

A more prosocial world: How the principles of evolution can create lasting global change

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1 Clear group identity and shared sense of purpose
2 Equitable distribution of benefits and resources
3 Inclusive decision-making
4 Transparency of behavior
5 Graduated responding to helpful and unhelpful behavior
6 Fast and fair conflict resolution
7 Autonomy and authority to implement CDP1-CDP6
8 Appropriate relations with other groups (consistent with CDP1-CDP7)

“Core design principles” for successful cooperation. Credit: *Proceedings of the National Academy of Sciences* (2023). DOI: 10.1073/pnas.2218222120

Evolution goes beyond the genetic code and the transformation of physical form, from land-mammal to whale or dinosaur to bird.

At the core of evolutionary science is a triad: variation, selection and replication, explains Binghamton University Distinguished Professor Emeritus of Biological Sciences David Sloan Wilson, the founder of Binghamton University, State University of New York's Evolutionary Studies (EvoS) program. You can see this triad at work in culture as well, from economics and business, to engineering and the arts, and the functioning of society at all levels.

Knowing how [cultural evolution](#) happens also means we can harness it for the larger good, creating a more just and sustainable world. That's a topic of "Multilevel cultural evolution: From new theory to practical applications," a new article by Wilson recently published in *Proceedings of the National Academy of Sciences*.

The wide-ranging article explores the three hallmarks of cultural evolution: prosociality, or behavior oriented toward the welfare of others; social control, which enforces [prosocial behavior](#) and penalizes those who behave selfishly; and symbolic thought, which relies on a flexible inventory of symbols with shared meaning.

Humans have evolved to live in small, cooperative groups, not as disconnected individuals. To be effective, however, society also requires structure.

Otherwise, strategies that are beneficial on the individual or small-group level become maladaptive: Self-preservation becomes self-dealing, helping friends and family becomes nepotism and cronyism, and patriotism fuels international conflict, for example.

"We have to have the global good in mind and everything that we do in

some sense has to be coordinated with the good of the whole," Wilson said.

A roadmap for evolution

Evolutionary concepts have been misused, however. Take social Darwinism, for example, which is often used to justify competition and harsh social inequities as "survival of the fittest," a misunderstanding and misapplication of Darwinian theory. "Social engineering" also has insidious implications, Wilson noted.

"We need to ask: Is there anything about evolutionary theory that is especially dangerous in that regard? Or is it the case that anything that can be used as a tool can also be used as a weapon?" Wilson asked. "I think it's the latter."

These concepts become weapons when they are used as means of control, with little to no input from the people they impact, he explained. When people decide to use evolutionary principles to shape their own actions and goals, however, these principles are largely benign.

Checks and balances are at the core of multilevel cultural evolution to avoid power imbalances, making it the opposite of social Darwinism, which portrayed social inequities as necessary and inevitable. Social Darwinism actually has little to do with Darwin or his theories, Wilson points out; it's a stigmatizing term associated with the moral justification for ruthless competition, and probably closer to the principles behind neoclassical economics.

But fields such as economics and business needn't define themselves with the neoclassical "greed is good" ethos of Milton Friedman. Wilson points to the work of Nobel Prize-winning economist Elinor Ostrom, who proved that groups can self-manage common-pool

resources—avoiding the proverbial "tragedy of the commons" if they implement eight "core design principles."

Wilson collaborated with Ostrom to show that the core design principles can be generalized, providing a key to successful governance for nearly all forms of cooperative activity.

"To begin, you need to have a good, strong sense of identity and purpose; that's the first core design principle," Wilson said.

Other principles involve the equitable distribution of benefits and resources, inclusive decision-making, transparent behavior, and levels of response to helpful and unhelpful behavior, as well as fast and fair conflict resolution, local autonomy and authority, and relationships with other groups.

These principles not only build better workplaces, neighborhoods and nations, they can also heal the mind. As social mammals, our minds interpret social isolation as an emergency situation, the authors note, and social support is key for the treatment of such conditions as anxiety and depression.

The tools used in therapy—particularly mindfulness—are also applicable on a societal level, encouraging adaptability and cognitive flexibility, which helps individuals recover from adverse life events. That's true of groups as well, Wilson said.

Planting the seed

Creating a more prosocial world grounded in equity and cooperation isn't some unreachable pipe dream.

"There are practical applications," said Wilson, who established the

nonprofit ProSocial World to plant these ideas outside of academia. "Right now, not in some far, distant future, we could be using these ideas to accomplish positive change."

It's important to avoid what Wilson calls the archipelago of knowledge and practice, consisting of "many islands with little communication." Otherwise, ideas and solutions may become trapped in separate silos.

In essence, the EvoS' speaker series functions that way for students, mingling lectures on bacteria with Neanderthals, morality, the arts and more. Students are exposed to ideas they may not have otherwise encountered, which introduces new paths and possibilities. The same can happen in the larger society, too.

While technological changes can spread from one culture to another over decades or centuries, Wilson hopes to spark societal change more quickly. He draws upon the concept of catalysis in chemistry: Added in small amounts, a catalytic molecule hastens the rate of change, he explains.

As catalytic agents, individuals may inspire changes that would otherwise take decades or not happen at all. And this catalysis can happen in ordinary ways, by leaning into the small-group community mindset that fuels our humanity.

Consider a community garden, for example: Reaching out to different community gardens and sharing knowledge can only benefit everyone involved, Wilson said. And those connections don't need to consist of dull meetings; they can involve social interactions such as parties and potlucks, which bring people together and encourage them to make connections.

"Imagine repeating that in every walk of life, in our schools or

businesses, on every scale from small groups to cities," he explained.

More information: David Sloan Wilson et al, Multilevel cultural evolution: From new theory to practical applications, *Proceedings of the National Academy of Sciences* (2023). [DOI: 10.1073/pnas.2218222120](https://doi.org/10.1073/pnas.2218222120)

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