critical review

McPeck's Critical Thinking and Education

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Critical Thinking and Education, John E. McPeck. New York: St. Martin's Press, 1981, 170 pages. $18.95 cl.

What marks the emergence of an intellectual movement into adulthood might be said to be the movement's surviving its first major challenge. The challenge shows the movement significant enough to have been noticed; the survival amounts to endurance of a rite of passage. Not all endure the rite, of course, and the so-called critical thinking movement may end up a casualty. McPeck's **Critical Thinking and Education** is the challenge.

This book contains provocative, thoughtful views of a number of topics. There are good discussions of the ideas of Robert Ennis and of Edward D'Angelo in one chapter, and those of Edward De Bono in another, all of whom have influenced the field, particularly as understood in education circles. There's a lambasting of both formal and informal traditional logic as general education subjects. Both suffer the deficiency of transferring only minimally to other disciplines. Being at target center, informal logic receives heaviest bombardment. If the rag-bag of activities and contentions now called informal logic can't get itself unified under a single theory of argument, then, so thinks McPeck, informal logic forfeits its claim to call itself an autonomous branch of logic. And if it rests content to remain rag-bag, then there's nothing to distinguish it from rhetoric. "Indeed, the detailed descriptions of various fallacies and rhetorical techniques offered by rhetoricians often surpass the best work of informal logicians" (p. 70). There's a good chapter on the testing of critical thinking. The author applies to the enterprise lessons learned from the testing of reading. An inadequate view of critical thinking has rendered alleged critical thinking tests correspondingly inadequate, scarcely distinguishable from tests measuring IQ.

All these claims derive from the author's analysis of what he calls the "concept of critical thinking." If critical thinking is thinking, then it is of necessity thinking about something specific. "It is a conceptual truth," says McPeck (p. 4), "that thinking is always **thinking about x**," and surprising, therefore, that critical thinking should have become "reified into a curriculum subject." And if the "about x" is dropped, then "critical" in turn itself becomes empty—as would "sensitively" in "She plays the piano sensitively," were one to drop "plays the piano."

On McPeck's view critical thinking's components are (in Stephen Toulmin's phrase) "field dependent." To operate thoughtfully in anthropology one must be familiar with the techniques of drawing conclusions, the "warrants," (again Toulmin) for that field. These warrants will differ from those for drawing conclusions in marketing, say, or movie criticism, or law, or particle physics. To imagine a general set of warrants separable from the disciplines is a mistake. To try to teach such a set would be an even greater mistake.

Far from claiming the term "critical thinking" meaningless, the author maintains only that it has frequently been used meaninglessly. Its core is "the propensity and skill to engage in an activity with reflective scepticism" (p. 8). But "activity" will necessarily be specific. One may become reflectively sceptical only by mastering the inference warrants which are peculiar to the epistemology in that field. Accordingly, students ought to be sent not to general critical thinking courses but to those fields. For if there are no general warrants but only field dependent ones, then general critical thinking courses will be ineffectual.

What about these rather jarring claims? In one sense McPeck's right. One cannot draw conclusions in a field until one has a feel for the terrain. This means experience and data aplenty. Contrast the judgments made by beginners in comparative anatomy (my example) with those made by professionals. Beginners pursue analogies which turn out to be superficial. They closely link molluscan and mammalian eyes, say, when in fact the organs' evolutionary connections turn

out to be rather remote. Only by studying comparative anatomy extensively can one come to **appreciate** connections. No general remarks about analogy, such as one gets in critical thinking classes, will effect appreciation: Anyone who expects field dependent expertise to follow from topic neutral general advice is plain wrong. Does this mean then that there's no such thing as general education critical thinking? Before answering affirmatively one should be clear about several matters.

1. **"Basic" versus "Advanced" critical thinking.** McPeck faults critical thinking texts and courses for "analysing readily accessible newspaper editorials and advertisements" and finding there such flaws as inconsistency and contradiction, whereas "no scientist, historian or archaeologist worth his salt is ignorant of the importance of avoiding contradictions, but consistency in itself is a long way from being sufficient to make him a critical thinker in his field" (p. 8). A long way indeed. The issue, though, is not distance but direction. **Who ever thought** that general education critical thinking courses would be turning out products prepared to make finished judgments in science, history and the rest? Are they supposed to be the whole school? Like composition, critical thinking is basic, preliminary, maybe even remedial.

