

Phillip Johnson - William Provine

Debate at Stanford University

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Video Study Guide

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Introduction To The Video Study Guide

The videotape may be played continuously from Johnson's Opening Statement through the Question and Answer period or, preferably, it may be divided into modules for more effective interactive discussion. Instructors wishing to lead in depth discussion of the material should stop the tape at the end of each section.

The counter readings start from the first video image.

Opening and Introductory Remarks

 *Tape Counter* (00:00:00 - 00:01:32)

Phillip E. Johnson: Opening Statement

 *Tape Counter* (00:01:43 - 00:21:42)

Section I: Philosophical Naturalism/ Theistic Realism

 *Tape Counter* (00:01:43-00:07:17)

Main Points

- I. Neo-Darwinian theory of evolution as an unplanned, undirected process is inconsistent with any meaningful theism.

2. The Neo-Darwinian conclusion about the process of evolution is based on a premise of metaphysical naturalism: that there are no causes except matter in mindless motion. Is this premise true?

 **Questions for Discussion**

1. On what major points do Johnson and Provine agree?
2. What assumption behind mainstream evolutionary biology does Johnson identify and criticize?

Section 2: Life Through Time Exhibit: Evidence/Inference

 **Tape Counter (00:07:20-00:15:22)**

 **Main Points**

1. "The Hard Facts Wall" exhibit does not make the critical distinction between empirical evidence and theoretical inferences and speculations.
2. The theory that all life is connected by a branching tree-like pattern (the "cone of increasing diversity") is not supported by the fossil evidence. All the major groups appear suddenly in the Cambrian explosion and no new phyla have appeared in the last 500 million years.

 **Questions for Discussion**

1. What criticism does Johnson offer of the exhibit titled "The Hard Facts Wall"? What lesson does he draw?
2. How does Johnson explain the uncritical thinking of the evolutionary biologists about their theoretical explanation? How does he relate this to their premise of metaphysical naturalism?

Section 3: Artificial Selection and Natural Selection

 **Tape Counter (00:15:26-00:19:37)**

 **Main Points**

1. Artificial Selection (Selective Breeding) is an imperfect analogy to Natural Selection. Selective Breeding is purposeful, directed and intelligent. Natural Selection is without purpose, undirected and without intelligence.

Questions for Discussion (See Argumentation: Faulty Analogy)

1. How is Selective Breeding different from Natural Selection, using examples of how breeders work and how natural selection operates?
2. Why did the variations among light and dark colored “peppered moths” become such an important example of natural selection? Does natural selection account for the arrival of the fittest or the survival of the fittest?

Section 4: Neo-Darwinism as Philosophical Naturalism

 **Tape Counter** (00:19:49-00:22:42)

Main Point:

The naturalistic world-view has not actually been demonstrated by the empirical evidence. It has been assumed from the beginning, as a premise, biasing the final interpretation of the evidence. There is no compelling reason to believe naturalism. It is not based on the empirical evidence. It has presumed its conclusion in its premise.

Question for Discussion:

According to Johnson, why shouldn't microevolutionary mechanisms be extrapolated to account for the arrival of major innovations in the history of life?

William Provine: Opening Statement

 **Tape Counter** (00:24:32-00:25:42)

Section I: Phil's Views

 **Tape Counter** (00:26:02-00:26:42)

Main Point

Johnson is described as a Christian who believes that God created life, that God provides a basis for ethics, for free will and responsibility, and for ultimate meaning in life.

Question for Discussion

What type of argument does Provine use in presenting Johnson's personal views? (see Appendix I)

Section 2: Darwin, Common Descent and Natural Selection

 **Tape Counter (00:27:02-00:31:32)**

Main Point

Darwin first developed the theory of “common descent,” and later the hypothesis of Natural Selection as an alternative to the concept of Intelligent Design.

Questions for Discussion

1. What are the evidences cited in support of the theory of common descent?
2. How does the theory of common descent differ from the proposition that Darwinian mechanisms—non-intelligent, undirected processes—created human beings?
3. Does the acceptance of Natural Selection necessarily undermine the concept of the intelligent design of living things? Explain.

Section 3: Modern Evidence for Darwinian Evolution

 **Tape Counter (00:31:40-00:41:12)**

Main Points

1. The modern evidence for selective breeding does not indicate any limits. Based upon present knowledge, it is certain that dogs can be bred the size of rats or buffalo that will constitute new species.
2. “Flying” squirrels demonstrate a functional transitional point between tree squirrels and true flight. They have not lost the use of limbs for climbing.
3. A Creator cannot be an omniscient designer with all of its creations destined for extinction.

