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# Our Real Challenge: Managing Ourselves Instead of Nature

David M. Johns

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**Abstract**—As cultural animals we create meaning and order. Stories are the primary means our species uses to do this. Stories that rise to the level of myth exert powerful effects on behavior. The dominant myths that explain our relationship to the natural world have two serious failings: our self-importance and a superficial and simplified image of who we are. These stories obscure more than they enlighten, thereby preventing us from addressing the causes of the current extinction crisis. Conservationists can and must fashion new stories that take account of our disproportionate impact on the Earth and its origins in our behavioral plasticity, and that offer rules for constraining our destructive behavior. For such stories to actually work in constraining human behavior, they must be deeply internalized and socially reinforced within the framework of existing mythologies, both religious and secular. Two historical examples of how this has worked are examined, and specific recommendations are made for how conservationists can maximize their cultural influence through storytelling and mythmaking.

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## Introduction

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When Margaret Thatcher was preparing for the Earth Summit in 1992, she called together a group of scientists to advise her on the condition of the natural world. She was uniformly told that things were grim and getting more grim. Extinction rates were climbing, ecosystems were unraveling, and humans were on a path that would lead to the destruction of the Earth. Depressed, she asked if anyone had any good news. James Lovelock spoke up and said he thought it was impossible for humans to destroy the Earth. No doubt, he said, humans were causing a great extinction episode, but five times previously great extinctions had occurred and each time the Earth and life had recovered. The Prime Minister was cheered and asked Lovelock about this recovery—just how long would it take? Based on past episodes, he answered, about 5 to 15 million years. Prime ministerial depression resumed.

The meeting in this story may have never happened, but it doesn't really matter. A story need not be true in every sense to make its point. This is especially true of the most important stories. But it's a truth that is often lost today.

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We are storytelling animals. We make sense of the world using story and metaphor. Even when we think we're being very literal, doing science for instance, rather than storytelling per se, we usually are relying on metaphor and story to understand and navigate as individuals, groups, and entire cultures. Stories are more than just a means of trying to *describe* the order of the universe, be it physical or social. They are also the primary way we *create* order and meaning. There is a real world governed by regularities, and we can discover those regularities and test the truth of our descriptions. But we must create meaning and purpose as individuals and societies; that order is not provided by our DNA for the most part. It is nonetheless real for being created by us. Our lives are shaped by human-created order from birth to death and on the far side of both events. The truth of this order is made real by our acceptance of it. We do not usually think of that acceptance as creating order. Rather, we regard the created order as natural as gravity. This sense of the natural and the proper gives the created order stability in the face of the challenge posed by alternatives that erode the created order as surely as entropy does complexity in the natural order. It is a perennial human problem (Rappaport 1999).

So, story is central in our lives because we are wired for it and we are wired for it because it's adaptive. Because stories are so central, it is important that we have good ones. If the map a story provides is bad and the rules inappropriate, our problem solving will suffer. We will suffer, and the Earth will suffer.

Good stories are stories that accurately reflect *or otherwise take account of* our circumstances. Good stories help us understand the regularities of the universe. Good stories help us create meaning, values, and a human order that sees beyond the short term and impulse. And, good stories reinforce as proper and right our caring for life and that which makes life possible—the Earth and evolution for instance.

There are lots of bad stories out there, and they are used to explain and justify our destructive behavior toward the natural world.

In some of these stories we are God's gift to the universe, special, and destined to rule. In secular versions of this story we are special because we have reason, but still destined to rule as evolution's gift to the universe. In some versions, we do great good and improve the world. In others, we are destructive and will bring ruin to creation and ourselves. In other versions, our drive to control and dominate is just natural—we aren't the only creature that affects its surroundings.

The problem with all of these stories is that they do not accurately reflect or take account of our circumstances. They do recognize our disproportionate effect on the world, but they do not recognize our limitations and frailties, nor where we are headed. They also fail to recognize that our disproportionate effect is a capacity, not a necessary aspect of our

existence. While there are stories critical of human hubris, they are not aspects of the dominant cultures.

