

The Ethical Practice of Critical Thinking

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Dedicated to Clyde

Contents

Acknowledgments	ix
Introduction	xi
Chapter One • Sustaining Arguments	3
A. Arguments Which Respect Intelligence and Humanity	5
B. Arguments Which Matter	7
C. Arguments Which Uphold Critical Thinking	9
Chapter Two • Principles and Skills of Ethical Argumentation	19
A. Doing Charitable Interpretation by Being Objective	22
B. Honoring Matters of Substance through Learning How to Suffer	30
C. Practicing Great Scholarship by Remaining Curious	39
D. Handling Conflict by Seeing When Enough Is Enough	47
Chapter Three • Thinking of Fallacies as Ethical Issues	63
A. Appeal to Authority	64
B. Begging the Question	68
C. Appeals to Emotion	70
D. <i>Ad Hominem</i>	74
E. Appeal to Ignorance	80
F. The Appeal to Force (<i>Argumentum ad Baculum</i>)	85
G. The Sunburn Fallacy	89
H. Fallacies Which Evolve, Stagnate, or Make Us Worry about Nothing	91

Chapter Four • The Ethical Practice of Doing the Math	97
A. Do the Math	97
B. I Am Not a Number!	101
C. All Other Things Being Equal	105
D. Fairness as a Math Skill	109
Chapter Five • Finding a Community of Discourse	115
A. Letting Sleeping Dogs Starve	117
B. Loyalty Oath	118
C. Nobody Expects the Community of Discourse!	122
D. Community Crashers	123
E. The Cost of Community of Discourse	124
Notes on Sources	133
Introduction: Uncovering the Ethics in Critical Thinking	133
Chapter One: Sustaining Arguments	134
Chapter Two: Principles and Skills for Ethical Argumentation	136
Chapter Three: Thinking of Fallacies as Ethical Issues	140
Chapter Four: The Ethical Practice of Doing the Math	141
Chapter Five: Finding a Community of Discourse	144
Name Index	147
Index	149

Acknowledgments

I needed a text to address the ethical issues which arise in the social practice of critical thinking skills, so, with the support and arguments of my colleagues in the Philosophy Department of Elon University, I wrote this book. I hope it is the beginning of an extended conversation and discourse about how worthwhile thinking introduces us to worthwhile values and relationships.

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There's a "Notes and Sources" section at the back of this book to provide students with an extensive annotated bibliography about the books I mention and recommend. A "Notes for Teachers" teaching guide should be available with this text for instructors.

Introduction

Uncovering the Ethics in Critical Thinking

Ethics is the last place I expected to be when I began teaching philosophy because I taught both “critical thinking” and “ethical practice” as separate courses. I hadn’t yet thought much about critical thinking as an ethical practice in its own right. We casually treat thought and behavior as two independent kingdoms, so we don’t hunt commonalities. For example, in critical thinking, you could distinguish form (critical thinking) from its content (such as ethics), or you might draw a distinction between the structure of argument (logic) and its techniques (rhetoric). Our distinctions quickly harden into pairs of mutually exclusive terms with no place for the human relationships created in the activity of critical thinking. A pair of distinctions which takes itself too seriously will try to carve up the world between them. A long argument with others can have unexpected detours, breakthroughs, reversals, and, after patience and luck, insights that stun and transform us. Our distinctions might miss all that. So, as the roses on the rhetoric and deduction wilt, don’t forget how hard it was to work out understanding of issues and topics, despite great differences in perspective, lack of information, stubborn conflicts, and so much being at stake. We shouldn’t forget the ethics inside critical thinking.

Discovering that ethics not only makes critical thinking come alive also allows us to give due recognition and honor to an under-celebrated part of our ethical life: *making arguments which matter, about things which matter, with people who matter to each other*. Ethics is about showing respect, extending charity, achieving the best out-

come, and keeping each other honest, which are values we actively sustain when we persist in our best thinking together.

When you are taught critical thinking, you learn to identify an argument's conclusion and the credibility of its premises. You may be introduced to new terms such as "valid" or "sound" arguments, and you're cautioned to spot and avoid invalid or fallacious inferences. You discover that critical thinking involves not only logic, but understanding causal correlations, reasoning by analogy, or applying standards to assess available evidence in support of a position.

