

Darwin foreshadowed modern scientific theories

May 21 2021



Credit: CC0 Public Domain

When Charles Darwin published "Descent of Man" 150 years ago, he launched scientific investigations on human origins and evolution. This week, three leading scientists in different, but related disciplines published "Modern theories of human evolution foreshadowed by Darwin's 'Descent of Man'," in *Science*, in which they identify three insights from Darwin's opus on human evolution that modern science has

reinforced.

"Working together was a challenge because of disciplinary boundaries and different perspectives, but we succeeded," said Sergey Gavrilets, lead author and professor in the Departments of Ecology and Evolutionary Biology and Mathematics at the University of Tennessee, Knoxville.

Their goal with this review summary was to apply the framework of modern speciation theory to [human origins](#) and summarize recent research to highlight the fact that Darwin's Descent of Man foreshadowed many recent scientific developments in the field.

They focused on the following three insights:

1. We share many characteristics with our closest relatives, the anthropoid apes, which include genetic, developmental, physiological, morphological, cognitive, and psychological characteristics.
2. Humans have a talent for high-level cooperation reinforced by morality and [social norms](#).
3. We have greatly expanded the social learning capacity that we see already in other primates.

"The paper's insights have important implication for understanding behavior of modern humans and for developing policies to solve some of the most pressing problems our society faces," Gavrilets said.

Gavrilets is director of the Center for the Dynamics of Social Complexity (DySoC) at UT, which promotes transdisciplinary research into the origins, evolution, and futures of human social complexity. This paper is one of the outcomes of activities from the Center. Other related outcomes include free online learning modules on cultural evolution and

a series of online webinars about [cultural evolution](#) and human origins, which thousands of students and researchers worldwide have watched.

More information: Peter J. Richerson. Modern theories of human evolution foreshadowed by Darwin's Descent of Man. *Science* 21 May 2021:

[DOI: 10.1126/science.aba3776](https://doi.org/10.1126/science.aba3776)

Provided by University of Tennessee at Knoxville

Citation: Darwin foreshadowed modern scientific theories (2021, May 21) retrieved 17 May 2024 from <https://phys.org/news/2021-05-darwin-foreshadowed-modern-scientific-theories.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--