

Second Discussion Class

Discussion Question

Was artificial selection a good model for Darwin to use for natural selection?

- A. Yes; it shows how selective reproduction can lead to traits suited to local environments
- B. No; it doesn't lead to new species
- C. No; it is the result of human intelligence not natural processes
- D. Other

2

Discussion Question

Darwin is focused on traits that make organisms well adapted to their environments. How could he explain maladaptive traits?

- A. He can't
- B. They reflect that natural selection is a slow process, always behind the time
- C. They reflect the fact that natural selection can only select among variants that exist
- D. They reflect physiological and mechanical limitations on what is possible in a living organism
- E. Other

3

Discussion Question

Darwin presents evolution by natural selection as a very slow process. Is that a good thing?

- A. No; species end up adapted to conditions in the past
- B. No; when environmental conditions change quickly (as they are now), many species go extinct
- C. Yes; a fast process would generate many variants but would not result in one's adapted to their conditions
- D. Other

4

Discussion Question

Is evolution by natural selection still operative on human beings?

- A. Yes; population growth still exceeds resources
- B. No; population growth is declining as individuals are less interested in reproduction
- C. No; human populations are not isolated and able to evolve separately
- D. No; we have used technology and health care to defeat the selective capacities of natural selection
- E. Other

5

Discussion Question

Darwin uses the terms *varieties* and *races* in pretty much the same way. Do human races correspond to what Darwin meant by variety?

- A. Yes; human races exhibit heritable variation in traits
- B. Yes; both reflect groups exhibiting differences while still belonging to the same species
- C. No; what is meant by *races* among humans are social, not biological categories
- D. Other

6

Discussion Question

What might a feminist approach to evolution differ from that offered by Darwin?

7

Discussion Question

Are there other ways to account for the adaptedness of species in accord with Uniformitarianism than natural selection?

- A. No; Darwin found the only viable alternative to intelligent design
- B. Yes; Lamarck had a fully Uniformitarian alternative
- C. There is no need to; organisms are not nearly as well adapted to their environments as Paley or Darwin pretend
- D. Other

8

Discussion Question

In his long argument for evolution by natural selection, Darwin doesn't report any experiments, just a large set of observations. Would experiments help?

- A. No; natural selection is an inevitable consequence just as Malthus showed
- B. No; breeders actually were doing experiments
- C. Yes; with observations we don't know what is causally efficacious (what selection force was actually operative)
- D. Other

9

Discussion Question

How might Paley have responded had he had a chance to read *On the Origin of Species*?
