

Richard W. Paul: A Biographical Sketch

By Linda Elder

Richard W. Paul is a leading scholar in critical thinking. Since the early 1980's Paul has worked to advance the concept of fair-minded critical thinking through his work at the Center and Foundation for Critical Thinking, both of which he founded.

Dr. Paul has received four degrees and has given lectures on critical thinking at many universities in both the United States and abroad, including Harvard, the University of Chicago, the University of Illinois, and the universities of Puerto Rico, Costa Rica, British Columbia, Toronto, and Amsterdam. He taught beginning and advanced courses in critical thinking at the university level for over 20 years. He has been the recipient of numerous honors and awards, including Distinguished Philosopher (by the Council for Philosophical Studies, 1987), O.C. Tanner Lecturer in Humanities (by Utah State University, 1986), Lansdown Visiting Scholar (by the University of Victoria, 1987), and the Alfred Korsybski Memorial Lecturer (by the Institute for General Semantics, 1987).

Paul is an internationally recognized authority on critical thinking, with eight books and more than 200 articles on the subject. He has written books for every grade level and has done extensive experimentation with teaching tactics and strategies, and devising, among other things, novel ways to engage students in rigorous self-assessment.

In 1968, Richard Paul completed his doctoral dissertation for the Ph D in Philosophy. His dissertation focused on the following seminal questions:

To what extent do traditional philosophical approaches to the analysis and assessment of reasoning effectively guide one in determining what makes sense to believe and what to reject? More specifically, to what extent do these approaches provide adequate theory for determining when questions have been adequately answered and when assertions or claims have been sufficiently validated?

In his critique of traditional philosophical approaches to reasoning, Paul illuminated the conflicting nature of these approaches, as well as the limitations and often glaring inconsistencies within and among them. He asserted the need for replacing the fragmented, inconsistent, and conflicting philosophical approaches to reasoning with an integrated, systematic, and if possible, universal approach.

Paul argued that the primary task of the logician is to develop tools for the analysis and assessment of reasoning in every discipline and domain of human thought, tools to be used in reasoning through life's many complex problems and issues. He emphasized the importance of the "logic of language" to human reasoning. He set forth the notion that every subject and discipline has a fundamental logic that could and should be explicitly formulated (and that an adequate theory of reasoning would provide the foundation for).

Paul's focus on the importance of explicating intellectual tools for analyzing and assessing reasoning in his 1968 dissertation laid the groundwork for what would become his life's work. It

planted the seeds for the critical thinking theory Paul would develop throughout many years, theory that can now be used in every day of human life, in virtually every human situation. He has developed precisely what he called for in his critique of philosophy - an integrated approach to the analysis and assessment of reasoning and every form of intellectual construct whether in the form of reasoning or not, an approach now used by many scholars, wherever critical thinking is discussed.

The importance of Paul's work lies in its richness and in its inescapable application to human decisions and interactions, in its simplicity and in its complexity, in its delineation of ethical and unethical critical thought, in its integration of insights from many domains of human thinking. Paul has gone far beyond the narrow, often conflicting, viewpoints within philosophy in reaching for a multilogical, multidisciplinary approach to understanding and improving the constructs of the human mind and, and thus, of the human condition.

Paulian Critical Thinking

The Paulian tradition, or Paulian critical thinking, began with Paul's attempt to state the minimal conditions for an adequate theory of critical thinking and then build upon those conditions. Paul attempted to combine and synthesize a network of virtually self-evident truths about critical thinking and the various obstacles to it.

It included such premises as:

- 1) It is human nature to think (that thinking pervades every aspect of human life and every dimension of the human mind).
- 2) Though it is human nature to think, it is not natural for humans to think well (human nature is heavily influenced by prejudice, illusion, mythology, ignorance, and self-deception).
- 3) Therefore we need to be able to intervene in thinking, to analyze, assess it, and where necessary, improve it.

In contemplating and formulating his concept of critical thinking, Paul came to recognize that there are intellectual abilities that cannot be completely separated from intellectual traits in the mind of the critical thinker. For example, thinkers who can enter empathically into viewpoints with which they disagree, accurately representing those viewpoints and crediting them for their insights, have a certain level of intellectual command that people who cannot do this lack. People who regularly enter alternative and opposing viewpoints in order to understand them (intellectual empathy), distinguish what they know from what they do not know (intellectual humility), think for themselves while adhering to rigorous standards for thought (intellectual autonomy), can be moved by reasoning that is better than their own reasoning (confidence in reason), and so forth, are better at reasoning through problems and issues than those who lack these dispositions. In short, they are better at *critical* thinking.

