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Teaching Informal Logic and Critical Thinking

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Seldom has there been such a widespread agreement about a significant social issue as there is reflected in the view that education is failing in its most central mission - to teach students to think - Deanna Kuhn¹

What do teachers intend to do when teaching students to think? They may intend to teach students to reason well, to engage in critical reasoning, to critically reflect, to develop the skills that lead to critical thought, to develop their higher order thinking skills, to lead them to exercise good judgement, or to help them become more rational. Or, it could mean that students will learn logic, informal logic, epistemology, applied epistemology, argument analysis, plausible reasoning, a process of inquiry, effective communication, a decision-making methodology or how to reason according to subject-specific standards. Although an important task for philosophers, I am uncertain that meandering through this maze of terminology for familial resemblances or subtle differences in meaning between them is worth the trouble such a task would require of educators.

Yet for educators, it is important that theoretical disagreements that lead to confusion as to the task of developing content for teaching and evaluating critical thinking is dispelled, for such confusion unnecessarily extends the problem of assessing thinking and/or showing that education does actually serve to develop critical thinking abilities in students. I think not one teacher of thinking (whether they call it "informal logic," "critical thinking," or "reasoning" or whether they consider it a set of skills and/or character traits, an argument product, or a thinking procedure or process) would dispute that what he or she is attempting to do is to help students to *improve* their thinking. I will argue that what teachers are doing, whether they call it informal logic or critical thinking, is to teach students how to better justify and communicate their reasons for thinking the way they do. That is, to learn argument interpretation and evaluation skills. I doubt that any of the terms and phrases I have listed above to indicate what teachers aim for in instructing students to think better does not somehow include beliefs that lead to argument (reasons for believing that are debatable, disputable, or controversial). In this paper, I take the position that teaching informal logic and critical thinking are not different in that the instruction of both is aimed at helping students to develop stronger arguments, and that in learning how to develop those arguments that the focus of study is necessarily on the partnership of reasons and belief in any expressed thinking process.

In both fields, the concepts taught and the norms appealed to in teaching students how to best process information and ideas or to draw conclusions, are epistemological. Since both what we believe and how we can best justify our beliefs are abundant in the literature and textbooks on

critical thinking and informal logic, then it would seem fitting that at the most basic level, the theories and practices of the two movements are essentially the same - they are all about the interpretation and evaluation of reasons and conclusions which lead to belief in various social settings. When one examines both fields in terms of teaching practices, it becomes increasingly clear that both are largely, if not solely, concerned with the concepts and practices associated with argumentation. What this analysis serves to show, then, is the distinct possibility that informal logic and critical thinking have been subsumed by argumentation theory. This becomes a ready conclusion given that in both critical thinking and informal logic courses² the focus is on argumentation, despite the theoretical differences between the two frequently discussed in the disciplined-varied argumentation community. I now turn to some of the differences discussed.

The theoretical differences between critical thinking and informal logic are thoroughly outlined by van Eemeren, Grootendorst and Snoeck Henkemans (1996) in *Fundamentals of Argumentation Theory* (pp. 163-188). They state that informal logic is a branch of argumentation that "is devoted to analysis of the concepts used in argument interpretation and evaluation. It critically elaborates and defends the norms appropriate to these two practical activities" (p. 164). In outlining the difference between IL and CT, they encapsulate the majority view of critical thinking in their statement that critical thinking is conceptualized differently in the sense that it "refers to an attitude of mind whose application knows no disciplinary boundaries. Any topic that engages the intellect or the imagination may be examined from a critical thinking perspective" (p. 165). If one looks to the great expanse of examples found in informal logic texts, especially examples taken from the media, one could easily argue that the content included there (particularly advertisements) specifically target the imagination of the masses. Further, it is unlikely that other reasoning products referred to as "intellectual" that are analysed by informal logic instructors would be considered by them *not* to cover an unlimited range of issues, that they always qualify as argument, or that they do not intersect with or cross disciplinary boundaries. Informal logic courses do in fact include any topic that engages the intellect and/or imagination, and are not limited to discussions centred on logic, as may be assumed.

The general difference alluded to by the above authors is that informal logic denotes the discipline of philosophy by taking up issues which relate specifically to the logic of arguments, and critical thinking as the objective of educators is more associated with an attitude to be inculcated to students at all levels regardless of the subject studied. This attitude spoken of is often referred to as the moral or dispositions dimension of critical thinking. In theory, this difference is notable especially if one is determined to keep informal logic within the discipline of philosophy and critical thinking as part of the educational domain where developing the good citizen is, generally, a central curriculum objective. Yet, in practice, this difference is semantic when one considers what philosophers aim to do in their teaching. Eugene Garver (2001) states one such aim in his article "Science and Teaching Reasoning" which is that in teaching philosophy the "desire [to understand] should be reflected in how we articulate and teach the activity of reasoning" (p. 5). I think that philosophers, the teachers of informal logic, have this desire when they tell students *why* they should desire to know.³ It seems false, then, to assume that in their teaching, informal logicians neglect to teach the attitude that critical thinking instructors more visibly (in theory) lay claim to. That is, it is false to assume that when informal logicians instruct students in how to apply the theory, concepts, and norms associated with the interpretation and evaluation of reasoning products, that they do not attempt to instil in their

students a desire to know - a certain attitude toward knowledge, understanding, or other arguers. If I am correct in making the assumption that informal logic instructors have this general aim, then they at some level must make an effort to inculcate certain learning attitudes. Let us now look to the specific content of such courses to see if significant differences between the two fields can be found there.