Questions for Discussion

1. What evidence does Provine provide to support the claim that selective breeding can ultimately result in major evolutionary change?
2. Is Provine’s argument for the development of wings in functional stages demonstrated by the example of the “flying” (gliding) squirrels?
3. What is the relevance of extinctions to the question of origins?

Section 4: Atheistic Humanism/Christian Humanism

 **Tape Counter (00:41:18-00:44:22)**

Main Point

The philosophical conclusions of Darwinism have been strongly supported by modern evolutionary biology: no gods, no purposes in nature, no life after death, no ultimate foundations for ethics, no ultimate meaning for life, no free will for humans.

Questions for Discussion

1. Do these conclusions follow from the evidences presented, or are they implicit in the premises of metaphysical naturalism?
2. According to Provine, what are the positive benefits of atheistic humanism?

Phillip Johnson: Rebuttal

 **Tape Counter (00:45:02-00:58:27)**

Major Point

Patterns of extinction are among the important ways the fossil record has been contradicting the predictions of Darwinism.

Question for Discussion

In what ways do the catastrophic mass extinctions contradict the expectations of Darwinian theory?

Major Point

The hypothetical accumulation of small changes becoming big changes is the wrong way of looking at the problem. The important issue is the irreducible complexity of organisms: genetic information encoding complex interrelated mechanisms that all have to exist and operate together in an extremely complicated way.

Questions for Discussion

1. How does the interrelated complexity of organisms, from the molecular to the organism level, present a challenge to the step-by-step process of change through variation and natural selection?

2. How could natural selection inhibit the origin of complex systems of integrated components on a step-by-step basis?

 **Major Point**

The predicted patterns of step-by-step progression from one thing to another, especially among the phyla of the Hard Facts Wall, is totally absent. The proof that complexity-building mutations arrived regularly to build new complex organs isn't in the fossil record. Change doesn't seem to occur that way.

 **Question for Discussion**

Does the absence of the predicted numerous transitional forms constitute a significant challenge to the Neo-Darwinian model of step-by-step change?

William Provine: Rebuttal

 **Tape Counter (00:58:57 - 01:01:12)**

 **Major Point**

"The question of "evolution by descent" is separate from the question of "mechanisms of evolution." There is strong evidence for "evolution by descent." The disagreements in evolutionary biology concern the "mechanisms of evolution." We can look at the evidence and make the very reasonable conclusion that the entire process was through evolution by descent."

 **Question for Discussion**

What becomes of the strong conclusions from evolutionary biology if we "leave aside whether the process is purposeless or guided by God?"

 **Major Point**

Many museum exhibits are poorly designed. Shall we conclude that because the museum exhibits are poor, evolution has not occurred?

 **Questions for Discussion**

- I. Was this Johnson's point about the museum exhibit? If the museum exhibit were improved, would life through time resemble a tree or a forest?

2. What is the difference between empirical evidence and theoretical inferences?

Major Point

“The point is that artificial selection (Selective Breeding) is effective, not that it’s purposeless. Natural Selection is sure to be more powerful than artificial selection, because it can “see” more of the organism than artificial selection ever could.

Questions for Discussion

1. Have the results of studies on natural selection, such as variations in the coloring of “peppered moths” and variations in the kinds of beaks of galapagos finches, demonstrated that natural selection can “see” more of the organism than selective breeders can?
2. Has persuasive evidence been presented that purposeless, unintelligent natural selection can achieve the results that have been attained by intelligent, purposeful selective breeding?

Question And Answer Period

Tape Counter (01:02:22 - 01:45:42)

Questioner 6 (01:15:20) To Johnson

Main Point: How can anyone favor teaching creationism in schools? Creationism has no methodology for correcting itself in the face of evidence.

Johnson’s Reply: “I don’t argue that creationism should be taught. We should teach science honestly presenting not only the confirming evidence but also the disconfirming evidence. Students should understand the counter-arguments to the claim that artificial selection demonstrates the ability of undirected and purposeless process to create entirely new kinds of organisms.”

Provine’s Reply: “Let me say one word, too. I really genuinely agree with Phil on this issue. We need to have more discussion in the university communities. I start my course on evolution with the students reading Phil’s book. Then he comes and visits. He does more to turn my students into evolutionists

than anything else. So I like open debate!”

Question for Discussion: What would be the advantages and disadvantages of education that required students to learn both sides of major issues, the confirming as well as the disconfirming evidence?

General Readings

Johnson: Phillip Johnson, *Darwin on Trial; Reason in The Balance*.

Michael Denton: *Evolution: A Theory in Crisis*.

