

Group selection, a theory whose time has come...again

November 28 2007

Sociobiology, the discipline founded on Darwin's theory of group evolution, is in theoretical disarray. In a landmark article for the December issue of the *Quarterly Review of Biology*, eminent evolutionary scientists David Sloan Wilson and Edward O. Wilson usher in a new era in evolutionary science.

“Although a high standard of morality gives but a slight or no advantage to each individual man and his children over the other men of the same tribe...an advancement in the standard of morality will certainly give an immense advantage to one tribe over another.”

With these words, Charles Darwin proposed an evolutionary explanation for morality and pro-social behaviors— individuals behaving for the good of their group, often at their own expense—that anticipated the future discipline of Sociobiology. A century after this famous passage was published in *The Descent of Man* (1871), however, Darwin’s explanation based on group selection had become taboo and has not recovered since.

In a landmark article for *The Quarterly Review of Biology*, “Rethinking the Theoretical Foundation of Sociobiology,” eminent evolutionary scientists David Sloan Wilson and Edward O. Wilson—whose book *Sociobiology: The New Synthesis* brought widespread attention to the field in 1975—call for an end to forty years of confusion and divergent theories.

They propose a new consensus and theoretical foundation that affirms Darwin's original conjecture and is supported by the latest biological findings.

Wilson and Wilson trace much of the confusion in the field to the 1960's, when most evolutionists rejected "for the good of the group" thinking and insisted that all adaptations must be explained in terms of individual self-interest. In an even more reductionistic move, genes were called "the fundamental unit of selection," as if this was an argument against group selection. Scientific dogma became entrenched in popular culture with the publication of Richard Dawkins' *The Selfish Gene* (1976). Although evidence in favor of group selection began accumulating almost immediately after its rejection, its taboo status prevented a systematic re-evaluation of the field until now.

Based on current theory and evidence, Wilson and Wilson show that natural selection is unequivocally a multilevel process, as Darwin originally envisioned, and that adaptations can evolve at all levels of the biological hierarchy, from genes to ecosystems. They conclude with a rallying cry that paraphrases Rabbi Hillel: "Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary," Wilson and Wilson free sociobiology to once again pursue all lines of inquiry within its discipline.

Source: University of Chicago

Citation: Group selection, a theory whose time has come...again (2007, November 28) retrieved 30 April 2024 from <https://phys.org/news/2007-11-group-theory-comeagain.html>

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.