REVIEW ESSAY

The Limits of Critical Thinking

Books Discussed:

Elder, L. & R. Paul. (2005). *A miniature guide for students and faculty to the foundations of analytic thinking: How to take thinking apart and what to look for when you do – the elements of thinking and the standards they must meet*. Dillon Beach CA: The Foundation for Critical Thinking.

Paul, R. & L. Elder. (2005). *The miniature guide to understanding the foundations of ethical reasoning*. Dillon Beach CA: The Foundation for Critical Thinking.

Paul, R. & L. Elder. (2006). *The miniature guide to critical thinking: Concepts and tools*. Dillon Beach CA: The Foundation for Critical Thinking.

And twelve more.

By Howard A. Doughty

A cursory look at the daily newspapers will reveal that our society (some say our entire civilization) is poised at the brink of an unthinkable abyss. We seem to be encountering more and more complicated ethical, economic and ecological problems. Some are said to be the product of ineluctable social processes and overarching institutions. The usual suspects include technology, the media, the military-industrial complex, the generalized moral breakdown that is the alleged legacy of the 1960s and, of course, all those people who "hate us." What is to be done?

In order to survive, much less to thrive, the optimists among us are deploying a good deal of rhetorical weight in support of innovation; in turn, innovation is thought in some circles to be facilitated by critical thinking. Critical thinking, by these lights, is not infused with negativity. Quite the opposite, it is the application of rational principles in order to dissect a question and erect an answer that is actionable under extant circumstances. To create a solution to a problem, it seems plain that we must first define and analyze the problem, seek out its causes and effects, and provide a pragmatic alternative to the dangers it poses. Tired of the false promises and disappointments of grand narratives, logocentric theories and dogmatic doctrines (whether political or religious), we yearn for people who can make sense of complexity, and offer "common sense" answers to difficult questions. This is the goal of critical thinking in what I choose to call its "official" meaning, namely as it is understood and applied by educators who unite on the importance of critical thinking, though they may exhibit an immensely wide range of opinion on other issues. Be they conservative or liberal, teachers of the sciences or the humanities, pedagogical traditionalists or radicals, the concept of critical thinking has such enormous caché that there are few who fail to endorse it.

In response to the desire to embrace pragmatism and set forth realistic programs of action, a small cottage industry of proselytizers and pamphleteers has arisen to train teachers in the

transferable skills of critical thinking. One organization, the Foundation for Critical Thinking, has (at last count) produced fourteen forty-eight-page booklets and one twenty-two page summary that cover everything from *How to Detect Media Bias and Propaganda* to *Taking Charge of the Human Mind*. Its proprietors, Richard Paul and Linda Elder, gleefully attempt to establish a precise way to separate "all thinking" into eight distinguishable, related and necessary steps. In an interview, Dr. Elder set out their program in laudably straightforward terms (Shaughnessey & Seevers, 2003). Critical thinking, she said, involves the ability to:

- Raise vital questions and problems;
- Gather and assess relevant information;
- Use abstract ideas to interpret information effectively;
- Come to well-reasoned conclusions and solutions, testing them against relevant criteria or standards;
- Think open-mindedly within alternative systems of thought, recognizing and assessing their assumptions, implications, and practical consequences.

What could be more commendable?

Successful thinkers, Elder and Paul allege, move more or less sequentially through a standard process of identifying problems, making reasonable assumptions about the nature of the problems, discerning criteria according to which information about the problems can be deemed relevant and well understood, making inferences from the pertinent data and organizing these inferences into concepts that will help in coming up with a workable solution (Elder & Paul, 2005, 3). The point of critical thinking throughout this scheme is to ensure that each necessary step is completed properly according to a common set of "intellectual standards" such as clarity, accuracy, relevance, logic and fairness (Elder & Paul, 2005, 6-7).

The Foundation for Critical Thinking, of course, does not dominate the educational marketplace. Many alternative, though generally similar, methods are available. The Foundation's products, however, can stand as exemplars of the kind of approach that sustains the project of critical thinking that is now an integral part of the curricula of schools from the elementary to the post-doctoral levels.

