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Critical Thinking

Nel Noddings

Ten years ago, I wrote an article for the *Journal* on helping students to think. The topic is even more important today because critical thinking appears as an important educational aim all over the world. Yet we rarely spend much time talking about what it means to think critically and the difficulties we experience trying to teach it. In this article, I will explore four facets of critical thinking and its purposes: developing a critical eye, searching for meaning, reasons why we engage in critical thinking, and the need for moral commitment as we think critically.

Developing a Critical Eye

Teachers regularly urge students to check their own work and that of others for formal adequacy. In reading, we want students to understand the meaning of words, sentences, and paragraphs. Where writing is involved, students should learn to check sentence structure, spelling, punctuation, paragraphing, and appropriate vocabulary. In mathematics, students should check computation, the appropriate use of symbols, and the arrangement of a mathematical argument—showing all steps. It is widely agreed that a basic purpose of elementary education is to get a good start on the development of a critical eye for formal adequacy and meaning.

Before we venture into the higher areas of critical thinking, consider how difficult even this basic foundation is for many students. Too many students enter high school unable to read, write, and compute at the level required for secondary school work. Indeed, many finish high school in this condition. We have to keep this in mind as we try to teach the sort of critical thinking aimed at creating and critiquing arguments. That does not mean that we should postpone the teaching of higher-order critical thinking indefinitely, but we have to keep circling back to the skills required

in developing that basic critical eye. The skills required in critical thinking are interactive. Students whose formal skills are weak may be inspired to improve those skills by difficult and intriguing questions that arise in higher-order thinking, and all students should be invited to think critically on such questions, but teachers have to encourage the continual improvement of skills at every level.

One technique too seldom used in either elementary or secondary education is familiar to professional writers—*revise and resubmit*. Students are not often asked to do this. Most of the time, they submit work and get a grade. Sometimes teachers include comments on the work returned, and the hope is that the students will not repeat the errors noted and that they will apply whatever suggestions appear to the next round of assignments. But experience warns us that students rarely look beyond the grade posted on returned homework. If they are required to revise and resubmit, however, they will have to attend to the teacher's comments and, thus, bring at least a modicum of critical thinking to both their own work and that of the teacher. Such a procedure should also sharpen the teacher's critical eye.

This technique does not have to be used on every assignment, but commitment to its use should trigger some critical thinking by teachers on the topic of assignments. Must a homework assignment be made every day? Does the school have a policy that such assignments be made? If so, why? How much of this work could be done better in class under the supervision of teachers and cooperative conversation with fellow students? What effect might it have on students if they know that classmates might read and comment on their work?

Extending the Search for Meaning

The Common Core Standards currently guiding instruction in the U.S. today put great emphasis on critical thinking. In line with this emphasis, the high school language arts curriculum now suggests that more attention be given to the reading of informational texts and documents than to fiction. We could argue over the wisdom of this recommendation, but let's just explore for a bit what this might involve.

Among the documents to be read, we would surely find the Declaration of Independence. Consider these words:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness....

The teacher will surely mention that these are likely the words of Thomas Jefferson, the main writer of the Declaration. What could Jefferson have meant when he declared that "all men are created equal"? Did he believe this? Jefferson, like many of our early presidents, was a slave-holder. Here is an opportunity for rich interdisciplinary work, and social studies and language arts teachers could plan and teach an exciting set of lessons on the position of our Founders and early presidents on slavery. How many of our first sixteen presidents were slave-holders? Additionally, how many were sympathizers—people who, while not themselves slave-holders, supported the practice of slavery? The discussion could be expanded into one on the present social/political problems of race.

But there is even more for critical examination. As a nation, we seem to believe in equal rights. What is the nature of *rights*? A strong philosophical argument denies that we are *born* with unalienable rights or rights of any sort (Bentham, 1996/1789). We are born with *needs*, these

philosophers argue, not rights. Rights must, after much deliberation and sometimes actual battle, be *accorded*. To whom should rights be granted? By whom? What sorts of rights? Under what sorts of agreements?

