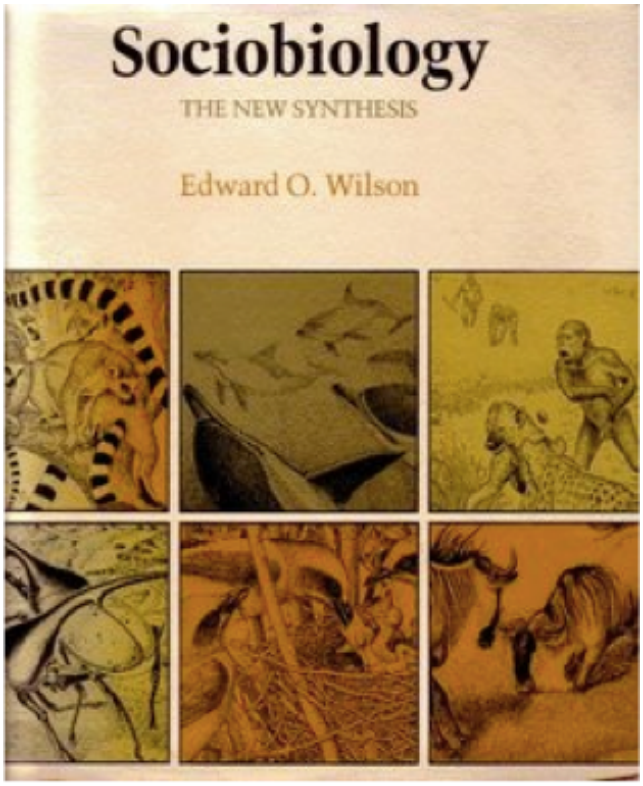
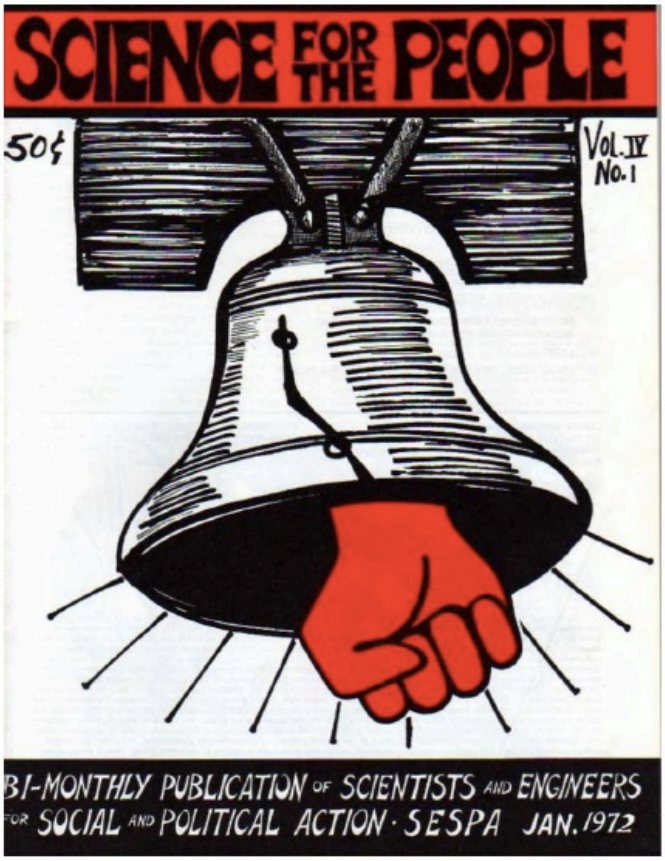

# Public Ethics, Politics and Sociobiology

Ethics in Science
University of Houston
11 March 2016

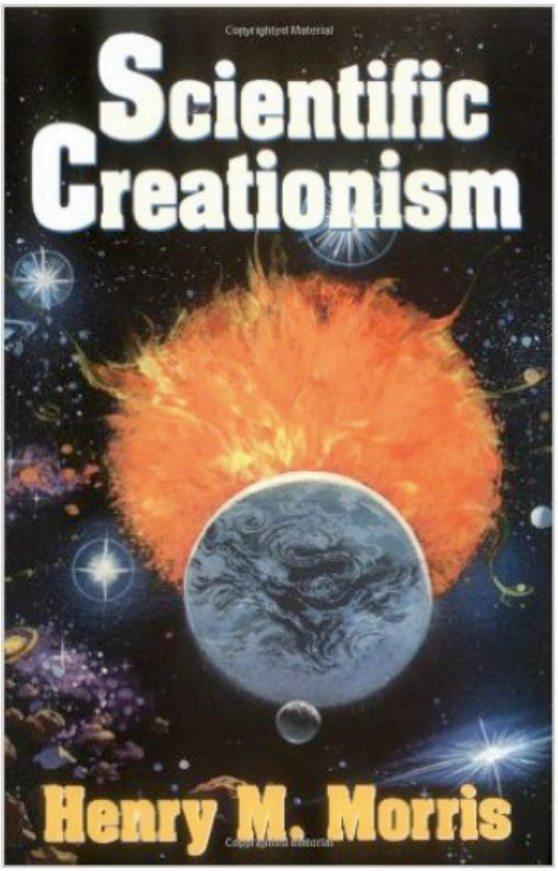
Myrna Perez Sheldon, Rice University




*Sociobiology: The New Synthesis* (1975)
Edward O. Wilson




New Left




New Right

# Stephen Jay Gould

1941-2002

Bio

## Stephen Jay Gould

Driven by a hunger to learn and to write what he knows, an outspoken scientist fights back from life-threatening illness

by Michelle Green

t is an inviting, vaguely antic en-
clave that suggests a 19th-century
natural history museum turned into
ookish boys' club. Faded lettering
the drab green walls announces
ynopsis of the Animal Kingdom" and
ponges and Protozoa," and in the
m's cluttered depths are a wealth of
sty treasures: tall glass cases filled
h drawers of trilobites, a towering
inting of a tyrannosaurus, hundreds
leather-bound volumes and boxes of
il shells. A worn rattan chair has
en pulled up to a worktable that
ds fossils, microscopes and a supply
Pepperidge Farm cookies.
Stephen Jay Gould—evolutionary
logist, prolific writer and die-hard
nkees fan—has worked in this office
Harvard's Museum of Comparative
ology for 17 years, and many of his
oks have been spawned here: *Ever
ce Darwin, The Panda's Thumb,
n's Teeth and Horse's Toes* and
w *The Flamingo's Smile* (Norton,
7.95). When he arrived with his fresh-
minted Ph.D. from Columbia, the
mpled, kinetic Gould was an excep-
nally promising paleontologist; in
years since, he has become a pop-
r symbol of erudition and scholar-
p. At 44, he recently completed the
al year of a MacArthur Foundation
nt that has paid him $38,400 a year
ce 1981. He was the recipient of an
erican Book Award in 1981, a Na-
nal Magazine Award in 1980 and
ce made the cover of *Newsweek*. He
s done battle with creationists, testi-
d before congressional committees
ncerning nuclear winter and lec-
ed in South Africa on the history of
sism. Students fight to get into his
ssroom, and assorted crazies send
ades addressed to Mr. Illustrious His-
ical Professor Jay Gould, Universi-
of Harvard.
On this stone-gray afternoon, the il-
trious historical professor is finding
the attention a bit of a problem. His
cretary is putting through calls ap-

