

*Book review***Critical Thinking (2<sup>nd</sup> edition)**

By Richard I. Epstein

*446 pp, Wadsworth; Thomson Learning, Belmont CA, 2002, ISBN 0-534-58059-9 (pbk).*

Critical thinking, like critical reasoning, is an important transferable skill that graduates in life sciences should be capable of using within the specific context of science and scientific research. This book, well illustrated by cartoons and containing more than 1000 exercises to draw upon, is an excellent text on critical thinking aimed specifically at students and could be conceived as a companion volume to that on 'Critical Reasoning' also described in this volume. The content, although difficult for non-philosophers in places, is well written and understandable by non-specialists. It claims to be extensively class-tested by students and uses many everyday examples and exercises to illustrate the key concepts.

Chapters 1-5 of the text deal with the fundamentals such as definition of terms and concepts, strategies that can be used and the relevance of learning to approach thinking strategically: these form the core of the book. Chapters 6-8 deal with the structure of arguments and logic and are probably the most difficult for non-philosophers. Chapters 9-11 are based upon avoiding the use of bad arguments and fallacies. The rest of the book, chapters 12-15, covers specific kinds of arguments including analogies, generalizations and cause and effect.

The text is well supported by exercises whose solutions are provided together with a comprehensive glossary. A useful additional purchase might be the 'Science Workbook for Critical Thinking' by the same author that presents exemplar materials that are integrated with the core text. This is available separately and contains 200 pages of exercises applied to the sciences and includes chapters on observation versus deduction, experiments, models and analogies and explanations. If you are thinking of introducing any formal instruction on critical thinking, The workbook should be high on the list of texts that can be used to support both staff and student populations and certainly provides many useful ideas for the development of such material within specific curricula.

**Reviewed by Allan Jones**

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