Certainly, Jefferson did not believe that Blacks were equal to Whites, and it is clear that many of our Founders did not even believe that all white men should be granted the full range of citizens' rights. And how about women? There was no mention whatever of women in the meetings that declared independence and established the rules under which the new nation would be governed.

But words are powerful. Each generation of Americans has found new meaning in the words, "all men are created equal." In 1848 at Seneca Falls, Elizabeth Cady Stanton read her "Declaration of Sentiments," a document that modified Jefferson's words to read, "We hold these truths to be self-evident, that all men and women are created equal..." (see Oakley, 1972, p. 11). This was more than seventy years after Jefferson's declaration, and it was another seventy years before women gained voting rights.

A rigorous interdisciplinary unit based on these words from the Declaration would have to say something about conceptions of the "Creator" mentioned by Jefferson. Now educators encounter real controversy. Did the Founders believe in a Creator and, if they did, was their conception of that Creator consonant with Christianity? Even today, we hear heated arguments between those who insist that the United States was founded as a Christian nation and those who point to the initial, deliberate separation of church and state; the latter point out that there is no mention whatever of God in the Constitution. In some parts of the country today, it may be impossible to discuss the religious beliefs of the Founders, and critical thinking on the issue will be

discouraged if not banned outright. Yet, if we are serious about developing critical thinking, teachers should at least be prepared to discuss the controversy. Were some of the Founders deists? What is a deist? Was James Madison an atheist? What is an atheist? Should students be informed that Madison even opposed the appointment of chaplains to any government office or institution? If a student asks questions about atheism, would a teacher dare to suggest that the student read something by Christopher Hitchens, Daniel Dennett, Richard Dawkins, Bertrand Russell, or even Thomas Paine? Was Paine, author of *Common Sense*, an atheist? If not, why did Theodore Roosevelt later refer to him as a “filthy little atheist”? (True, 1995, p. 14). These matters should be discussed in teacher education even if they cannot be addressed in pre-college education.

Why Think Critically?

The idea of critical thinking in philosophy and education has almost always been applied to language—to the analysis of spoken and written words and the preparation of arguments. A long tradition has identified critical thinking with debate; its purpose there has been to win verbal arguments. Today, we are giving more attention to critical thinking as a tool for understanding, but, even here, the aim is often to understand in order to overcome or defeat—rarely to understand in preparation for cooperation. This attitude---to understand in order to defeat or win—is still with us. Indeed, Cicero advised us long ago that to understand our own position clearly, we need to understand that of our opponents.

There is another, better, reason to promote critical thinking in constructing and analyzing arguments, and that is to find the truth. That has been the foundational purpose of critical thinking and argumentation in science. When we are faithful to that purpose, we present, defend,

and attack arguments in the interest of establishing the truth. Clearly, devotion to this purpose is basic in science. We argue for a position because we believe it is true, but we stand ready to retreat if it is shown to be wrong or doubtful.

Like most ideals, the devotion to truth is corruptible. We may cling to a position because it is the result of *our* investigation and we are committed to it, or we may defend it because winning the argument has become more important than finding the truth. Traditionally, by its very nature, formal debate has encouraged the determination to win and, of course, the legal profession is burdened by the necessary elevation of success (i. e., winning) over truth. This does not mean that lawyers are exempt from the demands of truth; they are forbidden to concoct lies, present false evidence, or knowingly withhold evidence that might favor the opposing side. Still, the danger is clear in any activity that employs critical thinking and, at the same time, favors winning over finding the truth.

