

Abstract

Critical thinking instructors are overwhelmed with textbook choices, many of which do not reflect an awareness of critical thinking or informal logic scholarship. I argue that this is problematic for instructors, who should only adopt textbooks for their critical thinking courses if those books do reflect such awareness. New textbooks, and new editions of older textbooks, should be revised to reflect current theoretical understanding, acknowledging the central role of critical thinking dispositions, offering a more nuanced approach to the teaching of fallacies and of inference, stressing dialectic and argument revision, focusing on the analysis and evaluation of real arguments, and broadening the scope of critical thinking beyond argument analysis. In these respects I critique one popular textbook now in its sixth edition that does not satisfy many of these criteria, Munson and Black 2012, and applaud one new textbook that I find does succeed on many of these fronts, Bailin and Battersby 2010.

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“[Critical thinking] courses tend to be taught by graduate students or junior faculty who . . . get little to no exposure to the informal logic literature in their training in philosophy. Their sole exposure is to similar courses they took as undergraduates and to the deductive and inductive logic courses they have taken as seniors or graduate students. When they come to choose a textbook, what they want is one with whose contents they are familiar, which will be one that embodies all the mistakes and misrepresentations that they have learned” (Blair 2006, p. 282).

1. Introduction

Perhaps one of the most significant pedagogical decisions a university instructor makes in the design of her course is which textbook (if any) to adopt. That choice is no less significant but is made more difficult for critical thinking instructors in particular, when one considers the burgeoning of textbook choices that have accompanied the popularity of standalone courses that are billed explicitly as “critical thinking”. For years, publishers have elicited authors (many of them professional academic philosophers) to write new books, and authors have been jumping at the opportunity. Novice

instructors, and seasoned ones too for that matter, can't realistically examine more than a small proportion of the available textbooks that is the result: choosing one thus has the potential to become somewhat overwhelming, given the over-abundance of options.

Matters are made worse when one actually begins to examine these products. For then one discovers how alike many of them are, typically equating critical thinking with argument analysis, beginning with an introductory chapter on the nature of argument and moving on to brief treatments of deductive reasoning, propositional logic, probabilistic reasoning, and usually a chapter each on informal fallacies, arguments by analogy, causal arguments, language and definition, perhaps with a concluding chapter on how to compose an argumentative essay. This is the well worn, tried, but not necessarily so true territory of critical thinking pedagogy reflected in many textbook approaches: a shotgun introduction to argument, offering a tapas menu of topics that promises to survey the traditional lay of the land, without reflecting current thinking in critical thinking or informal logic scholarship.¹

Many textbooks, for instance, do not recognize the central role of critical thinking dispositions, though this is a near-unanimous point of agreement among critical thinking theorists. Nor do they reflect a nuanced approach to the teaching of fallacies beyond an adversarial and taxonomic labeling approach. Nor do they reveal an awareness of the problem of characterizing the deductive-inductive distinction. Nor do they stress dialectic, dialogue, or argument revision. Nor do they focus on the analysis and evaluation of real arguments that have been or could be used in practice. Finally, textbooks commonly equate reasoning and argument analysis with critical thinking, but this is a common assumption that has been discredited in the literature, as I indicate below. Even when textbooks themselves are careful not to use the words "critical thinking" in their talk of argument analysis, critical thinking instructors continue to adopt such textbooks assuming the equivalence of those concepts, thinking that teaching argument analysis is sufficient to teach critical thinking. Faced with products that

ignore theoretical concerns such as these, examiners who are largely ignorant of the relevant scholarly literature will not even realize how problematic such approaches are for a critical thinking class.

If this accurately describes the situation, then those of us who care about critical thinking should see a problem: textbook authors are writing introductory treatments of critical thinking that are not informed by the current theoretical literature in informal logic and critical thinking, often doing little more than recasting older textbook approaches, and instructors are adopting these textbooks, comforted by their familiarity, but ignorant of their pedigree. Textbook publishers are apparently not sufficiently concerned with recruiting authors who are familiar with the relevant literature, and the result is more of the same: a status quo of textbook choices that perpetuates problematic approaches.

