

# Book Reviews

## *Critical Thinking* by Alec Fisher

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The aim of *Critical Thinking* is to *explicitly* and *directly* teach critical thinking skills and to facilitate the use of these skills to subjects and contexts beyond critical thinking (v, 1). Though the book is primarily intended as an introductory textbook for the teaching of critical thinking, Fisher maintains that the “material is presented in such a way that it can be worked through on a self-study basis”(vi).

The book begins with a brief preface, in which Fisher provides some suggestions for the use of the text, and continues with eleven content chapters. Chapter 1 is devoted to introductory material; Chapters 2–5 are devoted to identifying, clarifying, and interpreting reasoning; and Chapters 6–11 to evaluating reasoning. Each chapter is divided into sections and subsections, many of which include practice problems devoted to the material of that subsection. Each chapter ends with a clear and concise summary of the chapter’s key elements. The text ends with (i) a questions appendix with a bank of fifty-nine argument passages of varying length and complexity, (ii) solutions to many, though not all, of the practice problems, (iii) a glossary of key terms, and (iv) a brief bibliography.

In the first sections of Chapter 1, Fisher presents several definitions of critical thinking and extracts those elements he considers most significant—at the very least critical thinking is active, reflective, skillful thinking that must meet certain standards of clarity, relevance, adequacy, and coherence. He also provides an explicit statement of the general strategy he adopts for directly teaching critical thinking. He writes:

We shall identify some fundamental skills which are essential to good critical thinking; we shall then show some characteristic weaknesses we are all inclined to display when doing these kinds of thinkings; after that we shall show a good model of thinking in that way (say decision making); then you will practice this kind of thinking; and finally you will be faced with whole tasks . . . in which you will need to deploy the relevant skills at the appropriate points. (pp. 6-7)

In Chapter 2, which concerns identifying reasons and conclusions, Fisher discusses the standard indicators of conclusions and premises such as ‘thus’, ‘hence’, ‘therefore’ and ‘because’, ‘since’, and ‘for’. In the absence of such

indicators, Fisher recommends the “therefore” test, which he articulates as follows: “the ‘therefore’ test asks whether it *makes sense* to insert the word ‘therefore’ between two sentences” (p. 26). Though clearly not generalizable, the test “can be very useful in deciding when and what reasoning is being presented” (p. 26). Fisher also provides an extended list of other reasoning language beyond the indicator words, such as words that indicate how strong we think the reasoning or support is, the source of the support, the nature of the support, etc. Fisher ties the chapter together with whole argument exercises involving (a) identifying and typing the reasoning language in arguments made by others and (b) using the language to construct arguments of one’s own.

Chapter 3 is devoted to patterns of reasoning. He identifies the simplest pattern as the “one reason, one conclusion” pattern. He then distinguishes the “side-by-side” reasons pattern in which more than one reason is offered in support of a single conclusion from the “chain” or “serial” reasoning pattern, in which reasons are offered for a conclusion which in turn is used to support an additional conclusion and so on. Within the “side-by-side” pattern, Fisher identifies a special pattern, *viz.* the “joint” reasons pattern, in which the reasons “have to be taken together to give support to their conclusion” (p. 37). In a final section of this chapter Fisher briefly discusses drawing more than one conclusion, and so, terminology aside, Fisher here provides his own versions of the serial, linked, convergent, and divergent reasoning patterns, though his emphasis is clearly on the first three. This chapter is rounded out with sections on (a) recognizing complex reasons such as conditionals and disjunctions and (b) a typical discussion of being able to distinguish arguments from explanations.

In Chapter 4, Fisher briefly tackles assumptions and the effect of context on interpreting and weighing claims, evaluating arguments, etc. He then codifies the material to date in what he calls a “thinking map”, “a list of key questions you should ask when weighing up an argument” (p. 57). His core list of questions is:

1. What is the main conclusion?
2. What are the reasons? What is their structure?
3. What is assumed?
4. Clarify the meaning of terms, claims, or arguments which need it.
5. Are the reasons acceptable?
6. Do they support the conclusion? Are there other relevant considerations/arguments?
7. What is your overall evaluation in the light of 1 through 6? (p. 56)

Fisher concludes the identifying, clarifying, and interpreting reasoning section of his text in Chapter 5, which is devoted to clarifying and interpreting expressions and ideas. Here he provides another thinking map, which includes such questions as: What is the problem? Who is the audience? What will

provide sufficient clarification for this audience? This thinking map is intended to clarify and add more detail to item 4 of his core thinking map.