CONTINUED

RICHARD GIBBS

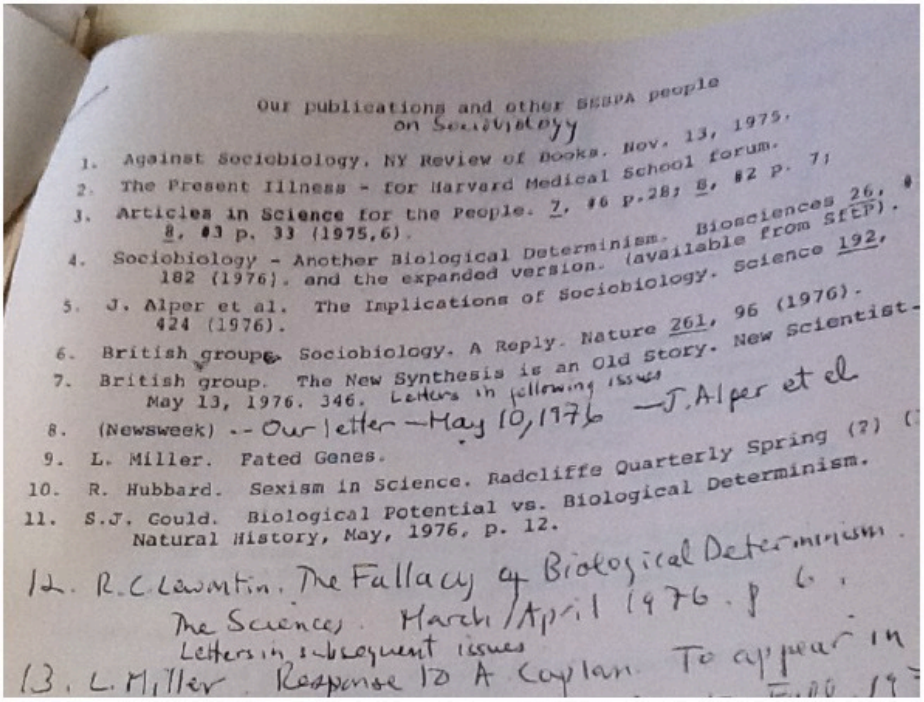
**"The main reason I write is that the world is very complicated, and when I write I learn," says Gould, whose tirelessly probing imagination has already yielded six books.**

# Sociobiology


*Time* August 1977

The building block of nearly all human societies is the nuclear family... the populace of the American industrial city, no less than a band of hunter-gatherers in the Australian desert, is organized around this unit...

During the day **the women and children remain in the residential area** while **the men forage for game or its symbolic equivalent** in the form of barter and money



Our publications and other SESPA people on Sociobiology

1. Against Sociobiology. NY Review of Books. Nov. 13, 1975.
2. The Present Illness - for Harvard Medical School forum.
3. Articles in Science for the People. 7, #6 p.28; 8, #2 p. 7; 8, #3 p. 33 (1975,6).
4. Sociobiology - Another Biological Determinism. Biosciences 26, # 182 (1976). and the expanded version. (available from SftP).
5. J. Alper et al. The Implications of Sociobiology. Science 192, 424 (1976).
6. British groups. Sociobiology. A Reply. Nature 261, 96 (1976).
7. British group. The New Synthesis is an Old Story. New Scientist- May 13, 1976. 346. Letters in following issues
8. (Newsweek) -- Our letter -May 10, 1976 -J. Alper et el
9. L. Miller. Fated Genes.
10. R. Hubbard. Sexism in Science. Radcliffe Quarterly Spring (?) (
11. S.J. Gould. Biological Potential vs. Biological Determinism. Natural History, May, 1976, p. 12.
12. R.C. Lewontin. The Fallacy of Biological Determinism. The Sciences. March/April 1976. p 6. Letters in subsequent issues
13. L. Miller. Response to A. Caplan. To appear in

# Sociobiology Study Group
# List of Publications, 1976

# Photos from Barbershop Sit-In

Materials from Gegner Barbershop Sit-In, Box 122, Folders 12-14, SJG Papers, Stanford University, California.

I think that I would like to do a column firmly based in evolutionary theory and its implications, but trying to synthesize under that rubric my divergent interests in history and philosophy of science, **social and political questions bearing upon scientific issues,** and the phenomena of life's history on a grand scale.

Stephen Jay Gould to Alan Ternes, 25 June 1973, Box 230, Folder 3, SJG Papers, Stanford University, California.

This View of Life by Stephen Jay Gould

# Biological Potential ity vs. Biological Determinism

(Harvard University Press, 1975

*Because of its social and political implications, the debate about determinism continues*

In 1758, Linnaeus faced the difficult decision of how to classify his own species in the definitive edition of his *Systema Naturae*. Would he simply rank man among the other animals or would he create for us a separate status? Linnaeus compromised. He placed us within his classification (close to monkeys and bats), but set us apart by his description. He defined our relatives by the mundane, distinguishing characters of size, shape, and number of fingers and toes. For *Homo sapiens*, he wrote only the Socratic injunction: *nosce te ipsum*—"know thyself."

For Linnaeus, *Homo sapiens* was both special and not special. Unfortunately, this eminently sensible resolution has been polarized and utterly distorted by most later commentators. Special and not special have come to mean nonbiological and biological, or nurture and nature. These later polarizations are nonsensical. Humans are animals and everything we do lies within our biological potential. Nothing arouses this ardent (although currently displaced) New Yorker to greater anger than the claims of some self-styled "eco-activists" that large cities are the

The intense discussion aroused by E.O. Wilson's *Sociobiology* has led me to take up this subject. Wilson's book has been greeted by a chorus of praise and publicity (for example, the review by R.S. Morison in the November 1975 issue of *Natural History*). I, however, find myself among the smaller group of its detractors. Most of *Sociobiology* wins from me the same high praise almost universally accorded to it. For a lucid account of evolutionary principles and an indefatigably thorough discussion of social behavior among all groups of animals, *Sociobiology* will be the primary document for years to come. But Wilson's last chapter, "From Sociobiology to Sociology," leaves me very unhappy indeed. After twenty-six chapters of careful documentation for the nonhuman animals, Wilson concludes with an extended speculation on the genetic basis of supposedly universal patterns of human behavior. Unfortunately, since this chapter is his statement on human behavior, it has also attracted more than 80 percent of all the commentary in the popular press.

