

Human cultural evolution found to be just as slow as biological evolution

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A team of researchers from several institutions in the U.K. and one in the U.S. has found that human culture evolves just as slowly as biological evolution. In their paper published in the journal *Nature Human Behavior*, the group describes how they developed metrics for cultural evolution and compared them with metrics for biological evolution.



Modern society is filled with references to the speed at which change happens—mainstream music moves from rock, to pop, to rap, seemingly overnight; dress hemlines go up or down with the seasons. But some of that might be an illusion, the researchers with this new effort contend, because of the way we view change. They suggest that human cultural change is just as slow-moving as biological change—and it is because most cultural artifacts are subjects to both stabilizing and directional forces.

To compare the rate at which human culture changes to rates of biological evolution, the researchers assigned variables to characteristics of several cultural artifacts—whether or not guitars were the major instrument in the average song, for example, or how car features such as size and power change over time, or the way references are tagged in scientific papers. Similar metrics for measuring the speed of evolutionary change have already been identified and measured by multiple scientific studies. The researchers chose to use some of the most well-known, such as the study of finches on the Galapagos Islands and moths changing color during the early industrial period in England in response to soot-covered tree bark.

The <u>comparative analysis</u> involved applying the Haldanes metric—it showed that <u>human culture</u> changed at very nearly the same pace as biological evolution. The researchers even suggest that <u>cultural artifacts</u> in a given society could be viewed as similar to organisms living in a given environment. Artifacts such as scientific papers, they note, when carried into society at large, either survive and become a part of the culture, or they die—just like natural selection. They acknowledge that there are instances in both cultural and <u>biological evolution</u> that change very quickly, such as smartphones or finch beaks, but overall, the rates come out nearly evenly.

More information: Ben Lambert et al. The pace of modern culture,



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