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## Rage Against the Art Gene

**Darwin revolutionized our understanding of mankind's origins. Now scientists think they can apply his theories to the source of our creativity without it sounding like a lot of monkey business.**

### NEWSWEEK

From the magazine issue dated Apr 6, 2009

The notion that the origin of the arts—crowning glory of the species, realm of such sublime masterworks as "Hamlet," Beethoven's Ninth and the "Mona Lisa"—can be traced to the living and mating routines of our subliterate nomad ancestors sounds like some kind of joke. In fact, it was treated as a joke by Stephen Colbert a few weeks ago, when he invited Denis Dutton, the author of a new book about creativity and evolution, on to "The Colbert Report." Dutton was explaining why our love of string quartets and Jane Austen began hundreds of thousands of years ago in the Pleistocene epoch when Colbert cut in: "How many cavemen were reading 'Emma'?"

Colbert being Colbert, the objection was pretty obnoxious. (Moments earlier, he'd begun the interview by asking Dutton to stipulate that "evolution is a fraud.") But his comically overstated question helps pinpoint one of the more fascinating debates within Darwinism in this, the 200th anniversary year of Charles Darwin's birth. Since "The Origin of Species" appeared in 1859, scientists have succeeded in explaining more and more aspects of the natural world as products of evolution by natural selection, the process by which some features, because they enhance survival and reproduction, become more prevalent over the generations. Their progress has led scholars to poke around in the human mind itself. Researchers such as Steven Pinker and Daniel Dennett have tried to explain the way we think and act in modern society in terms of faculties that helped our ancestors survive on the East African savannas of prehistory—a form of analysis that often sounds, as Colbert's question suggests, kind of preposterous.

Dutton is not the first person to extend the tools of evolutionary psychology (which is what this field of inquiry is called) to humanity's obsession with making and enjoying art. But in "The Art Instinct," he uses a synthesis of existing approaches to propose a new "Darwinian esthetics" —a way of thinking about culture that's informed by natural history. As a professor of the philosophy of art (at the University of Canterbury, New Zealand) and the editor of *Arts & Letters Daily*, the go-to site for the world's procrastinating intellectuals, he represents an important conduit between the frequently combative fields of science and the humanities. Quite apart from its timeliness for Darwin's bicentennial, the book deserves a look because it's the latest in a long, long line of attempts to bring art and science together in a way that doesn't leave one—or both—with a black eye.

A Darwinian understanding of culture begins with the observation that the arts appear in every human society and yield intense delight. When evolutionary psychologists detect those qualities, bells start ringing. Universal appearance of a behavior sometimes leads scientists to infer that it evolved before our ancestors' diaspora from Africa 60,000 years ago (e.g., walking upright). And intense pleasure is often how our genes encourage some advantageous behavior (e.g., a taste for sweet or fatty food helped our ancestors get enough calories). But where an upright gait and a varied diet had obvious survival advantages for our nomad forebears, it's far from clear that the same went for something as energy-consuming and apparently useless as the arts.

Dutton sees evolution generating an art instinct in two ways. First, creative capacities would have helped our ancestors to survive in the hostile conditions of the Pleistocene, the epoch beginning 1.8 million years ago, during which *Homo sapiens* evolved in Africa. An ability to invent and absorb stories, for instance, would have helped early humans work out "what if" scenarios without risking their lives, pass along survival tips and build capacities for understanding other people around the campfire. The best storytellers and best listeners would have had slightly greater odds of survival, giving future generations a higher percentage of good storytellers and listeners, and so on.

Second, on those long, dull savanna nights after the day's hunting and/or gathering was done, a big vocabulary and a creative streak would have improved a man's chances of wooing a lover (and thereby passing on his genes to a child)—just as an amusing woman would have been more likely to entice the guy to stay (thereby boosting the child's odds of survival). According to this view, which Dutton derives from the psychologist Geoffrey Miller, evolution turns the brain into "a gaudy, overpowered Pleistocene home-entertainment system" for winning and keeping lovers.

Over the thousands of generations of our prehistory, then, the pressure from these two processes (natural selection and sexual selection, in evolutionary terms) would have led to what Dutton calls the survival "not just of the physically strongest but of the cleverest, wittiest and wisest." By the dawn of civilization 10,000 years ago, our ancestors' brains would have been hard-wired to collaborate and use tools, as well as to create and enjoy art. Thus our tastes are not blank slates filled in entirely by our societies (as various continental philosophers would have it): they are shaped in part by the distant ancestors

whom we unwittingly take with us every time we go to the museum, the playhouse and the concert hall. All in all, it's a lovely vision. I just wish somebody could convince me that it's true.

