our social lives. Sometimes it is effected through self-deception that prevents us from knowing our own true motives and allows us what the psychologist Donald T. Campbell calls "sincere hypocrisy." The pervasiveness of deception in our everyday lives can be glimpsed by anyone willing to reflect on how often he or she

bathes, shaves, puts on deodorant, makeup or artificial eyelashes, chooses clothes with concealing and flattering effects such as shoulder pads, dons shoes with elevated heels, pops a mint into the mouth or enters the workplace wearing a polite smile.

My goal is to develop a complete scenario of the human enterprise that cannot easily be discredited, regardless of the skepticism or skill of the other scientists who will inevitably try. In terms of this essay, trying to do a better job than my fellow investigators is my way of competing. Skepticism, the desire to test ideas, and skill in identifying flaws in theories is what causes the competition of science to become, as paleontologist George Gaylord Simpson once termed it, a self-correcting method of finding out about the universe. I am also the sort of optimist who believes that accuracy in such enterprises is likely to change attitudes in ways that people in general -- and I, too -- will regard as beneficial.

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