

Appeal of the Rare

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In Darwin, Minnesota, the modern pilgrim can observe what is claimed to be the world's largest ball of twine made by one person. Eleven feet tall, weighing in at 17,400 pounds, the ball is displayed in a Plexiglas gazebo. The callow sophisticate, passing afternoons in Paris museums amid roomfuls of Ming vases or dinosaur pelvises, might guess that a ball of twine, however large, could have only limited public appeal. But the town of Darwin knows better, making the display the centerpiece of its annual Twine Ball Days festival. This sort of thing is not an anomaly. Consider the display in Branson, Missouri, of the world's largest twine ball produced by group effort, a whopping 41.5 feet in circumference. In Jackson, Wyoming, you can find the world's largest ball of barbed wire, all 5,290 pounds of it.

Why should anyone in his right mind want to see these things? Why are cheesy performers advertised as "the one and only"? Why is a one-in-a-million postage stamp with an airplane accidentally printed upside down worth hundreds of thousands of dollars? And why is it impossible to resist looking at a picture in the *Guinness Book of World Records* of the world's longest mustache? It's not because it makes us reflect on the folly that is human. It's not the challenge—"That's it; I'm going to stop shaving today."

Why are we attracted not only to the biggest version of almost anything but also to the smallest, the weirdest, the first, the last, or the only? Why does something gain value merely because it is rare and authentic—the odd voyeuristic pleasure that comes from seeing on display the salt and pepper shakers from the mess kit George Washington may have clutched as he crossed the Delaware? Is it mere curiosity, or is it something more?



Rarity is a matter of context. *Papilio palinurus*, or the emerald swallowtail, is threatened in Malaysia, but it looks commonplace surrounding a single specimen of *Anteos menippe*, a butterfly frequently sighted in South America.

To make sense of this appetite, consider whether it has adaptive advantages, a question that takes us from the ball of twine in Darwin, Minnesota, to that other Darwin. A selective responsiveness to rarity and contrast seems to be a feature of our sensory systems, a phenomenon called contrast enhancement. Experience the same odor repeatedly or hear a constant background sound, like a noisy air conditioner, and the relevant sensory system begins to habituate, becoming sluggish and unresponsive. Then, suddenly throw in something really different and that sensory system comes alive, probably even exaggerating the difference between that new stimulus and the previous, repetitive one. Walk into a brightly lit room in the middle of the day and it's no big deal. Sit in the dark for an hour and then go into that room and it's blinding.

Contrast enhancement may have some advantages in the realm of predatory behavior. Consider the archetypal way the hyena hunts. It provokes a bunch of zebras into running and picks out the one that's different—the slowest. Predators have what psychologists call a search image for the outlier. A number of decades back, a researcher in the Serengeti was trying to study the individual behavior of wildebeests. The problem was to recognize individuals—wildebeests all look alike. The researcher hit upon a clever idea: to tear around the savanna in a jeep fast enough to get close to a wildebeest, and using a paintbrush attached to a long

pole, splatter paint on one of the animal's haunches, leaving a unique and random pattern. What the researcher discovered, to his dismay, was that each splattered wildebeest soon became a target of predators. It's called the oddity effect. A predator has to be good at picking out the old and the weak or, with no additional information to go on, the different. As any butterfly collector can tell you, it is easier to net a yellow butterfly in a swarm of brown ones than to get a single brown one.

The functioning of our sensory systems and their relevance to predatory behavior may tell us something about why we are responsive to rare sensory events. But that doesn't explain why we are so deeply intrigued by them. Nor does it tell us anything about the pull toward rare extremes of ideas and facts, as opposed to sensations—the preciousness imparted to a piano, say, by the knowledge that Beethoven once pounded those very keys.

Our fascination with a hallowed piano moves us into the uniquely human domains of philosophy, psychology, language, and culture. In these realms, studying the rare and the extreme yields important information. It gives a range, the knowledge of just how much or little some measure can be, which is often very useful. Suppose that you can't swim, but you have to wade into a murky lake. It is useful to know that, on average, the lake is two feet deep. But it is more useful to know about an extreme—a 10-foot drop over a spring about 40 feet from shore.

Location, Location, Location

Rarity in an unexpected context can be shocking or disconcerting. Thus we'd love to see the world's largest king cobra in a zoo display, but not in our shower stall. The 1904 St. Louis World's Fair had an exhibit of live "natives" from around the world—ersatz villages of Apache, Eskimo, and Zulu, complete with anthropologists expounding on the scientific proof of the natives' inferiority. For the average St. Louis burgher excitedly poking a Pygmy to see his reaction and then seizing his meager possessions for souvenirs (a frequent problem at the exhibit), it was wonderfully informative to see such rarities of human culture, as long as these folks were museum exhibits and not neighbors—or worse yet, sons-in-law.

However engaging and open-ended an intellectual problem this pull toward rarity is, it has some disquieting implications for the environment. One of these implications comes from the fact that we are not all that quick to spot rarity. We're very good at detecting a pattern that differs from a bunch of others, or at concluding that the mustache wrapped around that guy's ankles is the longest we've ever seen, but we aren't as good at recognizing processes. By the time we pick up on something—hey, have you noticed there aren't a whole lot of passenger pigeons around anymore?—it might be too late. For decades the live oak population has been in decline on parts of Stanford University's land, but few people realized it because the trees live for centuries, and only biologists noticed the absence of saplings. How many warm winters and dry summers had to pass before someone noticed global warming? Our nervous systems have evolved to detect sudden changes, but rarity, especially in other species, is all too often achieved by a gradual fading away.

