Critical Thinking, Moral Integrity and Citizenship

Abstract

Many are tempted to separate affective and moral dimensions of learning from cognitive dimensions. They argue that the cognitive and affective are obviously separate since many intelligent, well-educated people lack moral insight or sensitivity and many less intelligent, poorly educated, or uneducated people are morally good. By distinguishing "strong" and "weak" senses of the terms 'critical thinking', 'moral integrity', and 'citizenship' Richard Paul suggests a novel answer to this objection.

Critical thinking, understood as skills alone separate from values, is often used to rationalize prejudice and vested interest. Moral integrity and responsible citizenship, understood merely as "good heartedness", are themselves susceptible to manipulation by propaganda. The human mind, whatever its conscious good will, is subject to powerful, self-deceptive, unconscious egocentricity of mind. The full development of each characteristic — critical thought, moral integrity, and responsible citizenship — in its strong sense requires and develops the others, in a parallel strong sense. The three are developed together only in an atmosphere, which encourages the intellectual virtues: intellectual courage, intellectual empathy, intellectual good faith or integrity, intellectual perseverance, intellectual fair-mindedness, and faith in reason. The intellectual virtues themselves are interdependent.

Educators and theorists tend to approach the affective and moral dimensions of education as they approach all other dimensions of learning, as compartmentalized domains, and as a collection of learning more or less separate from other learning. As a result, they view moral development as more or less independent of cognitive development. "And why not!" one might imagine the reply. "Clearly there are highly educated, very intelligent people who habitually do evil and very simple, poorly-educated people who consistently do good. If moral development were so intimately connected to cognitive development, how could this be so? "In this paper, I provide the outlines of an answer to that objection by suggesting an intimate connection between critical thinking, moral integrity, and citizenship. Specifically, I distinguish a weak and a strong sense of each and hold that the strong sense ought to guide, not only our understanding of the nature of the educated person, but also our redesigning the curriculum.

There is little to recommend schooling that does not foster what I call intellectual virtues. These virtues include intellectual empathy, intellectual perseverance, intellectual confidence in reason, and an intellectual sense of justice (fair-mindedness). Without these characteristics, intellectual development is circumscribed and distorted, a caricature of what it could and should be. These same characteristics are essential to moral judgment. The "good-hearted" person who lacks intellectual virtues will act morally only when morally grasping a situation or problem does not presuppose intellectual insight. Many, if not most, moral problems and situations in the modern

world are open to multiple interpretations and, hence, do presuppose these intellectual virtues.

We are now coming to see how far we are from curricula and teaching strategies that genuinely foster basic intellectual and moral development. Curricula is so highly compartmentalized and teaching so committed to "speed learning" (covering large chunks of content quickly) that it has little room for fostering what I call the intellectual virtues. Indeed, the present structure of curricula and teaching not only strongly discourages their development but also strongly encourages their opposites. Consequently, even the "best" students enter and leave college as largely mis-educated persons, with no real sense of what they do and do not understand, with little sense of the state of their prejudices or insights, with little command of their intellectual faculties — in short, with no intellectual virtues, properly so-called.

Superficially absorbed content, the inevitable by-product of extensive but shallow coverage, inevitably leads to intellectual arrogance. Such learning discourages intellectual perseverance and confidence in reason. It prevents the recognition of intellectual bad faith. It provides no foundation for intellectual empathy, nor for an intellectual sense of fair play. By taking in and giving back masses of detail, students come to believe that they know a lot about each subject — whether they understand or not.

By practicing applying rules and formulas to familiar tasks, they come to feel that getting the answer should always be easy — if you don't know how to do something, don't try to figure it out, ask. By hearing and reading only one perspective, they come to think that perspective has a monopoly on truth — any other view must be completely wrong. By accepting (without understanding) that their government's past actions were all justified, they assume their government never would or could do wrong — if it doesn't seem right, I must not understand.