We who have criticized this last chapter have been accused of denying altogether the relevance of biology to human behavior, of reviving an ancient superstition by placing man outside the rest of "the creation." Are we pure "nurturists?" Do we permit

"Biological Potential vs. Biological Determinism"
*Natural History* (1976)

"I debated intensely with myself before writing [the May column] at all... At this point I wish nothing more than restored harmony... Nonetheless, I realized one day that I am the only popularist writing a regular feature on evolution how could ignore the most widely discussed event in evolutionary biology during my brief career."

S.J. Gould to E.O. Wilson, March 5, 1976

"You are continuing a partisan attack, essentially identical in its arguments to that used by Science for the People, in an important forum where I will have no chance to reply….

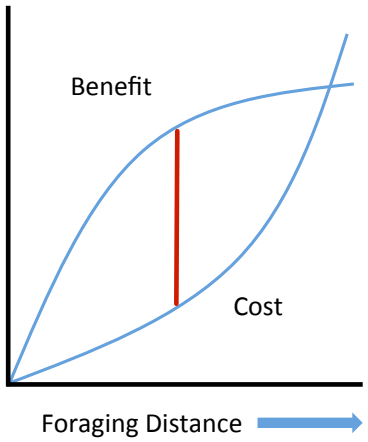
It appears to me that you are showing not only poor judgment with reference to your own university but also dubious ethics in promoting your point of view concerning a highly political, controversial topic."

E.O. Wilson to S.J. Gould, March 16, 1976

...near omnipotence of natural selection to forge organic design and fashion the best among all possible worlds.

Stephen Jay Gould and Richard Lewontin (1979) "The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme."

# Natural Selection Is An Optimizing Engineer



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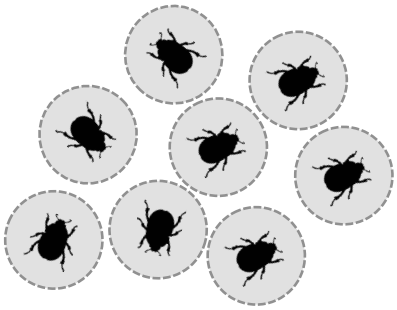

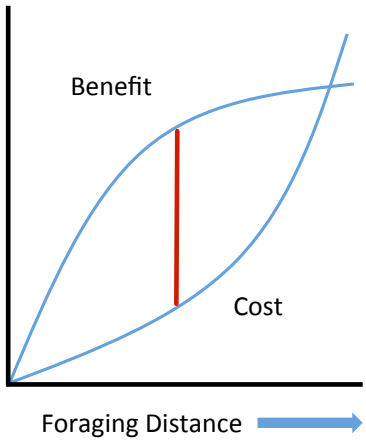

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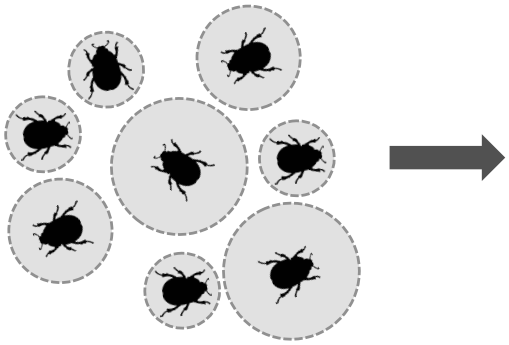

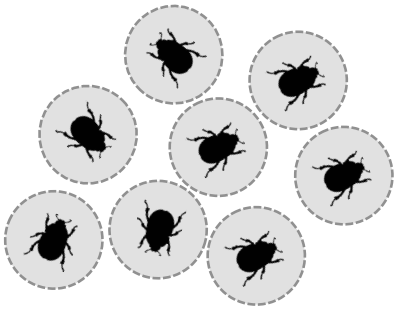

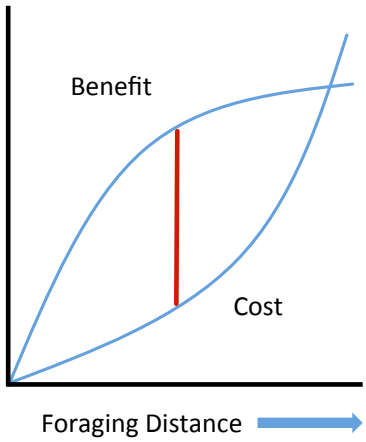

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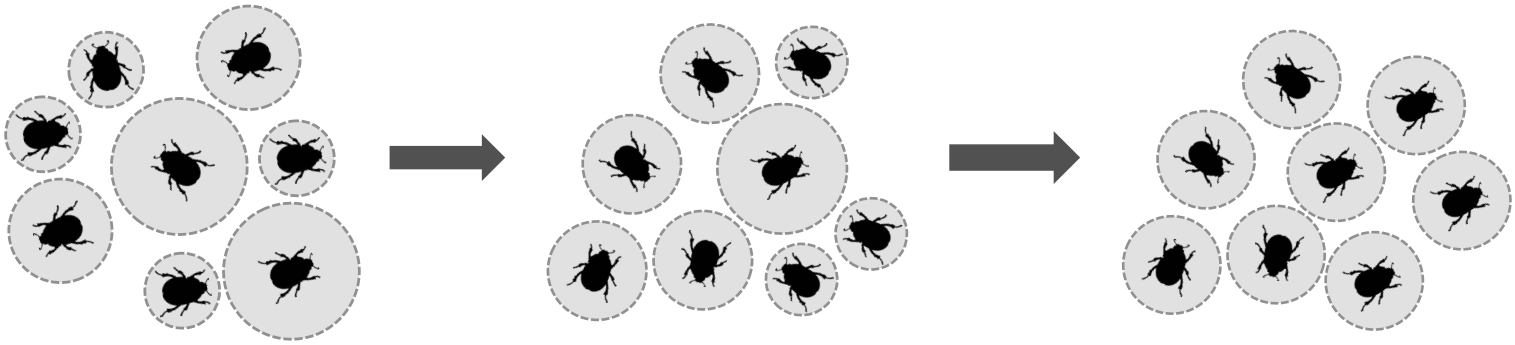