Critical thinking is, in this context, no merely academic affair. It is a learned skill that promises realistic, beneficial pay-offs in all kinds of human activities from sorting out domestic disputes to coming to grips with global warming. It is therefore highly attractive to serious policy makers and to ordinary citizens who are puzzled by the world around them, and who want constructive solutions to immediate, practical problems.

The popularity of critical thinking is understandable. Our civilization is confronted with countless troubles—many quite dangerous and most of our own making. Prevailing over the many threats to our well-being would seem to be of the highest importance. Because we are said to be facing ostensible environmental, cultural, socio-economic and spiritual crises and conflicts that threaten our way of life and, perhaps, the survival of our species, any scheme that promises to improve our thinking deserves our attention, and may have much to recommend it.

Official critical thinking is deeply connected to instrumental reasoning. It views thought as a means to a material end, not as an autonomous and self-justifying activity. In public educational

institutions, the material end, of course, is normally the successful negotiation of a course in the hope that a sufficient number of successfully negotiated courses will one day translate into a certificate, a diploma or a degree leading to subsequent employment. Unless socially conscious educators, in alliance with leading business executives, are successful in mandating a course in "business ethics" as part of a training program, deliberations about morality are apt to be absent from most programs of study. This is unsurprising, and sceptics can be forgiven for wondering if the current interest in business ethics is not in some measure a damage control tactic on the part of those who, unlike the officials at Enron, have not been caught … yet.

Even accepting that such innovations have been undertaken with the highest of motives, there is some concern. Presented as case studies that are rarely more complex than the questions answered by "The Ethicist" in the New York Times Magazine, or in predigested packets of ethical principles to be learned by rote (often through interactive distance education), the subject matter of courses in ethics is apt to be just one more collection of facts, the recollection of which is essential for passing an examination rarely produces a life-altering experience. As Vopacchio argues, "the learning processes of moral development, which establish intersubjectivity and release repressed interests occur through interaction with others and not machines or the reorientation of skills to the role of labor in cybernetic systems." He adds: "the social and political level thus has a priority over instrumental processes in the course of human development" (1981, 132). Institutional education, I fear, is moving rapidly in quite the opposite direction.

Official critical thinking generally disdains broad cultural and deeply political problems as inherently unsolvable. Instead, it sets itself apart from historical understanding and from such projects as the philosophical critique of technology. Instead, technological growth is simply assumed, and the questions that are deemed relevant are those concerning the most efficient and efficacious use of the growing mountain of gadgets. Deeper issues of the ontology of technology are thus set aside or dumped into the dustbin of occasionally dangerous ideological speculation. An over-riding concern with the immediate world of material reality, however, comes at a cost. "Technology," wrote Horkheimer (1974, 79), "makes memory superfluous." Corporate culture disdains historical reflection. Henry Ford's famous aphorism that "history is more or less bunk," fits exquisitely into official critical thinking's indifference to factors of social, political and historical importance. Rational thinking is not only preferred to myths, legends, prejudices, biases and all things interpretive; it exercises dominance by excising other epistemologies from any discourse worth pursuing. Alternative philosophical systems are accepted as subject matter (what's wrong with them?) but are not given authentically equal status to the tenets of official critical thinking.

Among those tenets is a commitment to one of corporate culture's most enduring and powerful myths. As filtered through secondary and postsecondary programs, the ideology of liberal individualism is also sustained. It is, for example, a short step from attributing personal responsibility for critical thought processes to personal responsibility for success or failure. As Paul and Elder say, "the quality of our life and that of what we produce, make, or build depends precisely on the quality of our thought. Shoddy thinking is costly, both in money and in quality of life" (Paul & Elder, 2006, 4). Evidently (especially in the absence of any component of the "quality of life" other than economic productivity and reward), epistemology and political economy go hand-in-hand. Official critical thinking therefore yields a universal template (albeit a surprisingly imprecise and flexible one) that is rooted in capitalist values and that provides a

smidgen of intellectual justification for increasingly Taylorized education. This is manifested in the rhetorical form of quantifiable learning objectives—suitably augmented with processes of the accountability of supposedly objective exit standards—that create an environment in which learning can be tested, though little of real-life importance is ever taught. This is because, co-extensive with problem-solving skills, are teaching and evaluation methods that eliminate ambiguity, establish precise behavioural learning outcomes and incline toward true-false, multiple-choice, definitional and short-answer questions as legitimate means for students to demonstrate "mastery" of a subject, or of a module or a unit within it. Critical thinking, constituted as ahistorical problem solving makes the model of wisdom a passable performance in working out the puzzle of a Rubik's Cube.