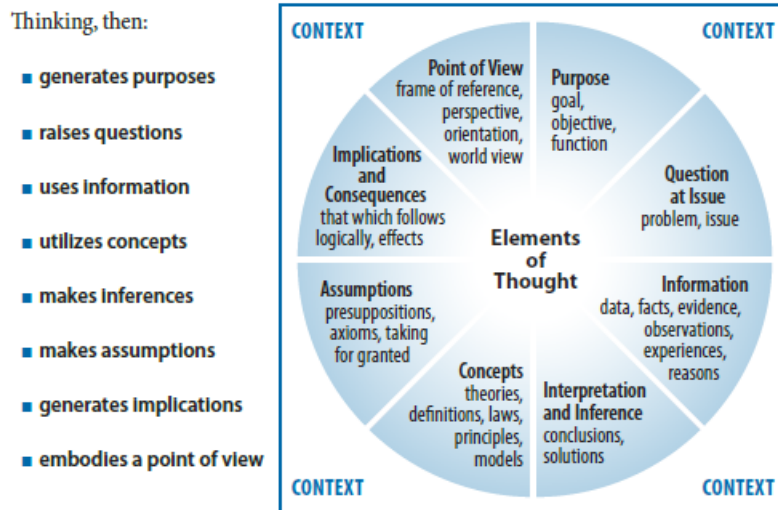
Early on in his work, then, Paul distinguished critical thinking in the *strong-sense* from critical thinking in the *weak-sense*. To think critically *in the strong sense* requires that we develop fair-mindedness at the same time that we learn basic critical thinking skills, and thus begin to "practice" fair-mindedness in our thinking. If we do, we avoid using our skills to gain advantage over others. We treat all thinking by the same high standards. We expect good reasoning from those who support us as well as those who oppose us. We subject our own reasoning to the same criteria we apply to reasoning to which we are unsympathetic. We question our own

purposes, evidence, conclusions, implications, and point of view with the same vigor as we question those of others.

Thus Paul has illuminated and emphasized the importance of the ethical dimension in human reasoning. He has also outlined egocentric and sociocentric thinking as barriers to the development of ethical reasoning, critical thought and development of the intellectual dispositions.

To briefly elaborate his early work (approximately 1975 – 1990), Paul conceptualized and developed four conceptual sets, each of which is an integrated system of meanings, each of which inherently interrelates with the other two, and together which provide the most integrated model of critical thinking currently available to those interested in understanding thinking, what it entails, how it should be assessed, and how it should be oriented:

1. The **elements of reasoning**, or structures of thought - the idea that all reasoning contains parts, and that these parts enable one to analyze thinking, any thinking whatsoever, in order to best understand it. According to Paul,



Through this conceptualization, Paul illuminates the fact that all reasoning, of whatever quality, contains these elements. Moreover, these elements are found together in the mind as a system of inter-connected ideas. They influence and are influenced by one another. Where you have one, you have the other seven.

In developing his understanding of the elements of reasoning, Paul was influenced by his background as a philosopher. But in formulating the elements of reasoning, he was influenced by other domains of thought, as well as by educated usages of words. He went far beyond the traditionally narrow philosophical view of reasoning – a view focused primarily on only a few of the parts of reasoning – namely premises (assumptions and information in Paul’s conceptualization) and conclusions (inferences and/or implications). Paul’s theory points out that all reasoning contains the eight elements, and therefore can be analyzed into eight specific parts – in determining the full logic of the reasoning.

Because all human reasoning contains these eight parts, all products of reasoning (conversations, articles, books, speeches, editorials, video programs, etc) can be analyzed according to the eight elements.

1. The **universal intellectual standards for thought** – the idea that, once reasoning has been analyzed into its parts, it can (and should) be assessed according to universal intellectual standards (such as clarity, accuracy, relevance, precision, depth, breadth, significance, and logicalness – to name a few).