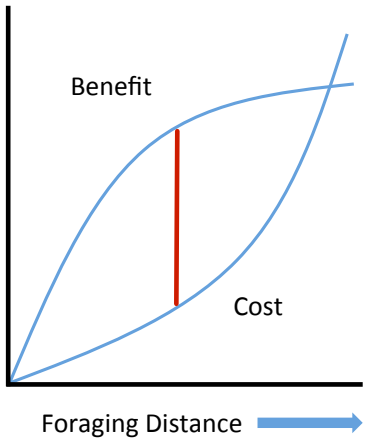

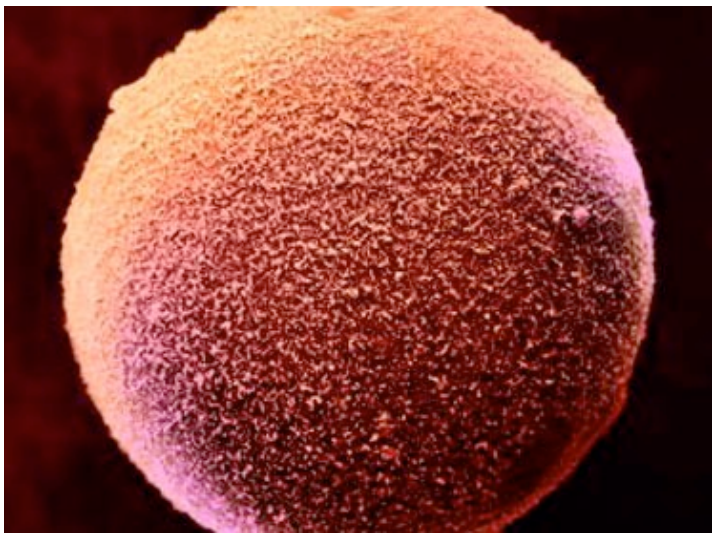

Females: Sexually Coy

Males: Sexually Promiscuous

# Sexual Reproduction

# Historical Contingency

## The paradox of the first tier: an agenda for paleobiology

Stephen Jay Gould

*Abstract.*—Nature's discontinuities occur both in the hierarchical structuring of genealogical individuals and in the distinct processes operating at different scales of time, here called tiers. Conventional evolutionary theory denies this structuring and attempts to render the larger scales as simple extrapolation from (or reduction to) the familiar and immediate—the struggle among organisms at ecological moments (conventional individuals at the first tier). I propose that we consider distinct processes at three separable tiers of time: ecological moments, normal geological time (trends during millions of years), and periodic mass extinctions.

I designate as "the paradox of the first tier" our failure to find progress in life's history, when conventional theory (first tier processes acting on organisms) expects it as a consequence of competition under Darwin's metaphor of the wedge. I suggest a resolution of the paradox: whatever accumulates at the first tier is sufficiently reversed, undone, or overriden by processes of the higher tiers. In particular, punctuated equilibrium at the second tier produces trends for suites of reasons unrelated to the adaptive benefits of organisms (conventional progress). Mass extinction at the third tier, a recurring process now recognized as more frequent, more rapid, more intense, and more different than we had imagined, works by different rules and may undo whatever the lower tiers had accumulated.

*Stephen J. Gould. Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts 02138*

Accepted: November 23, 1984

# Developmental Byproduct

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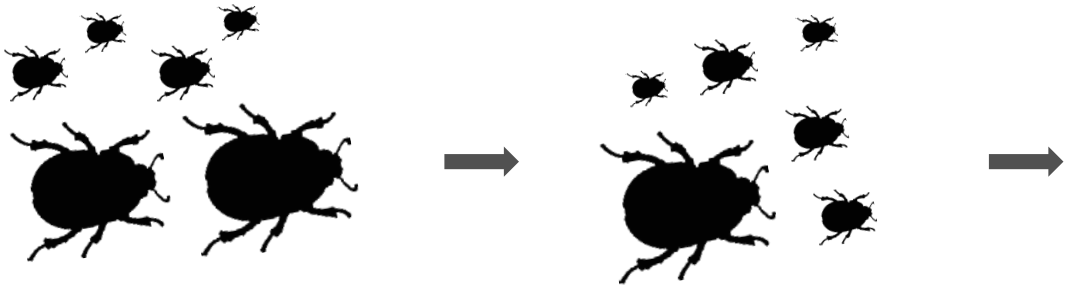

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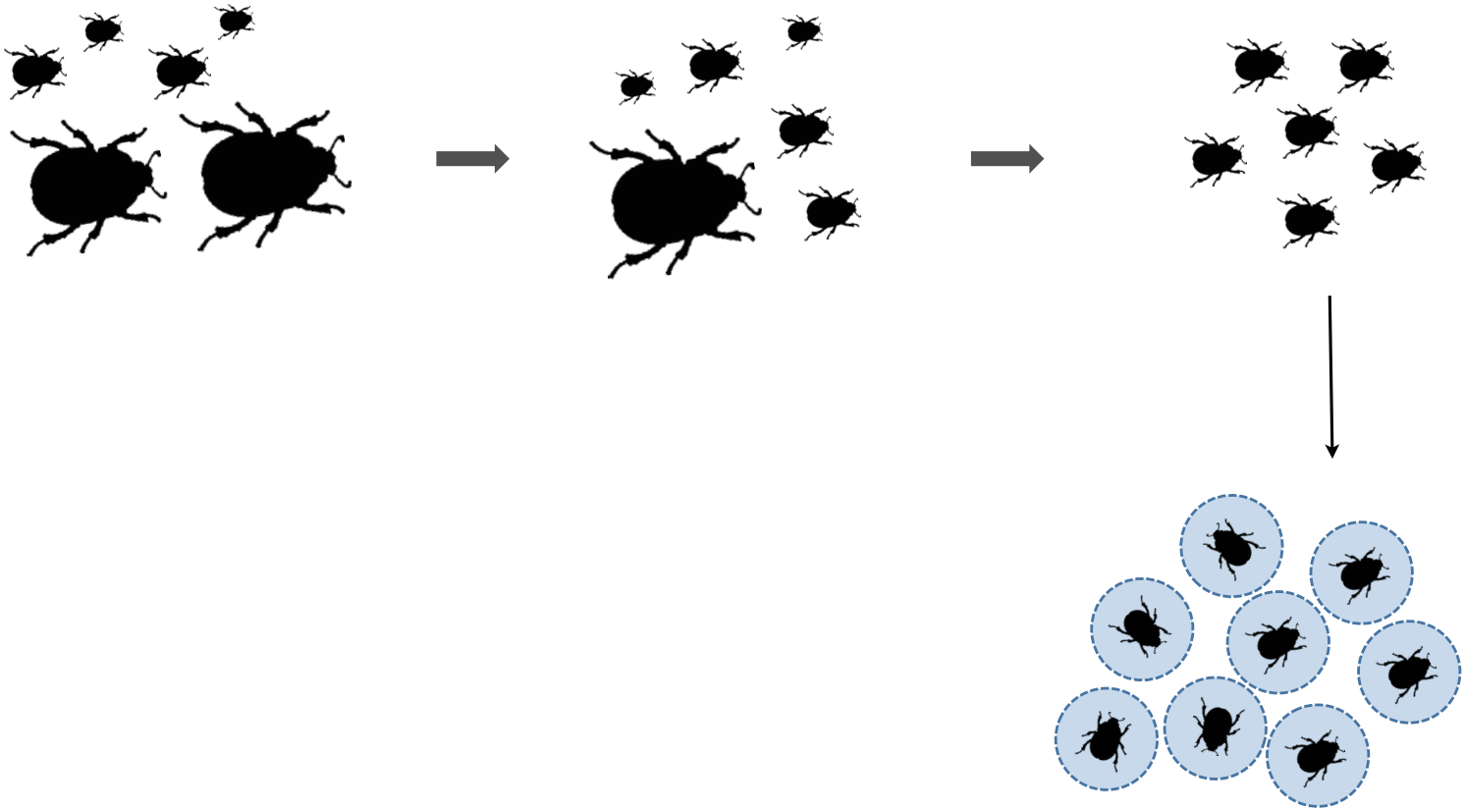

