### CHAPTER 9.

# INQUIRY: A DIALECTICAL APPROACH TO TEACHING CRITICAL THINKING

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**Abstract:** We argue that the central goal of critical thinking is the making of reasoned judgments. Arriving at reasoned judgments in most cases is a dialectical process involving the comparative weighing of a variety of contending positions and arguments. Recognizing this dialectical dimension means that critical thinking pedagogy should focus on the kind of comparative evaluation which we make in actual contexts of disagreement and debate.

The ultimate goal of this paper is to argue for a particular approach to critical thinking pedagogy. Our argument is aimed particularly at those courses taught at the post-secondary level which currently tend to focus on analyzing and evaluating individual arguments in the name of critical thinking instruction.

We shall argue that the underlying concern of critical thinking is the making of reasoned judgments. Arriving at reasoned judgments in actual cases is a dialectical process involving the comparative weighing of a variety of contending positions and arguments. Thus taking seriously the dialectical dimension implies having as a central focus for both theory and pedagogy

the kind of comparative evaluation which we make in actual contexts of disagreement and debate.

In order to make this case, we draw upon arguments concerning the nature of argumentation. Thus a note about how we view the relationship between critical thinking and argumentation is in order. Although we agree with theorists who argue that the two are not synonymous and that critical thinking may include aspects that do not focus on arguments (e.g. Govier 1989), nonetheless, we believe that argumentation constitutes a significant aspect of critical thinking. This is especially the case as we view argumentation quite broadly and would argue that much discipline-specific reasoning, including inference to the best explanation or the justification of interpretations of an artwork, constitute examples of argumentation (Bailin & Battersby forthcoming). Because of the centrality of argumentation in critical thinking, we shall draw implications from the dialectical nature of argumentation for critical thinking pedagogy.

#### 2. ARGUMENTATION AS DIALECTICAL

Our discussion will take as its point of departure three points made by Ralph Johnson:

- 1. the theory of argumentation should develop out of an understanding of the practice of argumentation;
- 2. an important feature of the practice of argumentation is that it is dialectical;
- 3. the pedagogy of argumentation should include this dialectical dimension.

We shall begin by registering our agreement with Johnson's first point that "the normative dimension of the theory of argument [...] must develop out of a proper understanding of the practice of argumentation" (Johnson 2000, p. 6). It was a very similar view, that argumentation theory and pedagogy should be more faithful to how arguments are actually conducted, that motivated the Informal Logic movement, and it is a view with which we concur. We also concur with Johnson's view that the aspect of the practice of argumentation which is missing from the theory is its dialectical dimension.

It is important to clarify that Johnson uses the term 'dialectical' to refer to a feature of the practice of argumentation and not to an approach to argumentation theory, as for example the Pragma-Dialectical approach. It is, in Finocchiaro's terms, dialectical as distinguished from monological and not dialectical as distinguished from rhetorical or logical. We shall also use 'dialectical' to refer to a feature of the practice of argumentation.

What might be meant by claiming that argumentation is dialectical? In their 1987 paper, "Argument as Dialectical," Blair and Johnson offer the following characterization of the dialectical features of argumentation, a characterization which seems to have been followed in subsequent work.

- 1. An argument as a product can only be understood against the background of the process of argumentation.
- 2. The process of argumentation presupposes at least two roles: questioner and answerer, although the roles may be exchanged at various stages of the process.
- 3. The process of argumentation is initiated by some question, doubt or challenge to a proposition.
- 4. Argumentation is a purposive activity (Blair & Johnson 1987, pp. 45-46).

<sup>1. &</sup>quot;By 'the practice of argumentation,' I mean to refer to the social and cultural activity of constructing, presenting, interpreting, analyzing, criticizing and revising arguments" (Johnson 2007, p. 8).

They summarize as follows: To say that argumentation is dialectical, then, is to identify it as a human practice, an exchange between two or more individuals in which the process of interaction shapes the product" (Blair & Johnson 1987, p. 46).

In our view, these points capture some central aspects of the dialectical dimension of argumentation. To say that argumentation is dialectical means that it takes place in the context of some controversy or debate. This implies 1) that it is initiated by some question, doubt, challenge, and 2) that there is a diversity of views on the issue, arguments both for and against (if the controversy is genuine, then it is likely that there will be at least some plausible arguments on both sides). The dialectical aspect also means that there is an interaction between the arguers and between the arguments involving criticism, objections, responses, and, frequently, revisions to initial positions.