Even creative problem-solving is part of critical thinking. Learn this, and you should be the very model of a critical thinker ready to set sail, eyes fixed on the horizon, hands firmly on the helm, captain of your ship of intellect, like the photo of Yours Truly.

Actually, it's not my yacht. In fact, I don't know how to sail. The real owner and pilot is busy outside the frame of the picture, adjusting the rigging to take advantage of the breeze on Puget Sound. He trusted me for a few minutes to pay attention to the wind, keep the yacht moving in a more or less straight line, and avoid ramming any other boats (also outside the frame of the picture). It's not a bad metaphor for ethical argumentation. Real sailing, like real arguing, involves coordination and adjustment between people and with the elements at hand. It can be tricky to work with others to keep an argument on track without veering off course or winding up in a collision. It requires trust. It only looks as though you could manage it alone and single-handedly.



That brings us to the puppy. This is a very hungry little dog since no one has reached out to feed this unnamed pitiful puppy. Why bother? After all, it's featured in this book only as a teaching tool to make a point about critical thinking. Yes, it's a *starving* teaching tool, and we feel bad or should feel bad about not feeding the dog, but thinking is not about feelings, right? Why should an animal's appetite or our guilt matter to logic? Why should what we do or not do about the precious puppy matter if we're just learning how to think clearly about this canine? We either reason cogently about this neglected heart-breaking pup which depends entirely upon us for its very life, or we don't.



So, at the risk of committing a string of fallacies such as begging the question (How long have you been starving this puppy?) and appeals to emotion (the right conclusion is the one which feels good to us), we must concede that it's hard to keep thinking about the puppy without considering what matters to us, what we ought

to do, and how we can think of a way to help the puppy. That yearning and questioning is not necessarily a distraction from reasoning. We've uncovered ethics hiding inside critical thinking.

Critical thinking, like any sustained, complex human activity which affects people, does have a rich ethical landscape. That landscape concerns what we can call "sustaining arguments." A sustaining argument keeps a discussion alive and growing by upholding worthy standards of critical thinking. A sustaining argument supports the members of the community by unfolding so as to respect their dignity and their need to think together and make decisions about things which matter for them. Finally, the sustaining argument protects and honors community of discourse itself as a place which is worth arguing in. In fact, to use sustaining arguments to think critically well, at length, and about topics that matter calls for certain principles. Sustaining arguments show certain principles:

1. Sustaining arguments respect the intelligence and humanity of the both the arguer and intended audience by helping rather than hindering our ability to think, and by supporting rather than undermining a community of discourse. We can achieve this by applying the **principle of charitable interpretation**: choose the most plausible interpretation of the arguer's words and the best reasoning to be found in those words. A necessary skill for practicing this principle is **objectivity**.

2. Sustaining arguments prove something worth discussing, allow questioning which decisions are worth considering, or lead to commitments worth making. We can achieve this by applying the **principle of substance**: choose only matters and issues for arguments which deserve your best thinking, facilitate necessary decisions, and in which there are stakes that matter for the benefit or detriment of all concerned. A necessary skill for practicing this principle is **suffering**. Feeling pain takes no skill, of course, but learning how to best bear one's pain or share the pain of others does demand learning and proficiency. Also, if you haven't suffered

or at least known pain, you probably haven't thought much or very well about what really matters.

3. Sustaining arguments are also necessarily good arguments which are factually based and logically coherent. We can achieve this by applying the **principle of scholarship**: Acknowledge and deal with the obstacles to knowledge effectively enough to investigate the truth of propositions, test the strength of inferences, and evaluate the merits of an argument. A necessary skill for practicing this principle is **curiosity**. Scholarship which is not inquisitive has not applied this principle adequately. Scholarship may involve accurately cited quotes and footnotes, but making references without digging for knowledge and understanding doesn't apply the principle of scholarship adequately. Scholarship is not only courteous but noseey too.

4. Sustaining arguments are also arguments which strengthen a community as it confronts and learns from the conflicts, impasses, failures, and sacrifices which are part of arguing together as a community. We can achieve this by applying the **principle of conflict**. Acknowledge that any good argument invites conflict¹ and that the community of discourse is charged with working effectively through the conflicts in its arguments. The community is sustained by the way that it handles its conflicts in argument. A necessary skill to apply this principle is that of **sufficiency**. That's the skill of knowing when "enough is enough" and a conflict cannot usefully move further without major changes.