# Punctuated Equilibria

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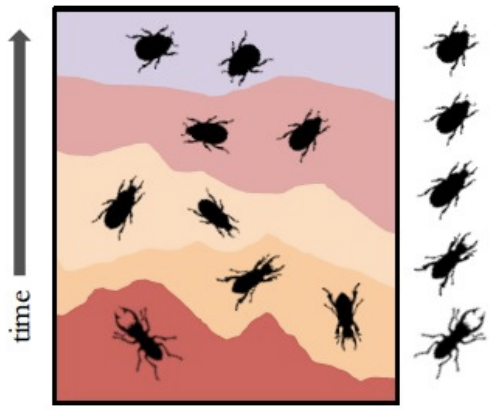
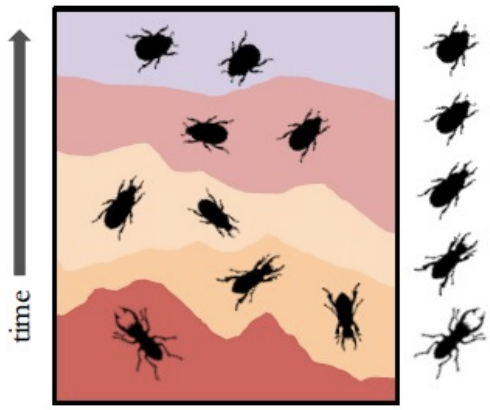