Problems arise also in the teaching of critical thinking. Sometimes, in our eagerness to encourage critical thinking, we press students to ask critical questions before they have an adequate understanding of a text. They are led to believe that competent critical thinking requires a continual challenge to whatever they are reading. This may be a mistake. Over my years of teaching philosophy, I have often counseled my students to *read and believe* for a fairly lengthy period before challenging the writer with questions. This approach has been especially useful in studying the work of John Dewey, and I advise students to hold off a bit on questioning the assigned text. Dewey often returns to answer questions that might have been asked a few pages previously. In *Democracy and Education*, for example, he states that “all communication...is educative” (1916, p. 5). A critical thinker is tempted to pounce on this. Surely, not *all* communication is educative. But on the next page, Dewey modifies his initial statement by

disqualifying “commonplaces and catch phrases” and all attempts to communicate that are routine and “cast in a mold” (p. 6). Teachers might wisely note that this modification tends to remove much of teacher instruction from the domain of the “educative.”

Reading and believing is a powerful learning technique. When we have achieved at least a minimally adequate level of understanding, we are in a position to ask good questions. But sometimes, the end result is simply acceptance, understanding, appreciation, and an eager anticipation to hear more.

Timely questioning is, of course, part of critical thinking. We ask questions not only to challenge but also to clarify. We seek understanding. But, again, we must consider our purpose. Why do we seek understanding? Even when we seek understanding in order to learn, it may matter whether we are genuinely intrigued by the material or merely want to accumulate the information likely to appear on an upcoming test. As teachers, we may be more effective in the long run by engendering curiosity and interest than by persistently pressing for the attainment of specific learning objectives. Now critical readers may be ready to pounce on *this* statement, so I should clarify it by assuring readers that I do not recommend total abandonment of specific, narrowly defined learning objectives. Rather, I advise their judicious use in the service of pursuing larger educational aims. We have to remember why we are teaching and learning all these bits and pieces.

Critical thinking in pursuit of understanding may be employed, as already noted, to develop strong arguments against opposing positions. All competent debaters are familiar with this use of critical thinking. Perhaps, however, we should give more attention to the search for understanding in preparation for cooperation rather than successful opposition. If we understand

another's purposes, worries, and needs, we may be able to find areas of compromise, tasks on which we can work together in a common interest. An attitude of "listening and believing" can be powerful, and most of us wish that our politicians could apply this form of critical thinking in their social/political work. Understanding another's position may not persuade us to accept it, but it may modify our reaction to it; we may become less antagonistic, less judgmental, now that we know the other better. Through continued conversation, we may find projects, ends to promote, on which we can lay aside our differences and work together.

Critical Thinking and Moral Commitment

Critical thinking is highly regarded as an intellectual virtue, but it is not in itself a moral good. There are, unfortunately, very competent critical thinkers who use their skills for morally questionable purposes. In fiction, Professor Moriarty—nemesis of Sherlock Holmes—stands out as a prime example. But there are many real-life examples to cite in current society. Think of the host of cases appearing in the contemporary financial world—bright people who use their skills to deprive, even cheat, others in their financial interactions. And there are those who use their critical skills to advertise, to twist the facts, and to profit from technically legal, but morally questionable, arguments. Certainly, these matters should be discussed with our students as we engage in the task of teaching critical thinking.

Another facet of critical thinking should be explored with our students. Correct critical thinking—logical thinking that culminates in accurate logical conclusions—does not always motivate moral action. Jane Roland Martin (1992) has pointed out that competent critical thinkers often become bystanders; that is, they see clearly what is wrong and even what should be done, but they do not act on it. In agreement with David Hume (1983/1751), care theorists

today argue that human beings are motivated by *feeling*, not by reason (Noddings, 2013). Thus, in addition to cultivating reason and critical thinking, we must educate for moral feeling or affect as well.

Educating the affections is delicate work, and it requires the application of critical thinking to the realm of feelings. Through continuous conversation and probing dialogue, we can help students to consider the feelings of others—not to justify or condemn them but to understand them and often to empathize. It is not a matter of insisting that people should or should not *feel that way*, but of recognizing that they do feel that way, and open conversation might help us to understand both the nature and the source of that feeling. By generating and sustaining relations of care and trust, we may reduce unhappy and angry feelings, encourage reflection on our emotions, and promote empathy in human interactions. Successful affective education depends not so much on what we teach as it does on how we teach it.

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