

DISTORTING DARWINISM

Evolution can shed light on the human condition. But skepticism is needed when bleak claims are declared from the armchair.

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As a scientific theory, evolution by natural selection is a historic success. Its use in human affairs has a murkier history. In Darwin's time, evolutionary theory was distorted by philosophers such as Herbert Spencer, famous for coining the phrase "survival of the fittest." Spencer was not primarily interested in evolution as a biological theory grounded in natural history. Rather, he saw in Darwinism a novel method of promoting his political ideas with the authority of scientific language. Appropriately, his slogan "survival of the fittest" became a justification for views ranging from *laissez-faire* capitalism to eugenics and pseudoscientific racism. In Spencer's Social Darwinism, such measures were allowed to hurt the weak, for "the whole effort of nature is to get rid of such, to clear the world of them,

to make room for better."¹ From the comfort of his armchair, Spencer turned Darwinism from a science of the curious into a philosophy of the powerful.

Not all accepted Spencer's ruthless worldview. Some found themselves in favor of social solidarity and sympathy for the weak. A major spokesperson for the alternative view was the Christian orator and three-times Presidential candidate William Jennings Bryan, best known for his vehement anti-Darwinism stance in the Scopes Monkey Trial of 1925. In his time, Bryan helped fuse creationism into the American mainstream. When faced with a false choice between evolution and humaneness, Bryan chose humaneness.²

Keeping Our Own House Clean

The case of Social Darwinism serves as a warning. To promote Darwinism, we must keep our own house clean. Naturally, mistakes are part of any science. But overconfidence about ideological views must be avoided.

Extra care should be paid to cases where Darwinism is used to justify bleak claims about the human condition. Yet instead of more care, they seem to receive less. Many popular writings on evolution are marred with cynical claims about human nature backed solely by a careless application of evolutionary terms. An oft-quoted example comes from Richard Dawkins's masterpiece *The Selfish Gene*:

Be warned that if you wish, as I do, to build a society in which individuals cooperate generously and unselfishly towards a common good, you can expect very little help from our biological nature. Let us try to teach generosity and altruism because we are born selfish.³

Dawkins later acknowledged that this was a leap too far: his book was never about selfish *organisms* but selfish *genes*. Wherever scientists studied the actual psychology of the human organism, it became clear that our biological nature can be of great help in achieving generous cooperation.⁴ In the 30th anniversary edition of the book, Dawkins retracted the claim: "Please mentally delete that rogue sentence and others like it."⁵ Dawkins accepted that a sharp divide lies between genetic and psychological claims. Many biologists have stressed this all-important point.⁶ But much confusion remains.

What Do We Want From Sex?

Take human sexuality. Here, evolutionary psychology is often criticized for relying on speculative "just so-stories" about our ancestral past.⁷ But in popular writings, natural history is sometimes sidelined altogether. Instead, evolutionary logic is forced directly onto the human psyche, by claiming that "a major desire for humans is to transmit our genes into future generations."⁸ This assumption, then, serves as a springboard for a predictable deduction: giving birth is expensive for females,

but males have a lot of cheap sperm to spread. Therefore, the universal male instinct is to mate with a wide harem of females.⁹ Indeed, when actor Edward Fox suggested that men should be allowed to have extramarital affairs due their natural urge to "spread their seed", evolutionary logic was invoked in his support.¹⁰

Yet it is difficult to see how genuine Darwinism could justify such a sweeping conclusion. Evolution has created a plentiful array of males who, despite their cheap sperm, commit to a single partner. From coyotes to titi monkeys, even some of our fellow mammals mate with one partner for life.¹¹ This is not to say that humans, too, have evolved to be monogamous. The evidence is notoriously mixed, leading primatologist Robert Sapolsky to call us a "profoundly confused species."¹² But whatever the answer, it cannot be discovered from the comfort of the armchair.

More generally, we should be skeptical of any enterprise where Darwin's name is coupled with the assumption that all animals—even all males—must be identical in any respect. After all, Darwin was a natural historian awed at how evolution produces animals "so different from each other," marveling at how "endless forms most beautiful and most wonderful have been, and are being evolved."¹³ Indeed, the very promise of evolutionary psychology is to understand desires as evolved traits. But if desires are evolved traits, they should come in endless forms most beautiful. Using supposedly Darwinian logic to squeeze all mating desires into "spreading our genes" does violence towards the grandeur of Darwin's view of life. As with Social Darwinism of the 19th century, this reflects an armchair-distortion of the biological theory, and one with appropriate resistance when presented to the wider public.