Schools and the curriculum "delivered" by schools replicate precisely the social relations of production and distribution that exist in the larger society. The teacher as worker, the curriculum as a marketable commodity and the student as paying customer are all susceptible to evaluation according to quantitative methods of productivity and quality control as well as by empirical accountability measures. The business model transforms the purpose and process of education, yet remains uncriticized by official critical thinkers because to do so would be to cloud critical thinking with normative considerations, not the facts so prized by Charles Dickens' Mr. Grandgrind and so distorted in the contemporary cultural milieu. To do so would permit the framing of discussion according to (someone else's) ideology, and that would never do.

By scrupulously avoiding truly serious questions, yet making much of phrases such as critical thinking and problem solving, the way is opened for clever entrepreneurs to substitute something weak, insipid and ultimately self-defeating in place of what Volpacchio (1981, 130) calls "the reflective capacity in the critical sense of questioning [either the educational or the economic] system."

This is partly because critical thinking as presently practiced refrains from certain essential topics and partly because of inconsistencies in its own approach:

- it does not address the question of who decides what problem to investigate and what counts as a legitimate problem in the first place;

- it fails to recognize aesthetic, ethical and other non-material beliefs and ideas as anything other than potential enhancers of, or obstacles to, the achievement of material aims;

- its procedural sequence could easily be altered since there is no "logical" reason for setting out the process in any particular order; and,

- since some of its intellectual standards such as breadth, depth, sufficiency and practicality are rather far from operational variables, it is hard to distinguish one criterion from another.

In other words, official critical thinking turns out to be another form of ideological thinking, beset with the same sort of internal contradictions as any other ideology from classical Marxism to the doctrines of the Methodist Church. Hence, the amount of usable guidance offered by writers such as Elder and Paul is questionable—not that it matters much, because the authors, belying their own stated commitment to a universal template, indicate that we may "select" those

standards to fit the problem we are trying to solve. Or, as an anonymous paragon of interchangeable virtues once proclaimed: "I have my principles! And, if you don't like them, I have other principles!"

Official critical thinking, in this framework, merely amounts to a short-hand and rather nebulous version of inductive reasoning. Its only firm point is that no factors (especially those related to power relations among thinkers, and between thinkers and the rest of society) are permitted to intrude into the grammar of inquiry. Their advice is purely formal and procedural. It is a restatement of the scientific method in a manner intended to be applicable to non-scientific problems and accessible in various versions to pupils in grade five and to people pursuing a Ph.D. As a prescription that is supposed to apply to "all thinking," it is intended to relate equally to moral, aesthetic and interpersonal as well as commercial, botanical and, of course, educational issues. It singularly fails to do so in the former cases, because it is incapable of rendering normative judgments in strictly empirical terms. It is a one-size-fits-all guide to thinking, and it simply doesn't fit.

What then, can be proposed as an alternative?

The first concern must be to locate official critical thinking in its social context. Following James (1995, 14), in his perceptive study of Herman Melville's novel Moby Dick, we can imagine that our society is like the fictional whaling vessel, that our continuing cultural conflicts mimic the "crisis of Ahab [and] is that of a civilization which has recognized that it is on the way to complete mastery of the arts and sciences of civilization." It can be argued that the Promethean desire to master human and non-human nature lies at the root of our problems and sums up our pathology. If, therefore, criticism is restricted to winkling out logical fallacies and does not go on to address real material conditions and vital human problems, we may come to appreciate that the main threats to our civilization—environmental degradation, cultural illiteracy, social inequality, economic inequity, state tyranny, corporate corruption, technological hegemony and personal alienation in all its forms—are at least partly the result of our impulse toward mastery. This impulse leads to the ancient Greek sin of *hubris*, for which the gods invariably inflicted severe punishment.