1. A short and excellent book on this subject is *The Little Book of Conflict Transformation* by John Paul Lederach (Good Books, 1969). Lederach provides a map and framework for navigating conflict in ways that ultimately transform rather than destroy relationships. According to Lederach, argument does not resolve conflict in a steady path of progress. It may progress, then stall, regress or even fall apart only to transform in better ways. The path is more spiral than linear. Each stage is a "sufficiency" rather than as a terminus. Perhaps if we don't impose this ages and stages approach *a priori* but instead use and test it empirically, we can better navigate and even transform seemingly irreconcilable conflicts.

By way of further introduction, the ethics we find inside critical thinking leads us not only into arguments, but also into fallacies, reasoning about numbers, and reconciling conflicts. Happily, we wind up with the community of people willing to think together. This club, gang, committee, society, pack, salon, or team may be a predictable pod of kindred spirits, or a surprise kaleidoscopic community of like-minded souls. When we started thinking, it's the last place we expected to be, but it won't be such a bad destination.

It's hard to think of a subject for critical thinking that you could pursue entirely on your own or which is so completely removed from human concerns and consequences that it could have no ethical implications whatsoever. My undergraduate choice would have been figuring out how to conjugate and remember German verbs in an 8:00 a.m. class. I really had no plans to ever visit Germany. Still, learning German meant learning how to communicate and taking responsibility for how I would use this skill. I consoled myself that the mental exercise was valuable all by itself. At the very least, I encouraged my instructor who complimented me on showing up and having the nerve to form complete sentences even when I lacked the correct vocabulary. (At least I think it was a compliment.) Thirty years later, I encountered some German tourists in Thailand who turned to me for help. You just never know what ethical opportunities might be opened by your critical thinking skills.

So, why argue instead of just sitting down to talk about what matters to you, in German or otherwise? Why does critical thinking depend on arguments? A conversation which makes a good argument does more than share thoughts. You help each other to link thoughts together in a trustworthy way. The conversation uncovers the destination of those linked thoughts and the fact that they actually *do* have a destination. Yes, we also need to express ourselves. And we need to reflect, remember, plan, and get perspective. Conversation helps meet all those needs. But conversing through an argument allows us to remain objective enough for honest thinking and curious enough to persist in our scholarship together. It leads us to learn from each other's suffering as to what's worth ar-

guing about, and to know when we've argued enough. "Critical" thinking is not just analysis. It's the skilled exercise of our full range of cognitive skills together. That's why it's also an ethical practice.

Let me say a few words about the "shares." In other texts, these items are called "exercises," "assignments" or "homework." Those terms imply that the author gives you instructions about how to perform a pre-conceived task. The author and perhaps a teacher expect you to learn something worthwhile from accomplishing the task. By doing the exercise, task, or assignment, you may get a reward such as a good grade. Expectations and rewards make up one sort of ethical relationship between the author of the textbook and the student who reads it. You're expected do the work and get a reward for your labor. It's appropriate to teaching skills, figuring out problems, or memorizing information. If that assignment isn't part of your homework, you skip it.

However, the *ethical practice* of critical thinking, calls for a different relationship. You and I belong to a community of discourse. We're dealing with issues that don't simply matter to me or to you alone. You have a bigger stake than a one-time grade or storing up some learning. Therefore, you have a *share* in this community. It's not very likely that you'll have to do all fifty of these shares as homework, but don't skip any of them. Each share teaches about the ethical practice of critical thinking, so be patient and read through them. I'm sharing something with you. You're hereby allowed, empowered, entitled and otherwise invited to enjoy them even when they aren't building your grade or your work ethic.

Do you remember being told to share when you were a child? That's one of the first ethical practice lessons we receive as children. Think of sharing both ways. If you are in a classroom, share what you learn with others, not just with the teacher. You are a shareholder in this community, but being a shareholder also means sharing what you learn with other shareholders. That's not a bad first definition of scholarship.

