

TEACHING CRITICAL THINKING

Dialogue and Dialectic

John E. McPeck

Foreword by Michael Scriven

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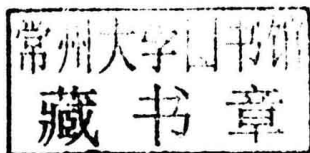
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*This book is dedicated to my
friend James T. Sanders*

Foreword

If the critical thinking movement can't look critically at itself, it does not deserve to graduate into the curriculum. The best gymnastics coach in the world is an incompetent gymnast—to be precise, he is a shotputter who married a gymnast—and there's no reason to think he'd be any better as a coach if he were a better gymnast. He might be worse. But it's different with critical thinking. "Do as I say, not as I do" can sometimes save an individual, but it can't save a movement or a political party. And the nearer the individual is to being a preacher, the harder it is to get away with this excuse, on the airwaves or in the classroom. Even doctors who smoke lose credibility.

Well, the critical thinking movement is not too far from being a band of preachers, preachers about the normative economy of reasoning. John McPeck is the bookkeeper, the man who comes around to remind us of what we owe, according to the principles of our own sermons. In fact, he comes around with a large bill already made out. We have all benefited from struggling to decide whether we owe that much to reason. In the end, he has at least forced us to restructure our sermons substantially.

Most academic subjects have fallen victim to the Sirens of the ivory tower—sacrificing utility in favor of elegant abstraction, to various degrees at various times in their history. Perhaps economics and philosophy have the worst record of all, a short head in front of psychology. Modern academic logic, until the informal logic movement got rolling, was another of the worst offenders, despite its claims of clarification. The irony of McPeck's challenge is the suggestion that our mighty multitextual body of practical advice and maxims is just another masquerade, a spirit that wears a mask of practicality but in reality has no more practical content than *Principia Mathematica*—except when it steals it from some respectable empirical subject.

I think there is an answer to his challenge, in terms of a three-planked platform that can be trodden without violating his strictures. It may be of some interest to set the answer I propose against the somewhat grander ones more fully defended in this book, especially since I think McPeck implicitly accepts this answer, that is, his practice illustrates it admirably.

Our tasks, it seems to me, are: (i) to teach students how to use the English language's vast repertoire of logical terms (including the exlegal

terms like *prima facie* that refer to reasoning, and the marginally scientific terms like *necessary condition*), which they can use to improve their analysis of and communication about argument and presentation; (ii) to provide them with some simple devices and refinements of that vocabulary, which further facilitate logical analysis—tree structures and Venn diagrams, the occasional useful label for a fallacy or a logical distinction (such as the distinction between cause and reason); and (iii) to bring all this to bear, not only on a thousand everyday examples, but on some of the great nonsubjects of our time, the concepts and topics—and practices—that have not yet become an official part of the general curriculum, but which demand the most rigorous intellectual consideration by every citizen. One can select from such notions as addiction and preventive war, ageism, suicide by terminally ill AIDS victims, brainwashing, the decision-theoretic and other assumptions behind the use (or banning) of nuclear power plants, unconscious corruption of the press, carnivorousness, the relevance of the sex life of candidates to their candidacy, causes vs. reasons for the death penalty, or any of a hundred more.

Each of these examples we use—the simple practical ones and the mighty issues—is “about some specific subject or thing,” in McPeck’s terms. So we agree with him there. Using the English vocabulary of reason, we can make important points about each topic, as he does about his critics in this book. We, like he, are then applying the general distinctions and metalanguage of argument and presentation which I suggest constitutes the specific subject matter of information logic. Yet we can agree with him that there is no great new subject matter of logic, for this is simply the vocabulary of the careful user of the native tongue; the “logic in language” rather than the “language of logic.”

There will of course be no time in a critical thinking course, nor the expertise, to cover all of the content related to these issues. But some most important points of a logical kind can be made about many of the arguments and feelings stirred up by these issues. The notion of, and some skills in, reasoning as a crucial clarification process can thus be taught without the need for delving into vast subject matters; and without the claim that some large and separate subject matter of its own is being brought to bear.

Although it seems at times that he is denying its possibility, McPeck himself does exactly this kind of analysis in this book—that is, analysis that depends on refined use of the vocabulary of reasoning without deep entry into substantive subject matter. (For example, he plausibly criticizes Norris for confusing causal questions with questions of meaning.) His ability to do that is an example of his application of his own reasoning skill, in terms of my simple geography of such things. What he does can surely be extended to a myriad other cases without running into the need for greater subject matter excursions or more general skills—and what he does, or something that approximates to it, can be

taught. The difference between the pre-test and post-test scores on a critical thinking test that has been purged of vocabulary dependence are, in my experience, very substantial.

“Reasoning ability” is, operationally and pedagogically, a finite set of skills in using a finite box of tools, and we should leave to the psychologists the question whether a general factor loads the test performances. The term *handyman* covers a similarly wide range of skills, and we have no hesitation in using it when deserved, despite the huge differences between the skills of measuring, planing, painting, and tracing circuits or fixing taps.

