



richardheinberg.com

MuseLetter #340 / June 2021 by Richard Heinberg

Too Much Power

*This article, the third in a series, is based on the Richards's forthcoming book, **POWER: LIMITS AND PROSPECTS FOR HUMAN SURVIVAL**. You can read the first article in the series [here](#), and the second [here](#). For information about the book and how to join a pre-release reading and discussion group, please go to postcarbon.org/power.*

Do some people have too much power over others? Do we humans have too much power over the natural world? These questions get to the heart of our biggest global problems. They also force us to think critically about the way society is organized, and about our own behavior. We often tend to give knee-jerk answers, but too much is at stake for that. We need to think critically and contextually

First, what do we mean by power? While the word is used many ways, there are primarily just two kinds of power: physical power and social power. Physical power can be defined as the rate of energy transfer, or as the use of energy to do something; social power is the ability of one person or a group to influence the thoughts and behavior of others.

Nature provides examples of excessive physical power. The wildfires in Sonoma County, California, where I live, can burn with many gigawatts of power. A gigawatt of electrical power that's controlled via power lines, transformers, and circuits can supply light, heat, and internet connections to a small-to-medium-sized city. A gigawatt of radiative power unleashed in a firestorm can torch that same community in just a few hours. We humans can likewise physically overpower our surroundings by using the concentrated energy of fossil fuels to over-harvest natural resources, or by dumping wastes in quantities that nature can't harmlessly absorb.

Too much social power leads to different problems. Cooperation, the ultimate basis of social power, gives us the means to accomplish wonders; but, when it's channeled through elaborate economic systems featuring various forms of debt and investment, social power can also manifest itself through the pooling of immense amounts of wealth in just a few hands, resulting in needless widespread poverty and eventual civil unrest. That same social power, released in a sudden burst, can lead to the deaths of millions of people through war or genocide.

We intuitively understand that power—whether it's physical or social power—is good only when it remains within certain bounds, restricted by checks and balances. But we're often not so good at applying that simple insight to our immediate circumstances. For example, many of us complain that corporations, billionaires, or politicians have too much power. Yet, when it comes to our own power, very few of us ever question whether it's excessive. The power that gives us comforts and conveniences nearly always gets a pass—we consistently assume that we need more of it, not less.

My power is fine, but that other person has too much: it's an attitude that seems to define human nature. Yet the hesitancy to critically assess one's own power seems to characterize some people more than others, and some societies more than others. Even within a single society, circumstances may change, encouraging people to become more (or less) modest in their demands for power and unthinking their excuses for over-empowerment.

Psychologists know that some individuals desperately seek material riches, homage, and feelings of superiority. Other people don't; they may lead modest but happy lives oriented toward service to others. What makes some people more power hungry? Often, low self-esteem appears to be a key. Perhaps starting in infancy or childhood, power addicts experienced a vacuum of love and validation, and never learned to enjoy a simple sense of inner stillness. Their lives have become an endless chase for external sources of affirmation and deference. Then, once they've gained disproportionate power in some form, their tendency is to guard that power and to lash out at anyone who threatens it.

Some circumstances seem to promote the emergence of power-seeking behavior. Societies that use money to mediate human needs, as opposed to relying on informal networks of sharing and mutual aid, are more likely to breed power seekers. The same is true of societies with formal institutions characterized by rank and exclusivity (think armies, priesthoods, governments, corporations, and gated communities). Generally speaking, the more complex and wealthier the society, the more likely it is to foster power-seeking attitudes and behaviors. An empire featuring a rigid class structure domestically, and colonies and trade networks abroad, is far more likely to encourage pathological power hunger among at least some of its members than a small foraging or gardening society whose technologies and customs haven't changed much in thousands of years.

Even in a single society, some kinds of developing circumstances are more likely to trigger power abuse. Times of societal decay can produce warlords and profiteers (think Syria today, or the remnants of the former Yugoslavia in the 1990s). On the other hand, periods of rapid societal growth offer opportunity for social climbers to scramble over other people's backs. The clearest example in the latter case is the US in the early-to-mid twentieth century: as the world's top oil producer and exporter, America generated great fortunes (notably, that of John D. Rockefeller), and rose to become the world's economic and military superpower, elevating investors, generals, bureaucrats, and corporate CEOs far above the hoi polloi.