The pedagogical implications of my position include these: cutting back on coverage to focus on depth of understanding, on foundational ideas, on intellectual synthesis, and on intellectual experiences that develop and deepen the most basic intellectual skills, abilities, concepts, and virtues. A similar viewpoint was expressed by Whitehead:

The result of teaching small parts of a large number of subjects is the passive reception of disconnected ideas, not illuminated with any spark of vitality. Let the main ideas which are introduced into a child's education be few and important, and let them be thrown into every combination possible. The child should make them his own, and should understand their application here and now in the circumstances of his actual life. From the very beginning of his education, the child should experience the joy of discovery. The discovery which he has to make is that general ideas give an understanding of that stream of events which pours through his life. (The Aims of Education, p. 14)

To accomplish this re-orientation of curriculum and teaching, we need new criteria of what constitutes success and failure in school. We need to begin this re-orientation as early as possible. Integrating teaching for critical thinking, moral integrity, and citizenship is an essential part of this re-orientation.

Teaching for "Strong Sense" Skills

The term "critical thinking" can be used in either a weak or a strong sense, depending upon whether we think of critical thinking narrowly, as a list or collection of discrete intellectual skills, or, more broadly, as a mode of mental integration, as a synthesized complex of dispositions, values, and skills necessary to becoming a fair-minded, rational person. Teaching critical thinking in a strong sense is a powerful, and I believe necessary means to moral integrity and responsible citizenship.

Intellectual skills in and of themselves can be used either for good or ill, to enlighten or to propagandize, to gain narrow, self-serving ends, or to further the general and public good. The micro-skills themselves, for example, do not define fair-mindedness and could be used as easily by those who are highly prejudiced as those who are not. Those students not exposed to the challenge of strong sense critical thinking assignments (for example, assignments in which they must empathically reconstruct viewpoints that differ strikingly from their own) will not, as a matter of abstract morality or general goodheartedness, be fair to points of view they oppose, nor will they automatically develop a rationally defensible notion of what the public good is on the many issues they must decide as citizens.

Critical thinking, in its most defensible sense, is not simply a matter of cognitive skills. Moral integrity and responsible citizenship are, in turn, not simply a matter of goodheartedness or good intentions. Many good-hearted people cannot see through and critique propaganda and mass manipulation, and most good-hearted people fall prey at times to the powerful tendency to engage in self-deception, especially when their own egocentric interests and desires are at stake. One can be good-hearted and intellectually egocentric at the same time.

The problems of education for fair-minded independence of thought, for genuine moral integrity, and for responsible citizenship are not three separate issues but one complex task. If we succeed with one dimension of the problem, we succeed with all. If we fail with one, we fail with all. Now we are failing with all because we do not clearly understand the interrelated nature of the problem nor how to address it.

The Intellectual and Moral Virtues of the Critical Person

Our basic ways of knowing are inseparable from our basic ways of being. How we think reflects who we are. Intellectual and moral virtues or disabilities are intimately interconnected. To cultivate the kind of intellectual independence implied in the concept of strong sense critical thinking, we must recognize the need to foster intellectual (epistemological) humility, courage, integrity, perseverance, empathy, and fair-

mindedness. A brief gloss on each will suggest how to translate these concepts into concrete examples. Intellectual humility will be my only extended illustration. I will leave to the reader's imagination what sorts of concrete examples could be marshaled in amplifying the other intellectual virtues.

Intellectual Humility: Having a consciousness of the limits of one's knowledge, including a sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias, prejudice, and limitations of one's viewpoint. Intellectual humility depends on recognizing that one should not claim more than one actually knows. It does not imply spinelessness or submissiveness. It implies the lack of intellectual pretentiousness, boastfulness, or conceit, combined with insight into the logical foundations, or lack of such foundations, of one's beliefs.

