

Random Readers 2009

Reading guide for *Life's Solution: Inevitable Humans in a Lonely Universe* by Simon Conway Morris

Abstract:

By documenting the widespread occurrence of evolutionary convergence at all levels of biological organization, Conway Morris seeks to establish that evolutionary outcomes are constrained, and therefore somewhat predictable, even if life itself is unlikely.

Overview:

I have not read *Life's Solution* completely, but have largely focused on the "meat" of chapters 6-10 on the forms of evolutionary convergence. It seems to me that the book centers somewhat uncomfortably on two main ideas.

A. The first is the surprising and/or improbable nature of life's occurrence and of Earth's suitability (near perfection, to Conway Morris) for the emergence of life. Key phrase: "eerie perfection."

B. The second is the apparent existence of significant constraints on evolution, such that life is characterized by "recurring themes." Despite these constraints and the "inevitable" convergence of evolution on a non-infinite set of solutions, life displays "a patent trend of increased complexity." (page 21)

Suggestions for reading the book.

1. Read the Preface and Chapter 1 for the aims.
2. Skim or skip chapters 2-5.
3. Read chapters 6 and 7. Chapter 6 is probably the most important chapter of the book, and includes a section ("Play it again!") that considers a real "replay the tape" experiment.
4. Skim or skip chapters 8 and 9. There are very interesting nuggets in these chapters, and the stuff on humanoids in chapter 9 is important to Conway Morris, who (I think) is motivated (in part) by a desire to have humanity's emergence as a necessary outcome of evolutionary history. But the argument has been made in chapters 6 and 7.
5. Consider reading the latter half or so of Chapter 10, beginning with "Convergence and evolution" on page 298. Conway Morris discusses creationism, Gould, and Dawkins, and places his own view into the context of others.
6. Chapter 11 is a bit rough, with some polemics that might or might not interest some of us. Perhaps it can be mined for some insight, but it's optional.

In summary: let's all read the Preface, Chapters 1, 6-7, and perhaps parts of 10. Subsets of us can sample other sections and report to the rest.