Chapters 6 and 7 address the acceptability of reasons. He first distinguishes different types of claims, such as factual claims, value claims, and definitions and maintains that if these different sorts of claims “do require further justification this will need to be appropriate to the claim being made” (p. 84). He then presents and explains six questions one might ask for judging acceptability skillfully: How certain is it claimed to be? Does the context influence acceptability? Does it require expertise/research to decide? Is it widely known or believed? How well does it fit with our other beliefs? Is it from a credible source? (p. 87). All of Chapter 7 is devoted to this last question, which provides a standard treatment of credibility, i.e., one that is typical in critical thinking, informal logic, and philosophy of science classes. For example, Fisher’s treatment includes asking such questions as: Does the source have the relevant expertise? Do they have a vested interest or bias? Is the justification primary or secondary? Is the claim plausible or unlikely on its face? Is there corroboration?

In Chapter 8, Fisher addresses the question of good inferences. Most of the discussion is devoted to articulating and giving examples of different standards that an inference could meet to be considered good, *viz.*, validity, proved beyond a reasonable doubt, more likely than not on the balance of the evidence, and reasonable, though he does not say much about the last on the grounds that “it is too general to say much of substance except in particular cases and contexts” (p. 123).

In Chapter 9, Fisher adds brief discussions of the complications of evaluating inferences due to assumptions and other relevant considerations and then finishes the chapter with some extended examples that involve much of what has been presented previously in the book.

In Chapters 10 and 11, Fisher applies many of the techniques previously introduced to evaluating causal and decision making reasoning, while at the same time pointing out some special questions that must be asked in these cases. For example, in the case of causal explanation, the questions include: What are the possibilities in the case, and Which possibility is rendered most likely by the evidence? In the case of decision making, the questions include: What makes the decision necessary, and What are the possible consequences of various options?

*Critical Thinking* is clearly-written and easily accessible. The method of “thinking maps”, i.e., key questions, focuses and unifies the text in a way that is absent from many critical thinking or informal logic texts. For example, fairly standard texts, such as those by Kahane and Cavender, Ennis, and Epstein,<sup>1</sup> cover diverse topics such as language, deductive reasoning, inductive reasoning, fallacies, and particular uses of argumentation such as legal, scientific, or business arguments, but do not necessarily hang together well as

whole texts. The different sections and chapters of Fisher's book, on the other hand, each address different questions of the clearly interconnected thinking maps. For example, the thinking map of Chapter 7 provides more detail to the "Is the source credible?" question of the thinking map presented in Chapter 6, which in turn provides more detail to the "Are the reasons acceptable?" question from the original thinking map. Even his last two chapters, which are devoted to special cases of argumentation, i.e., causal and decision making, are tied in with the rest of the text.

Fisher's general approach via key questions does, however, come with a cost. There are no, or at best extremely cursory, discussions of such specific topics as, for example, categorical or propositional forms of arguments, sampling and generalization, and reasoning by analogy, which can be found in the other texts cited. Perhaps most significant, however, is the absence of a discussion of fallacies. Given that Fisher says that part of his avowed approach is to "show some characteristic weaknesses we are all inclined to display when doing these kinds of thinkings" (p. 6) this absence is especially puzzling. In fact, despite his explicit claim that his method includes showing characteristic weaknesses in our reasoning, almost no attention is devoted to recognizing poor reasoning. Other than a brief mention of the fallacy of equivocation in Chapter 5 and a brief discussion of typical (poor) reactions to arguments in the beginning of Chapter 6, the only real account of "poor reasoning" shows up in Chapters 10 and 11 in which Fisher indicates some common flaws in our causal and decision making thinking. Hence, anyone who considers fallacies, discussion of various types of inductive reasonings, or argument form to be a significant part of a critical thinking course will have to look elsewhere.

The topics Fisher does present are generally well-treated, though there are some details of his text which require further clarification and explanation. Many of these details could be resolved or filled out by a competent instructor. Unfortunately, a careful "self-study" reader would be left with several unanswered questions. I present these problematic details in the order in which they appear in the book.

(a) Fisher makes distinctions amongst various patterns of argument and holds that recognizing different patterns is important for evaluation (p. 35), but no reference is made to these patterns in the evaluation sections of his text.<sup>2</sup> In addition, Fisher's advice for deciding what kind of structure the argument has includes: "If it is hard to decide, then interpret the argument in whichever way gives the strongest case" (p. 38). But with no guidance on how different patterns influence evaluation or strength of arguments, this advice is hardly enlightening. (Note also that despite a chapter on argument patterns, there is no diagramming of arguments, though sometimes reasons are labeled as R1, R2 and conclusions as C1, C2, etc.)