One implication of this view is that we seldom make and assess individual arguments in isolation. Rather, we make them in the context of a dialectic, of a historical and ongoing process of debate and critique, of competing views and the give-and-take among them. Thus an individual argumentative exchange must be viewed in the context of this dialectic (Bailin 1992, p. 64). The following reference by Blair and Johnson to Aristotelian dialectic captures the essence of this perspective.

In Aristotelian dialectic, an interlocutor's contribution has to be seen against the background of the questions already asked and the answers already given. In understanding argumentation, this feature points in the direction of background beliefs shared, or debated, by the community of informed people for whom the key

<sup>2.</sup> Johnson continues to make a similar point in more recent work: "An exchange is dialectical when, as a result of the intervention of the Other, one's own logos (discourse, reasoning, or thinking) has the potential of being affected in some way" (Johnson 2000, p. 161).

<sup>3.</sup> Johnson makes a similar point: typically "there are good arguments for and good arguments against a particular proposition or proposal" (Johnson 2003, p. 42).

propositions of the argument arouse interest and attention. (Blair & Johnson 1987, p. 45)

## 3. REASONED JUDGMENT VS. RATIONAL PERSUASION

An implication of the recognition that argumentation is dialectical is that, in order to understand the nature of argumentation and its evaluation, one needs to focus on the whole process of argumentation. This involves a focus on the comparative evaluation of competing views rather than simply on the evaluation of particular arguments.

Argumentation is a purposive activity, as Blair and Johnson have pointed out. We engage in argumentation to some end, but what that end is has been the subject of some debate. Johnson holds that there are different goals of argumentation: rational persuasion, inquiry, decision-making and justification. For him rational persuasion is primary, with other goals being generated from it. We agree that arguers may have different purposes or intentions in arguing such as the ones he lists. Nonetheless, because of the rational and dialectical character of argumentation, we would argue that the primary goal should be seen as arriving at a reasoned judgment, a process we deem inquiry. Whatever the original intentions of the arguer, because of the normative constraints on arguers to be open-minded, to put their arguments to the test of reason, and to be willing to concede to the most defensible position, the normative structure of the practice necessitates inquiry at some level or stage (Bailin 1992). We might think about this issue in terms of MacIntyre's notion of the point of a practice, which does not necessarily or always coincide with the psychological purposes of particular practitioners engaging in the practice (MacIntyre 1984). Yet, through participating in the practice and abiding by its normative con-

<sup>4.</sup> By inquiry, we mean critical inquiry, i.e., the process of arriving at a reasoned judgment, and not simply the gathering of information.

straints, one can learn to appreciate its underlying structure and share in its constitutive purposes.

In order to probe this point further, let us look at what Johnson has to say about his rationale for taking rational persuasion as primary.

I cannot argue it here but I believe this purpose [rational persuasion] is the fundamental one and others (like justification, inquiry, reinforcement) can be generated from it. My strategy would be to mount an argument that parallels Wittgenstein's argument that first we learn to talk to others, then to ourselves. We justify to others, then to self. (Johnson 2007, p. 3, note 10)

We would, however, hesitate to equate justifying to others with rational persuasion. If you make an argument to someone, but the interlocutor presents you with sound criticisms and a more cogent alternative argument, then you ought to change your mind. If one views the purpose of argumentation as rational persuasion, and you fail to persuade, then the argumentation has failed. This seems an unpalatable conclusion. If the outcome of the exchange has been to reach a reasoned judgment, then we would want to say that the argumentation has succeeded. It seems to us that the 'rational' in 'rational persuasion' is central and points to an underlying strata of inquiry.

It is not our intention to imply that the purposes or intentions of the arguer are irrelevant to the process of argument. These purposes may frame how we go about the inquiry and where we put our emphasis. When I sit down to make my case in an oped piece, I am doing something which is different in certain ways than when I am discussing an issue with a colleague. In the latter case, I am trying to decide what to believe, and in the former I am trying to (rationally) persuade someone. The rational persuasion must, however, be preceded by inquiry in order to be rational—it involves, in effect, a presentation of the results of inquiry. And even when presenting my case, I have an obligation to be open to the objections, criticisms, and argument on

the other side that may be offered in response. Thus I am still, in some sense, engaged in an inquiry process. We shall argue in due course that taking reasoned judgment as primary is also beneficial from a pedagogical perspective.