From this hypercritical perspective, the idea of critical thinking as mere problem solving may have less to recommend it than we might originally have supposed. It could, in fact, be part of a much larger predicament. Our future may not be decided by those who have the analytical capacity to think more clearly about how to solve problems, but by those who possess the political and economic power to determine what counts as a problem as well as those in whose interest the search for a solution will be undertaken. Adding ethanol to gasoline may produce a superior fuel, but that may not impress people starving for want of corn. From this viewpoint as well, it can be demonstrated that every exercise in critical thinking is knowingly or unknowingly infused with commitments to particular human interests, and that those who cry the loudest that they are bias-free, unprejudiced and, above all, non-ideological are the ones that must bear the closest critical inspection. They may or may not be liars or hypocrites; but, if they are sincere, they are quite possibly delusional, and that may be more distressing still.

Scrutiny, of course, is not easy to impose. A first step, however, would be to remind ourselves (and to teach our students) that knowledge is "a product of social relationships wherein exercise of power is a major factor. In this way," Spring (1993, 99) tells us, "students would not only

argue with the material but would also investigate why particular types of knowledge exist and not other types." Moreover, as Rossanda et al. (1977, 647) explain: "as a public institution for the masses, the modern educational system was born of the modern bourgeoisie and carries with it the imprint of the bourgeois state." Nothing could be more obvious. From Rossanda's standpoint, the principal purpose of schools is to generate competent producers, credulous consumers and compliant citizens. Capable problem solvers can fit into all those categories since the problems they have been trained to solve are particular and not systemic, and the troubles they may be empowered to overcome are mainly matters of social tinkering. If, however, the abyss into which we seem to be looking is as serious as some declare it to be, tinkering will amount, iconically, to the rearrangement of the deck chairs on the Titanic.

Next, it would be wise to recall the consequences of official critical thinking's deep connection to instrumental reasoning. As such, it is implicated in the modern obsession with control, whether of human or non-human nature. If, as seems evident, the principal objective in schooling is the winning of an accreditation that can be translated into employment, and if the principal purpose of employment is to maximize material success, then the same underlying ethics and the same often unscrupulous (or at least shallow) tactics that worked in school will surely work as well on the job. Critical thinking, then, can certainly assist in the quest for social success, normally at the expense of others. It remains to be seen, however, if this is the best "use" to which education can be put.

Finally, we would do well to understand that this truncated view of education encourages the bifurcation between the acquisition of marketable skills and the achievement of authentic human growth, including the capacity to criticize the conditions of life within educational institutions and the circumstances of employment. Both industrial and postindustrial societies depend for their continued profitability not only on the suppression of the political will and economic interests of the middle, working and lower classes, but also on their consent, connivance and complicity in their own oppression. As Volpacchio (1981, 132) persuasively put it: "Instrumental processes do not carry with them emancipatory interests. The socio-cultural life-world as a normative order, therefore, may also be defined by its independence and opposition to the alienation and necessity of the work experience rather than … the affirmation of the work experience." This potentially insurgent normative order, however, does not mesh well with the instrumental interests advanced by official critical thinking. Thus, when, in 1844, Marx famously described religion as the "heart of a heartless world," he was attributing to religion the dual roles of "an expression of human suffering and a protest against human suffering." So, in the 21st-century labour market of contract work, part-time employment and increased automation, mechanization and cybernetic production, postsecondary education especially insofar as it is reflective of the dissenting possibilities of the socio-cultural life-world, is called upon as never before to offer critical insight into the process of dehumanized consumerism and alienated production that empties our lives of meaning and contributes to ethical indifference to the fate of others whose lives are sacrificed for our big box purchases.

In its place, it might be worth considering a perspective that might be called "critical consciousness" or, borrowing a phrase from the Frankfurt School, "critical theory." It, too, is a form of critical thinking, but it differs from official critical thinking in important ways.

