WHAT IS CRITICAL THINKING?

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Critical thinking is as old as philosophy. It is not the same as philosophy inasmuch as its objectives are more modest. It has to do with understanding and with wisdom; but it seeks to ensure understanding and to foster wisdom in the very specific context of argument. It might be argument about anything under the sun—the subject of the argument is immaterial. If we take argument to be an attempt on the part of an author to persuade an audience to a way of thinking, we might further accept that much communication, whether spoken or written or broadcast, is argumentative. Advertisers, comment columns in newspapers, letters to the editor of these newspapers, government white papers, party manifestoes: all of these present arguments and all make claims that support a conclusion of some sort, more or less persuasively, more or less well.

"SLOW FOG," written up in lights and capitals on a motorway gantry, is an argument: the claim is made that there is fog, and the conclusion is drawn that drivers should drive slowly. Few would deny that it is a fair conclusion; the extent to which the claim supports the conclusion will depend upon whether there is indeed fog ahead—it may be that there has been, and that the official responsible for switching the gantry signals on and off has failed to notice that the fog has lifted.

"SMOKING KILLS" is an argument of sorts, but it lacks a conclusion; the conclusion is implicit and it is that, inasmuch as smoking kills, you ought not to smoke. We know that it is a generalization—we know people who smoke and who appear to survive the ordeal—but we accept that it is a warranted generalization in the circumstances of deaths from smoking-induced cancer and of the public cost of these deaths.

"May I have your attention? In order to reduce the number of security alerts, please keep your luggage with you at all times" is an argument, heard once every twenty minutes or so at Manchester Airport. Is it a strong argument? Does the claim (that if you keep your luggage with you at all times there will be fewer security alerts) support the conclusion (that therefore you should keep your luggage with you at all times)? It does from airport security's point of view, but will passengers be motivated to keep their luggage with them at all times in order to reduce the number of security alerts, or will they keep their luggage with them at all times in order to ensure that it is not stolen? I was not altogether persuaded by the argument on the fifth hearing.

We are bombarded by arguments daily, though we may or may not recognize them as such. It is the business of Critical Thinking to raise awareness of when it is that arguments are being used; of what the conclusion of the argument might be; of whether or not the claims that are made support the conclusion; and of whether the argument is weak or strong, unconvincing or persuasive—and why. Critical Thinking (though I give it capital initial letters and though I "teach" it in more than one university in Hungary) is not a subject, as such. It is rather a bringing to consciousness of what should be instinct in all subjects of the curriculum, but is not. Because it is not, and because argument is to be found in all subjects, perhaps it does need to be given a place on the timetable, briefly, concentratedly, so that its lessons are not overlooked.

Critical Thinking has had such a place in many American colleges and universities ever since the time of the educational philosopher and pragmatist John Dewey. It has a place in university departments of philosophy in England and Scotland, and, more recently, it has found a place at the upper end of secondary schools in England, in particular as a subsidiary, one-year course in the twelfth or thirteenth year of schooling. It is valued (by admissions tutors in universities, for example) as an indicator of a candidate's ability to process perhaps dense prose and to analyze it for meaning and effect. A course in Critical Thinking ought not only to enable students to assess the arguments of other people; it ought also to enable students to construct persuasive arguments of their own.

What makes Critical Thinking, at its best, something more than a set of skills—tools to be applied rather mechanically—is that criticism is not about lie-detecting; it is not about one-upmanship; and it is certainly not about "right" answers. Critical thinkers ought not to consider themselves to be referees, calling "fallacy!", and spotting rights and wrongs; their business is to judge why an argument might be weak or strong. Persuasiveness is a matter of degree. Criticism means judgment, and Critical Thinking involves the exercise of judgment. What can it possibly be more worthwhile for education to foster than a capacity to exercise judgment?

What might a Critical Thinking course contain?

In general: we make assumptions when we present an argument; we can scarcely avoid doing so. When the government requires of cigarette manufacturers that they print "SMOKING KILLS" on their packets, it is on the assumption that smokers do not actively seek to die. It is a reasonable assumption, and it is one that that does not need to be made explicit.

An assumption is an acceptance that there is some shared experience or understanding between author and audience. When a *Guardian* journalist observes that "the incidence of protectionism demonstrates that the WTO is not doing its job," that journalist is assuming that readers will know what the WTO is and what the job is that it should be doing. On the whole, (*Guardian* readers being, in general, reasonably worldly-wise), this is a warranted assumption. An assumption, though, is a missing premise in the argument, and in order to assess the strength of the argument overall, it is necessary to identify this premise at the outset. If it is a warranted assumption (that is, author and audience do indeed share understanding and possibly a point of view) the argument is not weakened on this account. If the assumption is unwarranted, the argument may fall at the first fence. It is not

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¹ The *Guardian* quotation concerning protectionism and the WTO is fictional.

always easy to identify an author's assumptions, but it is always worthwhile to bring as many of them out into the open as possible.