Fossil fuels have done more than create enormous amounts of wealth. As unprecedented sources of physical power, they've also facilitated unsustainable growth in population and consumption, and caused untold

environmental destruction. Further, with so much new wealth flowing through society, it was nearly inevitable that some people would capture more of it than others, leading to increasing economic inequality.

One of the consequences of our dependence on fossil fuels is climate change, the most colossal environmental crisis humans have ever created, which can be viewed as being a result of too much power. Here's the argument in a nutshell: nearly everything we use represents a little fire somewhere—usually several of them. Your smart phone? Little fires drove the machines that extracted the raw minerals. Bigger fires smelted the metals. Little fires fueled the vehicles that transported all the parts, sometimes for thousands of miles. More little fires heated, cooled, and powered the various warehouses and assembly plants involved. Pick any object: unless it's a tree or other feature of the natural environment, a fire is implicated. The same is typically true for services—keeping us warm, cool, and provisioned with food, health care, and education. We even need fires to make solar panels and wind turbines (for example: 3,000-degree-Fahrenheit furnace fires that run 24/7 are used to make pure silicon wafers for photovoltaic panels). Granted, over its lifetime a PV panel will entail less fire than a coal or natural gas power plant producing the same amount of electricity. But if we wanted to make a hell of a lot of PV panels right away in order to replace all our coal and gas power plants, enormous short-term fires would have to be stoked.

Hardly anyone wants to give up the benefits—the power—that all those fires provide. But each of those fires, no matter how carefully controlled and efficient, is contributing CO₂ to the atmosphere, speeding up the destabilization of the climate and undermining the viability of civilization.

One seductive (but ultimately baseless) way to avoid this contradiction between the desire for more physical power and the unacceptable consequences of having and using that power is to hope that renewable energy will solve the climate problem painlessly: all we have to do is wait until solar panels become super-cheap. Then, we can use even more energy than we do now, it will just be clean energy. We don't need to give up power; we just need to switch energy technologies. But the actual switch (i.e., the rate at which society is installing renewables and retiring fossil fuel infrastructure) is going far too slowly to avert catastrophic climate change. The core reason is simply that fossil fuels deliver more power than renewables—not just in terms of profits and political donations, but also in terms of energy that's available on demand to do the things an industrial society wants to do, including powering airplanes and ships, mining minerals, and manufacturing products.

If climate change is a problem of power, then there may be no purely technical fix. While technology can help at the margins, averting catastrophic global warming will be mostly a process of reducing total energy usage in a way that doesn't result in societal collapse. Clearly, the people who would need to sacrifice the most are today's biggest energy users. But these happen to be people with a lot of social power, who are well placed to cloud the public discussion and delay substantive action.

Climate change is only one of the symptoms of the large-scale power imbalances and over-concentrations plaguing our society. Other symptoms include deepening economic inequality, loss of wild nature due to increasing

human land use, increasingly pervasive hormone-mimicking petrochemical pollution in air and water, and worsening resource depletion that's tied to overpopulation and overconsumption. Fossil fuels, by supplying so much physical power so quickly, have greatly exacerbated all of these problems.

Humans in past societies were well acquainted with the problem of too much power, and devised ways to restrain it. Anthropological research suggests that, in early foraging societies, bullies were routinely [executed or banished](#). Other methods of collective self-restraint included taboos against over-use of natural resources. Here's just one example: the [Bayaka of the Congo](#) placed markers (cones made of big leaves) on paths that led into parts of the forest where hunting had been unsuccessful, thus warning others to avoid it, and giving game populations time to recover. Such practices were widespread and varied. Tribal taboos regulating the harvest of vulnerable species took at least six forms, including "segment taboos," which forbade individuals of a certain age, sex, or social class from harvesting a resource; "temporal taboos," which banned the use of a subsistence resource during certain days, weeks, or seasons; "method taboos," which restricted overly efficient harvesting techniques that might deplete the stock of a resource; "life-history taboos," that forbade the harvesting of a species during vulnerable periods of its life history such as spawning or nesting; "specific-species taboos," which protected a species at all times; and "habitat taboos," which forbade human exploitation of species within particular reefs or forests that served as biological reserves or sanctuaries. Given the evidence that ancient peoples, as they migrated into new territories, often hunted abundant prey species to the point of extinction, it seems probable that indigenous conservation practices were learned over a long time through trial and error.