Another problem arises because we're more emotionally responsive to some signs of rarity than we are to others. While many nature lovers are drawn toward "last best places," as endangered ecosystems are sometimes called, we are generally more responsive to animals than to natural systems, and more responsive to certain species—the ones that are cute, smart, or particularly exciting and dangerous. Thus, the World Wildlife Fund uses a giant panda bear as its symbol rather than the vanishing bamboo forests that sustain the pandas. But you can't save pandas without saving the ecosystem they depend on, and the pull of the rare panda (or mountain gorilla or California condor) sometimes produces interventions that don't see the forests for the tree frogs. The millions spent on California condor preservation in captivity will be wasted unless an environment can be created that simulates their original habitat—lots of big carcasses free of pesticides and poisonous lead bullets; few people with firearms anxious to shoot at anything that moves. Przewalski's horse is a similar case. It's been kept alive in zoos, and it is now being reintroduced into central Asia. If conservationists relax their guard, the

species could suffer the fate of its wild ancestors, perishing under competitive pressure from domestic grazers and being devoured by starving Russians.



The emerald swallowtail's distinctive green stripes are a shimmering optical illusion created by tiny yellow pits with sloped blue sides on the surface of the butterfly's wings.

The lure of the rare has another ecological implication that doesn't get talked about, one that particularly concerns us. Imagine a country that possesses something in the natural world that is wondrous and rare. Maybe it's even the last of its kind. Within that country's borders, in a park or residual wild area, are the last giant pandas or snow leopards, the last pockets of mountain gorillas or tigers, or the last migratory herd of a million wildebeests—something magnificent and acclaimed and sanctified. Something that tourists regularly pay a fortune to pay homage to in person.

Now suppose that, out of some combination of stupidity, shortsightedness, corruption, and venality, the country allows half of that rare place to be squandered for immediate profit. Too many tourist lodges are built within it, generating too much waste that is dumped into the rivers. A cousin of the autocratic president discovers how profitable it is to crank up that logging or mining operation on the edge of the preserve. A moronic secretary of the interior decides to privatize national parks. A little hunting is allowed for big permit fees, rangers are bribed by locals to let their cows graze on parklands. Someone pockets a bundle and this home of the rare is diminished substantially.

What happens next? News of this outrage winds up in conservation-oriented media. Perhaps they report on the process that has made the endangered more endangered, or perhaps they just concentrate on the depressing end product. In either case, the bottom line is the same: "The Last of Borneo's Orangutans?" "The Diminishing Elephant Herds of Africa," and so on. All of it translates into the same message. If you're planning to see this, do it soon at any cost, because it's going fast. Thus we have a lethal paradox—if you control something large that is famously, magnetically rare and you toss away half of it for a quick profit, the remaining half becomes twice as valuable. After a certain number of halvings, of course, you reach a point of diminishing returns, of no return, the exponential slide into oblivion. But in the meantime, the squandering gets rewarded because we like our rarity.

Don't confuse this depressing example of supply and demand with the economics of malevolent exploitation—as poaching diminishes the numbers of rhinos, for example, the value of the putatively aphrodisiac horn increases, thus increasing the incentive for further poaching and raising the value even further. This is a much subtler variant on the economics of scarcity, one with three components—the immediate financial rewards of misusing fragile ecosystems, the fact that the consequences of such misuse can be reported far and wide, and the desire of many Westerners to see, to commune with, the planet's remaining wild places and its inhabitants, whatever the cost.

This paradox not only applies to the circumstance in which some ecological treasure gains value as it becomes rarer but to the inverse case as well, in that something endangered will lose value as it creeps back from the edge of extinction. The Australian corporation Earth Sanctuaries establishes reserves and breeds rare animals to stock them. The commercial value of the company is based in part on the value of the animals, which is in turn tied to their scarcity. Each nearly extinct wallaby or bandicoot has great value, but the more successful the company is in building up their populations, the more the value of each individual dwindles. There's a conflict between biological and economic success that would make it mighty hard for an Earth Sanctuaries to be delighted about "curing" the problem of endangerment and thus put itself out of business.

There may be some solutions lurking here, but they are neither obvious nor easy. We certainly don't need to cure ourselves of our attraction to rarity. Nor should someone who has saved over a lifetime for a trip to the Serengeti feel morally obliged to forgo it. If tourists do not support the ecotourism effort that allows people to view the Serengeti's Pleistocene herds, then they'll soon end up in cook pots and be replaced with cows and goats. As usual, the most effective solutions lie with those least likely to implement them: the nations and organizations benefiting from the perverse economic incentives.

It is easy to see how our primal attraction toward the rare can cause us to doom something precious when we act with the worst of intentions—were there someday only one wild elephant left on Earth, there would be no shortage of scum willing to bid the heavens for the chance to stalk and shoot it. But it is surprising to think that we may inadvertently help to doom something precious, and damage our civilization in the process, while having the best of intentions.

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