2. The scholarly call to improve critical thinking theory and pedagogy

A defensible conception of critical thinking should go hand in hand with a defensible pedagogy of it. So, twenty years ago, in the face of the ever-increasing popularity of the educational ideal of critical thinking and a corresponding proliferation of conceptualizations of it, (Johnson 1992) called for a moratorium on new definitions, proposing that none be stipulated until the major extant ones had been thoroughly critiqued and improved upon.ⁱⁱ By implication, the new definitions that would be offered when that time came would need to show how their preferred meaning of critical thinking differed from other cognate terms such as reasoning, rationality, and problem-solving (what Johnson called “the network problem”); they would need to show in what sense the word “critical” operated in their definition (avoiding a connotation with a purely negative meaning of the word); they would need to be a part of a developed theory of critical thinking (as opposed to a standalone definition found in a textbook); and they would need to help support assessments of critical thinking (as opposed to not indicating any way

to measure for critical thinking). But it seems Johnson's plea has gone unheeded: new definitions have abounded, mostly not in the form of developed theories, but in the form of introductory textbook approaches that do indeed assume an *a priori* connection to other cognate terms such as "reasoning", that do not yield assessment tools, and that do not make sufficiently clear why they employ the term "critical". We remain stuck in a rut of textbook conceptions of critical thinking that have not addressed Johnson's theoretical questions, and have therefore not progressed our pedagogy beyond that of old approaches.

Add to Johnson's critique the critical comments of (Hundleby 2010), who has recently questioned the authority of the traditional way the fallacies are classified and taught to students, condemning that approach as being based on "a corrupt epistemic authority that makes the common practices of fallacy allegation authoritarian" (p.280). Rather than being justifiably authoritative, fallacy theory via the common textbook approach is flawed and perpetuates a problematic understanding of fallacious argument. Hundleby goes further, though, and argues that "the authority of the popular pedagogical treatments is illegitimate because of the priority it gives to the Adversary Method" (p.299), encouraging students to knock down arguments without constructively revising them in plausible ways. So not only is our pedagogical approach flawed, but it is flawed in a way that perpetuates vicious intellectual and epistemological paradigms that marginalize cooperation and argument revision in favor of argumentative competition and destruction.

Hundleby's treatment is important because her review of 24 textbooks highlights the common practice of textbook authors ignoring the theoretical state of the art of argumentation theory. She goes on to say that while "[r]eviewing the status of particular fallacies is a large component of fallacies scholarship . . . this sort of epistemological review remains unheeded when authority is granted to publish textbooks or teach courses, as we see from the outdatedness of typical instruction

methods”(p.300). If Hundleby is right, then authors and instructors, in addition to publishers, bear at least part of the responsibility for not informing themselves of the relevant scholarship that should inform their pedagogy.

This sentiment of the widespread ignorance of fallacy scholarship is corroborated by (Blair 2006), who also has critiqued the traditional pedagogical treatment of fallacies and who is worth quoting at length:

“The views that the concept of fallacy is unproblematic, that the “formal vs. informal fallacy” distinction is illuminating, that Aristotle’s distinction between fallacies dependent on language and those independent of language is unproblematic, and especially that there are easily-identifiable and classifiable lists of logically fallacious argument or reasoning types that are readily teachable—that is, can be learned with benefit to the student’s reasoning—in a one or two week segment of a course, are nothing short of intellectually irresponsible under the conditions of theoretical development of fallacy theory in the past 30 years.” (p.264).