What are critical thinking courses **for**? Were a professional person's intellectual life composed mainly of judgements made in one or more "fields" then McPeck could be right. But this would "over-professionalize" one's intellectual life, the temptation to which can be seen in cocktail-party introductions: "Hi, I'm Perry Weddle. I teach philosophy at Sacramento State. What do **you** do?" Just for reminder, recall One Week in the Life of the Typical Educated Person. Probably five to ten hours would be spent reading the newspaper: There was the case of Ariel Sharon, a cartoon depicting Reagan as Western gunslinger confronting Andropov, an editorial defending multiple-choice exams for teachers. There were stock market tips, astrological counsel and advice on health via vegetarian diets. That's just a small sample, and of just the **Daily Blatt**. This week the Typical Educated Person had to find a new mechanic, listen to the broker, advise a friend's child on her career, choose toilet paper, decide whether to fight an undemocratic, harsh but fair administrative decision, trouble-shoot a malfunctioning vacuum cleaner, turn down a thoughtful and appreciated invitation to spend the weekend at Mendocino. The Typical Educated Person argued politics, music, psychology, sports, religion... Academic fields cover only a fraction of such stuff. And no student could cover but a tiny fraction of the needed fields. One might distinguish here between "Field Dependent Life"—the reasoning one does strictly in practicing the field(s) in which one is trained—and "The Rest." Clearly The Rest is dominant, in quantity always and in importance usually.

By no means has the question been settled to what extent general education critical thinking transfers to "The Rest." That question ought to haunt critical thinking teachers constantly. Notice, however, that McPeck's "readily accessible newspaper editorials and advertisements" **are already** parts of that Life. Add to them medical, political, economic, legal, psychological, culinary, moral, meteorological articles and editorials and more. To become intelligent about them all would be to become intelligent about most of that in which a person's intellectual life consists. In a sense, that is, transfer is automatic.

But if they are "readily accessible" then why examine such editorials, advertisements and the rest? Answer: They're not that accessible. The simplest pleas can conceal the subtlest sophistries. And issues with which the general public must deal—from acid rain to "squeal" rules, from aerobic excercise to defense policy—are scarcely themselves "readily accessible," even if the editorials and advertisements about them sometimes (and only sometimes) are. The editorials and advertisements broach the issues and handle them well or poorly. If poorly, then one may pursue their subjects as deeply and subtly as one wants, according to the question, "What would a **really good** case look like?" To stick **only** with the readily accessible, true, would be a mistake. But one can teach the readily accessible as emblematic. One can move from accessible cases, to intermediate cases, to obscure. Although their application becomes trickier, the principles change hardly at all.

2. **"The Concept of Critical Thinking."** McPeck claims to have analyzed "critical thinking"—as, say, Gilbert Ryle analyzed "the concept of mind." But there's a difference. The word "mind" is embedded. One can analyze that concept because there is standard usage. With "critical thinking" the matter is otherwise. The term's a catchword. Under its rubric have been claimed to fall everything from Latin to love, from Boolean algebra to interpretive dance. So when McPeck attempts to pin this Proteus he resorts to a composition argument. He maps the stable concept of thinking, which yields his "about x" conclusion. And he maps the stable concept of being critical, which yields his "vacuous unless tied to an object" conclusion. Both conclusions are correct. But what's true of components need not be true of the ensemble. Take the term "criminal justice" as used locally. The term designates the honorable art of being a cop. Understanding its terms separately, say "justice", yields nothing about the term's meaning in the pair. Persons practicing the honorable art of being a cop range from the supremely just clear through the quite the opposite: Yes, granted, **thinking** must be "thinking about x"; but must **critical thinking** be "thinking about x"? Maybe, but not on the basis of the argument. One must pursue the matter independent of that.

And there **is** some question. There is plenty which is topic neutral. To avoid begging issues within a field does take sophistication. One must know what's controversial and what isn't. But if one enters the field with no awareness of various ways in which issues get begged, then one is more likely to beg those (perhaps tougher) ones. As in any endeavor, one proceeds to the tough cases through the easy. And the easy are not field dependent. (Or, better said, the fields in which they occur, their contexts, are readily accessible.) No "field" deals with them except critical thinking. The professional fields have too much else to bother with. So when to the remark, "I teach critical thinking," McPeck asks, "About what?", one might well reply, "Not 'about' at all. Critical thinking is a subject; thinking isn't. Critical thinking teaches such matters as the art of following and summarizing paths of reasoning, the art of arguing fairly and forcefully, and the art of not being swayed by sophistry. Its examples, from many fields are, of course, 'about'; but its focus isn't the subjects, it's **techniques for dealing with** subjects in certain ways."

Possibly in McPeck's ways. His definition of "critical thinking," the "propensity and skill to engage in an activity with reflective scepticism," (p. 8) highlights an important aspect of the subject. But if "critical thinking" is not used uniformly then no summary definition could, descriptively speaking, be completely accurate. We'd say, for example, that an analytical chemist was thinking critically who performed all the prescribed tests faithfully. To hear the chemist explaining

the tests to students would be like listening to Sherlock Holmes—countless blind alleys blocked, a path pursued inexorably to goal. For the tests did result from critical thinking. But now, their having proven themselves in millions of trials, the tests become applied not reflectively, not sceptically, but the opposite—routinely and with sleepy-eyed utmost confidence. An analytical chemist who engaged in reflective scepticism about these routine aspects of the trade when results were coming in exactly as expected would be less than a paradigm critical thinker. In activities where the epistemology remains as firm as anything we know and yet a person were to question continually, we'd say not that the person's a critical thinker but that the person's at least a little bit wacko.