## 4. REASONED JUDGMENT AND COMPARATIVE EVALUATION

Thus we are arguing that we should view as the central goal of argumentation the making of reasoned judgments. This process of arriving at a reasoned judgment is what we refer to as inquiry. By a reasoned judgment we mean not simply a judgment for which one has reasons, but a judgment for which one has good reasons, reasons which meet relevant standards. Hitchcock's revision of Johnson's notion of argumentation in terms of argumentative discussion has considerable overlap with our notion of inquiry.

An argumentative discussion is a sociocultural activity of constructing, presenting, interpreting, criticizing, and revising arguments for the purpose of reaching a shared rationally supported position on some issue. (Hitchcock 2002, p. 291)

An important difference is that Hitchcock frames his definition in terms of the purpose of the participants whereas we frame ours in terms of the point of the practice (a move which Hitchcock explicitly rejects). Nonetheless, his notion of the purpose as reaching a shared rationally supported position on some issue comes close to our notion of arriving at a reasoned judgment. In addition, his list of examples of the practice of argumentative discussion (288) would all qualify as well as examples of the practice of inquiry.

Given that argumentation is dialectical, the process of arriving at a reasoned judgment on an issue necessarily involves the comparative evaluation of contending positions and arguments. Kuhn makes the point thus: Only if knowledge is seen as the product of a continuing process of examination, comparison, evaluation, and judgment of different, sometimes competing, explanations and perspectives does argument become the foundation upon which knowledge rests. (Kuhn 1991, 201f., cited in Govier 1999, p. 212)

Such an evaluation requires knowledge of the details of the current debate, or what Johnson refers to as the dialectical environment. He defines the dialectical environment as "the dialectical material (objections, criticisms, alternative positions, etc.) that congregates around an issue" and goes on to describe what would be involved in mapping the dialectical environment surrounding an issue.

A mapping of the dialectical environment surrounding this issue [same sex marriage] would require us to lay out the various positions, the objections and criticisms of those positions, the responses to them. (Johnson 2007, p. 10)

It also requires one to address alternative positions. Johnson views this process of mapping as necessary in order to be in a position to address objections to one's argument, but we view it as much more fundamental. If argumentation is dialectical and coming to a reasoned judgment on an issue involves a comparative evaluation of contending positions, then having knowledge of the dialectic is central to the enterprise of arriving at a reasoned judgment.<sup>5</sup>

An example of the importance of knowledge of the dialectical context can be found in the role of identifying alternative arguments. A number of authors have adduced evidence demonstrating how significant errors of reasoning can be attributed to a lack of understanding of other positions (Kuhn 1991) and the failure to pursue alternative lines of reasoning (Finocchiaro 1994).

<sup>5.</sup> For a discussion of the difference between alternative positions, objections, criticisms, and counter-arguments, see Govier 1999, pp. 223—232.

In addition to the current debate around an issue, another aspect of the dialogical context is the history of the debate. If an issue is controversial, it is likely that the debate will have gone on over a period of time. Knowledge of the history of the argumentation which has led to the current debate, of "the questions already asked and the answers already given," can be helpful and is in some cases essential, to understanding the issue and the various positions which are contesting for acceptance. It is, for example, only possible to understand the ascendancy of certain scientific theories by understanding the nature of the problem which they were addressing and seeing what other theories they defeated and why. Only in this way we will understand why the dominant theory is seen as the best explanation and what issues still remain contested. Similarly, we can really only understand contemporary political debates by knowing something about the historical situation and the historical disagreements in which the contemporary debate has its roots. And knowing the history of a debate is important in order to determine where the burden of proof lies (looking at the history of the capital punishment debate, for example, will reveal that the deterrence argument has largely been discredited and that, as a consequence, any deterrence-based arguments would now assume the burden of proof).

## 5. THE ROLE OF ARGUMENT ASSESSMENT

We have argued that coming to a reasoned judgment involves a comparative evaluation of competing cases. But what is the role of the analysis and evaluation of individual arguments in this enterprise? Certainly the evaluation of individual arguments has an important role to play as arguments are the building blocks of cases or positions. Thus an initial assessment of individual arguments is a necessary part of the process of arriving at a reasoned judgment. It is, however, not sufficient. A complete assessment usually requires a comparative assessment of the strengths and weaknesses of the cases in which the arguments are embedded.