This intellectual irresponsibility is evinced in textbook approaches that have a short, lone chapter on fallacies, encouraging instructors to write syllabi that cover that material as quickly as its brevity allows: an approach that is very common. It is time instructors recognized, and the textbooks they adopt reflected, the fact that there is a great deal of scholarship regarding the fallacies in particular, and argumentation more generally. The same old pedagogical approach that perpetuates a traditional understanding of either, unaware of contemporary thinking, is doing our students a disservice. This is especially the case with fallacies, a subject area that if it is not covered thoroughly, should not be covered at all.ⁱⁱⁱ

Finally, Blair does not restrict himself to critiquing the way fallacies are typically introduced to students. In fact, he notes eight different ways that informal logic scholarship should influence philosophy instruction, among these being a recognition of the plurality of ways that inferences can be made other than deductively or inductively, orienting argument analysis towards the dialectical nature

of argumentation, and examining the different ways of conceptualizing argument (pp. 260-270). In addition, he says regarding the supposed equivalence of argument analysis with critical thinking:

“Once the range of types of objects of critical assessment is made explicit, it becomes evident that the logic of arguments, formal or informal, hardly exhausts the criteria, procedures and strategies needed for informed critical thinking, and the assumption that a logic course, whether it includes just instruction in the rules of valid deduction or broader criteria for assessing arguments, can suffice as a critical thinking course, is exposed as narrow and naive.” (p.265).

These, and the other observations Blair makes regarding the mostly absent influence of informal logic scholarship on critical thinking and basic reasoning instruction within philosophy departments, are serious critiques from an authoritative scholar in the informal logic community, and they should make any pedagogue and their department administrator pause.

Along these lines, (Govier 1989) also thoroughly discounts the tendency to equate argument analysis and evaluation with critical thinking.^{iv} While she says quite rightly that “[i]t is obvious that being able to analyse critically natural arguments is at least one important component in being able to think critically,” she goes on to say that the “conflation of critical thinking and argument analysis is a mistake” (p.117). But it seems this conclusion has been largely overlooked for the last 23 years. Textbooks (and by implication syllabi) tend not to differentiate between thinking critically and reasoning, and reasoning and argumentation (p.117). Students instead are taught to equate all three, but as Govier rightly points out: “attending [only] to arguments may cause us to neglect other aspects of discourse which deserve our critical attention,” such as questionable hypotheses that are assumed, language that is emotionally charged, and alternative perspectives that might be ignored (p.118). To focus exclusively on written arguments in a critical thinking course is therefore a mistake, because “[w]ords and arguments are not the only things which merit our critical attention” (p.118). This is not a call to ignore instruction in argument analysis, but a call to acknowledge that such instruction is not sufficient to teach critical thinking.

Critical thinking instructors and authors of critical thinking textbooks should be aware of such perspectives, which have received much critical attention, and this awareness should inform the course design of their critical thinking classes and the books that they write and adopt for those courses. But many critical thinking textbooks, and by extension classes, do not reflect much familiarity with these perspectives. We continue to see argument analysis and evaluation being treated as synonymous with critical thinking, and we continue to see other non-applications of informal logic and critical thinking scholarship, from authors and instructors alike.

3. One problematic textbook

One case in point is Munson and Black's *The Elements of Reasoning*, 6th edition (2012), a popular book with widespread use in introductory philosophy and reasoning courses. An internet search of syllabi that list this book reveals that some instructors also adopt it as a textbook for their critical thinking courses in particular. I have chosen to exhibit this book because I think it represents a common format for textbooks that many instructors are apt to adopt for their critical thinking course.^v But this book, despite some improvements in its latest edition, despite its popularity, and despite its common approach, has a number of shortcomings when measured against the criteria that I have summarized above.

