

# Does evolution explain human nature?



Robert Wright

**Yes.**

Two centuries after the birth of Darwin, the Darwinian explanation of human nature is essentially complete. We now know why people everywhere — notwithstanding differences of culture and

context — experience the same basic emotions, the same kinds of hopes and fears, even the same distortions of perception and cognition.

Ever since Darwin published *On the Origin of Species* in 1859, it has been clear that natural selection could explain the more obviously animal parts of human nature. Things like hunger and lust are no-brainers: genes that encourage you to ingest nutrients and have sex do better in the Darwinian marketplace than genes that counsel starvation and abstinence. Nor is it any great mystery how humans came to be socially competitive. High social status brings improved access to mates, so genes that fuel the pursuit of status fare well.

Much subtler legacies of evolution have come to light in recent decades as the modern science of evolutionary psychology has emerged. Not just animal appetites and drives, but fine-grained tendencies of emotion and cognition can now be ascribed with some confidence to natural selection. For example, genes inclining us to lower the social status of rivals by spreading unflattering gossip or harsh moral appraisals would be favored by natural selection. And, of course, the most effective propagandist is someone who believes the propaganda, so our everyday moral evaluations of people may be skewed by our genes.

Maybe the biggest accomplishment of post-Darwin Darwinians has come in explaining the mushy side of human nature: compassion, empathy, and so on. These emotions make obvious Darwinian sense only when they are directed toward those endearing little vehicles of genetic transmission known as offspring. But

what about when they are directed toward collateral kin — siblings, cousins — or even non-kin? Over the past half-century, two theories — the theory of kin selection and the theory of reciprocal altruism, respectively — have answered these questions.

The theory of reciprocal altruism has also illuminated several other big parcels of the emotional landscape — gratitude, obligation, forgiveness, and righteous indignation. Even the sense of justice — the intuition that it is “right” for good deeds to be rewarded and for bad deeds to be punished — now makes sense as a product of natural selection.

The evolutionary roots of human nature have not been “proved” in the sense that theorems are proved, and they are not as firmly corroborated as, say, the first law of thermodynamics. But they grow increasingly plausible as more psychological experiments are done from a Darwinian angle, more evolutionary dynamics are modeled by computer, and the biochemical links between genes and behavior become clearer. One chemical alone — oxytocin — has been implicated in maternal bonding, romantic bonding, and the trust that undergirds friendship.

None of this is to say that no puzzles remain or that there are no disagreements among Darwinians. Spats between “group selectionists” and “individual selectionists,” though often overstated and in some cases merely semantic, do sometimes have real consequences. Still, this infighting results from a *surplus* of serviceable Darwinian theories, not a shortage. There can no longer be reasonable doubt that the emotions and inclinations that people everywhere share are the legacy of natural selection. Darwin’s theory has illuminated and explained the fundamental unity of human experience.

Many people find it depressing that some of our noblest impulses are reducible to genetic self-interest — and, worse, that this self-interest can subtly corrupt our moral evaluations and our

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conduct. As it happens, the fact that they find this depressing is itself explicable in Darwinian terms. Natural selection has inclined us to present ourselves as public-spirited and even selfless, and in the service of that goal we are inclined to convince ourselves that we really *are* public-spirited and even selfless. In other words, we naturally consider ourselves noble, not just “noble.”

But this points to the sense in which the Darwinian explanation of human nature is *not* depressing. If we are naturally inclined to overestimate our goodness, then a theory that exposes us to a truer view of ourselves has the potential to inspire self-improvement. What should depress us is how much time we spend deluding ourselves about our goodness, not the fact that we now have a chance to escape delusion and make amends.

Another dubious source of Darwinian depression is the idea that an evolutionary explanation of human nature leaves us with no great awe-inspiring mysteries about the human condition. Actually, Darwinism, while solving the mystery of human nature *per se*, has revealed deeper mysteries that it has no hope of solving.

For example: how on earth did the universe wind up generating an algorithm (natural selection) that turns an imperative of utter selfishness at the genetic level into altruism at the individual level? An algorithm this elegant is at least as awe-inspiring as more direct means of creating humanity and other species. Charles Kingsley, an Anglican clergyman and a naturalist, wrote in a letter to Darwin, “I have gradually learnt to see that it is just as noble a conception of Deity, to believe that He created primal forms capable of self-development into all forms needful *pro tempore* and *pro loco*, as to believe that He

required a fresh act of intervention to supply the *lacunas* which he himself had made. I question whether the former be not the loftier thought.”

Finally, there is the mystery of consciousness. I have said that natural selection readily explains emotions like compassion and indignation. Strictly speaking, it does not. It explains the behaviors with which compassion and indignation are correlated and the neural programs that govern those behaviors. Why these behaviors and this neural governance should have emotional correlates — why there is subjective experience *at all* — is actually a mystery. Only a few Darwinian thinkers, such as Steven Pinker and the late John Maynard Smith, have appreciated this problem. Daniel Dennett and others deny the mystery, but in doing so, they sometimes veer perilously close to denying the existence of consciousness itself.

Subjective experience, of course, is what gives life meaning. A planet full of robots that have no interior life but behave and speak as we do is not a planet worth caring about. If none of these robots can feel pain, what is wrong with smashing them? If none can feel joy — or anything else — what is good about “life” on this planet?

What Darwinism tells us is how natural selection gave human life its distinctively rich texture of meaning. Darwinism can also give us guidance as we try to better ourselves and make that meaning richer still. What Darwinism does not tell us is why there is meaning at all.

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