Confirming a notable distinction between Informal Logic and Critical Thinking is difficult if one looks to the core of what is taught under both headings - good reasoning. In a comprehensive review of the content of Reasoning and Critical Thinking Courses and Textbooks, Claude Gratton (2001) illustrates that most of these courses (based on the textbooks used in them)⁴ have as their foci the interpretation and evaluation of arguments (p.1). Also confirming that critical thinking is about the interpretation and evaluation of arguments⁵ is this statement made by John McPeck in his book *Teaching Critical Thinking* (1990): "Every book or paper I have ever read, and every person I have ever asked, claims that the purpose of critical thinking is, in one way or another, to improve people's reasoning ability about everyday problems or issues" (p. 3). McPeck here argues that such a general claim is confusing because critical thinking theorists and informal logicians *alike* have not been clear about what these "everyday" issues or arguments are. Yet what everyday issues or arguments are becomes quite clear when one looks to the purposes behind developing the informal logic movement, which was to analyse reasoning made public that is relevant to and impacts our everyday perceptions and experiences of the social world and so has a direct effect on what we choose to believe about that world and the actors in them. Given these considerations, determining that everyday reasoning is the same thing for both informal logicians and critical thinking theorists is not difficult, especially once the abundance of examples for practice contained in the mass of reasoning, informal logic and critical thinking textbooks currently available for University instructors are canvassed.

Regardless of the discipline through which IL or CT is taught, everyday thinking basically amounts to the reasoning or argument that occurs in the workplace, newspapers, magazines, television, or conversations, and that these relate to the political and/or private life arenas. Based on the consistent use of these examples, I think it is not arguable that those teaching informal logic claim to teach anything different from what McPeck above states is the main purpose of critical thinking instruction, and further that in getting students to practice their reasoning about these everyday issues, that their intellects and imaginations are engaged. That critical thinking and informal logic are designed to improve students abilities to argue, is again asserted by McPeck (1991) in his article "What is Learned in Informal Logic Courses." Even though he is claiming certain deficiencies with respect to the teaching of informal logic, his description of informal logic is a paraphrase of his quote above regarding (what must be many) critical thinking theorists have said of critical thinking: "Proponents of informal logic and textbooks on the subject claim that the study of informal logic will teach students *how to* analyse arguments in natural language..." (p. 26).⁶ This brings us to a crossroads as to why a theoretical distinction between the two fields is made, or more importantly why it is necessary to make it, when in articles, textbooks and therefore teaching practices, that such a distinction is almost entirely ignored.

Although in practice the distinction between these fields is ignored, those experts who in theory make the distinction also teach reasoning skills courses. For example, Johnson and Blair (1991) in response to McPeck's criticism that informal logic instruction is ineffective in some

respects, note a difference similar to the observations made by van Eemeron et. al (1996):

“Informal Logic” denotes a loosely defined field of inquiry, centered on developing an adequate theory for the interpretation and assessment of arguments. In our view an undergraduate informal logic course should teach students the current theory and help them improve their skills in its application. “Critical thinking” denotes a moral/intellectual virtue — the intellectual activity of thinking critically and the moral disposition to engage in it. Critical thinking courses should teach students the theory and skills, and inculcate the attitude, required to exercise this virtue. One candidate for inclusion in the critical thinking syllabus — among many — is the theory and skills set of informal logic (p. 50, n. 2).

As I have previously stated, and as Gratton's (2001) comprehensive review of Critical Thinking textbooks illustrates, critical thinking textbook authors rarely provide either content or exercises directed to explaining or developing the moral or intellectual virtue that Johnson and Blair here refer to – at least not obviously so with respect to textbook content. The pertinent question requiring an answering, then, is whether or not informal logicians in their teaching the standards of good reasoning include any moral or intellectual activities in that teaching domain. I think they do. The first indication that they do, is that although the central focus of informal logic textbooks is on how to properly interpret and evaluate arguments, and to practice applying the principles and *skills* of such interpretation and evaluation, like critical thinking textbooks the prefaces and content of informal logic textbooks consistently forward the aim of getting students to have a particular attitude toward the communications and information that contain, implicitly or explicitly, “truth” or causal claims. Let us for now understand this attitude as a healthy scepticism toward the truth value of reasons, and return to the moral or intellectual attitudes purported to be taught through critical thinking instruction – but not through instruction in informal logic.

Further to the absence of content which aims at developing moral dispositions, one just has to scan the indexes of critical thinking textbooks to discover that there is rarely a reference to dispositions and attitudes.⁷ Absent in almost all of the definitions of critical thinking within such textbooks are references to moral or intellectual virtue.⁸ Though these authors rarely make mention of attitudes and moral development, they do frequently make use of the terms “reasoning” (Hughes, 1992, p. 3), “strategies for reasoning” (Rudinow and Barry, 1999, p. 6), “reflective in that it observes its own progress, evaluates each step to decide whether it is justified and corrects its own errors” (Hoaglund, 1995, p. 2), “reasonable, reflective thinking that is focussed on deciding what to believe or do” (Ennis, 1996, p. 396), “principles of good reasoning” (Porter, 2002, xvii), “expand the range to give, grasp, and evaluate reasons...giving and evaluating arguments deeply” (Wright, 2001, ix). What seems to follow from the emphasis of the content represented in these definitions and the content of so many other CT textbooks is that in consistently applying the standards of argument analysis, or in following a particular procedure in interpreting and evaluating arguments, one exhibits critical thinking attitudes. To be *critical* then, is to apply the standards which would render reasoning *good* reasoning. Bailin et. al (1999) confirm this conclusion in their argument that “what characterizes thinking which is critical is the *quality* of the reasoning” (p. 281). Thus, when applying the concepts, principles and skills associated with good reasoning, one is most likely thinking critically.