Can Evolution Produce Genuine Kindness?

Moral philosophy is another realm where Darwinian logic is customarily employed in the service of pessimistic punditry. Here, assuming that evolution must produce selfish organisms leads many thinkers to regard all virtue as a form of tactical self-interest. The slogan for this view was given by evolutionary biologist Michael

Ghiselin, who wrote: “What passes for cooperation turns out to be a mixture of opportunism and exploitation. Scratch an altruist and watch a hypocrite bleed.”¹⁴

Indeed, even some professional moral theorists continue to speak as if genuine kindness cannot exist in the context of traditional evolutionary theory.

The controversial notion of evolution “for the good of the group” brings solace to some.¹⁵ But where selfish genes are in charge, moral behaviors are, in the words of the social psychologist Jonathan Haidt, “understood as thinly veiled ways of pursuing self-interest.”¹⁶

Upon closer inspection, however, this convention appears to be little more than a recycled version of Dawkins’s “rogue claim” that selfish genes must give rise to selfish organisms. It is yet another attempt to force a shortcut from abstract evolutionary theory into actual knowledge about human psychology. And as primatologist Frans de Waal has memorably said, this is akin to reasoning that a composer working in a chaotic studio must have produced chaotic symphonies. De Waal calls this the “Beethoven error,” in reference to the composer’s infamously chaotic Viennese studio.

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As for natural selection, de Waal writes: “The Beethoven error is to think that, since natural selection is a cruel, pitiless process of elimination, it can only have produced cruel and pitiless creatures.”¹⁷

Doubtlessly, many creatures are rather cruel and pitiless. But no grand principle prevents some species from evolving to a different direction. Take the Siberian silver fox experiment. In one of the most important genetics experiments of the 20th century, Dmitri Belyaev and Lyudmila Trut demonstrated that an array of traits can arise from a remarkably simple selection process. The Russian scientists bred notoriously aggressive silver

foxes with a simple criterion. Each year, the least aggressive foxes were selected for the next breeding round. During the following decades, a new breed of docile foxes emerged that were also floppy-eared, friendly, and socially intelligent, intimate and playful in the company of humans.¹⁸

It is illuminating that even the most cynical of commentators would resist claiming that the silver fox’s reduced levels of aggression are a “hypocritical” form of “opportunism and exploitation.” Nor would we say that the foxes evolved friendliness as a “thinly veiled way” to be selected for the next breeding round. We readily grasp that these psychological traits are not “aimed” at anything. They simply appear. Then selection takes place.

Survival of the Friendliest

Belyaev and Trut demonstrated that, in theory, evolution can produce organisms with a genetic disposition for kindness. What about humans? One might worry that unlike humans, the domesticated foxes evolved in the lab. There, they were selected by hand, not by the “cruel,

pitiless process of elimination” that operates in the Darwinian wilderness. But nothing prevents similar selection to take place by nature’s own accord. On the contrary, the “self-domestication hypothesis,” based on the work of Brian Hare and Richard Wrangham amongst

others, suggests that much of human evolution throughout the Pleistocene was characterized by a similar selection for friendliness.¹⁹

So how could “survival of the friendliest” evolve in the wild? One theory is that aggressive bullies were ostracized, even eliminated, by an alliance of more cooperative tribesmen.²⁰ Another theory is that women preferred to mate with docile men.²¹ A further suggestion is that friendly children had the best prospects of receiving care from the community.²² But the method is secondary. There is overwhelming evidence showing that some level of human “self-domestication”

did occur: our genes, behavioral tendencies and skeletal morphologies all show signs of the “domestication syndrome.”²³

Admittedly, the self-domestication hypothesis is far from explaining the evolution of a fully-fledged morality. But it does help us avoid several dead ends. Evidently, its very plausibility demonstrates that genuine kindness is not a stranger to the Darwinian world. But the self-domestication hypothesis also illuminates the deep limitations of abstract evolutionary logic as a window into human psychology. No amount of armchair Darwinism would

have led speculators to propose that social selection pressures in the Pleistocene led our ancestors into a trajectory of reduced testosterone, diminished sex differences, and an increase in social tolerance. They hardly could have. Natural history cannot be known from the armchair.

Evolution can teach us about the human condition. Not everything it teaches us is nice and jolly. But we must stay alert to the perilous ease with which selfishness, ruthlessness, and deceptiveness seep into evolutionary theorizing, even when not appropriate. Otherwise, we risk repeating Spencer’s error and turn Darwinism into its own enemy. **S**

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