Our disproportionate effect on the natural world is the result of our capacity for technological development and our capacity for changing our social organization. These two capacities allow us to adapt to virtually any ecosystem, and, more importantly, to alter and even destroy ecosystems and species to suit our purposes. The changes in social organization that marked the neolithic transition to civilization are especially important, for they gave rise to a human social dynamic of competition, conflict, and ever increasing intensification of exploitation that drives further manipulation and domination of ecosystems. The transition to hierarchy and civilization may initially have been driven by population increases and other factors, but once complex societies are in existence, internal and external conflict in the service of maintaining and extending control become major drivers in development (Adams 1966; Algaze 1993; Chang 1980; Harris 1977, 1979, 1989; Johnson and Earle 1987; Service 1975; White 1959, 1969, 1987).

Despite the cost to nature, most people would argue that civilization and development have been, on balance, good things. Most would also argue that our behavioral plasticity and our capacity for culture are remarkable adaptive mechanisms and good things. But capacity for culture, which underlies the behavioral plasticity evidenced in changing technology and social organization, clearly has some serious downsides. These include our capacity for lying, denial, distraction, alienation, and myopia. We do not see, or we can ignore, the destructive consequences of our actions, especially if they are long-term (Ornstein and Ehrlich 1989). Even in the best of circumstances, we usually cannot forecast intergenerationally. Hierarchy further magnifies these negative attributes because it means rulers are usually insulated from the consequences of their actions. The ruled and the natural world pay the price.

The price is high, both materially and spiritually. D. H. Lawrence (1968: 504) wrote that "we are bleeding at the roots, because we are cut off from the earth and sun and stars." Our capacity for love—that which bonds us to others, to life, to the Earth, withers "because we plucked it from its stem on the tree of life" and it can't "keep on blooming in our civilized vase on a table." We find ourselves members of societies locked into an adaptive strategy that not only is bad for nature but bad for us in so many ways. But just as a bad wound triggers a flood of endorphins so we don't feel the pain instantly, so the wound of our estrangement makes us oblivious to its causes. (Berman 1989; Shepard 1982) This allows business as usual to continue, which in turn keeps us estranged. It's not a vicious circle but a downward spiral.

We need stories, then, that take account of all this and that can guide us in the creation of societies and policies that care for the natural world. Herman Daly (1996: 59), quoting in part David Orr, put it this way. We need to manage ourselves, not the planet or nature, because nature is not the problem. "Our self-management needs to be 'more akin to child-proofing a day care center than piloting spaceship Earth.' We need a playpen in which we can be free but also protected from the excesses of our own freedom." We make poor dominants. We are not smart enough to manage nature.

To some, this sounds like a call for ecofascism. Perhaps it would be if we tried to impose it from the top down. I think

any efforts in that direction would fail, and worse, would backfire.

There is another way. The ethnographic record is abundantly clear: stories deeply anchored psychologically and culturally can guide human action even in the face of human desires to the contrary, but mostly by affecting the desire in the first place. But it is not just any sort of story that can do this. Only stories that are part of a mythological structure, anchored in the sacred, have this influence (Campbell 1959; Evans 2001; Fulford 1999; Lakoff 1996; Levi-Strauss 1969, 1973, 1978, 1981).

By sacred, I do not necessarily mean religious stories, although they often are. Sacred is the quality of being unquestionable—the basic assumptions that each individual and all cultures necessarily possess at core. Sacred is that which is ultimately invoked to explain the meaning of it all. It is the basis for the human-created order and the particular interpretation of the nonhuman-created order. Some of you may have trouble conceiving of a secular sacred belief. I offer Einstein. He said that among scientists existed a fundamental belief that knowledge is good. He also noted that such a belief was not falsifiable, not subject to scientific testing. It was a basic assumption, used in turn to legitimize more specific axioms and rules for behavior. Many nonreligious people hold similarly untestable beliefs that the universe is good, or bad, or moral, or living.