To illustrate, consider this letter from a teacher with a Master's degree in Physics and Mathematics, with 20 years of high school teaching experience in physics:

After I started teaching, I realized that I had learned physics by rote and that I really did not understand all I knew about physics. My thinking students asked me questions for which I always had the standard textbook answers, but for the first time it made me start thinking for myself, and I realized that these canned answers were not justified by my own thinking and only confused my students who were showing some ability to think for themselves. To achieve my academic goals, I had to memorize the thoughts of others, but I had never learned or been encouraged to learn to think for myself.

This is a good example of what I call intellectual humility and, like all intellectual humility, it arises from insight into the nature of knowing. It is reminiscent of the ancient Greek insight that Socrates was the wisest of the Greeks because only he knew how little he really understood. Socrates developed this insight as a result of extensive, indepth questioning of the knowledge claims of others. He had to think his way to this insight.

If this insight and this humility is part of our goal, then most textbooks and curricula require extensive modification, for typically they discourage rather than encourage it. The extent and nature of "coverage" for most grade levels and subjects implies that bits and pieces of knowledge are easily attained, without any significant consideration of the basis for the knowledge claimed in the text or by the teacher.

The speed with which content is covered contradicts the notion that students must think in an extended way about content before giving assent to what is claimed. Most teaching and most texts are, in this sense, epistemologically unrealistic and hence foster intellectual arrogance in students, particularly in those with retentive memories who can repeat back what they have heard or read. Pretending to know is encouraged. Much standardized testing validates this pretense.

This led Alan Schoenfeld, for example, to conclude that "most instruction in mathematics is, in a very real sense, deceptive and possibly fraudulent". He cites numerous examples including the following. He points out that much instruction on how to solve word problems in elementary math "... is based on the "key word" algorithm,

where the student makes his choice of the appropriate arithmetic operation by looking for syntactic cues in the problem statement. For example, the word 'left' in the problem "John had eight apples. He gave three to Mary. How many does John have left?" ... serves to tell the students that subtraction is the appropriate operation to perform. (p. 27)."

He further reports the following:

"In a widely used elementary text book series, 97 percent of the problems "solved" by the key-word method would yield (serendipitously?) the correct answer. Students are drilled in the key-word algorithm so well that they will use subtraction, for example, in almost any problem containing the word 'left'. In the study from which this conclusion was drawn, problems were constructed in which appropriate operations were addition, multiplication, and division. Each used the word 'left' conspicuously in its statement and a large percentage of the students subtracted. In fact, the situation was so extreme that many students chose to subtract in a problem that began "Mr. Left . . ."

Schoenfeld then provides a couple of other examples, including the following:

I taught a problem-solving course for junior and senior mathematics majors at Berkeley in 1976. These students had already seen some remarkably sophisticated mathematics. Linear algebra and differential equations were old hat. Topology, Fourier transforms, and measure theory were familiar to some. I gave them a straightforward theorem from plane geometry (required when I was in the tenth grade). Only two of eight students made any progress on it, some of them by using arc length integrals to measure the circumference of a circle. (Schoenfeld,1979). Out of the context of normal course work these students could not do elementary mathematics.

He concludes:

In sum: all too often we focus on a narrow collection of well-defined tasks and train students to execute those tasks in a routine, if not algorithmic fashion. Then we test the students on tasks that are very close to the ones they have been taught. If they succeed on those problems, we and they congratulate each other on the fact that they have learned some powerful mathematical techniques. In fact, they may be able to use such techniques mechanically while lacking some rudimentary thinking skills. To allow them, and ourselves, to believe that they "understand" the mathematics is deceptive and fraudulent.

This approach to learning in math is paralleled in all other subjects. Most teachers got through their college classes mainly by "learning the standard textbook answers" and were neither given an opportunity nor encouraged to determine whether what the text or the professor said was "justified by their own thinking". To move toward intellectual humility, most teachers need to question most of what they learned, as the teacher above did, but such questioning would require intellectual courage, perseverance, and confidence in their own capacity to reason and understand subject matter through their

own thought. Most teachers have not done the kind of analytic thinking necessary for gaining such perspective.

