

# **Evolution and the Biology Classroom: The Controversy Continues**

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# Why Evolution?

- It is believed (perhaps with some justification) that evolution disrupts worldviews
- Evolution raises questions about the relationship between science and religion
- Connection to teleology...are humans here for a purpose?
- (Misguided) application of evolution in social policies
- Arguments that evolution is on shaky scientific - empirical grounds

# Challenges to Evolution

## (I) Anti-evolution Laws:

- Largely famous (or infamous) because of *Tennessee v. Scopes* (1925)
- This type of law remained constitutional until Supreme Court decided *Epperson v. Arkansas* (1968)

# Challenges to Evolution

## (II) Balanced Treatment Acts:

- If you are going to teach evolution...you must teach creationism
- *McLean v. Arkansas* (1982)
- The Supreme Court addressed the issue in *Edwards v. Aguillard* (1987)

# Challenges to Evolution

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After several key decisions by the courts,  
seemingly creationists had lost...

# Challenges to Evolution

However...according to the Supreme Court:

“...teaching a variety of scientific theories about the origins of humankind to schoolchildren might be validly done with the clear secular intent of enhancing the effectiveness of science instruction.”

- *Edwards v. Aguillard*, 482 U.S. 578, 594 (1987)

# Challenges to Evolution

## (III) Current Approaches:

- Textbook disclaimers; they are or have been used in states such as Alabama, Georgia, Oklahoma...
- “Alternatives to evolution” which may include discussion of intelligent design

# What is Intelligent Design?

- Design theorists claim that they largely embrace evolution but argue that it has conceptual flaws
- The world, human life...is much too complex to have happened randomly (perhaps connected to Paley's "argument from design")
- "Irreducible complexity", a concept largely credited to Michael Behe
- Statistical improbabilities, described by William Dembski and others



# Design theorists recommend:

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- “Teach the controversy”, suggested by Stephen Meyer and others at the Discovery Institute
- Multiple perspectives should be included when discussing “life’s origins”
- At a minimum, biology teachers should be given the option to discuss ID if they want to

# Does “design” belong in the biology classroom?

Among the issues to consider:

- Is intelligent design science?
- Is it religion?
- Is there empirical evidence behind it?
- Has it passed through proper scientific tests/barriers?
- Does the public demand it?
- Does presenting it improve scientific pedagogy?
- Does presenting it help to refine critical thinking skills?