It insists, for instance, that critical analysis of the relationships between ideas and their social contexts are necessary, partly because human understanding is largely a social construction and

partly because intellectual endeavours are guided by material human interests. Taking this into consideration permits a far more comprehensive kind of critical thought to develop. This is not to dismiss the contributions of inductive reasoning, scientific method, formal logic and other elements in official critical thinking. The project of the Enlightenment was neither evil nor in vain. Instead, it is intended only to disclose the fundamental conceit of liberal education in its corporate form, which is a poor version of Enlightenment thought. To the extent that contemporary curricula guide students to believe that huge and possibly catastrophic issues can be reduced to problems that can be solved within existing social structures by pragmatists and technocrats, the educational system is perpetrating a fraud.

Official critical thinking, of course, does not deny that there are controversial issues to be discussed, but it insists that they be discussed in an unbiased or, at least, a balanced manner within a framework of depoliticized discourse. This does not have the desired effect of removing political commitment but, as Lilienfeld nicely put it, "simply provides a vocabulary which permits its practitioners to celebrate and serve whatever social developments emerge over the horizon" (1978, 263). Corporate power disguises its own interests using the false claim that its cultural paradigm amounts to no ideology at all. It thereby advances "the notion of society," Lilienfeld adds, "run by benevolent technicians operating on the basis of actuarial logic and impersonal algorithmic methods" (1978, 264) in the dispassionate business of adjusting to what "the reality is" at any given moment. It goes without saying that this reality will be whatever is in the material interest of the economic elites.

In today's somewhat chilly political climate, teachers criticize specific environmental, economic and social policies of governments, private corporations or influential "special interests" at their peril. Substantial critiques of powerful institutions and ideologies place teachers at risk, no matter how disastrous the conventional course of action might be. So, it is necessary to develop critical consciousness at an even deeper level than worries about global warming, poverty and war. To do so, it is useful to attend briefly to the ideas of Jürgen Habermas and his critique of critical thinking in education.

Habermas begins with a discussion of what he terms "knowledge-constitutive interests." He contends that there are three fundamental human interests that direct our attention toward different objects of study, employ different methods of inquiry and seek to achieve different kinds of purposes. Human knowledge is not therefore seamless, but is constituted by our intentions and shaped by deep linkages among knowledge, experience and conscious purpose (1980, 122; 1981, 301-317). Habermas argues that what we think is less important than how we think. We can alter our opinions in the light of new experience, but our epistemological presumptions are more difficult to change, and these assumptions are rooted in the human interests that knowledge strives to satisfy.

The interests he defines are not those of different sides in debates such as those between socialists and free marketers, Catholics and Protestants, Sunnis and Shi'ites, feminists and male chauvinists, tree-huggers and polluters, and so on. He digs deeper and identifies different kinds of knowledge which have different criteria for truth claims and which represent different communities with different political, economic and philosophical concerns. Because the differences are so fundamental, a great deal of argumentation never gets to the point of disagreement about facts, which are, given people of good will and a concern for "truth," at least resolvable. Instead, because it proceeds from different conceptual bases and uses incompatible

vocabularies it generates grotesque distortions of rational debate. He labels the three interests technical, practical and emancipatory.

Habermas' categories of knowledge-constitutive interests have a direct bearing on how we think and how we teach, and upon what we come to expect from critical thinking. Knowledge may not be synonymous with power, but the two are certainly related. Different kinds of knowledge share more than epistemological assumptions and language; they also reflect different patterns of domination. Habermas has long struggled against positivism and scientism, but not against empiricism and science. Emancipation, no less than domination, he believes, requires reliable information.

Habermas' first category is akin to what we call knowledge in the physical sciences. It rests on the assumption that it is possible to acquire objective knowledge of an external world. He calls it "empirical-analytic" knowledge. It serves technical interests. Its purpose is the control of non-human nature. The second category consists of the social sciences and humanities. It imitates science, but concentrates on the quirks and contingencies of human life. Acknowledging that human beings are not like billiard balls whose motion is governed by exchanges of kinetic energy, it nonetheless tries to approximate scientific understanding of motives and meanings. His term for it is "historical-hermeneutic" knowledge. It serves practical interests. Its purpose is to control other people. Both of these categories are more-or-less consistent with official critical thinking (empirical-analytic knowledge being somewhat more, and historical-hermeneutic knowledge being considerably less).

