

IDEAS FOR FORTIFYING BIOLOGICAL EDUCATION

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Key Contentions

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2. When professors and teachers present arguments for evolutionary theory, they might consider avoiding these arguments.
3. Instead, they might consider exposing students to different arguments for evolution.

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- We've studied about 30 textbooks.
- I'll give four examples.

Basic Argument Template

1. If evolutionary theory is true, we'd expect X
2. If God (or a designer) had created directly, then we'd *not* expect X
3. We have found X
4. If the evidence is expected on one hypothesis but unexpected on another, then the evidence strongly supports the former over the latter
5. Thus, X strongly supports evolutionary theory over creationism (or ID)

Irrelevant theology

“Irrelevant” because it relies upon an egregious strawman of contemporary creationism (or of ID) as part of a positive case for evolutionary theory.

Irrelevant theology

“Advocates of the view that all organisms were created simultaneously by God argue that there are no vestigial organs because if any function at all can be attributed to a structure, it cannot be considered functionless, even if its removal has no effect. Thus, according to this view, ostrich wings are not evidence of evolution, because they *can* be used to brush off biting insects. Is this a valid argument?” Audesirk & Audesirk, 2014, p. 273.

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Overconfident Theology

“Overconfident” because of its excessive certitude – without any justification given – about what God would do.

Overconfident Theology

“An engineer would never use the same underlying structure to design a grasping tool, a digging implement, a walking device, a propeller, and a wing. Instead, the structural homology exists because mammals evolved from the lungfish-like ancestor, which had the same general arrangement of bones in its fins.”

Biological Science, 2014, p. 450

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Overconfident Theology

Key assumption: God would *never* borrow from a previous design, modifying it into different structures (and functions) for new species.

Indeterminate Theology

“Indeterminate” because it is too vague (or generalized) to be useful for the pro-evolution argument at hand.

Indeterminate Theology

“Four decades ago, the French geneticist François Jacob made the analogy that evolution works like a tinker, assembling new structures by combining and modifying the available materials, and not like an engineer, who is free to develop dramatically different designs (a jet engine to replace a propeller-driven engine, for example). We have seen that morphological evolution is not usually governed by the acquisition of radically new genes, but proceeds primarily by ‘tinkering’ with expression patterns of existing genes.”
Sadava et al., 2014, p. 423.

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- It's *possible* for God to have done so.
- Not: God *would* have done so.

Indeterminate Theology

If a divine engineer created each species, then *it's possible* each one would be genetically and morphologically different from all other species rather than having genetic and morphological similarities with one or more species.

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The Problem

- Evolutionary theory predicts X rather than Y
- A divine engineer is compatible with Y (i.e. it's *possible* God would do Y)
- Compatibility with Y does *not* entail or make probable that God would do Y (instead of X)
- Compatibility with Y is fully consonant with God doing X every time

Indeterminate Theology

Bottom Line

- To make their argument successful, Sadava et al. need to show that genetic and morphological similarities between newer and older species are *more* expected given evolutionary theory than given a divine engineer. But they have not done so.

Atheodicy Theology

“Atheodicy” because it attacks God’s justice, so to speak, as part of a positive argument for evolutionary theory -- yet does so by relying upon questionable theology-laden assumptions.

Atheodicy Theology

“Nor can we rationalize why a beneficent designer would shape the many selfish behaviors that natural selection explains, such as cannibalism, siblicide, and infanticide.” Futuyma, 2013, p. 640.

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- ◻ If humans cannot “rationalize” an answer, then we cannot think of *any* morally sufficient reason why God would cause (or allow) certain types of natural pain and suffering.
- ◻ It follows that *all* the answers given from the ancient past to the present day are manifestly incorrect.

Atheodicy Theology

Direct Implication

- All theodicies are false or inadequate

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Hidden Assumption?

- ❑ Key premise: We cannot “rationalize” why a good God would allow X. We cannot think of a good reason.
- ❑ Conclusion: There is no reason why a good God would allow X
- ❑ Hidden assumption: If God were to have a reason, we would know it

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2. These claims are foreign to creationism and ID.
3. Textbooks offer no citation, justification, evidence, or argument for these claims.
4. Quite a number of textbooks undermine the scientific legitimacy of these same claims.

Recommendation

Biology professors and teachers ought to consider exposing students to different arguments for evolutionary theory.

The End