I would generalize as follows: just as the development of intellectual humility is an essential goal of critical thinking instruction, so is the development of intellectual courage, integrity, empathy, perseverance, fair-mindedness, and confidence in reason. Furthermore, each intellectual (and moral) virtue in turn is richly developed only in conjunction with the others. Before we approach this point directly, however, a brief characterization of what I have in mind by each of these traits is in order:

Intellectual Courage: Having a consciousness of the need to face and fairly address ideas, beliefs, or viewpoints toward which we have strong negative emotions and to which we have not given a serious hearing. This courage is connected with the recognition that ideas considered dangerous or absurd are sometimes rationally justified (in whole or in part) and that conclusions and beliefs inculcated in us are sometimes false or misleading. To determine for ourselves which is which, we must not passively and uncritically "accept" what we have "learned". Intellectual courage comes into play here, because inevitably we will come to see some truth in some ideas considered dangerous and absurd, and distortion or falsity in some ideas strongly held in our social group. We need courage to be true to our own thinking in such circumstances. The penalties for non-conformity can be severe.

Intellectual Empathy: Having a consciousness of the need to imaginatively put oneself in the place of others in order to genuinely understand them, which requires the consciousness of our egocentric tendency to identify truth with our immediate perceptions or long-standing thought or belief. This trait correlates with the ability to reconstruct accurately the viewpoints and reasoning of others and to reason from premises, assumptions, and ideas other than our own. This trait also correlates with the willingness to remember occasions when we were wrong in the past despite an intense conviction that we were right, and with the ability to imagine our being similarly deceived in a case-at-hand.

Intellectual Good Faith (Integrity): Recognition of the need to be true to one's own thinking; to be consistent in the intellectual standards one applies; to hold one's self to the same rigorous standards of evidence and proof to which one holds one's antagonists; to practice what one advocates for others; and to honestly admit discrepancies and inconsistencies in one's own thought and action.

Intellectual Perseverance: Willingness and consciousness of the need to pursue intellectual insights and truths in spite of difficulties, obstacles, and frustrations; firm adherence to rational principles despite the irrational opposition of others; a sense of the need to struggle with confusion and unsettled questions over an extended period of time to achieve deeper understanding or insight.

Faith in Reason: Confidence that, in the long run, one's own higher interests and those of humankind at large will be best served by giving the freest play to reason, by

encouraging people to come to their own conclusions by developing their own rational faculties; faith that, with proper encouragement and cultivation, people can learn to think for themselves, to form rational viewpoints, draw reasonable conclusions, think coherently and logically, persuade each other by reason and become reasonable persons, despite the deep-seated obstacles in the native character of the human mind and in society as we know it.

Fairmindedness: Willingness and consciousness of the need to treat all viewpoints alike, without reference to one's own feelings or vested interests, or the feelings or vested interests of one's friends, community, or nation; implies adherence to intellectual standards without reference to one's own advantage or the advantage of one's group.

The Interdependence of the Intellectual Virtues

Let us now consider the interdependence of these virtues, how hard it is to deeply develop any one of them without also developing the others. Consider intellectual humility. To become aware of the limits of our knowledge we need the courage to face our own prejudices and ignorance. To discover our own prejudices in turn we must often empathize with and reason within points of view toward which we are hostile. To do this, we must typically persevere over a period of time, for learning to empathically enter a point of view against which we are biased takes time and significant effort. That effort will not seem justified unless we have the faith in reason to believe we will not be "tainted" or "taken in" by whatever is false or misleading in the opposing viewpoint. Furthermore, merely believing we can survive serious consideration of an "alien" point of view is not enough to motivate most of us to consider them seriously. We must also be motivated by an intellectual sense of justice. We must recognize an intellectual responsibility to be fair to views we oppose. We must feel obliged to hear them in their strongest form to ensure that we do not condemn them out of our own ignorance or bias. At this point, we come full circle back to where we began: the need for intellectual humility.