In the intellectual world, thinking is judged according to intellectual standards, because all intellectuals implicitly use these standards in their thinking. Whether they are explicitly aware of it or not, they surely want their thinking to be *clear* rather than *vague*, to be *relevant* rather than *irrelevant*, to be *accurate* rather than *inaccurate*, to be *deep* rather than *superficial*, to be *broad* rather than *narrow*, to be *logical* rather than *illogical*, to be *significant* rather than *insignificant*.

The initial contribution of Paul with regard to the intellectual standards was in bringing them together as a conceptual set, articulating them as a system of interrelated concepts, and stressing the importance of *explicitly* focusing on them in assessing the elements of reasoning.

Thus Paul first asked the question: “What does reasoning entail?” (answer: the parts of thinking or *elements of reasoning*). And then, “how does one assess reasoning once it has been analyzed? (answer: *universal intellectual standards*).

2. The **intellectual virtues**, traits or dispositions – the idea that there are traits of mind possessed by the most highly skilled thinkers, traits that have to be fostered and developed throughout many years. Paul recognized that intellectual skills or abilities, as fostered through understanding and internalization of the elements of reasoning and intellectual standards, could be used for good or for ill – in other words, that critical thinking skills could be used either ethically or unethically. He therefore recognized the need to understand and cultivate in one’s thinking the intellectual virtues of intellectual empathy, intellectual integrity, intellectual perseverance, intellectual courage, intellectual autonomy, faith in reason, fairmindedness and intellectual sense of justice.

The idea of intellectual virtues or traits, when Paul first began to conceptualize them, were not completely new– these traits can be seen, at least implicitly, in the works of a number of important thinkers throughout history, including Socrates, John Locke, William Graham Sumner, John Henry Newman, and Bertrand Russell. Paul’s contribution was in bringing them together in a system of meanings, clearly delineating them as *intellectual* in nature, defining and elaborating each one, including the most important dispositions extant in the mind of the cultivated thinker, and stressing the importance of these virtues in the development of a critical person and a critical society.

3. Critical Thinking Abilities

According to Paul, an ability entails a process of thought, an object of thought, and an intellectual standard (to which the thinking must adhere). Examples of critical thinking abilities include (note the intellectual standards in italics):

- Gathering *relevant* information
- Making *logical* inferences
- Generating *justifiable* assumptions
- Following out implications *logically*
- Checking information for *accuracy*

In some cases, to recognize the tri-fold nature of the process, you will need to understand that one term may encompass two of the functions in the ability. This is true for a number of the following 35 dimensions of critical thinking as articulated by Paul:

A. Affective Dimensions

- thinking independently
- developing insight into egocentricity or sociocentricity
- exercising fairmindedness
- exploring thoughts underlying feelings and feelings underlying thought
- developing intellectual humility and suspending judgment
- developing intellectual courage
- developing intellectual good faith or integrity
- developing intellectual perseverance
- developing confidence in reason

B. Cognitive Dimensions—Macro-Abilities

- refining generalizations and avoiding oversimplifications
- comparing analogous situations: transferring insights to new contexts
- developing one's perspective: creating or exploring beliefs, arguments, or theories
- clarifying issues, conclusions, or beliefs
- clarifying and analyzing the meanings of words or phrases
- developing criteria for evaluation: clarifying values and standards
- evaluating the credibility of sources of information
- questioning deeply: raising and pursuing root or significant questions
- analyzing or evaluating arguments, interpretations, beliefs, or theories
- generating or assessing solutions
- analyzing or evaluating actions or policies
- reading critically: clarifying or critiquing texts
- listening critically: the art of silent dialogue
- making interdisciplinary connections
- practicing Socratic discussion: clarifying and questioning beliefs, theories, or perspectives
- reasoning dialogically: comparing perspectives, interpretations, or theories
- reasoning dialectically: evaluating perspectives, interpretations, or theories

C. Cognitive Dimensions—Micro-Skills

- comparing and contrasting ideals with actual practice
- thinking precisely about thinking: using critical vocabulary
- noting significant similarities and differences
- examining or evaluating assumptions
- distinguishing relevant from irrelevant facts
- making plausible inferences, predictions, or interpretations
- giving reasons and evaluating evidence and alleged facts
- recognizing contradictions
- exploring implications and consequences