David M. Raup: *Extinction, Bad Genes or Bad Luck?*

Provine: Richard Dawkins: *The Blind Watchmaker; River Out of Eden*.

Daniel C. Dennett: *Darwin's Dangerous Idea*.

Cambrian Explosion: Stephen Jay Gould, *Wonderful Life*.

“When Life Exploded” pp. 66-74 in *Time*, Dec. 4, 1995.

Critical Thinking Exercise: “The Hard Facts Wall” in Teaching Science in a Climate of Controversy. (Available from ARN)

Appendix I. Argumentation: Major Diversionary Tactics, Fallacies and Forms of Invalid Reasoning

1. **Argumentum Ad Hominem:** (Argument to the man) Shifting the argument from the primary issue to the man's character, personality, qualifications or religion. Used to distract attention from the issue at hand.

2. **Fallacy of Equivocation:** Using one term with two or more different meanings, shifting from one meaning to the other to suit the needs of the argument. Example: playing “shell games” with words of broad and narrow meanings such as creation and evolution.

3. **Faulty Analogy:** An analogy that does not hold. No analogy or model is perfect, so the degree of similarity is what is important. Examples: (1) artificial selection (=selective breeding) and natural selection. (2) microevolution (genetic change in populations) and macroevolution (new organs and body plans).

4. **Non sequiter:** (It does not follow) Conclusion does not follow from either the premises, the evidence presented, or both.

Appendix 2: Definitions of key terms used in the Debate.

These definitions are offered to reduce problems of equivocation or “shell games,” using one meaning to establish another for the purposes of public debate. In each context, ask yourself which definition is being used.

Creation

A. Broad Sense: The the earth, life and humanity owe their existence to a purposeful, intelligent Creator. (Only some interpretations of evolution are incompatible with creation in the broad sense.)

B. Narrow Sense: The earth, life and humanity were created 10,000 years ago: **young earth creationism/ creation science, scientific creationism.**

Evolution

1. *The Theory of Common Descent*: All organisms have been linked in the past by common ancestors. This theory is inferred from the fossil record, anatomy, embryology, biochemistry, and the distribution of living things

2. *Microevolution*: Relatively minor variations that occur in populations over time. (Observed in Peppered Moth coloration, Galapagos Finch beaks, selective animal and plant breeding.)

3. *Macroevolution*: Major innovations such as new organs, structures, or body plans. (The Cambrian explosion: establishment of the animal phyla)

4. *Darwinism (Neo-Darwinism)*: The belief that undirected mechanistic processes (primarily random mutations and natural selection) can account for both micro and macro evolution. A key philosophical component of Darwinism is the assumption that “evolution works without either plan or purpose”¹ and that it is “an unsupervised, impersonal, unpredictable, and natural process.”² Also known as “Evolutionism” and “the Blind Watchmaker Thesis.”

1Miller and Levine, **Biology**, Prentice Hall, 1993, p. 658. (textbook)

2National Association of Biology Teachers 1995 Statement on The Teaching of Evolution..

Johnson-Provine Debate - Study Guide

A full-length study guide is available for this video which includes transcripts of the entire video, suggested readings assignments, detailed commentary and handout/overhead masters. Mail check or purchase order for \$12 (includes shipping) to Access Research Network and request the Stanford Debate Video Study Guide, catalog item #B021:

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Other Videos Available from ARN

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Darwinism on Trial: Phillip Johnson at UC Irvine <i>1992, 1 hr. 45 min.</i>	Item# V002	19.95
Darwinism on Trial Study Kit <i>Includes: UC Irvine Video lecture (V002), Darwin on Trial book (B001), and Video Study Guide (B019)</i>	Item# V002SK	39.95
Darwinism: Science or Philosophy: Phillip Johnson at UC Santa Barbara <i>1993, approx. 2 hrs.</i>	Item# V003	19.95
Darwinism: Science or Naturalistic Philosophy Debate at Stanford University with William Provine and Phillip Johnson <i>1994, approx. 2 hrs.</i>	Item# V004	19.95
Focus on Darwinism: An Interview with Phillip E. Johnson <i>1993, approx. 45 min.</i>	Item# V001	19.95
Focus on Darwinism: An Interview with Michael Denton <i>1993, 40 minutes</i>	Item# V005	19.95
Focus on Darwinism: An Interview with Dean Kenyon <i>1993, approx. 30 minutes</i>	Item# V006	19.95
Dean Kenyon: Focus on the Origin of Life <i>1993, approx. 30 minutes</i>	Item# V007	19.95
Can Science Know the Mind of God? Phillip Johnson Lecture at Princeton University <i>1996, approx. 2 hrs.</i>	Item# V008	19.95

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