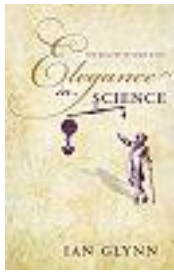


Elegance in Science



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We usually associate a sense of elegance with art or fashion design, poetry or dance, but the idea of elegance is surprisingly important in science as well. The use of the term is most apparent in the "elegant proofs" of mathematics--which Bertrand Russell once described as "capable of a stern perfection such as only the greatest art can show"--but as Ian Glynn reveals in this fascinating new book, the idea of elegance is essential to scientists working in all fields.

Glynn draws on a wide range of examples that demonstrate the elegance of science, from Pythagoras' theorem and Archimedes' proof to Kepler's Laws, the experiments that demonstrated the nature of heat, and the several extraordinary episodes that led to Watson and Crick's discovery of the structure of DNA. Scientists often share a sense of admiration and excitement on hearing of an elegant solution to a problem, an elegant theory, or an elegant experiment. For scientists, as for artists, elegance implies beauty, simplicity, clarity, and proportion; the elegant solution has a kind of stunning and unalterable rightness that inspires wonder and awe. The idea of elegance may seem strange in a discipline that prides itself on objectivity, but only if science is regarded as a dull activity of counting and measuring. It is, of course, far more than that, and Glynn shows precisely how and why elegance is a fundamental aspect of the beauty and imagination involved in scientific activity. An elegant solution may not always be a correct one, Glynn cautions, but elegance is deeply related to important philosophical issues of inference and best explanation.

Written with the same clarity and elegant simplicity it describes, Elegance in Science explores an often overlooked but profoundly important aspect of scientific discovery.

作者介绍:

Ian Glynn is Professor Emeritus of Physiology, University of Cambridge and a Fellow of Trinity College, Cambridge. A member of the Royal Society and an Honorary Foreign Member of the American Academy of Arts and Sciences, he is the author of An Anatomy of Thought: The Origins and Machinery of the Mind (OUP 2000).

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