



# Scaling human nature up

*A conversation about community, global governance, and climate change*

PETER J. RICHERSON AND CHARLES WOHLFORTH

*Peter Richerson is...* [Bio TK]

*Charles Wohlforth is...* [Bio TK]

The question is... [TK]

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Charles Wohlforth: Your work shows how human pro-social tendencies could have evolved as a consequence of people living in groups with cultural traditions for cooperation. A tribe that works together effectively has a better chance of survival. Cultural norms enforcing cooperation keep the tribe on track. Sanctions affect the ability of defectors, or non-cooperators, to

reproduce—for example, a man who won't fight in battle for the tribe is shunned and cannot find a mate. Over time, biological adaptation follows those cultural norms, and we come out of the womb programmed for shame and loyalty, and other emotions that make us good group members.

The debate rages in evolutionary biology between kin selection and group, or multi-

level, selection, allowing wags to point out that a war is going on among scientists who study cooperation and altruism. But your theory sidesteps much of that technical debate by taking it out of biology, at least in the critical step of how cooperation starts in the first place. Even the most self-centered egoists in their ancient tribes, would, with sufficient brain power, realize they could accomplish more together than alone. And they could devise sanctions for keeping the group working together. It makes sense that those rules would ultimately be bred into us.

As you've noted, we all ended up with both pro-social and self-interested tendencies, which can play out in many ways in many settings. I'm interested in how they play out in the setting of the globe as a whole. We are again faced with an adaptation challenge, that of fitting our species within an ecological niche which encompasses all life. We aren't doing well at it. Individual and group competition are driving economic growth that is changing the climate, acidifying the oceans, and dismantling ecosystems. Research suggests that groups, or communities, can manage common resources sustainably, but we've seen little evidence that nations can, and even less evidence that international organizations can get humankind, as a whole, to overcome the acquisitive, consumptive and competitive side of our nature. Is the pro-social side of ourselves ineffective on these larger scales? Is that a stage in cultural evolution we haven't reached yet—and may not reach in time to solve the problems that face us?

I have given a lot of thought to the idea that we do create pro-social norms for the environment, and we have made progress in imposing on environmental wasters the kind of social sanctions that work on smaller scales. For example, in our country, the last few decades have created a norm of strong disapproval for those who throw litter on the side of the road. The point I've tried to develop in my book, *The Fate of Nature*, is that we need political and social institutions

that will allow communities to establish these norms, which can then propagate, inter-group, through personal contact and perhaps through the media, to change the environmental ethos of society as a whole. Even the richest oil company president or his hirelings in government can't ignore the basic moral presuppositions of the culture.

But your idea about how this worked in primitive times suggests that parochialism is also a fundamental part of developing pro-social cultural norms. Feelings of us-against-them build group affiliation and a strong basis for punishing defectors. Lab research on communities that successfully manage the commons point to in-group prejudice as an important component of making those systems work. Can we really expand pro-social affiliation to the entire world? If not, can our good acts with our local communities and common resources create norms of broader effect, beyond the direct reach of our own groups?

Enough to chew on?

Peter Richerson: Plenty to chew on!

You are right to worry about the problem of parochialism.

In *The Descent of Man*, Darwin spoke of selection at the level of tribes favoring two sorts of moral impulses, sympathy on the one hand and loyalty and patriotism on the other. He argued that sympathy was an engine for moral progress. Sympathy is inclusive and helps people imagine how their moral community can be enlarged beyond their natal tribe or nation. Laws, religion, and the example of good men (sic) were among the cultural means by which the “instinct” of sympathy could act as a force for enlarging cooperative communities. Loyalty and patriotism are more dubious virtues. In many situations, as we know all too well from the news, if not from personal experience, loyalty to tribe or religion helps bring order within groups, but also leads to distrust and even hatred of outgroups, intergroup anarchy, and spasms of dreadful violence. Rob Boyd's and

my “tribal social instincts hypothesis,” outlined in our book *Not By Genes Alone: How Culture Transformed Human Evolution* is a modernization of Darwin’s idea.