Phyletic Gradualism

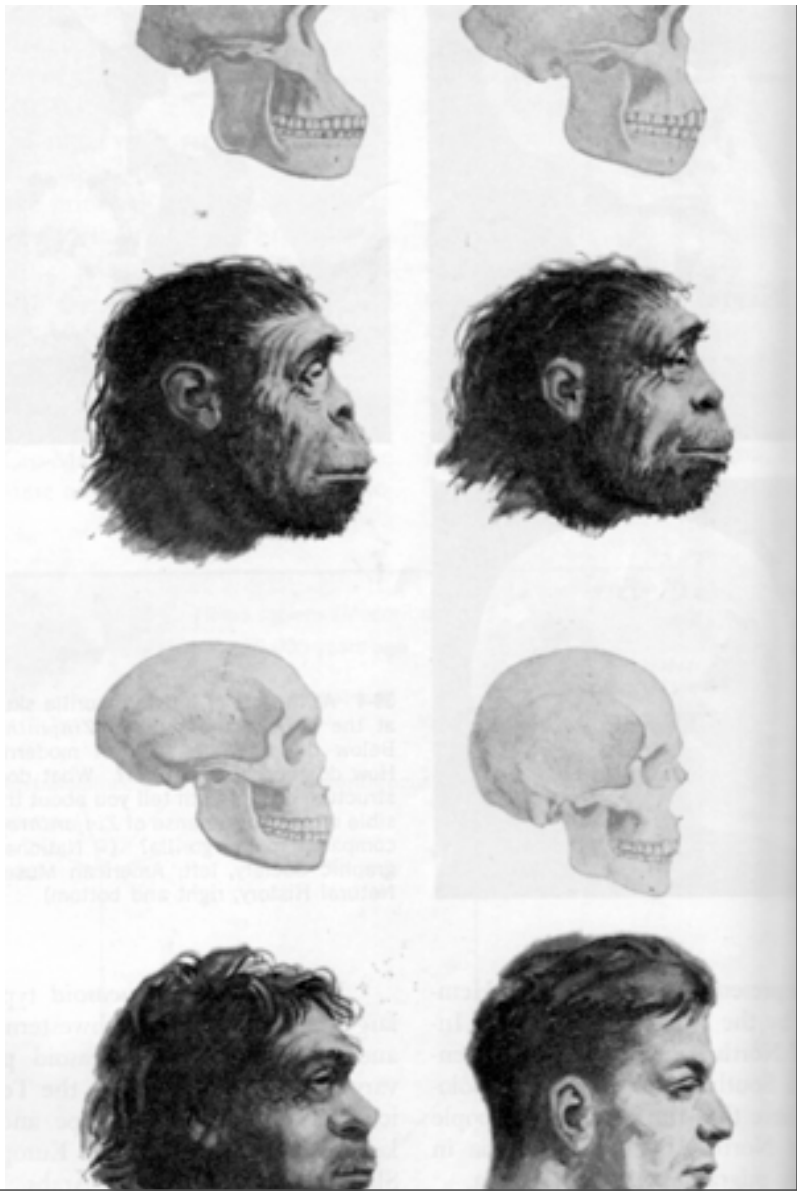
# Punctuated Equilibria




Phyletic Gradualism

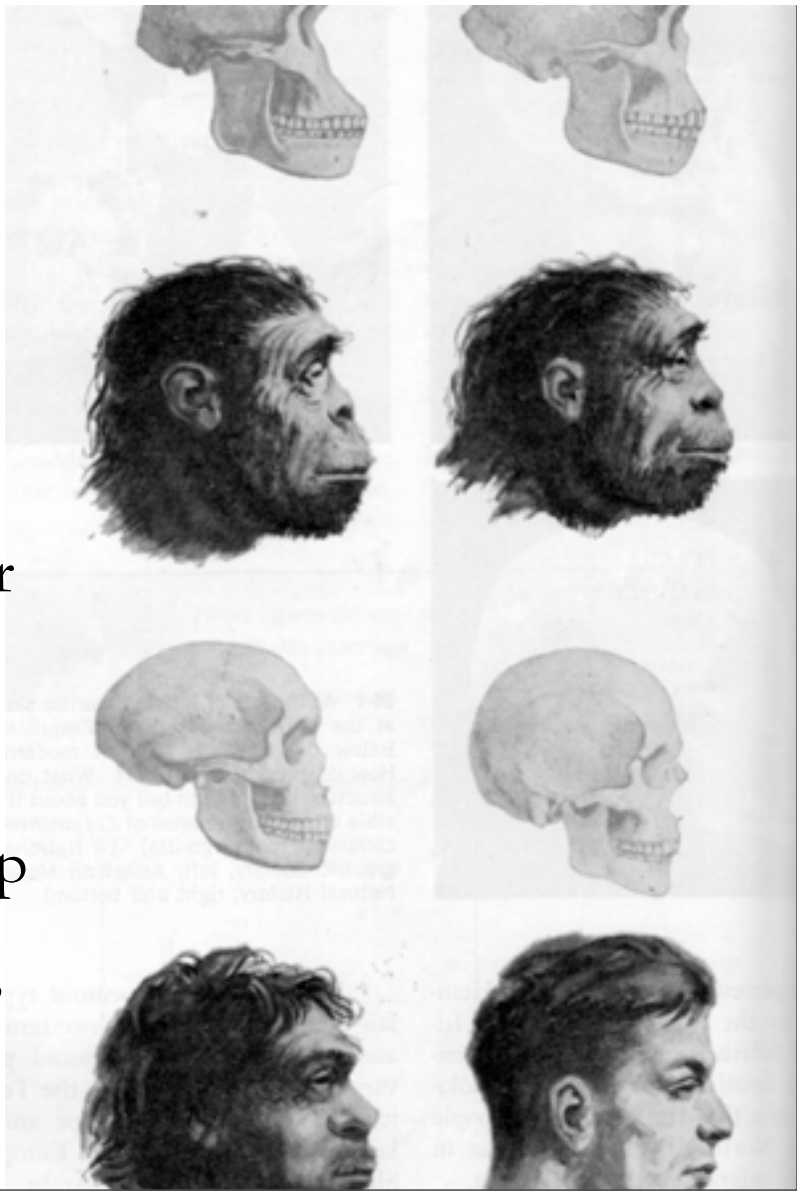

Punctuated Equilibria

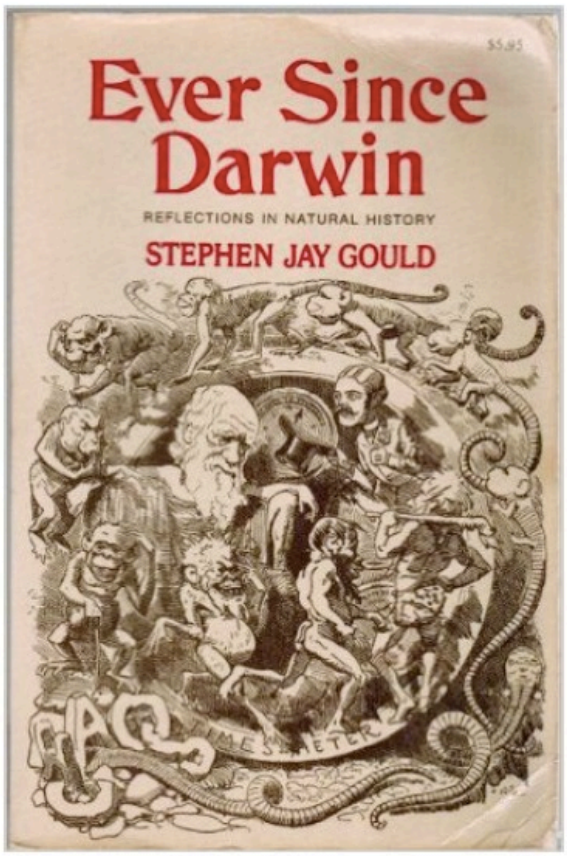
# Progress and Racism



# Progress and Racism

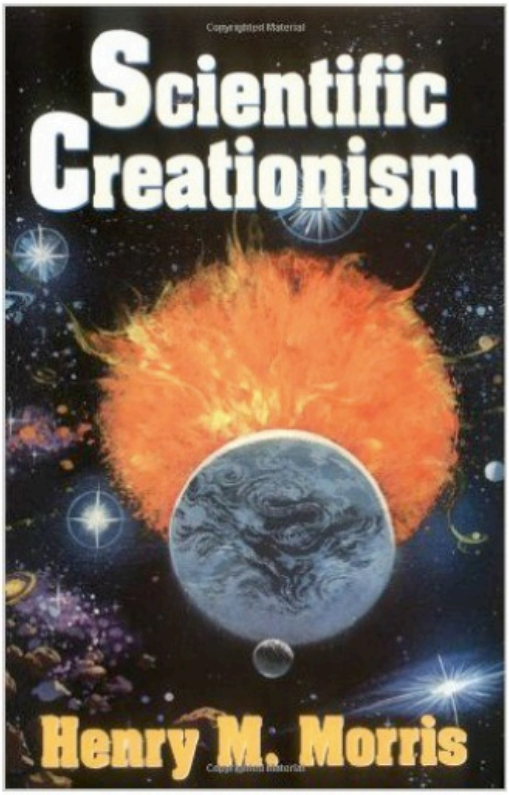
"rank human groups and cultures according to their assumed levels of evolutionary attainment with (not surprisingly) white Europeans at the top and their conquered colonies at the bottom..."