Given the above observations of what occurs in critical thinking teaching practices, assuming that the content of critical thinking textbooks sufficiently reflect those practices, it is probable that students in the activity of carefully constructing and evaluating arguments or reasoning (including their own) are simultaneously exercising certain attitudes. But this is not only plausible for the students of critical thinking courses. For are not informal logic instructors, in teaching students to be reasonable, also teaching them to be respectful of others who hold positions alternative to their own? I think they are teaching students to be "intellectual virtuous," as Richard Paul would say. It is counter-intuitive to think that part of teaching informal logic excludes the dimension of *how* one presents their arguments, or that such presentations are not also subject to the norms of good reasoning as reasoning products are. For in the informal logic and critical thinking classroom, where writing and speaking are the vehicles of thought and the cognitive products that are assessed, those norms must equally apply to written and oral communicative behaviours of learners as they might to the internal thought processes not expressed by the student. However, the content instructors do evaluate can only be what and how students' communicate, and they can merely hope that students will also apply those reasoning standards to the beliefs or thought processes underlying what they choose not to communicate.

The idea that the teaching of certain "morals" or "intellectual virtues" is exempt from informal logic course instruction is questionable, when what is taught in these courses and how it is taught include emphases on exercises that teach students to seriously consider alternative arguments to their own, and to be clear and fair in their written and oral communications and evaluations of those alternative positions. For example, in teaching the application of the principle of charity or in teaching students to recognize and eliminate personal biases from their own arguments, informal logicians teach the reasoning skills that some CT experts include under what they alternatively refer to as the "values," "intellectual virtues," or "dispositions" dimension of critical thinking. The intellectual attitudes inherent to good reasoning expressed by students' through such exercises in reasoning skills are attitudes that I think informal logicians also attempt to convey but which, logically, they do not claim to teach. Or, it may be assumed that the moral dimension is exempt from informal logic courses for the simple reason that teachers of it choose alternative language to name these intellectual "values," "virtues," or dispositions.

A central focus of informal logic instruction is on exercises that help students to apply the principles and skills which will lead to careful and conscious consideration of others' reasoning, and thus will teach them how to interpret and evaluate others' reasoning fairly (such as avoiding the straw person fallacy in the evaluation of others' positions). Also included in IL instruction are exercises that require of students a certain intellectual "honesty" or "modesty" if you will – that they reflect carefully upon and evaluate their own reasoning for its weaknesses. It is arguable that such exercises are limited to helping students' identify the "logical" weaknesses in argument products not their own, or in learning to construct arguments with a view only to "logic." Thus, I think that the informal logic "principles" and "skills" taught through such examples for practice readily equate to teaching the critical thinking "attitudes." That is, that they are intended to lead to students' learning about how to show respect for others' arguments, and further, how to avoid dogmatism. Thus, essentially informal logicians who teach reasoning skills are encouraging students to be "open-minded" or "intellectually honest."⁹ Given these considerations, one should reject the mistaken idea that informal logicians who include fallacy theory in their teaching, teach the standards of reasoning without attention to the respectful or

virtuous behaviours that accompany an exercise in applying fallacy labels.

I believe that attention to communicative behaviours (and the standards of reasoning which govern them) involved in any reasoning exercise where informal logic principles, concepts, and/or skills are applied, are in fact necessary for such an exercise to be considered skilful. For in teaching fallacies, surely teachers reflective of their pedagogy do not merely hand students a loaded fallacy label gun in order to shoot others down without pointing out the obvious – that alone, the relentless identification of others' fallacious arguments would actually render one unreasonable – if not cantankerous. Further, those who include fallacy tools teach students to practice on their own reasoning as much, if not more than, on others – which hopefully leads students to the knowledge that a large part of what makes someone a more reasonable thinker is the willingness to accept criticism (a skepticism to one's own arguments) and to apply criticism respectfully.

Given all of the exercises and steps that informal logic students are required to apply (that they learn fallacies or evaluation skills in conjunction with other interpretative principles that teach them to be cautious in their own assertions and in treating others' thinking), informal logic instruction in reasoning skills manifests in ways that recognize the sensitivities of others. In this way, informal logicians do recognize the moral dimension inherent to the standards of good reasoning in their teaching of IL theory, concepts and skills. That is, they teach students to recognize that the same principles apply to their own arguments – whether in constructing an argument, writing in defence of their views, or in evaluating others' reasoning. The exercises I mention above, which I think ultimately lead students to seriously reflect on their own thinking behaviours, can be found in the majority of reasoning skills or informal logic textbooks. Such practice in self-evaluation, often referred to as "meta-cognition," "open-mindedness," or "fairmindedness" by such critical thinking experts as Robert H. Ennis and Richard Paul, is considered by the majority of critical thinking theorists to be one of the central "attitudes" or "virtues" a critical thinker need possess. In their textbooks, Ennis and Paul include exercises which attempt to develop such attitudes or virtues. However, as I have illustrated, it is difficult to find the variance discussed in the philosophical, argumentation, and education communities between what these critical thinking theorists invite their students to do, and what informal logicians attempt to accomplish when inviting students to learn and apply the theory, concepts and skills of informal logic.

In light of these common classroom practices which aim for similar epistemic or thinking attitudes, and the similarity of expressed aims for instilling such attitudes found in the prefaces of informal logic and critical thinking textbooks, there is no substantive difference between what IL or CT theorists consider to be good reasoning. In sum, I see no apparent practical difference other than the different naming of certain applications of informal logic "principles," "concepts," and "skills" as, respectively, critical thinking "dispositions," "attitudes," or "intellectual virtues."