Contrary to what Blair and Govier recommend, for instance, the text suggests that reasoning is equivalent to argument, and that both amount to critical thinking. While the words "critical thinking" appear in the body of the text only once (p.30), even if we take the book as not strictly speaking being intended by the authors as a critical thinking textbook, instructors who adopt it are surely treating it as such when they require it as their primary (or their only) book for their critical thinking course. That

they do so is problematic, and deserves their considered reevaluation. In addition, the authors themselves do not even call their book a “textbook” but rather refer to it as a “handbook” (p.ix). While its length, its comparatively less expensive price, and its standard format make it attractive to some, its adoption as the primary or only textbook in a critical thinking class is problematic just because it is so concise and so standard. By making these initial comments I should not be interpreted as representing that the book should not be adopted *simpliciter*, only that to adopt it as a primary textbook for a term-length course in critical thinking is unattractive because it is not technically a critical thinking textbook, and because it is not technically a textbook.

These are not the only shortcomings of Munson and Black’s book, however, indicating its inadequacy for a critical thinking course. Their brief chapter on fallacies also represents a flaw, whatever course one adopts the book for as a primary text. First, they quite simplistically and overbroadly call a fallacy “any error in reasoning” (p.124). Then, they offer an encyclopedic treatment of fallacies according to a taxonomic approach.^{vi} Problematically, the exercises for the chapter then only require readers to identify fallacies from a narrow selection of choices rather than a range of possible candidates (pp.138-145). In other words, the student’s hand is held while examining the passages in question, artificially indicating which taxonomy to place a passage in.

In addition, the exercises are almost all manufactured, only 5 out of 46 of them coming from citable sources (pp.138-145). This tailoring of artificial examples of fallacies to fit the taxonomy introduced in the text does not adequately test a student’s knowledge or familiarity of the content. Instead, it encourages a rote understanding of label-ready fallacies, and does not encourage the sort of thoughtful analysis that is necessary for productive understanding, and that the authors in some measure only pay lip service to at the beginning of the chapter when they say that “[a] label, after all, can never be a substitute for a critical assessment” (p.124). Finally, such an approach perpetuates an

adversarial model of fallacy instruction which begins and ends at identification, giving no credence to how identifying fallacies can be the first step of a constructive even if critical dialectic, as opposed to the first and last step of a destructive critique.

One positive aspect of this chapter, but one the authors only scratch the surface of, is the recognition that some fallacies are instances of schemes that are often not fallacious. The authors call this “good reasoning that looks bad” (pp. 125-126), but unfortunately they only provide this nuanced perspective for one fallacy: the appeal to ignorance. Their treatment would have been much improved had they taken a similar approach to the remaining fallacies they introduce, where they could have done so, such as showcasing legitimate ethotic schemes that do not count as fallacious *ad hominem* attacks.^{vii}

Another somewhat redeeming aspect of their treatment of fallacies, which represents an improvement over previous editions, is their acknowledgement in the exercises section that “[i]t is more important to be able to recognize a bad argument and say what is wrong with it than to be able to put a label on it” (p.138). Munson and Black’s book deserves a nod for acknowledging this important point. However, the book only prompts readers to give explanations for their answers to the first two (“Philosophical-Practical”) exercises, and in the remaining (“Technical”) exercises, only prompts explanations for fallacies where the reader is uncertain of the label. But whether uncertain of the label or not, students should always be encouraged to provide reasons for why they think a particular passage is or is not fallacious. A related improvement in their latest edition is that the answers in the back of the book *do* have explanations for why the authors give the answers that they give, but it is a shortcoming of the exercises section that not every question *requires* an explanation from the readers who are attempting those questions.

In addition, while 3 of the 44 technical exercises in this chapter are written in dialogue form, indicating that the allegation of a fallacy occurs in an ongoing dialectic, often in a social context, more

could be so written. On a related point, nowhere in the chapter do the authors indicate a strategy for argument revision and repair, neglecting to encourage students to think of ways that the argument in question could be improved such that it would successfully avoid the label of fallacy. This again perpetuates an adversarial way of looking at the fallacies, deemphasizing constructive critique while emphasizing destructive monological criticism. I would say that it is more important to recognize problematic aspects of an argument that make it fallacious, *and what might make it not fallacious*, than it is simply to put a label on it, even if one goes on to say why the label is deserved. This is because our critical thinking is often not merely a solo intellectual exercise, conducted only in our heads, but is conducted in public and with other people, often to reach consensus, foster understanding, and make collective decisions. One next step in the practice of fallacy identification should therefore be an attempt to make the fallacious argument better.

