

Study guide

Dembski, William A, and Michael Ruse. *Debating Design*, Cambridge University Press, 2004, pp. 342-370. In Chap. 19 of this collection, titled "Irreducible Complexity", Michael Behe argues that certain instances of biological complexity—in this case the bacteria flagellum—provide evidence for intelligent design. Study questions.

1. Briefly describe Darwin's "elegant idea". How does the modern conception of the cell differ from the conception of the cell at the time of Darwin? Why does Behe claim that this renders Darwin's idea unsatisfactory? What does he mean when he claims that many systems within the cell are "irreducibly complex"?
2. What is a bacterial flagellum? Is it irreducibly complex? How does the structure, the operation, and the assembly of the flagellum (and other biochemical systems) contribute to the argument to design?
3. How does Behe address two initial misconceptions that many people have regarding the biochemical design argument? Do you find his answers satisfying?
4. Biochemist Franklin Harold writes that "we must concede that there are presently no detailed Darwinian accounts of the evolution of any biochemical system, only a variety of wishful speculations." Despite this, Harold believes "we should reject, as a matter of principle, the substitution of intelligent design for the dialogue of chance and necessity"? Why, according to Behe, might this be?
5. Is instantaneous (*e.g.* six-day) creation the only account that is consistent with the idea of intelligent design? If not, then how might a designer (*e.g.* God) construct organisms over a long period of time without any detectable violation of the laws of nature?
6. How does Behe address the following criticisms of his theory of irreducible complexity? Do you find Behe's to be good counter-arguments?
 - 6.1. the individual components of an irreducibly complex system may have been put together after having separately evolved for other purposes within a cell?
 - 6.2. redundant systems—such as eukaryotic cilium—are not really irreducibly complex
 - 6.3. the individual parts of a purportedly "irreducibly complex" mousetrap have purposes (*e.g.* the base could be used as a paperweight) that are "co-opted" for a different purpose (catching mice)

7. What is a “blood clotting cascade”, and why does Behe claim that it is an example of an irreducibly complex system? How was Behe’s claim attacked by Doolittle and Ruse, and what lessons does he believe one should draw from this exchange?
8. How does Behe address the argument that a mousetrap can be built up from other, simpler mousetraps, and that it is therefore not irreducibly complex?
9. What is Behe’s view on the prospects of the design inference in the coming century?