The contemporary world faces a number of global-scale challenges, including climate change, biodiversity loss, emerging diseases, and economic instability. The first primitive stab at globalization, symbolized by Magellan’s circumnavigation, has evolved into a tight web of links that bind the world up. The growth of the human population, and of affluence per capita, has made our species the earth’s first dominant organism since perhaps some pioneering photosynthetic bacterium three billion years ago. The evolution of our dominance has been exceedingly swift, born of the capacity of huge, sophisticated populations to fuel explosive technological and social change. Simple back-of-the-envelope arithmetic argues that life on earth could easily become quite unpleasant unless

we are prepared to manage our dominance. You don’t need an ocean-atmosphere-coupled General Circulation Model to tell which way the wind blows!

On the positive side, the trend of cultural evolution over the last ten millennia is favorable as regards the balance of sympathy over patriotism. As human populations and human sophistication have grown, we have developed ever more sophisticated tools to deal with the problems generated by our own success. The growth of multiethnic empires 2,500 years ago led to the development of “Axial Age” philosophies and religions with a broadly humanistic rather than parochial core ideology. In the twentieth century, two awful world wars and the invention of cheap nuclear weapons led to new international institutions to protect human rights and to contain the nuclear genie. The European Union has gotten some handle on conflicts in the twentieth century’s most dangerous region.



On the negative side, the main ideological energy that has organized the onrushing modernization and globalization of the last two centuries has been nationalism, with its typically rather extreme demands for loyalty and patriotic fervor. Attempts in Europe to promote multiculturalism under the EU banner have provoked the formation of influential reactionary nationalist parties in nations that we formerly considered some of the most enlightened. More generally, the complex societies of the last 5,000 years have proven susceptible to boom and bust dynamics, the causes of which we do not yet understand very well.

Nationalism and tribalism are not the only game in the global village. The great religions have produced unifying thinkers and doers like the Dalai Lama, Desmond Tutu, and Martin Luther King. Unfortunately, these same religions have spawned fundamentalist tendencies, sometimes with nationalist connections as in the Balkans. Secular humanists have a cool, well-reasoned internationalist policy agenda, but don't excite mass enthusiasm. I don't see any immediate prospect for a successful globalist ideology with mass appeal that will decisively strengthen our capacity to sympathize with our fellow humans, regardless of tribe, nation, or confession.

The globe's work for the immediate future seems destined to remain largely dependent on the efforts of internationalist elites: diplomats, businessmen, leaders of non-governmental organizations, ecumenical and proselytizing religious leaders, scientists, and environmentalists. This is an awkward state of affairs in a democratic age. Jingoistic politicians can whip up national and sectarian loyalties that greatly handicap the management of global problems, as our most recent election in the United States showed. You and your colleagues who write so well for the general public are certainly creating an environmental ethos. The generational shift in attitudes is palpable and, we can hope, durable. However, the drive to achieve

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changes in attitudes that allow sympathy to trump national and sectarian loyalties to the degree necessary to tackle global scale problems, looks to me as if it is going to be a near-run thing.

Consider the power of consumerism. The rate of human population increase is slowing and is expected to stabilize or even begin shrinking in the next few decades. But in the meantime, affluence per capita continues to rise, especially in the big and formerly poor BRIC nations. Exploding affluence needs somehow to be contained, but despite much excellent academic work and finger-wagging by many, including Pope John Paul II, little impact on popular thought is evident.

**Wohlforth:** It seems we're trying to solve all the world's problems at once. I suppose that is a hazard posed by the perspective of your work, in which you take on big ideas and find patterns and drivers in the mix of biological and cultural roots of behavior. There is a definite challenge in moving from that framework to making normative or prescriptive statements for individuals. In my writing, trying to create the environmental ethos you allude to, I seek to make that link—to help people to see themselves within the world system, and take individual responsibility. Small as we are as organisms in comparison to these problems, nonetheless that is the level at which change must occur. Only individuals are able to form values or make decisions; tribes, corporations, and nations are groups of individuals.

The last paragraph of your response seems key to me. Materialism and consumerism, as we live them in the dominant culture, have two characteristics critical for this discussion. First, they matter directly: it is hard to see how we can preserve

a finite biosphere while pursuing infinitely expanding needs and wants. Second, the desire for increasing wealth is fundamentally an individual one. Here is a level at which we can make decisions that connect our ethics to consequences in the material world.