An argument is a series of claims (or premises or reasons). One of these claims may be crucial, to the extent that the argument stands or falls by it. An author might, for instance, claim that "whaling should be banned because all civilized nations agree that whales are mammals with large brains that deserve our protection." The counter-claim might be made that Japan is a civilized country and that, for the Japanese, eating whale-meat is a part of their culture. This counter-claim may be said to weaken the argument. The Conservative press in Britain turned to the case of a 12-year-old boy who had just become a father as an example of "broken Britain." It might equally have been said that a single case of a happily married 42-year old with three grandchildren is an example of a Britain in rude health. An example can generally be opposed by a counter-example that might rob the original of its force. When I assign students to write an essay, I ask them to consider at least one valid counter-argument before they launch into an argument of their own. It is necessary that students be aware of what the received opinion is on a subject and of what the basis for it might be before they attempt to demolish it with claims that they consider to be better-founded.

A good argument will be one that is clear: meanings are clear; there is no room for ambiguity; and definitions are made explicit or are deployed in conventional ways. An argument will only persuade if the author has made it clear what is meant by words used: "hemoglobin" may have one fixed and unambiguous meaning, but words like "natural," "liberal," and "moral" do not. Vagueness is a common enemy of good argument. It may almost go without saying that it is necessary, too, to be sure of one's facts. An argument will often stand or fall according to the accuracy or doubtfulness of the facts that are adduced in evidence to support claims. The writer who claimed that "Thomas Malthus learned much from, and was influenced by, the work of Charles Darwin" weakened his argument (that one should be sure of one's facts) by getting Malthus and Darwin the wrong way round (Fisher 53). Being sure of one's evidence is rarely as crassly simple as in this case—but whatever other strengths an argument may have, if it makes claims that are based on flimsy or inaccurate evidence, it will fail.

There is one further general point that might be made before looking at specific ways in which students might be guided to detect weaknesses in argument and be prevented from falling into the same traps themselves, and that relates to argument based on principle. How does one evaluate an ethical argument—and many an argument is based on one or another, perhaps deeply held, value—other than by answering it by reference to an alternative value or principle? How does one judge, for instance, the claim that: "Doctors ought not to accept gifts from their patients?" It sounds very much like a principle of which Hippocrates might have approved, yet, in Hungary, at least, it is a principle observed as much in the breach as in the observance. To the question "Why not?" the claimant might answer: "Because the treatment that a doctor gives ought not to depend, or be thought to depend, upon payment of any sort." If the question "Why not?" is asked again, the claimant might need to make clear the consequences of alternative courses of action, the costs and benefits of such alternatives, and the likely outcomes of a generalization from the preferred alternative. Principles, that is, need to be unpicked like any other claim. One value may or may not trump another (a group's right to attend a protest rally, for example, might be trumped by

the need for public order), but the practical consequences of upholding a claim need to be assessed if values or principles are not to be appealed to as if they were unanswerable—as if they were sufficient to bring an argument to an end on their own.

Students will generally be presented with arguments in a Critical Thinking course that are deemed to have something wrong with them; few arguments are without flaw in any event. There is, in the first place, the issue of credibility: of any argument one will ask "Who is the author?" and "Is he or she qualified to make recommendations or issue orders or propose solutions?" In other words, whence comes his or her authority to argue thus? There is no virtue in a rooted skepticism, since we must trust some arguments—a refusal to trust any at all is to be in denial—but it is advisable to tread warily. If the author is reputable, we will read or listen with a preparedness to believe; if the author is unknown, we examine the evidence presented with more care. We are the more confident when an author argues in the area of his expertise: when David Beckham talks about football, it is plausible that what he says is of value; when he advertises a male fragrance, we are right to suspect a vested interest.

None of us is as objective as we might like to think: we all come at the world from a certain angle. It is a part of the critical thinker's business to measure that angle where possible. When Tony Blair wrote, in 2004:

We are locked in a historic struggle in Iraq. On its outcome hangs more than the fate of the Iraqi people. Were we to fail, which we shall not, it is more than the power of America that would be defeated. The hope of freedom and religious tolerance in Iraq would be snuffed out. Dictators would rejoice; fanatics and terrorists would be triumphant. Every nascent strand of moderate Arab opinion, knowing full well that the future should not belong to fundamentalist religion, would be set back in bitter disappointment.

He might well have been right, but he had a historic decision to defend—a decision by which he knew history would judge him, but by which the public in Britain had already judged him to have misled them. He was no longer the authority whom we looked to for an unbiased opinion on the conflict in Iraq. Perhaps no serving politician is without bias of a disqualifying sort *ex officio*, and perhaps we will judge journalists by the paper for which they write—the journalistic company that they keep. Teachers ought to be free from such obvious bias, at least, but if they are not, the least that they can do is to make their biases explicit, and students should be encouraged to do the same. It is as important to identify a bias as it is to identify an assumption, and for the same reason.