Since Paul's early work, Paulian theory has been further developed by Paul himself, as well as other critical thinking scholars, namely Gerald Nosich (beginning in 1985) and Linda Elder (beginning in 1993). The later Paulian work (1990-present), developed by these three scholars, has largely focused on:

1. elaborating a theory of the human mind that illuminates the important role of affect (emotions and motivation) in the mind, and the integral relationship between the affective and cognitive dimensions (Elder and Paul).
2. elaborating and exemplifying the pervasive role of egocentric and sociocentric tendencies in human thinking, and suggesting that egocentric and sociocentric thinking are the most significant barriers to the development of critical capacities (Elder and Paul);
3. elaborating the interrelationships between and among the intellectual virtues and exemplifying their importance in thinking and learning (Paul and Elder).
4. developing a stage theory of critical thinking development (Elder).
5. Elaborating and exemplifying the idea that every subject, discipline and domain of human thought is a mode of thinking (and therefore must be understood according to the elements of reasoning embedded in it). (Paul, Nosich and Elder).
6. Contextualizing the elements of reasoning and intellectual standards in subjects and disciplines (Nosich, Paul and Elder).
7. Understanding critical thinking as essential to close reading (Paul and Elder)
8. Understanding critical thinking as essential to substantive writing - using writing as a powerful tool in learning (Paul and Elder).
9. understanding critical thinking as essential to learning (Paul, Elder and Nosich)
10. elaborating the theory of intellectual standards (Elder and Paul)

Critical Thinking Polarities as Articulated by Paul

More recently, Paul has developed a set of criteria for categorizing and assessing approaches to critical thinking, which he calls critical thinking polarities. Paul says there are at least twelve forms of critical thinking (representing six polarities) that need to be distinguished. Thus every approach to critical thinking is either global or specialized, sophistic or Socratic, explicit or implicit, systematic or episodic, emancipated or constrained, and based in natural or technical languages as follows:

Global critical thinking (multi-dimensional, interdisciplinary, trans-disciplinary, generalizable): any attempt to develop concepts and tools that can be used across disciplines, subjects, or domains.

Global critical thinking is comprehensive and multilogical. Examining assumptions for justifiability is a global critical thinking skill relevant to thinking well within all subjects and disciplines.

specialized critical thinking (nonglobal, intra-disciplinary, partial): the development of intellectual concepts and principles that enable one to evaluate and improve thinking within a given discipline, domain or specialization. Specialized critical thinking concepts and tools are often found in methodological treatises within a discipline. They often entail technical terminology. Every subject domain and every profession exemplify a way of thinking that is “specialized.”

Socratic critical thinking (fairminded, ethical, strong sense critical thinking): an attempt to link critical thinking with traits of mind that enable the thinker to exercise intellectual humility, intellectual empathy, intellectual integrity, etc. Attempts to develop critical thinking by studying the traits of mind that enable the thinker to think with intellectual empathy and integrity usually are global in orientation (since the traits of mind that serve to improve thinking are useful in all domains of thought).

Sophistic critical thinking (unethical, selfish, narrowminded critical thinking): an attempt to develop concepts and tools that enable one to recognize how to manipulate or “trick” people into accepting poor reasoning as good and thus enable (sophistic) critical thinkers to win debates, irrationally persuade and otherwise to “misuse” or “abuse” critical thinking tools.

Explicit critical thinking: entails conscious awareness of the need to improve one’s thinking, and the deliberate designing of strategies for that purpose (by the thinker).

Implicit critical thinking: skilled thinking that functions without conscious awareness on the part of the thinker as to how it does what it is doing when thinking critically.

Systematic critical thinking (integrated): an organized, thorough, interconnected approach to knowledge using the full range of critical thinking concepts and principles.

Episodic critical thinking: reasoning at a high level of skill, but only sporadically or occasionally, not consistently or systematically; unintegrated critical thought.

Emancipatory critical thinking (free): reasoning which utilizes the concepts and principles of critical thought to free the mind; reasoning that is open to considering alternative perspectives and world views; thinking that does not lock itself into a rigid set of assumptions.

Constrained critical thinking (trapped): reasoning which begins with a certain set of assumptions and operates at a high level of skill given these assumptions, but which does not openmindedly entertain other possible assumptions or viewpoints.