Here, McPeck threatens us with the other horn of the dilemma. On this approach, he warns, we will run into an impossible task because of the colossal number of critical thinking skills we would have to cover. Of course, we can easily develop critical thinking inventories of enormous size, just as tool fiends enrich their workshops with fifty different screwdrivers and forty files—and not without reason. But there is no *strong* need for all that; one big Swiss Army knife can be provided and mastered in an introductory course and will serve our students very well in solving many, many problems. Is that really true? Ask yourself how many logical terms you actually use in dealing with the next twenty problems to which you apply critical thinking skills. Try it with the item pool for your course in critical thinking, or with a random sample of items from a text you like; or on the letters to the editor across a week’s reading of papers and magazines. It’s surprising if you need more than ten. And the twenty after that may need only one more. The curve flattens fast. Check it out. The Swiss Army knife is extremely useful; and affordable in the economy of the curriculum.

Perhaps now the three-pronged pedagogical task outlined above will seem too modest an enterprise to many. Consider it carefully. It is by no means trivial. I suggest the task is large enough, important enough, and interesting enough to keep us busy without busywork. Grander programs seem to me to run onto the horns of McPeck’s many dilemmas. This book is an excellent guide to the sharpness and location of those horns. He is a master of the dilemma. Should we suppose that such mastery is unteachable? Surely not; but then, if teachable, surely it is a paradigm of reasoning skill?

Michael Scriven

Preface

In 1979–80, when I was writing *Critical Thinking and Education*, there were relatively few school programs specifically designed to teach critical thinking as such, and even fewer theoretical analyses of the concept “critical thinking.” At that time, I had to search disparate sources to find any sustained published discussions of critical thinking. If one were to undertake that same task today, he or she would face the opposite problem from the one I had then. Now one could almost say, without being too cynical, that there is too much material being published on critical thinking in education. Critical thinking programs have proliferated far beyond anything one could have expected in 1979. Not surprisingly, the preponderance of this material is practical, hands-on, “how-to-do-it” texts and workbooks. Seldom does this material directly raise any of the deeper and more controversial questions about what “critical thinking” actually means, what it logically entails, or whether or not its putative “skills” are in fact *generalizable* (and if generalizable, in what sense). Most of these fundamental questions remain moot. And it is these fundamental questions about critical thinking which the present volume attempts to address. Therefore, this is not another practical textbook in the sense that it promises to teach you how to *do* anything. Rather, it seeks to broaden our perspective about critical thinking texts which do make such promises.

This collection of essays grew alongside of (if not *out of*) the proliferation of literature on critical thinking which has been taking place since 1981. This book is a response to that literature of praxis in the sense that it tries to lay bare some of the questionable assumptions which permeate its prescriptions and programs. The point of this challenge is not so much to gain converts to the views contained here, but rather, it is an attempt to bring into the forefront certain questions about critical thinking which I believe are more fundamental than, and have primacy over, the more practical problems of implementation. Certain crucial questions always take precedence over implementation decisions. With critical thinking programs, like nuclear power stations, we are well advised to consider the *need* for and *desirability* of them, before we decide on the type and where to put it.

Each essay in part I is complete and independent of the others; so they

may be read alone or in the order presented. However, the arguments in each of these essays are pieces, or subplots, of a more general point of view about critical thinking. That general view is, briefly, that specific subject content determines the required ingredients for thinking critically in each case. One of the more unwelcome consequences of this view is that the notion of “general critical thinking skills” is largely meaningless. Therefore, the great bulk of critical thinking programs which exist today are seriously misguided, in my view.

The essays in part II comprise an interesting (I hope) dialectic between my view and the views of Stephen Norris, Harvey Siegel, and Richard Paul, all of whom take serious exception to my opinions, either in part or in whole. The critiques offered by Norris, Siegel, and Paul are independently worthwhile, because they raise the right questions and pose plausible solutions to them. These essays help to raise the dialectic about critical thinking to a level of debate where I think serious educators should be most concerned. That, alas, is the point of this entire collection. Without at least some heat, there can be no light.

A final word about the origin and chronology of these essays. As mentioned, each paper was originally written as a response to developments which took place in the field of critical thinking during the years 1982–86. With the exception of essays 3 and 4, the essays were written in the order that they are presented here. Essays 3 and 4 were written explicitly for this volume, and have been inserted where they are simply to provide a more natural development of the overall position being presented. My response to Norris and Siegel is a combined and greatly expanded version of what originally appeared in publication. In reading these essays one will note references to my earlier book *Critical Thinking and Education*; however, direct acquaintance with that book is unnecessary. The reader of these essays will recognize the same general point of view being more specifically developed in the issues treated by part I of this volume. It is my hope, and intent, that these essays might stand by themselves as a contribution to some of the unresolved questions generated by the critical thinking movement.

I would particularly like to thank Stephen Norris, Harvey Siegel, and Richard Paul, not only for their generosity in making this book possible, but especially for the quality and sincerity of effort represented by each of their papers. As the dust starts to settle, it appears that some of their arrows may be on target, and I think we are all better off for it.