NATURALISTIC WEAKNESSES IN EVOLUTIONARY THEORY

acceptable for Texas Biology textbooks

under current First Amendment interpretations *

MUST BE SECULAR, NOT "RELIGIOUS"

Must not suggest intelligent design, scientific creationism, or a young Earth, whose implied theism is "unscientific." *

MUST ACCOMMODATE COURT DECISIONS

Must assume that evolution is scientific, creation is religious, and "scientific weakness" means "naturalistic weakness." *

* Having no non-secular purpose, neither advancing nor hindering religion, involving no excessive entanglement with religion

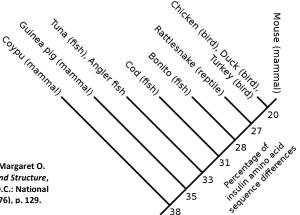
- example -

anatomical versus biochemical phylogenies & homologies and naturalistic weaknesses of "convergent evolution"

Most phylogenies (i.e., evolutionary trees of common ancestry) reflect anatomical similarities among life forms.

1ST NATURALISTIC WEAKNESS Phylogenies based on biochemical similarities often contradict them:

Unlike an anatomical phylogeny, this biochemical phylogeny relates mice more closely to three birds, one reptile, and four fish than to some other mammals.



This cladogram tracks the matrix on Margaret O. Dayhoff, Atlas of Protein Sequence and Structure, Vol. V, Supplement 2 (Washington, D.C.: National Biomedical Research Foundation, 1976), p. 129.

Phylogenies based on biochemical similarities invoke "convergent evolution" to explain anatomical similarities among life forms which they portray as distantly related. For instance, horseshoe crabs, reclassified as more closely related to spiders than to crustaceans due to biochemical similarities, supposedly more closely resemble crustaceans than spiders anatomically because of alleged "convergent evolution."

Harvard scientist Stephen Jay Gould wrote of phylogenies based on anatomical similarities, "The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology [i.e., the study of fossils]." But the number of transitional forms between horseshoe crabs and a common ancestor with spiders would far exceed those between horseshoe crabs and a common ancestor with other crustaceans.

2ND NATURALISTIC WEAKNESS

Biochemical phylogenies often multiply the number of transitional forms missing in the fossil record, compared to anatomical phylogenies.

3RD NATURALISTIC WEAKNESS

"Convergent evolution" often weakens anatomical and biochemical similarities as evidence of close common ancestry.

4TH NATURALISTIC WEAKNESS

"Convergent evolution" discredits the rival phylogenies it accommodates because each is radically different, mutually exclusive, and equally valid.

- Q1: How does "convergent evolution" address discrepancies between anatomical and biochemical phylogenies?
- A₁: It postulates that more closely related life forms evolved traits like those of less closely related life forms.
- Q₂: What do biochemical phylogenies imply about the fossil record, compared to anatomical phylogenies?
- Ag: There are many more transitional forms missing in the fossil record.
- Q3: Do fewer transitional forms in the fossil record enhance or reduce the evidence for "convergent evolution"?
- A₃: They reduce it.
- Q₄: How does "convergent evolution" often weaken similarities as evidence of close common ancestry?
- A_4 : It claims that close common ancestry is often not the source of similarities.
- Q₅: Why are multiple rival phylogenies a weakness rather than a strength of evolutionary theory?
- A₅: Such radically-different, mutually-exclusive, equally-valid phylogenies induce skepticism over descent.