Can we really consciously fashion stories that will be accepted and guide human behavior toward the natural world? Stories that would incline people, even motivate them, to actively support policies doing the same? (The ultimate test in America might be whether we could devise a story that would get people out of their cars.) There is good reason to think so and let me say why; first, by dealing with some objections, and then by giving some examples.

A first objection to such an effort is that the sacred has mostly been hijacked by ruling elites over the millennia to justify the social order they construct—orders that benefit them at the expense of everyone else and of nature. There is much truth to this. But the cultural arena remains contested territory more than the state or the economy. Wealth and political power are increasingly concentrated and built on the control and destruction of the natural world. Cultural autonomy itself is increasingly limited by the concentration of ownership of cultural institutions—they are at root just another profit making business. Autonomy is further limited because more and more cultural institutions are owned by corporations with a wide range of interests (nuclear power, weapons) they seek to protect by fostering legitimacy through shaping cultural content. But most cultural traditions, religious and secular, are diverse, home to both rigid dogma and hierarchical control on the one hand, and centers of creativity that are subversive of domination. Although conservation must be effective in the economic and political arenas, building this effectiveness depends on motivating and mobilizing people—getting them to act on conservation beliefs. Such beliefs are not now deeply enough anchored nor widespread enough to make the difference we need to make in policy.

A second objection is that it is ridiculous to assume that we can engineer fundamental beliefs. People do not easily change their world views once they have been internalized in the socialization and enculturation process (Erikson 1968;

Wallace 1969). Even effecting intergenerational change is difficult and takes enormous resources. Not even companies with billions to spend on public relations would try to start a new religion or equivalent—although in the space of a century consumerism may well have come to resemble one. Companies, in selling products or particular brands of products, do appeal to important human needs for belonging, emotional security, and status, but normally not the need for certainty of order that the sacred provides. It might be argued that consumerism strengthens various higher order beliefs that have helped to make it possible—humanistic or Christian notions of progress for instance. At the same time that material well-being undercuts religious fervor, it also has proved unsatisfying—it doesn't fulfill the needs it promises to. Sports team loyalty is a special case, because it can generate a sense of participatory community and even involves ritual. But it typically is made to carry a greater load than it can deliver in terms of meeting human needs, and ultimately feels more compensatory-like consumption—than genuine. In other words, both sports and consumption can be drugs used to create a state of well-being not anchored in actual conditions (Lasch 1978).

I acknowledge the difficulties and do not think we have to change people's most fundamental or sacred beliefs. Rapaport (1999), in his analysis of the structure of mythic systems, identifies a hierarchy of beliefs and stories. At the pinnacle are beliefs that are sacred in and of themselves, in other words, the unquestioned. They are anchored in ritual and the deepest layers of socialization. Invariably, he found them to be about immaterial things—literally. They were about the nature of God, the afterlife, trinities, the goodness of knowledge, or the evil of the loss of innocence through knowing. Their primary function is to provide a foundation of certainty—the unquestioned and the unfalsifiable—that is used to sacralize lower order beliefs: general principles about how the cosmos, nature, and society work; specific rules for everyday behavior in particular situations and circumstances and problemsolving; and, rules for recognizing certain states of the world as significant and requiring action. Part of what makes the sacred sacred is that it is viewed as unchanging. But lower order beliefs are susceptible to change, the more so as one moves down the hierarchy of general to specific. Change occurs continuously, increasingly in our era by design. It is worth noting here that the hallmark of what we call fundamentalism is the belief that lower order statements are in and of themselves sacred and not subject to change. Thus, some belief systems that regard divine creation as true can accommodate evolution because it is about the "method" of creation and thus a lower order belief susceptible to change; fundamentalists cannot. It is not their literalism that is the problem—they too cannot avoid metaphor—but their estimation that lower order beliefs are in and of themselves sacred and unchanging.

So, we do not need to change fundamental assumptions, the most sacred of stories. We need only change lower order stories and beliefs, and they are by their nature susceptible to change. To be successful in promulgating stories about how to behave better toward nature, we must make our stories compatible with the most sacred beliefs of particular groups. Sometimes even a word can make a difference, linking what we say to the maps and meanings people already possess. A few years ago, Michael Soulé got tired of

explaining to audiences what biodiversity is. He started using the word "creation" or the term "living creation." Everyone, Christian and atheist, knew exactly what he meant.