Or let us begin at another point. Consider intellectual good faith or integrity. Intellectual integrity is clearly difficult to develop. We are often motivated — generally without admitting to or being aware of this motivation — to set up inconsistent intellectual standards. Our egocentric or sociocentric side readily believes positive information about those we like and negative information about those we dislike. We tend to believe what justifies our vested interest or validates our strongest desires. Hence, we all have some innate tendencies to use double standards, which is of course paradigmatic of intellectual bad faith. Such thought often helps us get ahead in the world, maximize our power or advantage, and get more of what we want.

Nevertheless, we cannot easily operate explicitly or overtly with a double standard. We must, therefore, avoid looking at the evidence too closely. We cannot scrutinize our own inferences and interpretations too carefully. Hence, a certain amount of intellectual arrogance is quite useful. I may assume, for example that I know just what you're going to say (before you say it), precisely what you are really after (before the evidence

demonstrates it), and what actually is going on (before I have studied the situation carefully). My intellectual arrogance makes it easier for me to avoid noticing the unjustifiable discrepancy in the standards I apply to you and those I apply to myself. Of course, if I don't have to empathize with you, that too makes it easier to avoid seeing my duplicity. I am also better off if I don't feel a keen need to be fair to your point of view. A little background fear of what I might discover if I seriously considered the consistency of my own judgments also helps. In this case, my lack of intellectual integrity is supported by my lack of intellectual humility, empathy, and fair-mindedness.

Going in the other direction, it will be difficult to maintain a double standard between us if I feel a distinct responsibility to be fair to your point of view, understand this responsibility to entail that I must view things from your perspective in an empathic fashion, and conduct this inner inquiry with some humility regarding the possibility of my being wrong and your being right. The more I dislike you personally or feel wronged in the past by you or by others who share your way of thinking, the more pronounced in my character must be the trait of intellectual integrity in order to provide the countervailing impetus to think my way to a fair conclusion.

Defense Mechanisms and the Intellectual Virtues

A major obstacle to developing intellectual virtues is the presence in the human egocentric mind of what Freud has called "defense mechanisms". Each represents a way to falsify, distort, misconceive, twist, or deny reality. Their presence represents, therefore, the relative weakness or absence of the intellectual virtues. Since they operate in everyone to some degree, no one embodies the intellectual virtues purely or perfectly. In other words, we each have a side of us unwilling to face unpleasant truth, willing to distort, falsify, twist, and misrepresent.

We also know from a monumental mass of psychological research that this side can be powerful, can dominate our minds strikingly. We marvel at, and are often dumfounded by, others whom we consider clear-cut instances of these modes of thinking. What is truly "marvelous", it seems to me, is how little we take ourselves to be victims of these falsifying thoughts, and how little we try to break them down. The vicious circle seems to be this: because we, by and large, lack the intellectual virtues, we do not have insight into them, but because we lack insight into them, we do not see ourselves as lacking them. They weren't explicitly taught to us, so we don't have to explicitly teach them to our children.

Insights, Analyzed Experiences, and Activated Ignorance

Schooling has generally ignored the need for insight or intellectual virtues. This deficiency is intimately connected with another one, the failure of the schools to show students they should not only test what they "learn" in school by their own experience, but also test what they experience by what they "learn" in school. This may seem a hopeless circle, but if we can see the distinction between a critically analyzed experience and an unanalyzed one, we can see the link between the former and insight,

and the latter and prejudice, and will be well on our way to seeing how to fill these needs.

We subject little of our experience to critical analysis. We seldom take our experiences apart to judge their epistemological worth. We rarely sort the "lived" integrated experience into its component parts, raw data, our interpretation of the data, or ask ourselves how the interests, goals, and desires we brought to those data shaped and structured that interpretation. Similarly, we rarely seriously consider the possibility that our interpretation (and hence our experience) might be selective, biased, or misleading.

