

THINKING CRITICALLY, 4th edition

by **John Chaffee**

Boston: Houghton Mifflin, 1994. Softcover. 642 pages. Index. ISBN: 0 395 67546 4.

Reviewed by Anthony Oluwatoyin

This latest edition of Chaffee's text is "designed to serve as a comprehensive introduction to the cognitive process while helping students develop the higher-order thinking abilities needed for academic study and career success" (xv).¹ There are 12 chapters—on such interrelated topics as "Thinking", "Thinking Critically", "Perceiving", "Reporting, Inferring, Judging". Each chapter is interlaced with readings, including student essays, treating such topical issues as teen pregnancy, the death penalty, racist speech, femininity, Malcolm X and, my favorite, a marvellous "flat earth" piece by Alan Lightman (Ch. 5).

There are numerous "thinking activity" exercises and "thinking passage" exercises based on the readings. Students will identify, analyze, synthesize, respond to issues. They will describe goals to be achieved and explain the reasoning process leading to the selection of that goal (p. 5). They will write and evaluate writings. There are "questions for analysis" throughout.

Chaffee's text will certainly keep students busy. And more than one freshman will find himself in the student essays. Practice tethered to one's own sense and experience can only be further sharpened. There is raw grist for the ratiocinative mill here.

Still, problems deep and aplenty make it the case that we cannot recommend the work. Our review follows a familiar tripartite: first we look at Chaffee's handling of the sorts of things we expect to cover in a basic critical thinking course. Next we look for new, insightful contributions to the enhancement of student learning. We wrap things up with an overview of the field: where do we go from here? Can Chaffee help?

I

Critical Thinking/Introductory Logic texts typically cover a large dose of informal fallacies, some common deductive patterns and some inductive procedures. The deductive-inductive distinction is always crucial, particularly in separating invalid arguments from inductive ones. Neither involves the conclusiveness or necessity of validity, and arguers could well have intended the conclusions of invalid arguments to follow at least with the probability that characterizes inductivity.

Chaffee defines deductive arguments as ones “in which one reasons from premises known or assumed to be true to a conclusion that follows logically from these premises” (563). Trouble. In what way do invalidly drawn conclusions follow “logically”? Is Chaffee identifying validity and deductivity (as so many of our students are wont)? In a footnote we are told that the term validity is “reserved for deductively valid arguments in which the conclusions follow necessarily from the premises” (549, fn.). Conclusions that follow invalidly, then, follow non-necessarily but still logically? That is exactly what we say of probability with regard to inductive arguments. So wherein lies the invalid/inductive distinction?

Chaffee says invalid arguments are ones “in which the reasons do not support the conclusion so that the conclusion does not follow from the reasons offered” (549). More trouble. How can an unsupported conclusion that “does not follow” from the premises nevertheless follow “logically”? If Chaffee is saying that invalid conclusions do not follow with necessity, we still need to know the sense in which following non-necessarily is (non-inductively) “logical”. This is especially worrisome since Chaffee goes on to refer to invalidity as fallacious (551), adding that “we will investigate fallacious reasoning in Chapter 12”. He does that a lot—deferring issues. It will wear student patience thin. Worse, all too often one turns to the additional material but finds no further help, as I will now show regarding invalidity, inductivity, non-necessity, etc.

In Chapter 12 we are told that inductive reasoning is “reasoning from premises assumed to be true to a conclusion supported (but not logically) by the premises” (582). Inductive reasoning is not logical? Now this is news. Does Chaffee mean that inductive reasoning is “illogical”? If so, wherein lies the distinction between fallacious, invalid reasoning and illogical, inductive reasoning? Or, perhaps Chaffee considers inductive reasoning “non-logical”. No more talk of “inductive logic”. Just like that. Invalid, fallacious reasoning can be logical. But even the best, not at all fallacious inductive reasoning is ruled out of the category of logic—by definition. And perhaps two new (?) divisions emerge within reasoning: logical and non-logical.

In a work on critical thinking, Chaffee has a chapter on “thinking critically” (Chapter 2) and another on “reasoning critically” (Chapter 12). There is yet another distinction then perhaps between “thinking” and “reasoning”. Reasoning, Chaffee tells us is a “type of thinking that uses arguments” (537). Inductive reasoning then is argumentative but non-logical thinking? Invalidity is argumentative but fallaciously so, non-necessitating but logical thinking? Fallacies are non-argumentative—or fail as arguments? Introductory students anyway will not have an easy time grasping these distinctions—or, indeed the underlying motivation. Chaffee wants to clarify key points of departure in the field (e.g., different modes of thinking). *A fortiori*: keep the confusion to a minimum.