A biased author will often give himself away by misrepresenting the case that he is seeking to refute. He will, that is, set up a "straw man" (a dummy made of straw set up for target practice): he will caricature whatever it is that he inveighs against the more easily to pour scorn upon it. He may reduce it to the absurd, as Bishop Wilberforce did at the Oxford Debate in 1860, convened to discuss Darwin's theory of natural selection:

Mr. Darwin tells us that we are descended from the apes. Would Mr. T. H. Huxley care to tell us whether he is descended from the apes on his grandfather's side, or on his grandmother's side?²

Wilberforce had comprehensively misunderstood the theory. His conclusion was implicit: "Mr. Darwin insults us in like manner as he insults his forebears." Wilberforce set up a straw ape and laid himself open to the target practice that T.H. Huxley so relished.

It is typical of the undisciplined author that he over-generalizes. There is nothing wrong with generalization: without generalization there would be no science—certainly there would be no social science. Even history would be impaired. It is the hasty author who over-generalizes, perhaps resorting to anecdote: "We're far too tender-hearted when it comes to discipline at school. A good beating never did me any harm!" There are obvious dangers in generalizing from a sample of one, but a bigger sample rarely warrants an overgeneralization. Several hundred men might dream of driving a Ferrari, but it would be foolish to assert that "All men dream of driving a Ferrari" on this basis. It is often an inappropriate qualifier ("all," "never," "few") that weakens an argument. A basic understanding of statistics is a worthwhile part of a course in Critical Thinking in view of the abuse to which they are often subject.

Finally—and here a course in Critical Thinking comes closest to what might have been meant by Rhetoric—there are many ploys, appeals of one sort or another, to which students might be sensitized to advantage, they are so common. There is the appeal to novelty ("This is the modern way to make coffee"); the appeal to popularity ("Everybody is tuning in to Radio Five Live"); and the appeal to authority ("Wasn't it Churchill who advocated a United States of Europe?"). Not all such appeals are specious, of course, and they may be telling—but, once again, what is important is that students are aware of when an appeal is being made, and why novelty, for example, may or may not be a virtue in itself. In particular, they should be aware of when an appeal is being made to our emotions by the use of emotive language, as in the famous anti-immigration speech given by the classical scholar and politician Enoch Powell, in Birmingham, in 1968: "Like the Roman, I seem to see the river Tiber foaming with much blood." His declamations cost him his job and the trust of most voters. When the neutral statement: "The antibiotic was tested on live

We do not seem to have the exact words that Samuel Wilberforce used, in 1860, but it is generally agreed that Darwin was not present and that Wilberforce addressed his question to T. H. Huxley. Here's a quotation from the reminiscences of a witness present at the famous debate, though: "Then the Bishop rose, and in a light scoffing tone, florid and he assured us there was nothing in the idea of evolution; rock-pigeons were what rock-pigeons had always been. Then, turning to his antagonist with a smiling insolence, he begged to know, was it through his grandfather or his grandmother that he claimed his descent from a monkey? On this Mr. Huxley slowly and deliberately arose. A slight tall figure stern and pale, very quiet and very grave, he stood before us, and spoke those tremendous words—words which no one seems sure of now, nor I think, could remember just after they were spoken, for their meaning took away our breath, though it left us in no doubt as to what it was. He was not ashamed to have a monkey for his ancestor; but he would be ashamed to be connected with a man who used great gifts to obscure the truth. No one doubted his meaning and the effect was tremendous." (Sidgwick 433-34)

tissue," is converted into the emotive: "Caged rabbits were tortured to market this drug," our critical antennae ought to warn us that we are being manipulated.

If the above argument has been conducted with anything like the clarity that I hoped for, the conclusion should be, if not inescapable, then compelling. It is that all students, at some time in their school or university career, should take a course in Critical Thinking that combines most if not all of the elements above, as well as others that it would be tedious to itemize further. I have mentioned that it is taught in an increasing number of upper secondary schools in England where it leads to an examination whose successful outcome may be the basis for the offer of a university place. I have taught Critical Thinking to second- and third-year students at Miskolc, and to classes of Erasmus students from countries elsewhere in Central Europe, and I have taught it to fifth-year and PhD students at the University of Szeged. There is not one course in Critical Thinking: there are very many possible courses with any number of emphases. I have said nothing above, for example, about deductive logic and the fallacies that may be said to accrue from the misapplication of logical rules. I have not done so (in spite of the intriguing notion that Hungarians may think more deductively than most) because we seldom appeal to logic when we argue. We appeal to shared experience or common sense. Critical Thinking draws on all that we do when we use our common sense, in a systematic way.

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