Is the desire for ever-increasing wealth and power programmed into human beings by evolution? Or can cultural evolution progress through the creation of a new norm, or ethical value, for sufficiency? For example, imagine a world in which accumulation of unnecessary material possessions has become an embarrassment rather than a status symbol. Maybe social status could be gained instead through non-material achievements or acquisitions, or through contributions to social goods. Such goods and acquisitions need not exist in the physical world and therefore would carry no resource price.

Your discussion of nationalism is well-taken. The impulse toward parochialism makes me pessimistic not only about international agreements and organizations, but even about the ability of individual nations to make meaningful progress on these issues. However, addressing consumerism as an ethical and social issue sidesteps those issues. As norms against materialism take hold (and they are already doing so), they could be transmitted cross-culturally and beyond national boundaries by Hollywood and other cultural export mechanisms. Can the international entertainment industry, which was built to advance and power consumerism and the sale of products, also function to communicate norms for sufficiency? Maybe this is a way we can express our sympathetic impulses as a society.

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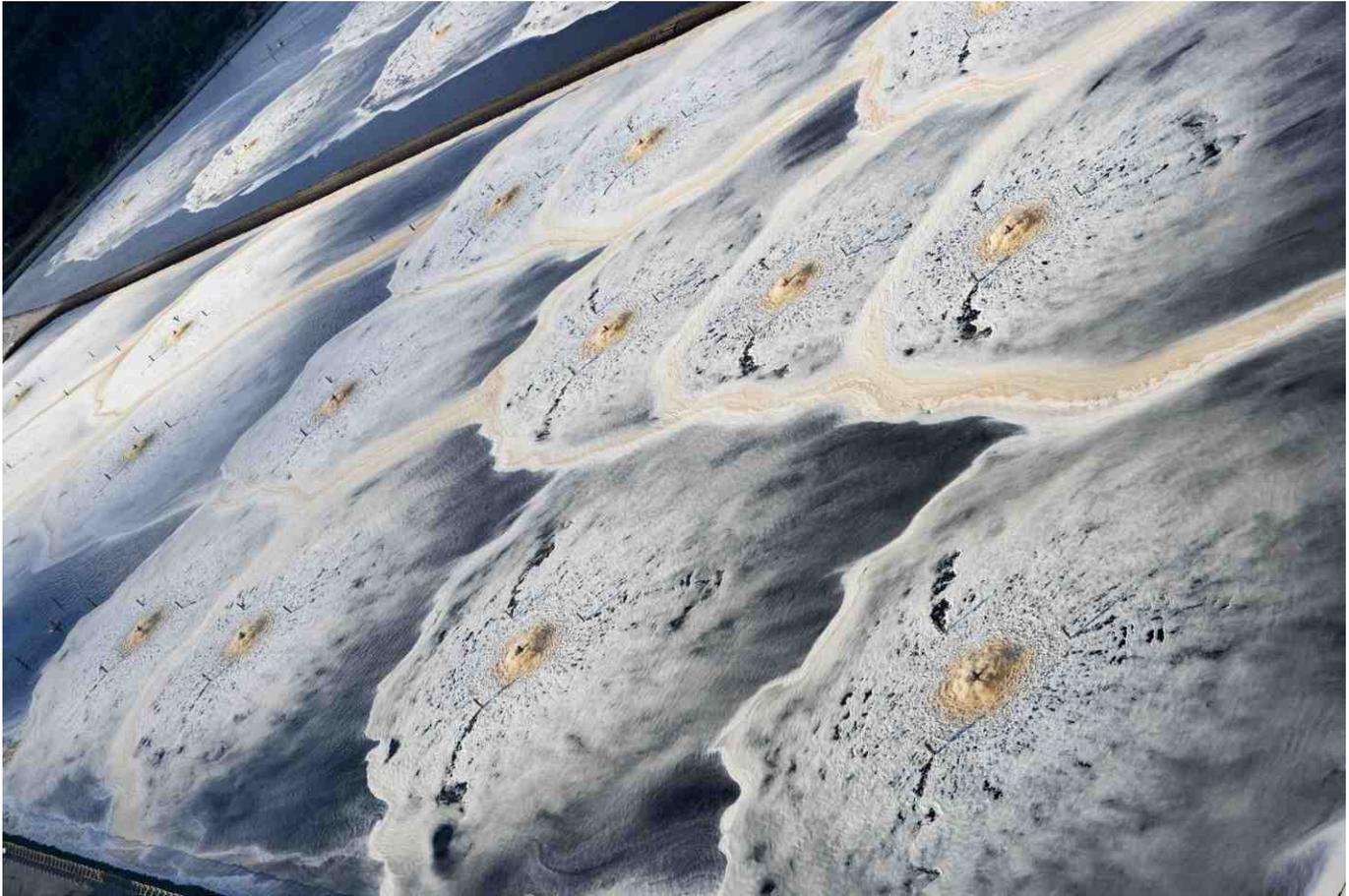
Richerson: Darwin's rather neglected *Descent of Man* proposes a theory of progress, the nut of which is captured in this quote:

With highly civilized nations, continued progress depends in a subordinate degree on natural selection. . . The more efficient causes of progress seem to consist of a good education during youth while the brain is impressible, and of a high standard of excellence, inculcated by the ablest and best men, embodied in the laws, customs, and traditions of the nation, and enforced by public opinion.

Darwin's "more efficient causes" are an excellent and rather complete list of the tools we have for making human evolution go in desirable directions. You and your colleagues are doing excellent work informing the public; those of us in universities try to educate and influence the ablest and best. This is all in pursuit of progress, I believe.

You raise an important point about the role of the individual in creating progress. Forming laws, customs, traditions, and public opinion are matters of collective decision-making. We attempt to persuade each other of the right course for public policy. In simpler societies, and in smaller segments of more complex societies, we talk out the issues that face us and try to reach decisions based on consensus. The legislative process of many modern states is merely a constitutionally-formalized collective decision-making system. Customs and traditions evolve through the contributions of myriad individuals over an extended period of time.

None of the above is meant to underestimate the importance of individuals taken one at a time. Persuasion is like a retail business. We try to get individuals to read our books, attend our classes, and think about who to vote for. A great deal of creative heavy lifting is done by individuals. However much ideas are propagated, refined, and recombined by wholesale collective decision-making, I can't see how we can operate any



human social system without retail attention to the individual.

Our own radically individualist political tradition gives outsized weight to a citizen's decisions in the formation of public policy. I think we need to push back to some degree against excessive individualism. Material wants, especially excessive ones, are comparative: I don't mind living in a modest house, but if all my friends and neighbors live in much grander ones, I may feel the pain of envy in my one hundred square meters while they count their three hundred square meters as a happy sign of virtue, not greed or luck. The economist Robert H. Frank in his books *Choosing the Right Pond* and *The Winner-Take-All Society* dissects the operation of this dynamic. Unrestrained economic change driven by comparative wants can easily destroy value. He shows how cooperation is necessary to evade being victimized by comparative wants. Pride and envy are among Christianity's seven deadly sins. They don't

get any better treatment in the other universalistic religions.

Since biological fitness has a strongly comparative component, you are likely correct that comparative wants have deep biological roots. On the other hand, the hunting and gathering societies that seem most like our late Pleistocene ancestors are usually rather egalitarian. Power differentials are modest, and foods that require the most energy and skill to collect are generally widely shared within the community. According to Christopher Boehm in his book *Hierarchy in the Forest*, among human hunter-gatherers those who would have been subordinates in ancestral ape societies cooperated to suppress would-be dominants in order to produce egalitarian human societies. Anthropologists Joe Henrich and Francisco Gil-White argue in an important paper that humans have erected a new system of prestige on top of the more ancient primate system of dominance. Dominants depend upon raw



coercive power for their status while the prestigious are granted status as the ablest and best by public opinion. Aung San Suu Kyi has prestige; the Burmese junta that prevents her party from taking power has dominance. Ancestral hunter-gatherer societies were substantially organized by prestige, not dominance. Dominants rightly fear the power of prestige; the Chinese government reacted quite strongly to the prestige accorded by Liu Xiaobo by the Nobel Peace Prize Committee.