So, despite some positive improvements from previous editions, Munson and Black's chapter on fallacies still suffers from every criterion that (Hundleby 2010) says a quality treatment of fallacies should avoid: no discussion of argument repair; short or decontextualized, manufactured examples; and a taxonomic labeling approach (pp.286-289). I would add Munson and Black's book to Hundleby's list of 24 books that fail on these fronts.

There are more reasons to decide not to adopt Munson and Black's book for a critical thinking course, however. A regrettable omission is that it does not stress the dispositions necessary for a person to be a critical thinker, such as the willingness to think critically, open-mindedness, intellectual honesty, courage, or a commitment to reason. But these are the sorts of intellectual virtues that critical thinking scholars have agreed are essential aspects of critical thinking, and constituent aspects of critical thinkers, enabling a person who is developing the intellectual skills of critical thinking to put them to appropriate use.^{viii} The arguments of (Missimer 1990, 1995) to the contrary notwithstanding, the

panoply of critical thinking dispositions, character traits, and attitudes, what (Siegel 1988) has called following (Glaser 1941) and (Passmore 1967) “the critical spirit”, are certainly an important part of critical thinking conceptualization that students would be well served by being introduced to in our pedagogy. Such an emphasis would also work to mitigate the adversarial approach that is instilled in students when they are told, as the publishers apparently tell them regarding this book, that it will help them learn “how to analyze and then destroy an argument.”^x Considering its neglect of critical thinking dispositions, and coupled with the other shortcomings of the book that I have focused on above, I think it is legitimate to conclude that there are more attractive candidates for textbook adoption in a critical thinking course.

4. One attractive critical thinking textbook

(Bailin and Battersby 2010) have recently published a unique approach to critical thinking that succeeds on the fronts that Munson and Black’s book, and that many other textbooks, fall short on. While not without room for improvement in future editions, theirs is a superior product: an inquiry approach to critical thinking stressing dialectical context, backed up by their own scholarly efforts, and exhibiting a familiarity with informal logic and critical thinking scholarship generally.^x In every respect that I have enumerated above, where Munson and Black’s book falls short, Balin and Battersby’s book succeeds.

First, the authors do not equate critical thinking with reasoning or argument analysis, though their book does include many chapters on argumentation and argument analysis. Second, it is truly *argumentation* and not simply argument that the authors introduce their students to. In other words, their treatment of argument is a treatment of it in the “broad sense” as it is uttered by people in context-specific situations of dialectic and dialogue.^{xi} They stress that critical thinking is a kind of

inquiry: a process of “carefully examining an issue in order to come to a reasoned judgment” (Bailin and Battersby 2010, p.4) that often occurs in social interaction. Casting critical thinking this way implies that the process of critical thinking involves more than the parsing of arguments, stressing context and constructive analysis, not just isolated critique. It also stresses the examination and evaluation of alternative arguments, so that a monological critique of any one argument is never enough to count as critical thinking. This makes their approach much more applicable to real life situations where arguments are used in efforts to persuade or justify or for other uses in the context of making socially situated judgments concerning controversial questions.

Second, their treatment of fallacies is not limited to a chapter that merely breaks down errors in reasoning in a taxonomic manner. Instead, they cover fallacies throughout the textbook, notably in the context of different kinds of judgment-making. In addition, they don’t simply define a fallacy as any error in reasoning, but instead call them “argument patterns” where the probative value of the reasoning in question is less than the rhetorical effect (p.63). Defining fallacy in this way is not immune to criticism,^{xii} but it does have the benefit of pointing out the idea that fallacious reasoning often appears to be convincing, when there are good evidential reasons to reject it as being so. Furthermore, Bailin and Battersby’s treatment of fallacies is nuanced in that they underscore the problem of labeling a piece of reasoning as fallacious in the practice of dialogue (pp. 205-208). It is *never* enough from their perspective to label a fallacy without justifying why the fallacy is so labeled. Furthermore, in social contexts, the label can actually distract from the substance of the critique, so in practice, readers are discouraged from labeling at all, and instead prompted to explain what about a pattern of argument is problematic, and suggest ways it could be improved (ibid.). For these reasons their treatment of fallacies is superior to many other approaches.