Let me give two examples in which deeply rooted beliefs about the material world, sacralized by a variety of sacred assumptions, guided social movements in successfully constraining the behavior of dominant groups in the United States.

Throughout the last two-thirds of the 19<sup>th</sup> century, attitudes of economic laissez-faire were dominant in the United States and justified the ruthless exploitation of people and nature. Laissez-faire did not really exist, of course—the state intervened constantly in the economy on the side of capital. But the doctrine was used to justify to the public the lack of state intervention in response to demands for decent treatment of workers and others. Organized resistance that eventually brought about reform had many roots—populist, abolitionist, working class, middle class, and even upper class to a point. By the 1890s, demands for increased social and economic justice were making some headway, although it would be another 40 years before many goals were realized. This resistance and reform movement rejected laissez-faire as doctrine, called for regulation based on a different standard of justice, and changed policy significantly (Kolko 1967; Polyani 1944; Wolfe 1977). It was guided by nonelite cultural norms embedded in stories about justice. The power of these stories lay not just in the fact that they resonated with the experience of the exploited by calling their exploitation evil, or identified an alternative state of society where such exploitation was at least ameliorated, but also that they provided a guide to action (Sinclair 1915). Their power rested in the notion that these stories were right, in other words, they were situated within the context of larger stories and values that were not questioned.

More recently, in the United States there have been efforts to weaken the Endangered Species Act (ESA), one of the strongest pieces of conservation legislation in the world. The Republican Party leadership in the House of Representatives was brought to power without the help of organized conservationists and didn't need us to keep power. Indeed, they pandered to anticonservation interests. So our opposition was not important to them—they didn't have to listen to us. What helped to derail efforts to weaken the ESA was the Evangelical Environmental Network (EEN), a group of thousands of churches with more than a million members (Barcott 2001). Arguing that the natural world was God's handiwork and that it was therefore gross human arrogance to think that people could improve it by causing extinctions, paving it over, and so forth, the network undercut the sacred mantel that developers and despoilers often hide under. The beliefs of people leading this network in no way diverged from their basic core beliefs, although it clearly represented a change in the secondary and lower order beliefs, or a change in emphasis. (There clearly are elements in the Christian tradition that have been nature friendly, but they have never predominated.) Because these churches were part of the conservative coalition Republicans depended on, they could not ignore the EEN.

The same Christian groups, normally aligned with Republicans on many social issues, helped to defeat legislation that would have permitted drilling for oil in the Arctic National Wildlife Refuge.

Let me give one more example that does not demonstrate any effects I can prove, but does offer an example of how a story can get into the stream. Death is a profound event in the lives of humans. So much of our storymaking and telling is about trying to make some sense of death, trying to come to terms with the loss of loved ones, and with our own. A few years ago Terry Tempest Williams (1991) wrote a book about the death of her mother from cancer, called *Refuge*. The story of her mother's death, her family, her own story of coming to terms with the dying and the death, did what the most powerful stories do: link the particular with the universal, and allow us to find a place in it. Hundreds of thousands read her book because of this, not because of their feelings or Williams's feeling about conservation. But in this book about death Williams also talks about life, the life of the Bear River Migratory Bird Refuge, threatened by rising waters. This refuge was not just a refuge for nature, but for her as well. The very place she sought solace and nurture in the face of her mother's death was itself being threatened. The interweaving of these stories of maternal death and nature told nature's story to people who would have not otherwise sought it out and heard it. It allowed people to connect through something they were familiar with—loss of a loved one—with the natural world, something they may not have been so well connected with, and taught them to see its value, to care.

Conservationists were directly responsible for successful strategies to protect parrots in several Caribbean countries (Butler 1992). By making parrots a symbol of nationhood and thereby linking protection of parrots to national pride, conservationists were able to achieve a significant decrease in poaching and generate positive behavior to protect parrot habitat. This is what we need to be much better at.