(b) Fisher's definition of assumptions, i.e., "a belief which is clearly accepted or 'taken for granted' by a speaker or writer but is not stated or made

explicit by them” (p. 47) appears to be inconsistent with his claim concerning assumptions that: “Of course the author might not have even thought of these things, but for the argument to carry much weight, they have to be assumed to be true as well as the reasons which are explicitly given” (p. 49). How can an assumption both be taken for granted by the author and not even thought of by the author? In addition, in Fisher’s first two examples concerning assumptions, the assumption added is essentially, “if the reasons, then the conclusion” but he himself warns against the usefulness of this sort of move on the grounds that “If we thought the original inference was questionable, our doubts must apply equally to the added, hypothetical assumption” (p. 128). I also question the merit of adding this sort of assumption, since the arguer may believe the “if the reasons, then the conclusion” conditional, but only *because* he or she accepts the original argument. Hence, in such cases, the conditional would not be an assumption of the argument at all.

(c) In Chapter 5 on clarifying ideas, Fisher’s thinking map includes as separate questions, “3. Given the audience, what will provide sufficient clarification for present purposes?” and “6. How much detail is needed by this audience in this situation?” (p. 77). I wonder what is the difference between these questions. Unfortunately, Fisher’s only comment on the latter question is to say that we do not need to add to what has already been said.

(d) In Chapter 6, Fisher discusses answering the question “Are the reasons Acceptable (true, etc.)?” (p. 80). He begins by explaining how answering this question works. He writes, “First we must decide whether it is true that . . .” (p. 81). But if acceptability requires truth, then such alleged acceptability questions as “How certain is it claimed to be” are irrelevant, whereas “whether it is widely known or believed, and how well it fits with our other beliefs” are only relevant insofar as they are reliable indicators of truth. In later chapters on evaluating inferences, one of his conditions is that the reasons be “true or otherwise acceptable” (p. 111), but it is far from clear in the text what would constitute “otherwise acceptable.”

(e) Finally, Fisher introduces his last standard of evaluation, *reasonable*, but *not at all conclusive* by comparing it with the previous standard, *more likely than not on the balance of the evidence*. He writes, “Yet again, in many everyday situations we present arguments which are meant to be judged by still less fierce standards” (p. 112). But is it really true that in many everyday situations we argue by providing reasons that we expect do not make the conclusion more likely than not? Some would argue that if the reasons are not intended to provide at least 50% support to the conclusion, then there just is no argument.<sup>3</sup> Unfortunately, as already mentioned above, this standard does not get a separate treatment in the text. But to make matters worse, when discussing the “more likely than not” standard, Fisher writes: “The same kind of reasoning occurs in many other everyday contexts. It is also common in scientific contexts . . .”(p. 120). So many everyday contexts are also contexts

in which the standard is *stronger than reasonable, but not at all conclusive*? In addition, surely the scientific standards are higher than just-more-likely-than-not-given-the-evidence.

Again, many of these details could be resolved in the classroom, though some, especially (e), may require being modified and clarified for a second edition. Some very minor problems that would also require attention for a second edition include: (i) the citation of John Stuart Mill's "desired, therefore desirable" argument given on page 75 is from *Utilitarianism* and not *On Liberty*, and (ii) the argument given in exercise 8.5.4 is, contra the solutions, not valid. A purely notational issue that might bear some rethinking is the divergent numbering scheme of sections versus problem questions. For example, question 1.5 is the fifth question of Chapter 1, but is located in section 1.1.1 of the text, while question 3.4 is located in section 3.7. Some confusion will result if one makes the natural assumption that the question numbers will correlate with the section in which they are located.

Despite the need for some tweaking, *Critical Thinking* remains a very clear, precise, and extremely accessible introduction to the core concepts and questions of critical thinking. By focusing on key questions, Fisher provides a focused and unified text—no small merit when the goal is to facilitate student comprehension, uptake, and, most importantly, utilization of critical thinking concepts and strategies. Supplemented with additional problems (Fisher himself in his preface provides some suggestions on where to look for additional stimulus passages) this book provides an excellent text for an introductory critical thinking course.

## Notes

- <sup>1</sup> Howard Kahane and Nancy Cavender, *Logic and Contemporary Rhetoric*, 9th ed. (Wadsworth, 2002); Robert H. Ennis, *Critical Thinking*, (Prentice Hall, 1996); Richard L. Epstein, *Critical Thinking*, 2nd ed. (Wadsworth, 2002).
- <sup>2</sup> Fisher is hardly alone in this shortcoming. A. Francisca Snoek Henkemans makes the same point about several textbook and theoretical accounts in "Argument Structures" in *Critical Concepts in Argumentation Theory*, Frans H. van Eemeren (ed.), (Amsterdam University Press, 2001).
- <sup>3</sup> George Bowles and Thomas Gilbert: 1993, "The Probabilistic Import of Illatives", *Argumentation* 7, 247-262. But see my, "Reasonable Doubt: A Note on Arguments and 'Neutral' Illatives", *Argumentation* 13 (August, 1999): 243-250, in which I argue that there are least some very special cases in which arguments are properly judged by a standard less stringent than "more likely than not".