For example, we shut our underfed puppy inside a container to

think about him critically and without distractions. He's confined for the sake of argument. We now think hard about the whimpering puppy, as such, but we share no food with him. What do you suppose he'll share when he finally gets out of that box? Critical thinking is also a real relationship with others, so be nice and share your shares..



The fifty shares spread throughout this book are your portfolio in the ethics of critical thinking. You may share your shares with your teacher alone, but you're also working with others and learning from them. Each share is more than a fleeting relationship between your eyes and a book. Each scholar quoted in this book shares something with you. Think of it as a gift, if you like. If you really can't use a particular gift, pass it along to someone who'll enjoy the gift and your generosity. If you don't like it at all, keep in mind that these are gifts for which it really is the thought that counts. Keep thinking.

Your first three shares are about maps. Did you ever think of drawing a map as critical thinking? A map requires clear, consistent

relationships among accurately represented items. The map should be complex enough to be complete, but not so complex that it becomes cluttered. If the map marks directions, it's analogous to making a good argument which leads to a conclusion. But maps, like arguments, are also ethical enterprises. We're expected to trust and rely upon them. To draw a map, we pick sites which matter to a particular community, point out boundaries and causeways, show where we and others belong and keep people from getting lost. When we follow a map, we participate in those relationships. Centuries ago, explorers' maps could be state secrets. Stealing or falsifying a map could have serious consequences. As a type of thinking together, mapmaking and map-following are ethical practices.

Share No. 1 How do you make a map for something which has no context? Perhaps nothing simply crawls out from under a rock, drops from outer space, or pops into being through spontaneous generation, but sometimes an item confronts us very much like that. It's a challenge to think critically about something which has no apparent connection to any of our familiar points of reference. Let's start with a *tamper*. Are you a tamper? Do you have a tamper? Are tampers good or bad? If you're uncertain, work with the verb. You know that "tampering" can mean interfering in a harmful way. But consider that you can tamp too much into your glove compartment or trash compactor. So, tamping is cramming or mashing some aggregate into a small space. A vegetable juicer uses a plastic tamper to compress pulp. Thinking about this has no ethical shadows, colors, or mass yet. But consider that you only tamp something which you're willing to treat roughly, almost as refuse. You don't mash, crush, or tamp compassionately or with much respect for what you cram. (Think about that when you cram for a final exam . . .)

Now pick a different sort of "tamper" such as 55 Cancri. This is 41 light years from earth, yet, as you think critically about its physical relationships, questions of human value and meaning also arise. Unexpectedly, thinking about 55 Cancri shapes our own ethical practice. Look up this "tamper" or another news,

science, or business topic that has currently has no context for you. Next, brainstorm about how this topic affects people's lives. Keep thinking until you discover how thinking about it with others affects how people treat each other and their world. You aren't making unlikely connections between unrelated things. As a critical thinker, you're putting a new topic on the "ethics map" of human values, concerns, relationships, needs, and aspirations. You're building a context nest for your new topic. The connections already exist. You're uncovering and articulating them. What kind of ethical issues (rights, duties, values, virtues, benefit, harm, principles, good vs. evil, right vs. wrong) come up? Try to find either a subject so specialized that your group ("community of discourse") has no expertise about it, or take a very mundane area of research (e.g. fertilizers or food packaging) and show an ethical issue that your group might otherwise have never considered. Show why this "tamper" matters for us. Write a 5-page research paper on this new topic.

"It is notorious that (Francis) Bacon regularly described scientific activity in oddly savage imagery, incorporating violent conquest as a central part of his original myth of scientific supremacy. Bacon repeatedly insisted that the aim of the new science must not be just to 'exert a gentle guidance over Nature's course' but 'to conquer and subdue her, to shake her to her foundation'"
— *Science and Poetry* by Mary Midgley (2001)

Great thinkers are more often posthumously blamed than praised for all consequences of their ideas and arguments. If future generations really could file class action suits for reparations from past philosophers, I suspect there would be much less philosophizing or at least much less interesting philosophy. Questions of blame and praise aside, ideas and arguments help or hinder people in their thinking and can be expected to take on a life of their own beyond our needs and understanding and beyond their original community of discourse. Prof. Mary Midgley argues that the 16th century philosopher, Francis Bacon argued so persuasively that

science is a conquest of nature, that this way of thinking eventually became sufficiently ingrained in Western culture such that our environment has been conquered to the point of devastation and rapid extinction of thousands of species. If she's right, that's quite a serious legacy. Words can inflict massive historical damage.