Modern democracy is an attempt to introduce the spirit of egalitarianism and rule by prestige (rather than power) into the operation of complex societies. This attempt runs in the face of history, as complex societies seem to have regularly led to the return of dominance in the human social equation. Yet as Peter Turchin argues in his book *Historical Dynamics*, elite societies are themselves unstable: authoritarians often promise stability when democracy seems shaky, but it is by no means obvious that authoritarians can in fact deliver.

I certainly hope that you are right that by using humanistic and universalist arguments we can draw the sting of nationalism and similar parochial ideologies. This seems essential for moral progress in a world with critical global problems to solve.

I sometimes think of human life as an adventure. In an adventure, you take risks in hope of ultimate gain. Against the risks, you pit your skill and judgment. Modernity has

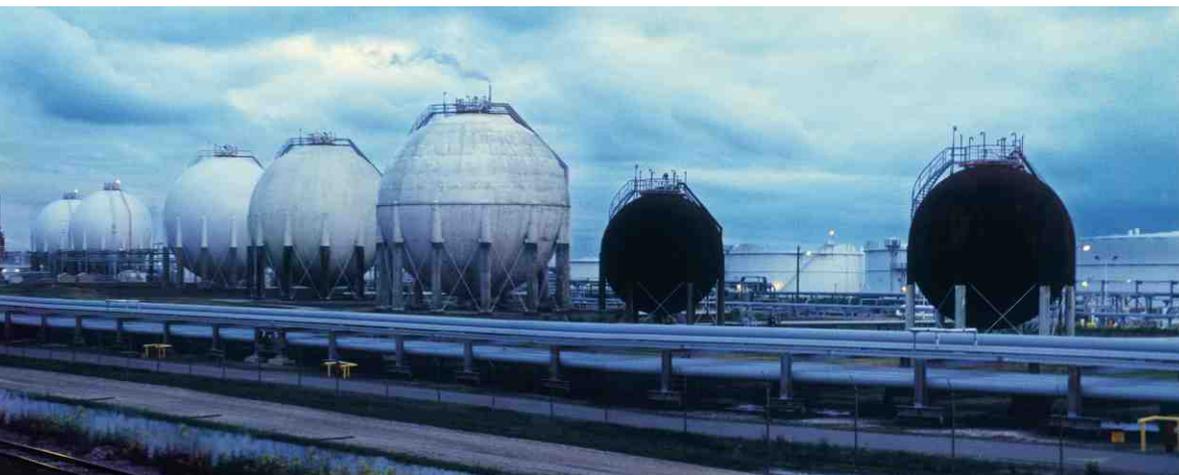
launched our whole species, willy nilly, upon a great adventure full of risk and uncertainty. Foolish adventurers neglect skill and judgment and trust to luck; either we successfully use Darwin's tools to progress or we face the luck of natural selection—and we don't want to evolve by natural selection if we can avoid it!

Perhaps we need to remind people about the adventure's fundamentally social nature. As Adam Smith said in *The Theory of Moral Sentiments*:

What are the advantages which we propose by that great purpose of human life which we call bettering our condition? To be observed, to be attended to, to be taken notice of with sympathy, complacency and approbation all are the advantages we can propose to derive from it.

**Wohlforth:** We're wonderfully near to consensus. Your message reads like a very erudite precis of my book, *The Fate of Nature*, including the attention paid to indigenous cultures and Joe Henrich's work, the issues surrounding the psychology of materialism, and the emphasis on cultural rather than biological evolution. I think I've expressed myself poorly, however, in that you've taken some of what I said to be the contrary of what I meant: I strongly agree with most of your message.

But I think there is an area where I would amend your comments. You say, "Modern



democracy is an attempt to introduce the spirit of egalitarianism and rule by prestige (rather than power) into the operation of complex societies.” The word “democracy” is as slippery as any in the language. It implies consent of the governed, but in practice more often effects only a wider distribution of power, into the hands of numerous people and across time. On the surface, your point that democracy is more egalitarian follows by definition, since the broader distribution of power is necessarily more egalitarian than dictatorship. However, it does not necessarily follow that a democratic system embodies “the spirit of egalitarianism and rule by prestige.” Splitting dominance (or pure power) into parts doesn’t transform it into the “spirit” of egalitarianism. More importantly, if that “spirit” means, as I believe you intend, the capacity for expression of pro-social values into policy, I would suggest the contrary may be true. It is not at all clear that a democratic arrangement of power would be better for the environment or would allow human beings to more easily fit within our ecosystem, nor is there necessarily a connection between voting and the transmission of pro-social values into public policy.

