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TEAM HUMAN

Evolution Made Us Cooperative, Not Competitive

The story we are told about Darwinism isn't really true

[Douglas Rushkoff](#), [Nov 6](#) · 3 min read



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Nature is a collaborative act. If humans are the most evolved species, it is only because we have developed the most advanced ways of working and playing together.

We've been conditioned to believe in the myth that evolution is about competition: the survival of the fittest. In this view, each creature struggles against all the others for scarce resources. Only the strongest ones survive to pass on their

superior genes, while the weak deserve to lose and die out.

But evolution is every bit as much about cooperation as competition. Our very cells are the result of an alliance billions of years ago between mitochondria and their hosts. Individuals and species flourish by evolving ways of supporting mutual survival. A bird develops a beak which lets it feed on some part of a plant that other birds can't reach. This introduces diversity into the

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population's diet, reducing the strain on a particular food supply and leading to more for all. What of the poor plant, you ask? The birds, much like bees, are helping the plant by spreading its seeds after eating its fruit.

Survival of the fittest is a convenient way to justify the cutthroat ethos of a competitive marketplace, political landscape, and culture. But this perspective misconstrues the theories of Darwin as well as his successors. By viewing evolution through a strictly competitive lens, we miss the bigger story of our own social development and have trouble understanding humanity as one big, interconnected team.

The most successful of biology's creatures coexist in mutually beneficial ecosystems. It's hard for us to recognize such widespread cooperation. We tend to look at life forms as isolated from one another: a tree is a tree and a cow is a cow. But a tree is not a singular tree at all; it is the tip of a forest. Pull back far enough to see the whole, and one tree's struggle for survival merges with the more relevant story of its role in sustaining the larger system.

We also tend to miss nature's interconnections because they happen subtly, beneath the surface. We can't readily see or hear the way trees communicate. For instance, there's an invisible landscape of mushrooms and other fungi

connecting the root systems of trees in a healthy forest. The underground network allows the trees to interact with one another and even exchange resources. In the summer, shorter evergreens are shaded by the canopies of taller trees. Incapable of reaching the light and photosynthesizing, they call through the fungus for the sun-drenched nutrients they need. The taller trees have plenty to spare, and send it to their shaded peers. The taller trees lose their leaves in the winter and themselves become incapable of photosynthesizing. At that point, the evergreens, now exposed to the sun, send their extra nutrients to their leafless community members. For their part, the underground fungi charge a small service fee, taking the nutrients they need in return for facilitating the exchange.

So the story we are taught in school about how trees of the forest compete to reach the sunlight isn't really true. They collaborate to reach the sunlight, by varying their strategies and sharing the fruits of their labor.

Trees protect one another as well. When the leaves of acacia trees come in contact with the saliva of a giraffe, they release a warning chemical into the air, triggering nearby acacias to release repellents specific to giraffes. Evolution has raised them to behave as if they were part of the same, self-preserving being.

This is section 8 of the book Team Human by Douglas Rushkoff, which is being serialized weekly on Medium.