We would, however, also question the extent to which one can actually evaluate individual arguments apart from the context in which the arguments are situated. One may be able to make an initial, prima facie assessment of whether a particular argument is fallacious, but often, in order to know how good an argument really is, one has to evaluate it in its dialectical context. Judging how strongly a particular set of premises supports a conclusion frequently requires more information than that supplied in the particular argument. One might, for example, construct what seems like a strong argument for euthanasia on the basis of individual human rights, but this argument may not be strong enough to prevail against arguments regarding the possible abuses of legalization.

Moreover, this type of comparative contextual evaluation will call on criteria from the particular area as well as traditional argument evaluation criteria. Thus, for example, evaluating a causal claim in social science may require criteria for evaluating statistical arguments; and evaluating a claim about the merit of a particular painting will call on criteria of artistic value.

#### 6. LIMITATIONS OF THE DIALECTICAL TIER

As a way to recognize the dialectical dimension of argumentation, Johnson makes the move of adding a dialectical tier to the requirements for an adequate argument. In so doing, he maintains the focus on individual arguments but adds a requirement which enlarges the scope of what constitutes an argument. This move to have the dialectical dimension of argumentation reflected in the theory of argument is an extremely promising and important development. We would argue, however, that this

<sup>6.</sup> We discuss the role of other types of contexts (social, political, historical, disciplinary, and personal perspectival) in argument evaluation in Battersby & Bailin 2009.

<sup>7.</sup> In their 1987 paper, Blair and Johnson state that "single arguments are normally parts of a larger process and need to be interpreted and evaluated in that context" (Blair & Johnson 1987, p. 46).

approach does not go far enough in recognizing the implications of the dialectic dimension of argumentation. Taking rational persuasion as primary dictates a focus on particular arguments and how to improve them in order to achieve this goal. Dealing with criticisms, objections, and alternative arguments is a way to strengthen (or possibly amend) one's original argument(s). We would argue, however, that truly recognizing the dialectical dimension means more than simply discharging one's dialectical obligation to address criticisms and objections to particular arguments. Rather, taking seriously the dialectical dimension means focusing not on particular arguments, but instead on the debate and an evaluation of competing cases in order to make a reasoned judgment on an issue.

Johnson has the insight that argumentation is dialectical and that current theory and pedagogy does not take this into account. His solution is to augment the notion of what constitutes an argument and build more into the requirements for argument adequacy. Thus a knowledge of the dialectical environment is necessary in order to anticipate and deal with criticisms, objections etc. and to improve one's argument. He describes ways to go about anticipating objections as follows.

Perhaps even more effective is the step of immersing oneself in the issue and the various positions that have been developed. That means becoming familiar with the dialectical environment of the argument [...] The better one knows the dialectical environment [...], the more successful one can be in anticipating various objections. Because one then knows what sorts of objections are around, what sorts of objections others have raised. One will be familiar with the alternative positions and possibly be able to immerse oneself in them in order to see how someone who holds that view might object. One can then make use of one's knowledge of similar argumentative situations to extrapolate to the current one [...] Typically some of this thinking occurs in the construction of the argument—so it is likely the dialectical environment will influence the arguer in the very formation of the argument. (Johnson 2007, p. 4)

This process of becoming familiar with the dialectical environment around an issue (becoming knowledgeable about the various positions, objections, and alternative positions) sounds very similar to how we would describe a major component of the process of inquiry. For Johnson, this process in undertaken as a way to anticipate objections and thereby support one's argument. However, if one then evaluates these various positions, arguments, objections, etc. in a rational and fair-minded way, with the intent of identifying the most reasonable position, then one is really engaging in the inquiry process.

One criticism which has been leveled against Johnson's inclusion of the requirement of a dialectical tier is that this move would lead to an infinite regress in that supplementary arguments may themselves require further support, and so on (Govier 1999, p. 218). We would argue, however, that such a result is only problematic if one tries to build a dialectical tier into the requirements for an individual argument. Otherwise it can be seen as a realistic reflection of the dialectical character of argumentation, as Govier points out:

From a practical point of view, the fact that supplementary arguments may be questioned and may themselves require further support is only realistic, and quite plausible when we reflect on the history of actual controversies about important matters. Far from showing that there is a problematic infinite regress in the account, it could be alleged that this indefiniteness simply points to a feature of real debate, one that is mirrored in the intellectual and dialectical structure of the issues themselves. (Govier 1999, p. 236)

## 7. IMPLICATIONS FOR PEDAGOGY

The third point of Johnson's which we highlighted at the beginning, and with which we whole-heartedly agree, is that the pedagogy of argumentation should reflect how arguments are actually conducted and thus should include the dialectical dimension.