In modern societies, methods of collectively restraining the overaccumulation of power have become complex and formalized. We adopt environmental regulations to protect endangered species, prohibit or regulate certain chemicals, and discourage harmful waste dumping. We try to keep economic inequality from worsening by taxing the rich at higher rates, and by implementing redistributive programs for education, housing, and health care. We try to discourage the emergence of despots through constitutions and elections.

However, all such efforts are uphill battles, because modern society is fundamentally structured to require economic growth (which nearly always comes at the expense of nature), and because newly created wealth tends to flow primarily toward those with existing social power. Once again, fossil fuels are largely responsible: as our society's primary energy sources, they are also our ultimate sources of wealth. We have derived so much power from these fuels, and in such a brief period of time, that our institutional pathways of restraint are increasingly overwhelmed. Further, traditional values of self-restraint, modesty, mutual aid, and thrift have fallen by the wayside with the rise of consumerism, and we have deluded ourselves into thinking that we deserve all the physical power we can possibly command.

If we modern humans are, in effect, addicted to power, perhaps we need something like a collective twelve-step program. The first step would be simply to admit that we have a power problem. Then we would systematically go about assessing where power imbalances exist, and reducing the physical and social power of the most powerful. Such reductions

could be achieved through, for example, wealth taxes and energy rations for people in rich countries, and for the wealthiest people in poor countries.

But all of us aren't going to want to get on board with such a program. Once again, those with the most physical and social power will be in position to discourage such efforts, and will have plenty of incentive to preserve their advantages. How could humanity overcome powerful people's disinclination to cut back, before we're all overwhelmed by ecological destruction and societal collapse?

The only sensible strategy I've come across is the one advocated by my friend [Craig Collins](#), who suggests that what's needed is a power-sharing coalition (he calls it a Green Resistance Movement) with four broad segments:

- Groups and individuals working to save the planet by halting climate change, biodiversity loss, and pollution. Most of these groups and individuals work to confront the depredations of corporations and governments; some work to promote environment-friendly governmental policies or commercial practices, while others seek to stabilize and reduce human population.
- Social justice advocates. This category would include advocates for the poor, and for oppressed minorities of all kinds, including Indigenous peoples (who make up the majority of the population in some countries).
- Groups opposing violence, especially state violence. These would include anti-war groups, as well as organizations seeking to reduce the domestic proliferation of guns, international arms sales, and the militarization of police, as well as groups promoting peaceful methods of conflict resolution.
- Builders of the new culture. This final category is currently less internally organized than the previous three; it consists of individuals and organizations seeking to model and promote a sustainable, post-fossil-fuel way of living. Some members would be experts in the attitudes and habits of horizontal power. Others would be permaculturists, ecovillage pioneers, and renewable energy advocates. Still others would be creative artists of all kinds who are seeking to enlist the human imagination in building a green future.

Each of these by itself is at a power disadvantage when compared to the forces still pushing society toward power overload via capital accumulation and profit, resource extraction, waste dumping, and militarism. However, added together, these groups comprise a huge constituency. Hence the vital importance of coalition and cooperation among them—rather than competition and conflict, with litmus tests of ideological purity as a requirement for inclusion.

Is it likely that such a power-sharing coalition will succeed? That probably depends upon how well the leaders and constituents of the coalition understand the nuances of power I've briefly summarized above. Right off the bat, the coalition will have to accept a distressing irony: it will have to build an immense amount of social power to compete against entrenched power mongers. It will have to become powerful enough to change hearts and minds, win elections, put people in the streets, and succeed at negotiations. In

many instances, it will have to gain control of institutions—and redesign them so that they can work in a post-fossil-fuel, post-growth era of reduced physical and social power.

If the coalition makes it that far, then it and all the powerful people in it will have to contend with sharing and giving up their super-addictive access to power. But if they succeed in doing so, all may participate in something far more satisfying than the process of amassing power: the development of wisdom that can last through the ages.