We need to create, refashion, generate, and promulgate stories that will resonate with people to the point of becoming internalized. The likelihood of internalization will depend on several things. Our stories must:

- Be compatible with the varieties of existing sacred (highest order) beliefs, secular and religious.
- Work better than existing lower order stories; thanks to science and people's experience it's becoming clear to most that there's something seriously wrong with our relationship with nature; many current stories don't adequately explain why nor do they offer solutions.
- Speak to important emotional needs—aspects of our life cycle including transitions, the problem of alienation, connection and identity; we need to be able to find ourselves in them.
- Be emotionally honest; in speaking to our emotional needs they must arise from the genuine (Soulé 1988).
- Be good stories—compelling, enticing, well-crafted.

We desperately need powerful stories that will help develop broad-based support and action for conservation policies. We also need stories that will motivate people in their individual lives to make decisions that will make conservation possible. Policies that create protected areas will ultimately fail if we don't reduce consumption and population. We need stories that will lead us to:

- Limit our numbers.
- Limit our consumption.

- Leave much of the world off limits to human exploitation even though we want products nature can be converted into.
- Practice humility.
- Recognize the intrinsic value of nature.

We cannot confine our stories to the written and spoken word, although they remain in many ways foundational to the development of all story and even ritual. But they are not enough in the world of mass, electronic, semiliterate culture. Two of the most critical media for us—for anyone seeking to change stories—are film and music.

Film is a medium that is broadly shared and can form the basis for genuine and broad social interaction. A film can be seen by tens, even hundreds of millions of people in a relatively short time. Film, when it works as it should, is the perfect mythmaking form. It compresses into 120 minutes stories that can meld the now with the eternal, the architectural with the particular, the familiar with the unfamiliar. Films do this with all of their attributes—script, acting, music—but above all by color, costume, camera, composition, and editing. We are primates, and vision is primarily how we know the world, literally and metaphorically. To know something with any sense, we almost always say, "I see." The technique of film easily takes us in—we gladly suspend our sense of reality to enter into a well-crafted story. We even give ourselves to poorly told and barely told stories. Film is nonetheless profoundly influential (Charney and Schwartz 1995; Kawin 1992; Nichols 1981; Rosenbaum 1997).

Music is another mass medium that has far surpassed writing in its ability to reach hundreds of millions of people in a relatively short time. Music ranges from 3-minute popular songs to multihour operas, but storytelling is usually an important element. But there is more. Music, especially if danced to but even if not, comes closest to generating a ritual-like experience. Ritual often includes singing and dance and these aspects anchor myth somatically, by virtue of the physiological states they induce through rhythm and repetition (d'Aquila and Laughlin 1975, 1979; Lex 1979; Radcliffe-Brown 1964; Turner 1969). Repetition is also important in that the same piece of music can be performed or heard on different occasions, reinforcing the message and the social bond that strengthens the constraining aspects of message and belief. Ritual also anchors itself through participation: participation in ritual is physical acceptance to be bound by the order it embodies (Rappaport 1999). Live music performances or dances, with or without live music, share some elements of this aspect of ritual as well (McNeill 1995).

Because of their intrinsic appeal, both film and music have enormous influence. People experience them as entertainment, not education. They are able, therefore, to engage in new or different ways of seeing things without the defensiveness that is often engendered when people feel others are trying to educate or persuade them. This is a fact we ignore at our peril.

Both film and song have short lives with some few exceptions. The market and narcissism have formed a happy marriage in which the value of the new as new is mutually reinforcing. Each year thousands of new songs and hundreds of new films are released. To be effective, we need to tell our story in many songs and films.

Our stories cannot be fashioned mechanically. There really is art involved. They must emerge organically. But we have master storytellers. Indeed, the most widely read scientists in the world are among the best storytellers. Admittedly, there are fewer songwriters and filmmakers who pursue a conservation agenda than writers or scholars or activists. We must address that weakness. But above all, we must make a conscious effort to craft stories that fit with the highest order beliefs of key constituencies.

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