Influential thinking has moral consequences, but that doesn't mean that we simply moralize with hindsight about unforeseen ethical ramifications of past thinking. For example, a great deal of thinking has gone into extraction, refining, production, marketing, transportation, and utilization of petroleum over the past century. This thinking led to increased carbon emissions, pollution, global warming, and environmental crisis. We shouldn't fault past thinkers for what they could not predict. We might fault them (and ourselves) for thinking as if problem-solving were self-contained and autonomous in a way which dispenses with ethical burdens. We can do that when we shrug and say "It's just a job." Doing critical thinking, whether for pay or not, as though it could have nothing to do with ethical practice is culpable because it means thinking together as though treating others and our shared world with respect, compassion, and care is justifiably irrelevant.

Share No. 2 I invite you to do Internet and library research about Project Chariot. When you discover what this project was about forty years ago, it will be very tempting to retrospectively moralize about its ethics. Resist the temptation. Write a 5-page research paper about the kinds of critical thinking which the project required: scientific, political, economic, and military. Identify any ethical issues which this thinking uncovered, created, or tried to bury. Which features of this ethical practice were unknown to the critical thinkers on all sides involved in Project Chariot? Which features were considered unimportant? Think of this as an ethical map of the sort of public thinking carried out in this project.

Share No. 3 For your third share, you get to map yourself. A widely shared and feared human experience is being lost. One of the promises which a map implies is protection against

being or staying lost. “You are here.” If you’re on a college campus, look at the buildings around you, draw a map of the campus which would be accurate enough to guide an incoming first year student to classes at your college. Then check to see how accurate it really is. Next, draw a map of the social geography of your college. A first-year student can’t locate himself or herself unless they know what groups they belong in or don’t belong in. What features would the map contain and where would you find yourself? Would the first-year student be in the middle, on the bottom, the center, on the margins, or elsewhere? What sort of ethical questions would an incoming first year student ask upon examining your social map of your college? (Does the map imply that some people are not good enough to belong in some groups?) The map below is for my campus, Elon University. Write an essay containing your map and your proposed ethical questions. If you’re not in college, draw a map of your place of employment (Good luck if you do your work online!) to orient a new employee, and then draw a map of the social geography. It’s not necessarily the same as a chart of the personnel dept.’s management structure. It may not be a treasure map, but it’s still a gift to help folks find themselves and what’s expected of them. Don’t simply turn this map in as an “assignment.” *Share it and explain it to three other people first.*

“Invention of the weather map around 1816 raises perhaps the most intriguing question in the history of environmental cartography: What took them so long? ... lacking exemplars to mimic and spatial hypotheses to test, no one thought that cartographic snapshots of barometric pressure and wind might prove revealing ... Heinrich Wilhelm Brandes argued that plotting graphic symbols on a map would be more revealing than merely listing the data.” — *Air Apparent—How Meteorology Learned to Map, Predict, and Dramatize the Weather* by Mark Monmonier (1999)

Mark Monmonier suggests that the lack of weather maps before 1816 was not due to the absence of modern technology but rather an inability to think of weather as mapable. People thought that only stable landmarks such as oceans and continents were suitable for maps. Because we see dynamic computer-generated weather maps on TV each day, it is hard to conceive that the very project of mapping the weather was once inconceivable. Perhaps the Internet will be mapable one day. That would be a useful though risky map.

Share No. 4 Write a 3-page essay about how a reliable and widely available Internet map would make an ethical difference for your decisions. Illustrate your essay by drawing a map of the Internet. Decide the purpose of your map. Would you want to restrict access to your map? Would your map show servers, search engines, domains, users, sites, or other items? If you're "on the Internet," then where, if anywhere, are you on the map? Research online for topographical models of the Internet. Some models map domain densities or other features of the Internet. A traffic map and a geological map can both be good maps of the same area. Would your map keep people from getting lost in the "area" of cyberspace?

You are here. What are you going to do about it?