Further confirmation of the absence of any distinction between informal logic and critical thinking courses and texts is to be found in M. Neil Browne and Karl Freeman's (2000) article "Distinguishing features of critical thinking classrooms." Here they discuss much of attitudes, but only in relation to how teachers might develop a classroom atmosphere that enables students to challenge others and accept criticism, or that helps students to discover the benefits of systematically evaluating arguments — particularly, engaging in critical analysis of beliefs and how they inform one's reasoning processes. Yet what they mean by critical thinking attitudes is not clear, even though they include this reference to them:

Critical thinking comes in many forms, but all possess a single core feature.

They presume that human arguments require evaluation if they are to be worthy of widespread respect. Hence, critical thinking focuses on a set of skills and attitudes that enable a listener or reader to apply rational criteria to the reasoning of speakers and writer. These attitudes and skills are the substance of critical thinking texts and curriculum materials (Browne and Freeman, 2000, p.1).

Like in the textbooks on critical thinking, finding anything in Browne's and Freeman's article about specific attitudes exclusive to critical thinking courses requires some imagination. They refer to critical thinking as a process that students are taught, one that they claim (despite the heated controversy over the generalizability of reasoning skills) that "learners will use to reflectively evaluate arguments long after they have graduated" (p. 1). According to the above authors, the main features of the critical thinking classroom, and so of learning a critical thinking process, are: 1) to ask questions relating to achieving clarity on an issue, to ferret out assumptions, to identify and judge the quality of the evidence used in reasoning, and to articulate alternative positions (p.1); 2) to have students identify the weaknesses in their own reasoning/belief systems (p. 5); 3) to give voice and treat fairly minority positions (p. 5); 4) to engage in dialogue where students must "enter the rough and tumble of evaluation" (p. 5); 5) to seek multiple perspectives on a given issue (p. 6); 6) to become a "more discriminate consumer of information" (p. 6); 7) to find sufficient reasoning and evidence (p. 6); 8) to learn a "skeptical approach to argument" (p. 6); and 9) to learn how to evaluate arguments without infatuation. As I have argued, if textbooks are the best indicators we have of what is taught in critical thinking courses, these features are also central to informal logic courses. They are all concerned with argumentation skills.

What Browne and Freeman (2000) observe of teaching approach and classroom atmosphere come in the form of recommendations. These are that teachers: 1) urge the "wisdom of frequent reexamination of [students] commitments as learners and 2) create a classroom climate that allows students to argue, and to "encounter fresh logic, evidence, metaphors and narratives" (p.6). Although I cannot claim to know what it means to urge students to frequently reexamine their "commitments as learners," I think that it must have something to do with trying to get students to be passionate about, or to value learning. Such urging or enthusiasm is hopefully part of the teaching of any subject (a conscious or critical pedagogy if you will), but it is not peculiar to critical thinking or informal logic classrooms. I contend that all of the criteria listed by Browne and Freeman (2000), whether considered to be a distinguishing feature of the classroom in terms of climate or content, apply to informal logic textbooks and classrooms as much as to critical thinking textbooks and classrooms. Regardless of what heading under which the content is included, there is a seemingly exclusive focus in both courses on how to skilfully interpret and evaluate arguments, and importantly, how to properly communicate arguments.

I have thus far exhausted my position that in teaching students how to communicate their arguments and to evaluate others' arguments fairly, that the "moral" dimension which reasoning proper necessitates is clearly not absented in the teaching of informal logic. My observations and arguments fail, however, if critical thinking does in fact have a wider or different scope than informal logic apart from the respective differences discussed above from van Eemeron et. al (1996), and Johnson and Blair (1991). Trudy Govier outlines one way in which critical thinking

may indeed have this wider scope.

In their discussion of the theoretical differences between critical thinking and informal logic, van Eemeren et al (1996) also outline Govier's claim with respect to the subject matter taken up in these fields. One will see that her assertion requires my attention, especially given that I have indicated that both fields are almost entirely concerned with the concepts, principles and skills associated with argumentation. Govier (1987) argues in *Problems in argument analysis and evaluation* that critical thinking and informal logic are distinguishable. Her position is summarized as follows:

...critical thinking and informal logic should be distinguished, because thinking can be critical without using or issuing in arguments. One can think critically about things other than arguments (e.g. art), and use other critical methods besides argument in doing so...In order to engage in critical thinking, one will have to be able to appraise many different kinds of intellectual product, whereas informal logic is particularly focused on the realm of argumentation (van Eemeren et al, 1996, p. 166).

The mistaken assumption that I think might be made here is that the reasoning products analysed within informal logic contexts are limited to pieces of reasoning that have an argument structure, and this is not the case. For example, Johnson and Blair (1994) in *Logical Self-Defense* study the reasoning behind advertising and contained in advertisements, but argue that only "some of the time advertising mimics argumentation" (p. 220). Their position is that the logic of advertising is not the logic of argument, rather that the former is "psychological persuasion" (p. 225). In this case, Johnson and Blair are getting students to think critically about communication other than what they think are arguments. The question arises, then, as to what these non-argument, intellectual products peculiar to critical thinking courses are.

What is questionable in the quote above from Govier, is her claim that expressed thinking about an issue, such as art, can be critical without being based on arguments or issuing in them (provided that a specialized meaning of the term "critical" does not apply here).¹⁰ Specifically in question is whether or not critical thinking instructors would be interested in such thought. I think understanding whether there is a difference in methodologies for analysing and evaluating reasoning between informal logic and critical thinking requires an analysis of the meaning of the word "critical" in terms of the types of thought studied in critical thinking courses, and the exercises in analyses of that thought used to develop argumentation skills in IL courses.¹¹ In order to establish that critical thinking does not have a wider scope than informal logic as Govier proposes, let us now examine the kind of thinking that informal logicians are interested in.