More substantive suggestions are in order at least with regard to Chaffee’s “logical” but invalid, fallacious thinking. In Chapter 12 he turns to informal falla-

cies. They had been mentioned in Chapter 5 but again deferred for 400 pages. The fallacies are the standard sort (appeal to authority, etc.). Now remember that informal fallacies have no invalidating power. Consider:

1. If the bible says murder is right, murder is right.
2. The bible says murder is right.
- ∴ 3. Murder is right.

The argument is valid though it appeals to authority (premise 1). Conclusion derivability is procedural, having nothing to do with argument content. What underscores this point is that the fallacy—the weight of biblical authority—at least *prima facie* might seem convincing. Premise 2, on the other hand, is outrightly false. Still validity is intact.

So in treating argument processes and properties, we need to be very clear about the distinction between formal fallacies involving invalid moves from premises to conclusions and false premises or premises guilty of informal fallacies like appealing to authority. Both issues are crucial to argumentative cogency. Conclusions must be adequately supported by relevant premises which are also acceptable (“true”? warranted, justified, believable) for arguments to be cogent.² It does not follow from that, however, that a violation of one cogency condition constitutes a violation of the other. In fact, the real challenge for critical thinking students is provided by just those arguments that seem *not* to violate *either* condition of cogency because they subtly do not violate *one* of the conditions. For all his specious distinction-making, Chaffee not only fails to shed new light, he blurs old vision.

II

These sorts of problems continue to bedevil Chaffee’s attempts to enhance student understanding when we turn to other topics, topics under-treated or overlooked by others. Take questions.

Surely the matter of questions is something of a mystery—and downright embarrassing—in the critical thinking field. The “best seller” texts don’t even index the topic!³ The topic is hopelessly undertreated. Yet the very process of thinking seems to be a questioning one: asking questions, sorting them out (which apply to the issue at stake, which don’t), the most troubling as opposed to negligible ones, etc.

We need to look quite systematically at *types* of questions: the main ones; their similarities, differences; conflicts between them—in debates, in the very formulation of issues; resolving the conflicts. The idea would be to apprentice our beginning student in the vocabulary of questions, in the articulation and management of the idiom such that cross-disciplinarily—especially where they are least informed—they learn at least how to raise issues, to tease out possible responses; then perhaps they can attempt to determine which issues apply, which issues are significant, how to unpack resolution possibilities, etc.

What does Chaffee offer on the topic of questions? About 10-15 pages—mostly in Chapter 2—in the massive text are devoted to the matter. Again, this is more than most works offer. Still, one must take issue with Chaffee’s exact formulation. He speaks of questions of fact, interpretation, analysis, synthesis, evaluation and application. He admits that his discussion of them is “very general” (64) the categories “overlap” (65) but apparently cover the “right” (64) questions, the “relevant” (64) ones. That’s the problem. Chaffee’s questions are all species of questions of relevance. But there are relevant questions and there are relevant questions. Further: if tension rises between different types of relevant questions, which should prevail? Why? Further still: what about *other* question-types? They seem to have been left out altogether. For instance: questions of significance. A bit more on these points.

“Just the facts, Ma’am”. Are factual questions more relevant than questions of interpretation? What if the two collide? For instance: is the sex act in rape, not necessarily involving any violence, more relevant to an understanding of whether a rape has occurred than interpretations of the act in terms of “power” or control? Which is (more) relevant to the key matter of consent? Violence would seem to violate consent. But what if we speak of “date” rape involving friends or, indeed, marital rape? And what if both individuals (the “couple”) were known to favor “deviant” or “deviantly rough” sex? Which questions of relevance would still tease out consent? “Just the facts”? The bare facts might argue for consent where none was exactly given (“she never exactly said no”, “she never exactly resisted in a manner inconsistent with her usual participation in rough sex”). And questions of interpretation speaking to subtle complexities (“the overall relationship was an abusive one”, “the woman felt intimidated”, . . .) might, in a criminal case anyway, be deemed inadmissible, irrelevant.

Now such irrelevant or marginally relevant issues are often significant. So a further criterion of cogency is in order, *viz.*, significance.⁴ Warnick and Inch note in their *Critical Thinking and Communication*: “[m]ore frequently than any other issue, significance is the deciding issue in a debate.”⁵ In fact, various contests emerge: between marginally relevant, highly significant questions and considerably relevant, less significant ones; between moderately relevant, moderately significant issues and highly relevant but utterly negligible ones. At least some controversies will turn on taking seriously the idea that one should lie (distort the issues) in order to salvage significant issues that may be of dubious relevance.