Another major boon of Bailin and Battersby's textbook is that it explicitly addresses critical thinking dispositions, or what they call the "spirit of inquiry".^{xiii} On their view, fallacious arguments are often a failure of the spirit of inquiry, so that exhibiting closed-mindedness, a lack of fair-mindedness, and other cognitive biases such as groupthink, ideological fixity, and the desire to be correct often lead to fallacious patterns of thought. While referring to the spirit of inquiry early in their book (pp.14-15), they also dedicate an entire chapter to exploring what this means for students who are trying to be better critical thinkers (pp. 192-210). Readers are thus reminded that their attitudes matter, and that to be a critical thinker it is never enough to be a negative criticizer, a ruthless fallacy-finder, focused exclusively on winning arguments or gainsaying other perspectives. Instead, readers are encouraged to take a positive and respectful approach to thinking about alternative perspectives, with a view not just to knock them down, but to see how they illuminate our judgment. This is instrumental in fostering critical thinking skills in our students, helping them to become better critical thinkers: people who are both willing and able to go through a process of careful thinking, being open- and fair-minded of alternatives in their efforts to come to reasoned judgments.

Finally, what distinguishes Bailin and Battersby's book from any other approach I have seen is that a good portion of it is written in dialogue form. What students are exposed to are actual exchanges of reasons for or against, a process of cooperatively examining some controversial question that is at issue. The book exemplifies real-life conversations that might take place regarding euthanasia, capital punishment, the legalization of marijuana, and polygamy, just to cite a few examples. One critique of this approach is that these dialogues are clearly manufactured and somewhat artificial, and seem to always end up with a politically progressive judgment. But these problematic aspects are mitigated by the many endnotes to each chapter that point the reader in the direction of relevant materials that explore the issues further. So the dialogues exemplify real differences of opinions, real reasons, and real

sources that inform the real issues in question. Readers have the opportunity to follow up on the issues and use the dialogues as jumping-off platforms for further inquiry. Importantly, this gives students a place to go in their own thoughtful questioning concerning the issues, so that after the book is read and after the class is done, the book can still serve as a substantive resource for exploring further the issues at play, not just as a handbook for looking up techniques of argument analysis, or as a resource for “answers” regarding controversial issues.

While not without some shortcomings, such as a problematic definition of deductive arguments as those in which “it appears that the author intended the truth of the premises to guarantee the truth of the conclusion” (, p.45),^{xiv} their book nevertheless offers a refreshing and informed take on what critical thinking means, and what it means to teach it and pursue it as a learner. It is written by scholars in the field, it avoids many traps of a traditional presentation of fallacies, and it stresses attitudes and dispositions and the process of dialectical inquiry. Finally, it avoids the mistake of simply equating critical thinking and argument analysis. For all these reasons it is a more attractive textbook than many on the market today.^{xv}

5. Conclusion

Because of the proliferation of textbook choices that do not reflect an awareness of current informal logic and critical thinking scholarship, I call on authors of critical thinking textbooks to revise their books accordingly, so that those treatments do reflect an awareness of such scholarship. More importantly, though, I appeal to critical thinking instructors to familiarize themselves with the relevant literature before adopting a textbook and designing and teaching a course in critical thinking. If a textbook does not reflect a familiarity with that literature, it should not be adopted. In this way the over-abundance of

less-than-ideal critical thinking textbooks will be mitigated by a more informed and discriminating customer base. While I have only examined two textbooks according to what I take to be important (but not exhaustive) criteria, informed by important debates among theorists, I nevertheless hope I have indicated how instructors might go about examining other textbooks in an analogous fashion. If they do, I think they will find many textbooks lacking, and will gravitate towards better choices.