If the pieces of reasoning or reasoning processes critical thinking instructors are interested in involves an appraisal of any intellectual product, including art, then we must include informal logic as having that same subject matter. For the examples for practice included in informal logic/reasoning textbooks are as wide-ranging as the examples in critical thinking textbooks. These examples are an expansive range of excerpts from conversations or dialogue, news articles (particularly editorials), media and film clips, advertisements, court cases, political ads, academic literature, fiction, song lyrics and more recently, visuals, posters, and art. These types of everyday intellectual products are to be distinguished from formal, technical, or symbolic argument, which are more often than not seen as having no crucial connection to how we might interpret, use, or appraise arguments taken from the social-political realm. The thinking products

of interest to informal logicians, then, are "particularly the argumentation of nontechnical everyday discourse and discourse about issues in the *polis*" (van Eemeron et. al, 1996, p. 164). But increasingly, one will find that in looking at the examples in IL textbooks, that the products studied – everyday discourse and issues in the polis – are certainly not limited to arguments. Further, the procedure or methods used in IL courses to analyse reasoning are not limited to the construction of counter-arguments.

The methodology in assessing thinking products does not seem to be divergent, as the norms appealed to in critical thinking textbooks are the same as the norms appealed to in reasoning skills/informal logic textbooks.¹² In critical thinking courses, the practice of assessing reasoning is said to teach students how to be *critical* in that they apply the standards of good reasoning. Likewise, teaching students to reason well in an informal logic course, is to teach them to be *good* or *skilled* in applying informal logic concepts, principles, and abilities.¹³ The only difference in the methodologies now again appears to be a semantic difference – that "critical" somehow denotes something different than "skilled," when in fact with respect to reasoning both terms denote "quality." Since the standards appealed to are essentially the same for both fields, the difference in measurement of such quality is not an issue with respect to whether informal logic differs from critical thinking. However, what is of interest here is if IL and CT teachers get students to achieve that quality in similar ways.

As it is with learning reasoning through informal logic, practice in critical reasoning is at the centre of critical thinking instruction (Bailin et al., 1999, p. 280). Thus, the examples should be a reliable indicator of the subject matter of courses in both. When examining that subject matter it becomes evident that informal logicians, like critical thinking theorists, are mainly interested in the thinking that occurs with respect to issues which have normative, moral or ethical dimensions and which involve students' perceptions, emotions, beliefs, inferences, experiences, knowledge, judgement, etc. As such, just as the thinking products studied in informal logic courses are not limited to argument, the thinking processes that they are interested in improving are not limited to the form of argument – as is indicated by Johnson and Blair's interest in how students' perceive and are affected by advertising (considered by some to be appeals to emotion or even emotional arguments). Thus, as is often assumed given its title, informal logic practices are not by any means limited to the critical analysis of arguments involving factual and causal claims, or on developing the *logic* of intellectual products or processes often labelled as "academic" argument. If informal logic is not so limited, then Govier's claims with respect to the types of reasoning used and to how the methodology used to study them differ between informal logic and critical thinking, may not be a sufficient basis upon which to make a case that the fields are distinguishable. Let us turn to the subject of art that Govier uses for one example of critical thinking subject matter that does not take the form of argument in order to show that the distinguishing features she describes may not apply.

It is not the case that informal logic methodology is limited to the analysis of the "logic" of products and therefore products perhaps subsequently incorrectly identified as intellectual. Nor is it clear that informal logicians do not have as their focus reasoning products considered to be non-argumentative, as art and visuals are often deemed. Provided that students are not committed to an extreme relativism that every perception, belief, or opinion is a good as another (a relativism that both informal logic and critical thinking instructors would surely reject), they will disagree about the quality of art. The thought made explicit about a particular art piece that does not elicit discourse, debate, controversy or the doubt of others, is thought that I venture to

say that those teaching informal logic *and* critical thinking would not be interested in examining. For example, if a person communicates that a painting makes him feel melancholic, then such a claim does not warrant a critical analysis even if he states reasons for why it makes him feel that way – as no one could reasonably argue that a person does not feel what he does. On the other hand, comments or thoughts made with respect to the art product itself are, even in the absence of the communication of reasons, always open to disagreement or critical discussion. The latter type of thought, thought that involves doubt and subsequent discourse, is what informal logicians and critical thinking theorists are interested in and use for examples.¹⁴ Thus, thinking that does not “use or issue in arguments” is thinking that I contend would not be studied in either field.

Although I think Govier is correct in saying that the particular focus of informal logic courses is on argumentation, it is not clear that critical thinking instruction reaches beyond argumentation. That it does not reach beyond leads me to believe that the difference noted by Govier is not a real difference (in the sense that it is not practically significant), in that critical thinking textbooks neither offer content nor “critical methods” markedly different from the ones associated with applying interpretation and evaluative argumentation skills.¹⁵ If one is being critical, then one is not merely feeling or stating obvious truths - one is arguing.¹⁶ That is, when being critical a person engages in an analysis that involves an appeal to standards, whether labelled subject-specific or subject-independent.