Some of the most nuanced attempts to obscure the relevance/significance distinction have to do with fundamental assumptions and starting points.⁶ In real life debates, the very things we take for granted are often ascribed a weight they cannot bear. But these are notoriously difficult to tease out (“suppressed premises”, “hidden assumptions”). So students will need to grapple with yet more question-types. E.g., *questions of motivation*: “Just where are you coming from?”, “Exactly what are you getting at?” Or, *questions that do not arise*: “In

the end are you really simply insisting that Hiroshima bombings *cannot* be justified; given a ‘real’ reverence for life—as you see it—the question does not arise?”

Something of a symbiotic relationship seems to obtain between the question-types, then. Still it would be procrustean to group them all under relevance. That would seriously obscure conflicts between and within question-types as well as the manner in which such conflicts lead us to appeal to matters that go beyond mere relevance. So Chaffee’s failure to illuminate various question-types is a serious one indeed.

III

Where do we go from here? I have intimated anyway that questioning skills are the primer in critical thinking development. Chaffee and others need to go back to that most natural starting point where questions are the pivot of the pursuit of factual details; the construction of arguments, deductive or inductive assessments, etc.

Chaffee’s text shows finally why the old symbolic logic, chock-full of inference rules, proved such a problem for the transferability of analytic skills across disciplines. The rules seemed too specialized even for the non-philosophy teachers our students would run into. Questions provide a broader idiom still deepened in the rigor (drawing distinctions, establishing connections, unpacking applications) that is our trademark.

Notes

1. Parenthetical page references are to the cited edition.
2. See Johnson, R.H. and Blair, J. A., *Logical Self-Defense*, 3rd ed. (Toronto: McGraw-Hill Ryerson, 1993), p. 49; Kahane, H., *Logic and Contemporary Rhetoric*, 6th ed. (Belmont, CA: Wadsworth, 1992), p. 8.
3. E.g.: Moore, B.N. and Parker, R., *Critical Thinking*, 3rd ed. (Mountain View, CA: Mayfield, 1992); Kahane, H., *Logic and Contemporary Rhetoric*, 6th ed. (Belmont, CA: Wadsworth, 1992); Dauer, F. W., *Critical Thinking* (New York: Oxford University Press, 1989); Copi, I.M. and Cohen, C., *Introduction to Logic*, 8th ed. (New York: Macmillan, 1990).
4. The absence of significance from cogency criterial lists (note 2, *supra*) is another critical thinking curiosity. “True but trivial,” is a most familiar riposte. Experts must be conflating cogency with a criterion much more strictly *formal*. We need premises to be “illuminating,” to deepen intuitions, to capture our sense of the issues at stake, not merely meet the procedural test of a well-formed argument. Significance addresses this more substantive element. Otherwise, an argument would be “cogent” simply because it is not invalid and contains no obvious fallacies. Acceptable premises, no less than relevant ones, are not all on a par.
5. New York: Macmillan, p. 309.

6. The classic exchange in this regard involves Nozick's attack on Williams's celebrated idea of equality. A distribution of medical care on the strict ground of ill-health would be an ideal of quality, Williams claims. Anything else, e.g., discriminating on the basis of ability to pay, would be irrelevant, irrational. (See Williams, B., "The Idea of Equality" [1962] in P. Laslett and W.G. Runciman, eds., *Philosophy, Politics and Society*, 2nd Series, Oxford: Blackwell, 1964, 110-131.) "Need a gardener allocate his services to those lawns which need him most?" Nozick snaps. (See Nozick, R., *Anarchy, State and Utopia*, New York: Basic Books, 1974, 234.) One does not amputate a wealthy man's healthy leg. But even "General" hospitals discriminate (prioritize?) in terms of teaching/research needs. These can be weighty (epidemics, terminal illnesses, personnel needs in disadvantaged areas). Sprucing up the Rose Garden (of the White House) may involve matters (national image, visting dignitaries) that may outweigh the needs of neglected lawns in Washington, D.C. ghettos. Do parents act improperly when they spend time with their children, totally "neglecting" the orphan next door? Williams simply *assumes* a basic, relevant need not defeasible. Students need to understand conflicts between relevant factors as well as the significance of matters not immediately at stake.

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AN INTRODUCTION TO LOGIC, 2nd edition.

by **Morris R. Cohen and Ernest Nagel**

Edited and introduced by John Corcoran. Indianapolis: Hackett Publishing Company, 1993. Pp. xlix + 232. ISBN: 0-87220-144-9. Paper. US \$14.95.

Review by Don S. Levi

I have my doubts about the value of teaching formal logic, but I don't have the same doubts about teaching this text, which first appeared in 1934. Even if it has limited value as a logic text, and even though it first appeared more than sixty years ago, it is worth teaching because of the philosophy in it, which is done by two of the most distinguished American philosophers of the twentieth century.

This text is not recommended for use in teaching logic. Some of its topics are of interest to philosophers, but not to many logic teachers: the ontological status