This is not to say that our unanalyzed experiences lack meaning or significance. Quite the contrary, in some sense we assess all experience. Our egocentric side never ceases to catalogue experiences in accord with its common and idiosyncratic fears, desires, prejudices, stereotypes, caricatures, hopes, dreams, and assorted irrational drives. We shouldn't assume a priori that our rational side dominates the shaping of our experience. Our unanalyzed experiences are some combination of these dual contributors to thought, action, and being. Only through critical analysis can we hope to isolate the irrational dimensions of our experience. The ability to do so grows as we analyze more and more of our experience.

Of course, more important than the sheer number of analyzed experiences is their quality and significance. This quality and significance depends on how much our analyses embody the intellectual virtues. At the same time, the degree of our virtue depends upon the number and quality of experiences we have successfully critically analyzed. What links the virtues, as perfections of the mind, and the experiences, as analyzed products of the mind, is insight. Every critically analyzed experience to some extent produces one or more intellectual virtues. To become more rational, it is not enough to have experiences nor even for those experiences to have meanings. Many experiences are more or less charged with irrational meanings. These important meanings produce stereotypes, prejudices, narrow-mindedness, delusions, and illusions of various kinds.

The process of developing intellectual virtues and insights is part and parcel of our developing an interest in taking apart our experiences to separate their rational from their irrational dimensions. These meta-experiences become important benchmarks and guides for future thought. They make possible modes of thinking and maneuvers in thinking closed to the irrational mind.

Some Thoughts on How to Teach for the Intellectual Virtues

To teach for the intellectual virtues, one must recognize the significant differences between the higher order critical thinking of a fair-minded critical thinker and that of a self-serving critical thinker. Though both share a certain command of the micro-skills of critical thinking and hence would, for example, score well on tests such as the Watson-Glaser Critical Thinking Appraisal or the Cornell Critical Thinking Tests, they are not

equally good at tasks, which presuppose the intellectual virtues. The self-serving (weak sense) critical thinker would lack the insights that underlie and support these virtues.

I can reason well in domains in which I am prejudiced — hence, eventually, reason my way out of prejudices — only if I develop mental benchmarks for such reasoning. Of course, one insight I need is that when I am prejudiced it will seem to me that I am not, and similarly, that those who are not prejudiced as I am will seem to me to be prejudiced. (To a prejudiced person, an unprejudiced person seems prejudiced.) I will come to this insight only insofar as I have analyzed experiences in which I was intensely convinced I was correct on an issue, judgment, or point of view, only to find, after a series of challenges, reconsiderations, and new reasonings, that my previous conviction was in fact prejudiced. I must take this experience apart in my mind, clearly understand its elements and how they fit together (how I became prejudiced; how I inwardly experienced that prejudice; how intensely that prejudice seemed true and insightful; how I progressively broke that prejudice down through serious consideration of opposing lines of reasoning; how I slowly came to new assumptions, new information, and ultimately new conceptualizations).

Only when one gains analyzed experiences of working and reasoning one's way out of prejudice can one gain the higher order abilities of a fair-minded critical thinker. What one gains is somewhat "procedural" or sequential in that there is a process one must go through; but one also sees that the process cannot be followed out formulaically or algorithmically, it depends on principles. The somewhat abstract articulation of the intellectual virtues above will take on concrete meaning in the light of these analyzed experiences. Their true meaning to us will be given in and by these experiences. We will often return to them to recapture and rekindle the insights upon which the intellectual virtues depend.

Generally, to develop intellectual virtues, we must create a collection of analyzed experiences that represent to us intuitive models, not only of the pitfalls of our own previous thinking and experiencing but also processes for reasoning our way out of or around them. These model experiences must be charged with meaning for us. We cannot be indifferent to them. We must sustain them in our minds by our sense of their importance as they sustain and guide us in our thinking.

What does this imply for teaching? It implies a somewhat different content or material focus. Our own minds and experiences must become the subject of our study and learning. Indeed, only to the extent that the content of our own experiences becomes an essential part of study will the usual subject matter truly be learned. By the same token, the experiences of others must become part of what we study. But experiences of any kind should always be critically analyzed, and students must do their own analyses and clearly recognize what they are doing.