*Ever Since Darwin*, 1977

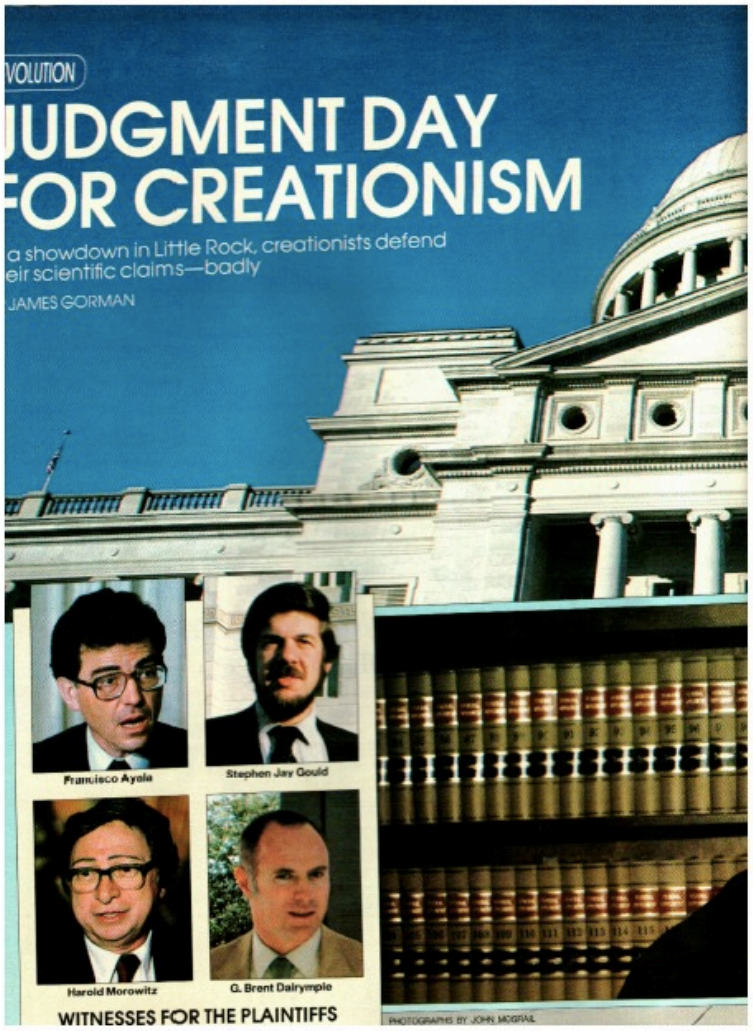
# Creationism



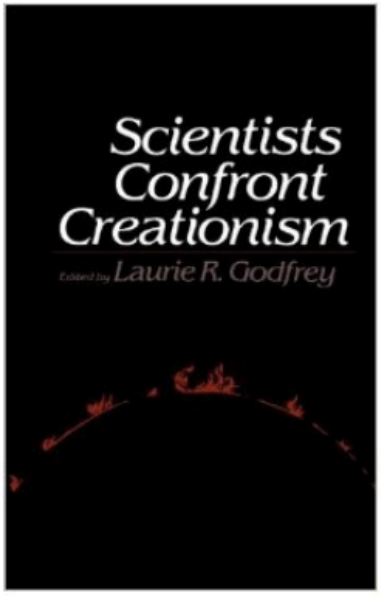

*Scientific Creationism*, 1974

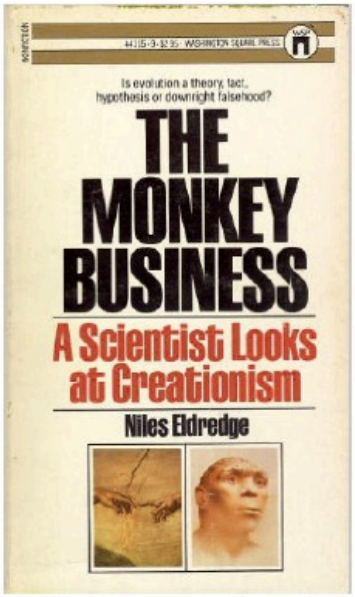
*McLean v. Arkansas*

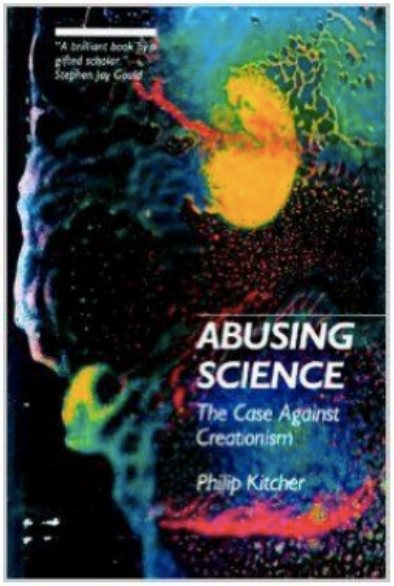
1981

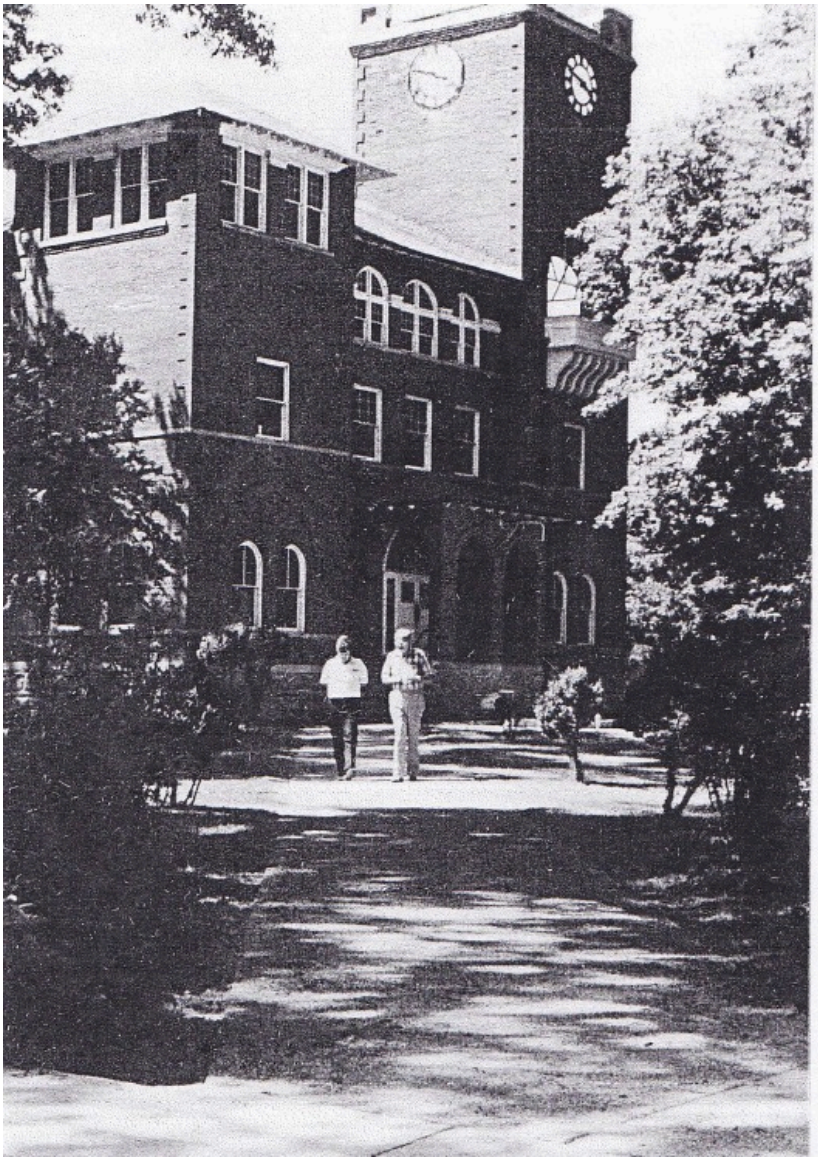


# Scientists Confront Creationism





"A Visit To Dayton"
*Natural History*
1981

"Moon, Man, Otto"
*Natural History*
1981

There is the burgeoning influence of the "punctuated equilibrium" concept in biology and paleontology. Creationists have long argued that there were no true transitional forms as neo-Darwinians have always maintained. Now **we find leading evolutionists saying the same thing.**

Morris, *Scientific Creationism,* 2nd Edition (1984)

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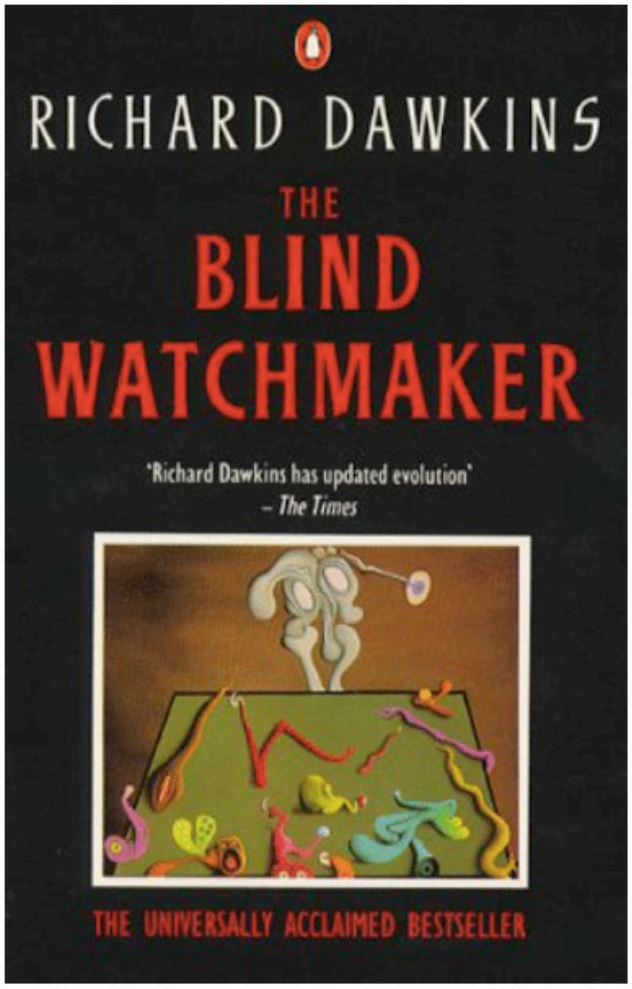
Morris, *Scientific Creationism,* 2nd Edition (1984)

"Among paleontologists, scientists who study the fossil record, there is growing dissent from the prevailing view of Darwinism. Partly as a result of the disagreement among scientists, the fundamentalists are successfully reintroducing creationism textbooks across the US."

"Eldredge and Gould count themselves among Darwin's scientific heirs. They do not dispute his basic theories, but says Gould, "Darwinism as a set of ideas is sufficiently to include a multitude of truths and sins."


# The Argument From Design




*The Blind Watchmaker* 1986

If a molecular geneticist interested in gene substitutions, or a paleontologist interested in major trends, argues with an ecologist interested in adaptation, they are likely to find themselves at cross-purposes simply because each of them emphasizes a different aspect of what evolution means.