If my view is correct, then it follows that a critical thinker must possess as part of his or her argumentative skills what I called dialectical skills: being familiar with the standard objections to his position and responding to them, facing off against alternatives. (Johnson 2007, p. 1)<sup>8</sup>

He believes, moreover, that these dialectical skills are absent from most texts and tests of critical thinking, which tend to presuppose a traditional account of argument. We concur with this diagnosis. In order to fill this lacuna, we would argue for an approach to critical thinking pedagogy focusing on inquiry.

## 8. TEACHING CRITICAL THINKING AS INQUIRY

What might such an approach look like and include? 1) It would have as its goal the making of reasoned judgments; and 2) it would emphasize the comparative evaluation of contending positions and arguments in actual contexts of disagreement and debate. The following are the aspects which we have included in the inquiry approach which we have developed:

- 1. the nature and structure of arguments, the prima facie identification of fallacies, and the use and evaluation of central argument types such as analogical and causal reasoning;
- 2. identifying and clarifying issues, as well as determining the kinds of claims or judgments that are involved in different kinds of inquiry;
- 3. understanding the dialectical environment, including the current debate and history of the debate;
- 4. understanding the various aspects of context which may
- 8. The dialectical skills which Johnson outlines include the following: dealing with objections and alternative positions (including seeking out criticism); knowing what would count against one's position as well as for it knowing weaknesses in one's own position; changing one's mind when appropriate; taking time to reflect rather than rushing to judgments (Johnson 2007, p. 7).

be relevant, including the social, political, historical, disciplinary, and personal perspectival contexts (Battersby & Bailin 2009);

- 5. making a reasoned judgment, including the comparative weighing of arguments, the evaluation of alternative positions, synthesizing the strengths of various views, and proportioning judgment to the weight of evidence;
- 6. making one's own case, including constructing arguments, creating analogies, generating alternative explanations, and anticipating objections.

In addition to addressing inquiry in general, we also look at inquiry in specific areas, including the physical sciences, the social sciences, the arts, the humanities and interdisciplinary contexts. Considerable emphasis is placed throughout on the cultivation of the appropriate habits of mind in inquiry and dialogue.

We see a number of benefits in this type of approach. First, in focusing on argumentation as it is actually conducted, the approach should furnish students with some of the knowledge and skills necessary for making reasoned judgments in real contexts.

There are also dispositional benefits to an inquiry based approach. Inquiry is an active process. Students go beyond evaluating the arguments that may come their way or be put in their path to actively seek information and arguments in order to resolve an issue or puzzlement. Habits of mind such as intellectual curiosity, truth-seeking, self awareness, and intellectual perseverance may be fostered in the process.

An inquiry approach is also preferable to an approach based on rational persuasion because of the orientation to argumentation which it promotes. One of the challenges in teaching critical thinking is: "to counter students' tendencies to avoid challenge to their own beliefs, to ignore contrary evidence, to straw-person the beliefs of others, to refuse to concede points, to start with conclusions and then look for arguments to support them, to want to win at all costs" (Bailin 1992). Thinking about argumentation in terms of rational persuasion may have the result of reinforcing students' tendencies to try to find support for and persuade others of positions they already hold (even though this is avowedly not the intention), and it may not provide sufficient conceptual antidote to closed-mindedness and a desire to win. Adding a dialectical tier is a move in the right direction in that it imposes a requirement to look beyond one's own arguments, as Govier points out:

Thinking of argument as having a second dialectical tier links the practice of arguing with an open and flexible form of thinking in which we come to consider how other people think as well as how we ourselves think, and we attempt explicitly to consider and address alternatives to our own beliefs about the world. (Govier 1999, p. 207)

Nonetheless, the focus on rational persuasion limits the extent to which such open and flexible thinking is likely to be encouraged. Lawyers do, after all, anticipate objections to their own arguments, but they do so in the service of the effectiveness of the case they are making for their client. It is unlikely that in so doing, they are seriously considering changing their commitment to their client's position. We would argue that an openminded, fair-minded, and flexible attitude is much more likely to be encouraged by an approach which puts less emphasis on the persuasive function of argumentation (rational though it may be); which focuses on the evaluation of competing cases rather than on the evaluation of individual arguments; and which has as its explicit goal arriving at a reasoned judgment.

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