This entails that students become explicitly aware of the logic of experience. All experiences have three elements, each of which may require some special scrutiny in the analytic process: 1) something to be experienced (some actual situation or other); 2)

an experiencing subject (with a point of view, framework of beliefs, attitudes, desires, and values); and 3) some interpretation or conceptualization of the situation. To take any experience apart, then, students must be sensitive to three distinctive sets of questions:

- 1. What are the raw facts, what is the most neutral description of the situation? If one describes the experience this way, and another disagrees, on what description can they agree?
- 2. What interests, attitudes, desires, or concerns do I bring to the situation? Am I always aware of them? Why or why not?
- 3. How am I conceptualizing or interpreting the situation in light of my point of view? How else might it be interpreted?

Students must also explore the interrelationships of these parts: How did my point of view, values, desires, etc., affect what I noticed about the situation? How did they prevent me from noticing other things? How would I have interpreted the situation had I noticed those other things? How did my point of view, desires, etc., affect my interpretation? How should I interpret the situation?

If students have many assignments that require them to analyze their experiences and the experiences of others along these lines, with ample opportunity to argue among themselves about which interpretations make the most sense and why, then they will begin to amass a catalogue of critically analyzed experiences. If the experiences illuminate the pitfalls of thought, the analysis and the models of thinking they suggest will be the foundation for their intellectual traits and character.

They will develop intellectual virtues because they had thought their way to them and internalized them as concrete understandings and insights, not because they took them up as slogans. Their basic values and their thinking processes will be in a symbiotic relationship to each other. Their intellectual and affective lives will become more integrated. Their standards for thinking will be implicit in their own thinking, rather than in texts, teachers, or the authority of a peer group.

Conclusion

We do not now teach for the intellectual virtues. If we did, not only would we have a basis for integrating the curriculum, we would also have a basis for integrating the cognitive and affective lives of students. Such integration is the basis for strong sense critical thinking, for moral development, and for citizenship. The moral, social, and political issues we face in everyday life are increasingly intellectually complex.

Their settlement relies on circumstances and events that are interpreted in a variety of (often conflicting) ways. For example, should our government publish misinformation to mislead another government or group that it considers terrorist? Is it ethical to tolerate a "racist" regime such as South Africa, or are we morally obligated to attempt to overthrow it? Is it ethical to support anti-communist groups that use, or have used, torture, rape, or

murder as tools in their struggle? When, if ever, should the CIA attempt to overthrow a government it perceives as undemocratic? How can one distinguish "terrorists" from "freedom fighters"?

Or, consider issues that are more "domestic" or "personal". Should deliberate polluters be considered "criminals"? How should we balance off "dollar losses" against "safety gains"? That is, how much money should we be willing to spend to save human lives? What is deliberate deception in advertising and business practices? Should one protect incompetent individuals within one's profession from exposure? How should one reconcile or balance one's personal vested interest against the public good? What moral or civic responsibility exists to devote time and energy to the public good as against one's private interests and amusements?

These are just a few of the many complex moral, political, and social issues that virtually all citizens must face. The response of the citizenry to such issues defines the moral character of society. These issues challenge our intellectual honesty, courage, integrity, empathy, and fair-mindedness.

Given their complexity, they require perseverance and confidence in reason. People easily become cynical, intellectually lazy, or retreat into simplistic models of learning and the world they learned in school and see and hear on TV. On the other hand, it is doubtful that the fundamental conflicts and antagonisms in the world can be solved or resolved by sheer power or abstract good will. Good-heartedness and power are insufficient for creating a just world. Some modest development of the intellectual virtues seems essential for future human survival and well-being. Whether the energy, the resources, and the insights necessary for this development can be significantly mustered remains open. This is certain: we will never succeed in cultivating traits whose roots we do not understand and whose development we do not foster.

{Taken from Paul, R. (1993). *Critical Thinking: What Every Student Needs to Survive in A Rapidly Changing World*, Dillon Beach, CA: Foundation for Critical Thinking).