Richard Dawkins (1982) *The Extended Phenotype*, 19.

For me **the most important thing Darwinism has to offer is its explanations of adaptation.**

Of course Darwinism can offer explanations of other things than adaptation, for instance the pattern of diversity… but if Darwinism wasn't there plenty of other theories could plausibly explain them. They couldn't explain adaptive complexity; only natural selection could do that. Suppose to take an analogy, a substance is discovered which turns out to be a miracle cure for AIDS. Nothing else is known that can cure AIDS, and this wonder substance is infallible. Now suppose that that this substance also turns out to be useful for stuffing cushions. Shall we refer to it as the cure for AIDS? Or as a cushion stuffer?

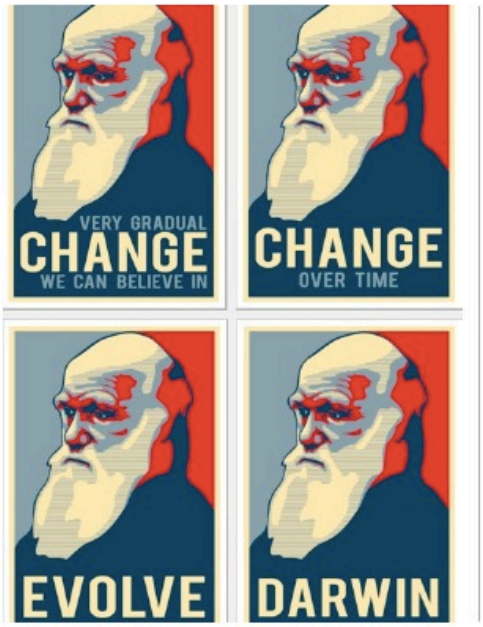
Of course it's both. But we should think of it mainly as a cure for AIDS, because firstly lots of other substances can be used to stuff cushions whereas no other substance is know that can cure AIDS, **and secondly curing AIDS is a lot more important than stuffing cushions anyway.**

Richard Dawkins. "Transcript: Debate Between Richard Dawkins and Stephen Jay Gould, Sheldonian Theatre, Oxford University," 1988, Box 897, Folder 5, SJG Papers, Stanford University, California.

The adaptationist position is an invitation to scientific investigation...

If the predictions fail, then we can rule out the hypotheses. But let's not reject the plausible possibilities out of hand.

John Alcock, "Ardent Adaptationism," Natural History 96, no. 9 (April 1987): 5–6.





# Darwin in American Consumer Culture


# Public Ethics, Politics and Sociobiology

Ethics in Science
University of Houston
11 March 2016

Myrna Perez Sheldon, Rice University