

ARTICLE OF INTEREST

Bird Origins Anew by Alan Feduccia. *The Auk—An International Journal of Ornithology*, 130(1), January 2103, pp. 1–12.

In *Dogmatism in Science and Medicine* (Bauer 2012), I mention a number of fields in which the mainstream position is dogmatic to the n^{th} degree and constitutes a monopoly. That is accompanied by suppression of other views: Dissenters are excluded from conferences, from publishing in leading journals, and from funding of research, and they are labeled “denialists,” with pejorative association to those who deny the Holocaust (Furedi 2007). To the already long list of fields mentioned in the book, I can add the dogma described in this article, that birds are derived in a particular way from a particular line of dinosaurs. The circumstances are uncannily similar to those facing minority views concerning string theory, extinction of dinosaurs, HIV/AIDS theory, the hypothesis of human-caused global warming, etc.:

[T]he current mantra . . . has become an unchallengeable orthodoxy: Birds are living maniraptoran theropods. . . .

[T]hose who offer contrary evidence are subjects of ridicule and no longer considered scientists. . . . [O]nly supporting evidence will be recognized, while contradictory evidence is ignored or explained away. . . .

[A]ll conclusions are based on the *fact* [emphasis in the original] that “birds are living dinosaurs”. . . .

Lack of citation has become a common but disturbing mechanism of censorship. . . .

The current orthodoxy of flight origins, involving massive exaptation, stretches biological credulity and is practically non-Darwinian.

[Current dogma requires that flight was “learned,” acquired in some way, by creatures accustomed to roaming the ground, which seems massively improbable. By contrast, the now-minority view that used to be mainstream is the highly plausible idea that powered flight was achieved by extrapolation of near-flight behavior in creatures long used to gliding downward from high in trees. “Exaptation” means that characteristics evolved for a particular purpose are coopted to serve a different purpose. It is difficult to see which characteristics of land-roaming creatures could be adapted to flight, but easy to see in the case of species that had become accustomed to gliding.]

Attempts to silence any opposition to the current unchallengeable orthodoxy are seen in the lack of citation of contrary views . . . , and polemical and ad hominem reviews that are substituted for evidence. . . .

[We] are typically accused in ad hominem fashion of not understanding cladistic methodology and, therefore, of not being scientists. But we emphatically do understand the essence of the methodology, and that is the problem— . . . the fragility and very tenuous nature of cladistic analyses.

Part of Feduccia's argument concerns the validity of cladistic approaches to discovering or proving ancestry. Cladistics groups species according to large numbers of characteristics, using computers to discern similarities and lineages. As with computer modeling, this approach depends on what is fed into the computer, in this case which characteristics to encode and how to weight their significance. Feduccia points out that no amount of descriptive morphological data used in cladistic analysis can compete with, let alone supersede, genetic analysis. One reason, enough in itself, is the phenomenon of convergent evolution: Quite distinct genetic lineages have led to species that look somewhat alike and behave somewhat alike, because those features happen to suit a particular environment—for example, several Australian marsupials came to look and behave rather like certain non-marsupial mammals elsewhere. Therefore morphology and behavior cannot be relied on for inferences about ancestry. By contrast, genetic analysis is a direct way of demonstrating ancestry which could be invalidated only by some most improbable series of mutations. [Hull (1988) has described in fascinating detail the history of cladistics, as an example of the social processes at work in scientific activity. It's a marvelously informative book that everyone interested in scientific activity could read with profit.]

So absurd are some of the assertions and speculations by mainstream dogmatists about avian evolution that they have been pilloried by Creationists, no less; Feduccia observes that "It is chilling to contemplate that the Creationists may be the ones to sweep our own house clean."

Another interesting point in Feduccia's article concerns neoteny ("Peter Pan evolution"), the phenomenon whereby the adults of some species resemble the infants of another species. For instance, Feduccia notes that the flightless birds (ostrich, kiwi, etc.) evolved from flighted ancestors by neoteny: "They are all big chicks" and thereby "closely resemble, albeit superficially, the theropod dinosaurs." Similarly, human adults are much more like chimpanzee babies than they are like chimpanzee adults; we humans are neotenous apes.

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