Critical Thinking based in natural languages: an approach to critical thinking which utilizes natural or ordinary languages rather than specialized languages. Natural languages are best for understanding critical thinking, broadly speaking, because they entail the critical analytic vocabulary of every-day language use and thus are accessible to all speakers of the language.

Critical Thinking based in technical languages: an approach to critical thinking which is based in technical or special languages. Virtually all professional develop an extensive vocabulary of technical terms and concepts.

Books and thinker's guides written or coauthored by Richard Paul include:

Elder, L. & Paul, R. *The Aspiring Thinker's Guide to Critical Thinking*, Foundation for Critical Thinking, Dillon Beach, CA, 2009.

Elder, L. & Paul, R. *The Thinker's Guide: A Glossary of Critical Thinking Terms and Concepts*, Foundation for Critical Thinking, Dillon Beach, CA, 2009.

Elder, L. & Paul, R. *The Thinker's Guide to Analytic Thinking*, Foundation for Critical Thinking, Dillon Beach, CA, 2009.

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Elder, L. & Paul, R. *The Miniature Guide to the Human Mind*, Foundation for Critical Thinking, Dillon Beach, CA, 2007, 3rd Ed.

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Elder, L. & Paul, R. *25 Days to Better Thinking and Better Living*, Pearson Prentice Hall, Upper Saddle River, NJ, 2006.

Hawkins, D., Elder, L. & Paul, R. *The Thinker's Guide to Clinical Reasoning*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

Niewoehner, R., Paul, R. & Elder, L. *The Thinker's Guide to Engineering Reasoning*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

Paul, R. & Elder, L. *The Miniature Guide to Critical Thinking Concepts and Tools*, Foundation for Critical Thinking, Dillon Beach, CA, 2009, 5th Ed.

Paul, R. & Elder, L. *A Critical Thinker's Guide to Educational Fads*, Foundation for Critical Thinking, Dillon Beach, CA, 2007.

Paul, R. & Elder, L. *The Thinker's Guide for Students on How to Study and Learn a Discipline*, Foundation for Critical Thinking, Dillon Beach, CA, 2007.

Paul, R. & Elder, L. *The Thinker's Guide to How to Write a Paragraph*, Foundation for Critical Thinking, Dillon Beach, CA, 2007.

Paul, R. & Elder. L. *The Thinker's Guide to How to Read a Paragraph*, Foundation for Critical Thinking, Dillon Beach, CA, 2006, 2nd Ed.

Paul, R. & Elder. L. *The Thinkers Guide to Fallacies: The Art of Mental Trickery and Manipulation*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

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Paul, R. & Elder. L. *The Thinker's Guide to the Art of Socratic Questioning*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

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Paul, R. & Elder. L. *The International Critical Thinking Reading & Writing Test*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

Paul, R. & Elder. L. *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life, Second Edition*, Prentice Hall, Upper Saddle River, NJ, 2006, 2nd Ed.

Paul, R. & Elder. L. *A Miniature Guide to For Those Who Teach on How to Improve Student Learning*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

Paul, R. & Elder. L. *A Miniature Guide for Students and Faculty to Scientific Thinking*, Foundation for Critical Thinking, Dillon Beach, CA, 2006, 2nd Ed.

Paul, R. & Elder. L. *A Guide for Educators to Critical Thinking Competency Standards*, Foundation for Critical Thinking, Dillon Beach, CA, 2006.

Paul, R. & Elder. L. *Critical Thinking: Learn the Tools the Best Thinkers Use (Concise Edition)*, Upper Saddle River, NJ, 2006.

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Paul. R. Critical Thinking: *What Every Person Needs to Survive in a Rapidly Changing World*, An Anthology On Critical Thinking and Educational Reform, Revised Third Edition, 1993

Paul. R. Critical Thinking: *How to Prepare Students for a Rapidly Changing World*, An Anthology On Critical Thinking and Educational Reform, Revised Third Edition, 1993

Links:

www.criticalthinking.org

www.everyonethinks.org

This biographical article was written by Linda Elder, September 2010 and can be found on the website of the Foundation for Critical Thinking at this link:

http://www.criticalthinking.org/ABOUT/Fellow_Richard_Paul.cfm