Bibliography

Bailin, Sharon, and Mark Battersby. *Reason in the balance: an inquiry approach to critical thinking*. McGraw-Hill Ryerson, 2010.

Bailin, Sharon, Ronald Case, Jerrold Coombs, and Leroy Daniels. "Common misconceptions of critical thinking." *Journal of Curriculum Studies*, 1999a: 269-283.

Bailin, Sharon, Ronald Case, Jerrold Coombs, and Leroy Daniels. "Conceptualizing Critical Thinking." *Journal of Curriculum Studies* 31, no. 3 (1999b): 285-302.

Battaly, Heather. "Attacking character: ad hominem argument and virtue epistemology." *Informal Logic* 30, no. 4 (2007): 361-390.

Battaly, Heather. "Teaching intellectual virtues: applying virtue epistemology in the classroom." *Teaching Philosophy* 29, no. 3 (2006): 191-222.

Blair, J. Anthony. "Informal logic's influence on philosophy instruction." *Informal Logic* 26, no. 3 (2006): 259-286.

Carozza, Linda. "[Review of Reason in the balance: an inquiry approach to critical thinking by S. Bailin and M. Battersby." *Inquiry: critical thinking across the disciplines* 27, no. 1 (2012): 47-49.

Dayton, Eric. *Critical thinking, logic, and argument*. Pearson Education Canada, 2010.

Dewey, John. *How we think*. Mineola: Dover, 1910.

Ennis, Robert H. "Critical thinking and subject specificity. Clarification and needed research." *Educational Researcher* 18, no. 3 (1989): 4-10.

Ennis, Robert H. "Critical thinking dispositions: their nature and assessability." *Informal Logic* 18, no. 2 (1996): 165-182.

Facione, Peter. "The disposition toward critical thinking: its character, measurement, and relationship to critical thinking skill." *Informal Logic* 20, no. 1 (2000): 61-84.

Finochiaro, Maurice. "Fallacies and the evaluation of reasoning." *American Philosophical Quarterly* 18 (1981): 13-22.

Fohr, S.D. "The deductive-inductive distinction." *Informal Logic Newsletter* 2, no. 2 (1980): 5-8.

Glaser, Edward. *An experiment in the development of critical thinking*. New York: AMA Press, 1941, reprint.

Govier, Trudy. *A practical study of argument*. Enhanced 7th edition. Belmont: Wadsworth, 2013.

Govier, Trudy. "Critical thinking as argument analysis." *Argumentation* 3, no. 2 (1989): 115-126.

Govier, Trudy. "Critical thinking in the armchair, the classroom, and the lab." In *Problems in argument analysis and evaluation*, by Trudy Govier, 229-246. Dordrecht: Foris, 1987.

Groarke, Leo, and Christopher Tindale. *Good reasoning matters*. 5th edition. Don Mills, Ontario: Oxford University Press Canada, 2012.

Hundleby, Catherine E. "The authority of the fallacies approach to argument evaluation." *Informal Logic* 30, no. 3 (2010): 279-308.

Johnson, Ralph. "The problem of defining critical thinking." In *The rise of informal logic*, by Ralph Johnson, 216-229. Newport News: Vale, 1996.

Johnson, Ralph, and J. Anthony Blair. "Teaching the Dog's Breakfast: Some Dangers and How to Deal with Them." *APA Newsletters: Newsletter on teaching philosophy*, Fall 2009: 2-5.

Millman, Arthur B. "Critical thinking attitudes: a framework for the issues." *Informal Logic* 10, no. 1 (1988): 45-50.

Missimer, Connie. "Perhaps by skill alone." *Informal Logic* 12 (1990): 145-153.