A definition of “critical” that helps us determine how difficult it would be to think of a communication of critical thought that does not involve argument is Scriven’s and Fisher’s (1997) definition from *Critical Thinking: Its Definition and Assessment*. According to these experts, the “critical” part of critical thinking means “seriously and skilfully evaluative” (p. 68). I think the term “serious” here denotes the “skilled” aspect of reasoning that informal logicians aim to develop. That is, in the teaching of informal logic one does not merely attempt to get students to reason (which all individuals are able to do), but attempts to teach students to reason well - to support what they believe to be true with cogent reasons. And beliefs about art are not excepted. For when beliefs (states constituted by reasons) feed expressed thinking, an argument is involved even when those beliefs are not initially obvious to those offering their thoughts. An assertion of belief comes in the form of argument despite how it enters into discourse (as an enthymeme, overtly or obscurely, visually or verbally). Further, regardless of whether or not that assertion of belief appeals to the intellectual, emotional or psychological,¹⁷ it can be held up for serious and skilful evaluation. If an application of evaluative skills to beliefs or argument is serious, it will first involve the identification of reasons for believing – the components necessary in order to be able to analyse any thinking where such evaluation is warranted.

In examining the difference Govier raises, I hope to have shown that the thought that informal logic and critical thinking instructors are concerned with is only that thought which involves valuation, i.e., reasoning that invites some sort of disagreement or controversy. Such reasoning essentially involves what people believe and/or why it is believed. In exposing, examining, and appraising our reasons for believing and justifying beliefs, or in examining information and making judgements of whether or not that information and what others’ believe should be accepted as having some truth value, we become critical or evaluative. Inherent to such examinations is the critical thought or healthy skepticism that the instructors of good thinking (informal logicians and critical thinking theorists alike) are interested in nurturing. In this way, thought backed by reasons – critical thought – always uses arguments.

With respect to Govier’s arguments, I have argued based on practice that the thought

expressed to others verbally or in writing in critical thinking and informal logic courses issues in argument. In light of this argument and the support I have above provided for my position that IL and CT instructors are not concerned with thought that does not issue in argument, I have attempted to show that Govier's claim with respect to the differences between the two fields loses its force. The noted differences aside, I accept the more general conclusion that thought of any kind cannot issue without argument, given that there are always reasons implicit to what we think or believe. The statement that "...argumentation is present in virtually all our verbal communication" (van Eemeron et. al, 1996, p.1) provides some support for this conclusion, if only with respect to the kinds of thought – argument – particular to informal logic and critical thinking course content and instruction.

In introducing the claim that thought does not issue without argument, I am concurring with one position that Deanna Kuhn forwards in her book *The Skills of Argument* (1991). In a section entitled "Thought as Argument" she states her assumption that all "real-world" thought develops from and/or is argument (p. 2). As well, she asserts the following with respect to the kind of reasoning that she believes that teachers of thinking should deal with, the same kind of thought that I claim the teachers of informal logic and critical thinking focus on:

Yet thinking as argument is implicated in all of the beliefs that people hold, the judgments they make, and the conclusions they come to. It arises every time a significant decision must be made. Hence, it is at the heart of what we should be interested in and concerned about in examining people's thinking (Kuhn, 1991, p. 3).

What educators of thinking are specifically concerned with are beliefs – as Kuhn states above. I have illustrated that the aims of IL and CT instructors, and the content of course instruction in either field centrally involves learning the basics skills of argumentation: how to better appraise information that lead us believe or accept others' conclusions, how to better express and justify beliefs and causal reasoning, and to determine, across contexts, what grounds or reasons for belief (and action based upon them) are weak or strong relative to the standards or norms of good reasoning. Rather than thinking of argument as something only implied by beliefs, then, one may consider that in the context of a critical thinking or informal logic classrooms that beliefs are taken in the form of conclusions. Either way, if "thinking as argument" is rightly construed as "implicated in all of the beliefs that people hold" then the subject of study in critical thinking, as it is for informal logic, is clearly argumentation. But given the intersection of belief and argument as here proposed by Kuhn, what could also be argued for is that both fields (taken as equivalents) qualify as Applied Epistemology.

How might informal logic and critical thinking be construed as applied epistemology? They may be conceptualized as such for instructors of them focus on reasons in two ways. First, the general methodology used in both fields relates to students' thinking processes - how they come to believe what they do (the causes of belief or the information they rely on to support a belief). Second, various information (and the media that produce it), knowledge claims, and reasoning products are studied in both fields with an eye to both subject-specific and subject-independent concepts and standards that serve to inform students' critical interpretation and evaluation of the reasons for accepting or rejecting information, knowledge claims, or reasoning products. Since the main concern of these instructors, then, is with epistemic justification, it is appropriate to

here explore the possibility of conceptualizing informal logic and critical thinking as applied epistemology.

Alvin I. Goldman (1999) describes two conceptions of epistemic justification, one of which I think applies to how I have characterized IL and CT. This conception is that "justified belief is (roughly) a *well-formed* belief, a belief formed (or sustained) by proper, suitable, or adequate methods, procedures, or processes" (p. 395).¹⁸ Further, what is of interest to teachers of informal logic and critical thinking alike are the epistemic terms Goldman lists. These terms are: justification, warrant, grounds, and that a person "'has reason to believe', 'knows that', 'sees that', 'apprehends that', 'is probable' (in an epistemic or inductive sense), 'shows that', 'establishes that' and 'ascertains that'" (p. 365). Given that it is clear that informal logicians and critical thinking theorists do in some way take up the justification of beliefs as Goldman here describes it, it seems that my designation of informal logic and critical thinking as argumentation is not distinguishable from a designation of them as applied epistemology.