The Enlightenment form of democracy most perfectly manifested in the United States assumes that we are not co-operative; in Madison's classic words from *The Federalist Papers* (No. 51):

Ambition must be made to counteract ambition. The interest of the man must be connected with the constitutional rights of the place. It may be a reflection on human nature that such devices should be necessary to control the abuses of government. But what is government itself but the greatest of all reflections on human nature? If men were angels, no government would be necessary.

Experience teaches that this is, in fact, how our form of democracy functions. It is a system for summing selfish private interests into public policy; a system for allocating resources and for selecting policies that will yield maximum opportunities for private benefit. At best, it is utilitarian, in that the sum of the self interest of the largest number of people is maximized. To the limited extent that the system is capable of recognizing group or community interests, it does so by privileging them within the system of constitutional “places”. The original states demanded retention of power. The progressive loss of power by local and state governments reflects the growing emphasis of the U.S. constitutional system on individual interests and economic growth to the exclusion of almost all other values. One can't get elected without declaring support for national power and competitiveness and promising to deliver maximum economic benefit to individual voters.

It is not a coincidence that concentrated federal power and corporate power go hand

in hand, and that community connections that exist in the spirit of egalitarianism are ever weaker. We naturally want to connect with others and the natural world, but the ability to influence the world is increasingly in the hands of distant corporations and governments. Democracy is not helping bring our sympathetic impulses to the fore; on the contrary, it is narrowing the span of autonomy in which these impulses can act, making them irrelevant.

I've heard some environmentalists speak longingly of China's system, where the government can simply impose environmental protection by fiat. Capitalists, too, who envy the rapid economic growth and efficient exercise of government power there. Those feelings scare me. I'm scared that authoritarian postmodern capitalism may be the most efficient and powerful economic system yet invented. I think our constitutional system is seriously flawed, but any student of history should prefer it to one-party or dictatorial power. Madison was right, at least, that our system is well-suited to prevent the free rein of the worst part of our nature.

Returning to our original question about our capacity to address global environmental problems, I'm forced to rely upon social forces: specifically, the creation of norms for environmental ethics in a rapidly developing global culture. The science-and-state mechanism now being used to address climate change would never have brought about last century's changes in race relations. Academic study followed by democratic legislation did not defeat slavery, colonialism, and overt racism. Instead, the really effective tools were moral discussion, community relations, and the spread of new norms through writings and action. Governments only moved when the moral ground had already shifted under them, making continuation of the old system untenable.

As you say, we don't know what will happen. I don't know if the process of social

change will be quick enough. But I think it is the solution, and that it is only achievable through those sympathies that we normally express on the small scale.

**Richerson:** Yes, I imagine that we are near agreement on most issues. I certainly would not defend a panglossian view of contemporary democracies. I share many of your critical opinions. Aside from all their other imperfections, it is not clear that they are up to managing global problems. But postmodern authoritarianisms, as exemplified by China, Russia, or Saudi Arabia, are not obviously any better. In Copenhagen last year, the responsibility for failure was widely distributed and didn't depend much on type of political system.

We also don't want to romanticize hunter-gatherers. In simple societies men dominate women. Feuds and intertribal warfare are often serious problems. Hunter-gatherers have been blamed for megafaunal extinctions.

I think that reasoning from "human nature" is an error. Results from recent experimental games suggest that individuals' propensities to cooperate are highly variable. A large minority of people are strongly cooperative, a majority are conditional cooperators who will cooperate if others do, and a minority cheat as much as they can get away with. In groups composed of the first two types, cooperation emerges rapidly. The problems come from the ten percent of cheaters: for example, those who use communication deceptively, encouraging others to cooperate while they defect. Different cultures vary in the tools they give the minority of strong cooperators to encourage the majority and control the deviously selfish. People also vary in the kinds of moral arguments they subscribe to. We have barely begun to think about politics and policy using population thinking in place of the dubious essentialist concept of human nature.