Natural science offers the epistemological model for both empirical-analytic and, to a degree, historical-hermeneutic knowledge acquisition. In their more pretentious moments, experimentally minded social scientists—especially in economics and psychology—have tried to come up with testable hypotheses and quantifiable data to generate law-like statements about the price of lettuce and the behaviour of rats. Paradoxically, however, just as social studies were starting to flirt with the mathematical complexities of multiple regression and factor analysis, the pure sciences began to experience something of a paradigm shift themselves as they became accustomed to the implications of an unsteady universe that has outdistanced the comfortable reality of Newtonian mechanics and plunged headlong into the ultimate chaos of black holes, anti-matter, time warps and parallel universes. Science itself is becoming perilously close to being problematized in a postmodern manner that is decidedly unmannerly. As Jean-François Lyotard put it: "Capitalism inherently possesses the power to derealize familiar objects, social roles, and institutions to such a degree that the so-called realistic representations can no longer evoke reality except as nostalgia or mockery" (1984, 74). The same applies to science.

There remains, however, a third category of knowledge, which is linked to self-reflection and which Habermas entitles "emancipatory." According to Stephen White (1995, 6), "Habermas found that modern society has fostered an unbalanced expansion in the technical interest in control. The drive to dominate nature [has become] a drive to dominate other human beings." Ahistorical and apolitical critical thinking is particularly consistent with this drive; official critical thinking is therefore stunningly ill-equipped to comprehend it.

Official critical thinking is an important contribution to the "tool box" of corporate modernity. Its failure is its unwillingness to admit that it is also a legitimate object of critical study. A critical assessment of our work and our lives requires that we rediscover the air around us, the

waters in which we swim. Critical thinking, minimally defined as logical analysis and problem solving in the unacknowledged context of late capitalist culture will not succeed in allowing us to open our eyes to the realities before us. Pretend problems will be solved by sham solutions. Crime, poverty, inequities of class, race and gender and all the other social issues that consume our thoughts and our taxes may be ameliorated from time to time, but they will not be resolved in any meaningful way.

To accept this is to open an important door of perception. Combining moral concerns with critical social awareness permits us better to understand our situation and provides the motivation to do something about ourselves, our schools and our communities. It helps to remove distortions and to engage in actions that will make important changes, or at least make transparent the reasons why such changes cannot be made. To reject it and embrace the abstract, reified and formal version of official critical thinking is to close the door on our conceptual cage.

Whether we can imagine profound post-capitalist political and economic changes in the next decade, anticipate their fulfillment in the next century, or whether we will (should our species survive) have to await the next millennium is an open question. Whether such changes will be progressive or will consolidate global barbarism is also unclear.

As I have said elsewhere in these pages, and as I think it worthy to repeat: Max Weber pretty much summed up the 20th century in 1904, when he said that we would soon find ourselves living in an "iron cage" (1984, 182). As for the quality of life in that cage—no longer made of iron but of silicon—he added:

> No one knows who will live in this cage in the future, or whether at the end of this tremendous development entirely new prophets will arise, or there will be a great rebirth of old ideas and ideals, or, if neither, mechanized petrification, embellished with a sort of convulsive self-importance. For of the last stage of this cultural development, it might well be truly said: "Specialists without spirit, sensualists without heart; this nullity imagines that it has attained a level of civilization never before achieved."

In the current century, our task is difficult but clear. Prophets—old or new—can be dangerous. The prospect of spiritless and heartless existence is not attractive. We must alert ourselves and our students to our conditions and our possibilities. These prospects and the praxis required to achieve them cannot arise from the cookie-cutter critical thinking that is passed off as authentic analysis in contemporary classrooms. Words attributed to the hero of the Christian narrative put it nicely: "I am come that they might have life, and that they might live it more abundantly" (*St. John* 10:10). To do that for ourselves requires a population that has risen to critical consciousness. To help others develop such a consciousness is, perhaps, the highest calling of a teacher.

About the Author:

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Howard A. Doughty is currently a Visiting Professor in the College of International Studies, Hawaii Pacific University. He can be reached at: howardadoughty@yahoo.ca

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