Missimer, Connie. "Where's the evidence?" *Inquiry: critical thinking across the disciplines* 14 (1995): 1-18.

Moore, Brooke Noel, and Richard Parker. *Critical Thinking*. 8th edition. New York: McGraw-Hill, 2007.

Munson, Ronald. *Way of Words: an informal logic*. Houghton Mifflin, 1976.

Munson, Ronald, and Andrew Black. *The elements of reasoning*. 6th edition. Belmont: Thomson, 2012.

Passmore, John. "On teaching to be critical." In *The concept of education*, edited by R.S. Peters, 192-212. London: Routledge & Kegan Paul, 1967.

Rudinow, Joel, Vincent E. Barry, and Mark Letteri. *Invitation to critical thinking*. 1st Canadian edition. Toronto: Thompson, 2008.

Scheffler, Israel. *Inquiries: philosophical studies of language, science, and learning*. Indianapolis: Hackett, 1986.

Vaughn, Lewis, and Chris MacDonald. *The power of critical thinking*. Canadian edition. Don Mills, Ontario: Oxford University Press Canada, 2008.

Woods, John, and Andrew, Walton, Douglas Irvine. *Argument: critical thinking, logic, and the fallacies*. Second Canadian edition. Toronto: Pearson Education Canada, 2003.

ⁱ Scholarship that is found in abundance in relevant journals, for instance, such as *Informal Logic*, *Argumentation*, *Inquiry: Critical Thinking across the Disciplines*, and *Teaching Philosophy*, to name a few. See (Johnson and Blair 2009).

ⁱⁱ Those major definitions Johnson dubbed the “group of five”: (Ennis 1989), (Paul 1989), (Lipmann 1988), (Siegel 1988), and (McPeck 1981).

ⁱⁱⁱ Cf. (Hundleby 2010).

^{iv} This even while she has an excellent and very popular textbook on argument soon to be published in its latest “Enhanced” 7th edition, (Govier 2013), which many instructors adopt for their critical thinking classes.

^v A few books reviewed by (Hundleby 2010), for instance, have much the same format and content, e.g. (Rudinow, Barry, and Letteri 2008), (Moore and Parker 2007), (Vaughn and MacDonald 2008), and (Dayton 2010).

^{vi} They divide their taxonomy into two major categories: “Fallacies in Supporting a Claim” (pp.124-132) and “Fallacies of Criticism and Response” (pp.132-138); the fallacies that they place in these categories have mostly traditional labels that the authors give traditional summaries, and are illustrated by many examples that are manufactured and do not stress context.

^{vii} Cf. (Groarke & Tindale 2012, pp.320-324).

^{viii} Cf. (Dewey 1910), (Glaser 1941), (Passmore 1967), (Scheffler 1986), (Siegel 1988), (Millman 1988), (Paul 1989), (Ennis 1996), (Bailin, et al. 1999a, 1999b), (Facione 2000), and (Battaly 2006, 2007).

^{ix} “Publisher’s Comments” found at [http://www.powells.com/biblio?show=TRADE PAPER:NEW:9780495809180:75.80#synopses and reviews](http://www.powells.com/biblio?show=TRADE%20PAPER:NEW:9780495809180:75.80#synopses_and_reviews) Accessed December 7, 2012

^x One way their book could be improved in future editions is to provide citations throughout the text that reference the scholarly literature that informs their approach. Thanks to David Hitchcock for pointing this out in private correspondence.

^{xi} Cf. (Woods, Irvine, and Walton 2003), and (Blair 2006).

^{xii} E.g. (Finocchiaro 1981), who would gainsay this definition with the claim that fallacies, if they are defined as a common pattern of reasoning, are non-existent, in that they are not in fact found commonly in actual discourse.

^{xiii} Cf “the critical spirit” of Siegel, Glaser, and Passmore, mentioned above.

^{xiv} Cf. (Fohr 1980).

^{xv} Cf. (Carozza 2012).