In view of the idea that justification of belief comes in the form of argument, then the particular form of applied epistemology I may seem inclined toward above might be considered to be the branch of argumentation that occurs in both fields.¹⁹ However, in teaching thinking that specifically relates to public discourse and so is aimed at either developing the good citizen, or on improving relationships between people, critical thinking and informal logic have the specific aim that argumentation theorists (such as the Pragma-Dialecticians) lay claim to. This is that those who teach argumentation theory aim at teaching specific rules, as well as context independent principles and concepts that will help people to achieve consensus, or to learn ways to meaningfully participate in a pluralistic democracy. The difference, therefore, may be that the focus of epistemology is on processes and procedures that relate to an individual's justification for belief. Thus, applied epistemology would not be broad enough to encapsulate many of the important rules or generalizable principles used in CT or IL courses to help teach students norms related to the communication of arguments *between* participants in a dialogue or argument exchange. As well, I am uncertain as to whether those teaching applied epistemology would concentrate, as IL and CT instruction does, on the interpretation of other information and communications not considered to be an individual belief per se. That is, epistemology would not have so broad a range of intellectual products that critical thinking and informal logic include in their real-world examples. Given these considerations, it is not clear that the concepts, principles and skills of argumentation I have discussed in relation to informal logic and critical thinking teaching would apply to the teaching of applied epistemology. Although I have indirectly provided some reasons for thinking of the two fields discussed in this paper as essentially fields in applied epistemology,²⁰ I have only offered them to illustrate how the content of IL and CT are similar, rather than to enter into the debate over if and how applied epistemology is a branch of argumentation.²¹

Conclusion

Given my arguments of what is essential to both informal logic and critical thinking as it is taught, it is clear that I think that argumentation theory substantiates each. I hoped to have shown that in aim, methodology and content that there are no significant differences between the two as outlined by some experts in those fields. From the courses offered, whether the content and

instruction is delineated as "critical thinking," "informal logic," "applied epistemology" or more broadly as "reasoning," or "thinking," that content warrants appeal to the standards that need be applied in order for reasoning, as the justification of belief or argument, to be deemed good reasoning. Such belief takes the form of argument when thoughts of what one believes are publicly communicated in attempts to persuade others to believe or act in certain ways. Such persuasion is not at the heart of those instructing students in epistemology, and so informal logic and critical thinking are best conceived of as falling under the developing discipline of argumentation theory.

In this paper, I offer the argument that the theoretical differences commonly discussed with respect to informal logic and critical thinking can be classified as semantic. I have attempted to show that the core of both informal logic and critical thinking instruction, is most generally to help students develop skills that help them to understand the communication of arguments and non-arguments, so that they may be more discriminate consumers of reasons and conclusions disguised as *good* reasoning. Such instruction, therefore, also aims at equipping students with the skills necessary to critically analyse their own and others' beliefs so that they may make more informed decisions – especially where powers of persuasion are cleverly abused.²² The ultimate aim of both, therefore, is to encourage students to help contribute to the maintenance of democracy through conscientious participation in public discourse.²³ As such, I think informal logic and critical thinking are both best conceptualized as argumentation theory, especially for those theorists who want to align their theory with their teaching practices.

Notes

¹ From *The Skills of Argument*, 1991, p. 5.

² I consider Informal Logic Courses to be equivalent to Reasoning Skills Courses. Many use the term "Critical Thinking" synonymously with "Informal Logic" when discussing University courses (especially in Philosophy departments), however, I will keep these latter terms distinct to avoid confusion in my discussion of the purported differences between the two.

³ In the prefaces of informal logic/reasoning textbooks one will find that authors provide their rationales for why students should desire to understand. That is, learning and applying the principles and concepts of informal logic or reasoning will, for examples, help students to become more discriminate consumers of information, to better understand and communicate controversial issues so as to avoid being deceived, to make better decisions about what to believe, to better evidence beliefs, to become more proficient communicators, to become more concerned citizens, to reason correctly, etc. See, among others, various editions of Johnson and Blair, Walton, Hurley, and Tindale and Groarke, for such rationales.

⁴ In the first section of his paper entitled "Common pedagogical weaknesses in critical thinking textbooks and courses" (2001), Claude Gratton discusses important teaching considerations with respect to the evaluative skills overlooked in Reasoning and Critical Thinking textbooks and courses. What is of interest here is that included in the titles of the 138 textbooks he reviewed for these weaknesses are the key terms logic, informal logic, reasoning, argument and critical thinking or a combination thereof, indicating that most authors collapse any distinction that can be made between informal logic and critical thinking, or between argument and reasoning/logic/critical thinking. Van Eemeron et al (1996) confirm that such a collapse occurs in theory (p. 166).

⁵ I am assuming that because learning how to analyse arguments seems to be the most common way to improving one's reasoning, that reasoning and argument can be equated without much controversy. Thus, I will use the terms interchangeably throughout. I will flesh out my arguments for making this assumption in the second half of the paper.

⁶ I am neither in agreement nor concerned with McPeck's argument that proponents of informal logic do not actually teach students *how* to exercise argumentation skills as his argument is adequately addressed by Blair and Johnson (1991) in their response to him entitled "Misconceptions of Informal Logic: A Reply to McPeck," I bring up McPeck's comments to illustrate the common occurrence of the collapse of any distinction that might be made between informal logic and critical thinking - even by those who heavily criticize informal logic.

⁷ Richard Paul and Robert Ennis are important exceptions to the rule. Yet, the sections in their texts which purport the development of CT virtues or dispositions are exercises that are nearly identical to what most CT and reasoning textbook authors include under critical thinking skills, particularly the skills of interpretation and evaluation where one is required to be careful in restating others' positions and in evaluating one's own arguments.

⁸ This absence occurs despite the belief of the majority of critical thinking experts that there is a moral dimension to critical thinking, which includes certain attitudes toward inquiry and reason. There is a debate among these experts about whether this moral dimension (the dispositions dimension) is part of the meaning of the term "critical thinking" (Facione, 1990, p. 16). However, my argument here more relates to whether the dispositions included under the moral dimension are excluded from informal logic instruction.