Because, really, who knows? In his lucid and authoritative new book, "Why Evolution Is True," Jerry A. Coyne, a biologist from the University of Chicago, decries the "scientific parlor game" of trying to find Darwinian explanations for every form of behavior. Human life in the Pleistocene is so remote that even when researchers add the knowledge gained from observing hunter-gatherer tribes active today to the fossil record, the resulting picture of our ancestors' ways is hopelessly blurry. "The fact is," said Coyne when I called to talk to him about the arts, "you cannot give me a human behavior for which I can't make up a story about why it's adaptive."

The complaint isn't unique to Dutton's book—it's the standard retort whenever evolutionary psychology thinks it has discovered another string tugging at the marionette of modern *Homo sapiens*. But the arts turn out to be especially problematic for evolutionary psychology. For one thing, there are large fields of artistic endeavor that even Dutton acknowledges lie outside Darwin's reach. In music, the way that key modulations affect the mind "spontaneously, pleasurably, effortlessly," he writes, is a "mystery of evolution." The traits that distinguish masterpieces from the general run of creative work prove similarly puzzling. The tie between evolution and qualities like complexity and purpose "is murky at best, but it is real and it is worth meditating on"—an unconvincing remark that sounds like a congressman forming a commission when he knows better than to take real action.

When the book departs from theory to consider actual art and actual human beings, the strain of yoking evolution to creativity grows even more visible. According to Dutton, moderns and postmoderns are wrong to think that people can be taught to enjoy any kind of art, no matter how ugly or obscure it might be. Our human nature ensures "not only that some things in the arts will be difficult to appreciate but that appreciation of them may be impossible."

That proposition sounds reasonable (if banal) when he's discussing the paucity of art based on smell. But Schönberg? "The general failure of his contratonality to catch on with the musical public is evidence that it is not just another conventional musical schema for the blank slate that is the human mind," writes Dutton. Really? Schönberg may not be a Mozart-class rock star, but plenty of people do enjoy his music—enough that orchestras seem determined to keep playing it. Are the 2,500 people who have declared themselves Schönberg fans on Facebook committing some kind of crime against esthetic nature?

Dutton would say he wasn't making an absolute statement, only pointing out a general tendency. But here is exactly the trouble with evolutionary psychology, a flaw that the arts make uniquely plain. Much of evolutionary psychology deals with universals. It works backward from some shared trait to puzzle out an underlying cause and help us to understand ourselves better. But when a human activity doesn't lend itself to universals, evolutionary psychology begins to sound dubious. And no field of human endeavor has less to do with universals than the

arts. Those 2,500 Schönberg fans are doing something gloriously human: acting on a ferociously individual, unrelentingly subjective enthusiasm for something weird.

All this, I realize, sounds like the romantic nonsense of a culture writer whose field is being encroached upon by the guys in lab coats. I'll cop to the romantic part, but not to the nonsense. After all, evolutionary psychology has received its sharpest criticism from no less a Darwinian than Stephen Jay Gould. Until his death in 2002, he stood as one of the great champions and evangelists of science, as well as one of the most exacting critics of its tendency to overreach. He was also my teacher. When I tried to pinpoint why Dutton's book left me unsatisfied, his lessons kept coming to mind.

According to Gould, life's history needs to be understood not just as the result of natural forces explicable by science, but also of contingency: strange, unplanned events that change the course of everything that follows. (If not for a freak asteroid impact 65 million years ago, Gould used to say, mammals might still be small, furry creatures scurrying around a dinosaur-centric world.) No outcome of life's history struck him as more contingent—or, consequently, more wonderful—than the human mind, a tangle of "mental machinery jury-rigged in the immensity of evolution." He called higher mental functions like the arts "spandrels," an architectural term for the triangular space formed when two arches meet at right angles. Though their rich decoration can make them appear to be the point of a particular design (in the domes of some medieval churches, for instance), they're really an inadvertent byproduct of how arches work. The arts, likewise, may be one of the many adaptively useless byproducts of a complex brain that evolved to perform other tasks.

This doesn't mean that the sciences of the mind have nothing to tell us about our wildly contingent brains, only that in fields like ethics and the humanities, evolutionary psychology doesn't answer the questions that matter most. In an example cited by Gould, the really pressing question isn't what makes composers compose, it's what made Handel a composing genius; not why people listen to orchestral music, but what complex bundle of reasons makes an individual listener (Gould himself) swoon over Handel's Old Testament oratorios.

Dutton is no philistine; he expresses a genuine reverence for great art throughout his book, and he may very well be right that there's an instinctive nudge behind our impulse to sculpt and sing and draw. But something rings false in the overriding impression created by evolutionary esthetics: that a mental trait is ennobled when we supply it with Darwinian roots. Gould, the self-described "naturalist by profession, and a humanist at heart," knew the opposite to be true.

URL: <http://www.newsweek.com/id/191399>

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