Suppose, further, that McPeck's "composition" move on the concept of critical thinking were reasonable. Such a move would then apply equally to "reflective scepticism." Reflective scepticism would necessarily be "scepticism about x." What would the "x" be? Would it be the activity itself? Take poker. The poker players at Vegas, the ones with big piles of chips, certainly are thinking critically. Consistent winning at poker, as at chess, requires brains and guile. But about what are such players reflectively sceptical? Not about poker; they're **playing** it. For stakes. Possibly the "x" is not the activity but the details, the manner of engagement. Consistent winning at poker requires creation and wily evaluation of countless hypotheses. That's critical thinking for sure. But again, is it "with reflective scepticism"? Rational poker players reflectively sceptical about the minutiate of the game (faces, betting patterns, odds...), or about their abilities, statistically speaking, to handle them, do not "engage in an activity" at all. They cash in their chips.

3. **Field Dependence**. Suppose that all inference warrants were field dependent. Would it follow that there is no legitimate general education critical thinking? One way out of McPeck's woods has been suggested by the publication, by Toulmin himself, (together with Richard Reike and Allan Janik, who never seem to get credit) of **An Introduction to Reasoning** (New York: Macmillan, 1979.) Over half this critical thinking text gives general advice; the remainder the authors devote to reasoning as found in various (albeit broadly defined) fields—law, the sciences, the arts, business and ethics. Well, there you are! Lots of general advice, for which the need must have been perceived by authors presumably committed strongly to field dependence, **plus** the allegedly field dependent knowledge which one needs in order to navigate in five areas which touch everyone's lives daily.

There remains the question to what extent warrants are field dependent. One might distinguish between "hard" and "soft" views. McPeck inclines toward the "hard." Janik, Reike and Toulmin, if one may judge by space allocation, incline toward the "soft." One consequence of the "hard" view would be that by invoking warrants which underwrite conclusions in a given field, one could neither support nor undercut conclusions in another field. One could not, say, undercut claims for the effectiveness of certain techniques in clinical psychology by bellyaching that, yes, some of the patients did get better when subjected to such-and-such therapy, but that in the alleged test, unlike everywhere else in science, there wasn't a control group in sight. Couldn't those patients have improved anyway? (Though the example may be flawed, let it stand for countless instances in which established fields need needling from without.)

Although McPeck may have been reflectively sceptical elsewhere about field dependence, he has not been so in this book. Nowhere does he get explicit about **how** or **why** warrants are field dependent. One would expect dozens of examples. There are none. The "comparative anatomy" illustration above had to be supplied by the reviewer. And one ought to be reflectively sceptical, not about field dependence as such but about the degree. **Prima facie**, field dependence is less than McPeck assumes. Take analogy. Let the following case stand for the multitudes one would need in order to settle one way or another the argument over degree of field dependence.

By 5 to 1 the California Supreme Court upheld a drug-smuggling conviction in which a trained dog at the airport was allowed to sniff passengers' unloaded baggage before it was put on the carousel. Did the authorities "breach any reasonable, protectable expectation of privacy as to any odors emanating from the defendant's concealed contraband?," asked Justice Richardson for the majority. Answer, negative: "In our view, the escaping smell may be likened to the emanation of a fluid leaking from a container. The odor is detectable by the nose, as the leak is visible to the eye. We discern no constitutionally significant difference in the manner of escape..." In dissent Chief Justice Bird excoriated the majority for siding "with a number of courts, most federal, whose decisions on this issue have been justly criticized," she thinks, "as 'short on reasoning' and 'unsound'...a sharp, unexplained break with a consistent line of decisions by the courts of appeal of this state." (PEOPLE **v.** MAYBERRY, 31 Cal. 3d 335; pp. 342-344, 1982.)

As with the comparative anatomy analogies above, we have here considerable field dependence. Which courts one consults, and to what degree, depends on a myriad of legal particulars which can be imparted only by total immersion. (How would a lay person, for example, know what degree of bearing, if any, federal decisions have or should have on state decisions?)

But consider also the essence of that majority opinion. Its comparison is ordinary. One applies to it exactly the criteria one uses to test "everyday" analogies. Training peculiar to the field of law won't help. One needs something "topic neutral," namely brains, plus something that, on an elementary level, **can** be imparted—a checklist of options and moves. If one has by rote the **disposition to consider** such options and moves, one is in better shape. Some of the work then gets done automatically. That rote is the bread and butter of courses in elementary reasoning—in this case the analogy checklist. The checklist contains such staples as, for example, that the strength of an analogy argument varies directly with the degree of diversity among the items to which the subject has been likened. (E.g., the **diversity** of Oregon, Wisconsin and Massachusetts, three states in which "returnable bottle" statutes like California's proposed statute have worked, makes more likely, than would comparison with three states relatively similar to each other, the contention that the same statute would work in California.) That's **general** advice.

Rote, of course, by itself, accomplishes nothing. There's no substitute for brains. But did anybody in the critical thinking game really think that there was? If rote helps some of the people some of the time, that's raising the level of public debate one degree—enough to make critical thinking instruction worthwhile. ●

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