⁹ Respectfully, I invite Johnson and Blair to dispute my counter-argument to their position regarding the difference between informal logic and critical thinking. That is, I welcome their arguments against my presumption here that there is no moral dimension (such as the respectful treatment of others' ideas/positions/arguments I mention above) to the exercise of skills they teach in argumentation (fallacy or argumentation) and/or reasoning skills courses – both informal logic courses. Given my experience under their tutelage, I would be surprised to hear that they would still hold that IL skills do not equate to the intellectual virtues that most critical thinking textbooks/courses purport to incorporate.

¹⁰ And a specialized meaning does not apply here, as is illustrated in the quote by Bailin et. al (1999) I offered earlier, that the "critical" of critical thinking means that the standards of good reasoning are applied to thinking.

¹¹ As I have shown, from the viewpoint of practice critical thinking is also "particularly" focussed on the realm of argumentation. Confirming this is the CT expert consensus on the core skills and sub-skills of critical thinking listed in "The Delphi Report." These CT skills are argumentation skills (*see* Facione, 1990, pp. 7-16).

¹² For confirmation that the norms or standards I speak of are common to both fields see Fisher and Scriven, 1997, pp. 97-114, and (Gratton, p.1). The most common standards appealed to involved in interpretation include: achieving clarity, making distinctions, using qualifiers, using the principle of charity, properly identifying reasons and conclusions. The common norms related to the construction and evaluation of arguments are ensuring that reasons are relevant, sufficient and acceptable (Johnson's and Blair's R-S-A model), and that reasoning is checked for consistency, assumptions, bias, and fallacies.

¹³ Facione (1990) states that one who applies both attitudes and skills is considered by the experts to be a *good* critical thinker, whereas in only applying critical thinking skills one is thinking critically (p. 16). I think that to say someone is a *good* critical thinker is to be redundant. For, in this case, without the word *good* the term "critical" would have the negative connotation that CT and IL instructors take pains to avoid in describing what they mean by the term "critical." My thinking about this terms may be misguided, however, I have not yet found in the literature a sufficient explanation of critical that necessitates the word good to describe a person who thinks critically.

¹⁴ Such as the visuals in advertising accompanied by minimal (or even absent of) text.

¹⁵ Proving that the difference is to be found in teaching methodologies or styles would be a research task that goes well beyond the scope of this paper, although a fruitful beginning to such a task is surely to be found in the extensive work done in this area by Roland Case.

¹⁶ By feeling I mean statements with respect to subjective states such as mood, whether one is hot or cold, or what kind of ice cream is one's favourite. By stating obvious truths I mean those that are not controversial, such as to say whether a person sat beside me in class, or that an artist used the kind of pastels I like in her painting of a river scene. These would not be considered to be "critical" in the sense that critical thinking theorists use the term "critical." Nor are they debatable in any way that would require an appeal to reasoning standards.

¹⁷ The distinction between the intellectual, emotional and psychological is a fuzzy one at best, and quite arguable. I only make it here because the distinction has been made by several critical thinking theorists and informal logicians and, therefore, is relevant. I am in agreement the tentative position forwarded by Emily Robertson in her article "Reconceiving Reason" that emotionality and rationality are not separate cognitive processes.

¹⁸ References from Goldman's articles "Strong and Weak Justification" and "What is Justified Belief" are taken from *Readings in Epistemology* by Crumley II, Jack S., (1999).

¹⁹ Goldman (1999) states that "it is often assumed that whenever a person has a justified belief, he knows that it is justified and knows what the justification is. It is further assumed that the person can state or explain what his justification is. On this view, a justification is an argument, defense, or set of reasons that can be given in support of a belief" (p. 365). I do make these assumptions, however, I offer that those in informal logic and critical thinking have as a central aim to get students to reflect on their beliefs to the extent that they know what they believe, what reasons they have in support of their beliefs, and are better able to ferret out, express and explain their reasons for believing or in drawing conclusions.

²⁰ Some authors that hold positions with respect to IL or CT being applied epistemology are Robert Pinto, Mark Weinstein, Harvey Siegel, Mark Battersby, and John McPeck. For example, Mark Weinstein (1990) holds that informal logicians are mainly concerned with applied epistemology, when epistemology is considered as "the study of the epistemologies in use in the various domains of human understanding in order to ground the assessment of arguments as they occur within them." For summaries of these authors' positions, see Johnson and Blair "Informal Logic: Past and Present"(1994), p. 6, and van Eemeron et. al, 1996, pp. 182-183.

²¹ In this paper, I do not have the space to adequately introduce how applied epistemology and argumentation theory intersect, as there is a debate over whether argumentation theory should be divided into sub-fields such as epistemology. This debate is one that, admittedly, I am not yet familiar enough to succinctly summarize.

²² Such an aim is reflected in this assertion made by Ennis in the preface his textbook *Critical Thinking* that the goal of a critical thinking process is "to make reasonable decisions about what to believe and what to do" (xvii). Pinto, Blair and Parr (1993), also in the preface, state that their purpose in writing the textbook *Reasoning: A Practical Guide for Canadian Students* was "to

help students reason better about what to believe and what to do" (viii). The latter textbook is used in teaching reasoning skills under "informal logic."

²³ Often times, critical thinking and informal logic textbooks (and theorists) claim that critical thinking or reasoning skills will contribute to democracy (Ennis (1999), for example). A similar aim is expressed by argumentation theorist van Eemeron in his article "A World of Difference: The Rich State of Argumentation Theory" (p. 145).

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