

# The Nature of Critical Thinking

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As the critical thinking/informal logic "movement" grows, so does the need to clarify its nature and its philosophical basis. It is evident that there is much disagreement among teachers of critical thinking as to its essence and the appropriate pedagogical goals and strategies for teaching it.<sup>2</sup> This paper attempts to characterize the basic nature of critical thinking, when approached for classroom teaching, in order to prepare the way for analysis of its philosophical grounding.<sup>3</sup>

## I. A definition of critical thinking.

Critical thinking is the use of a combination of logical, rhetorical, and philosophical skills and attitudes which promotes the ability to discover intersubjectively what we should believe.<sup>4</sup> From logic, critical thinking derives methods for analysing and evaluating arguments. From rhetoric, it derives methods for invention (that is, for generating questions about a given theme or problem),<sup>5</sup> and communication. From philosophy it derives a critically reflective, reflexive, ethical, and pragmatic attitude. In order to understand how critical thinking differs from traditional logic, it will help to focus upon its rhetorical and philosophical aspects.

## II. Rhetorical elements of critical thinking.

We develop our own views in part through discursive interchange with others. **Dialectic** (in the Socratic sense)<sup>6</sup> is the approach to this discourse which focuses resolutely upon what it is reasonable and ethical to believe. This approach demands humility, open-mindedness, and a willingness to cooperate with others, in part because discourse often threatens the participants' ego- and socio-centric belief-systems.<sup>7</sup> Because critical thinking is both difficult and threatening, we must utilize rhetorical strategies of **communication** to promote and facilitate the cooperation which is essential to dialectic.<sup>8</sup> This view goes back to Aristotle, who recognized that, while logical and rhetorical strategies differ, they complement each other and are applied together.<sup>9</sup> Thus, rhetorical strategies must be critically evaluated as a part of the communicative **context** in which both they and logical strategies are applied. In order to differentiate between this context and particular arguments that may be abstracted from it, I use the terms **argumentation** and **argument** (for communicative context and abstractable content/structure, respectively) in this essay.<sup>10</sup> The tradition of informal logic recognizes this need: for example, theorists of dialectic, logic

and rhetoric from Aristotle to Toulmin have noted the importance of critical thinking in the legal process, where a context of contention places particular constraints upon the use of rhetorical and logical strategies.<sup>11</sup>

Because critical thinking involves the often threatening confrontation of claims and belief-systems, it requires careful attention to the "audience" and its necessary influence upon the style of argumentation. The science of rhetoric has analysed and developed many such styles. One which is particularly useful for defusing possible feelings of threat and emotional reactions is Rogerian rhetoric, which "rests on the assumption that a man holds to his beliefs about who he is and what the world is like because other beliefs threaten his identity and integrity."<sup>12</sup> Whether or not one accepts the psychological theories of Carl Rogers (upon which Rogerian rhetoric is based), the communicative strategies of Rogerian rhetoric are essential for dialectic. These strategies attempt to get the critical thinker and communicator to do three interrelated things:

- (1) to convey to the [partner in dialectic] that he is understood,
- (2) to delineate the area within which he believes the [partner's] position to be valid, and (3) to induce him to believe that he and the [partner] share similar moral qualities (honesty, integrity, and good will) and aspirations (the desire to discover a mutually acceptable solution).<sup>13</sup>

Even in cases where one feels that one's partner in dialogue does not share the moral qualities or aspirations suggested in (3), above, it is often useful to approach him with this strategy in order to "get his ear," to facilitate discussion and agreement on specific issues. This strategy is reflected in many critical thinking texts. For instance, Johnson and Blair's **Logical Self-Defense** stresses the importance of the mutual **acceptability** of claims in argumentation:

The aim of any argument [here I would interpolate: argumentation] is to lay down a path leading from the reasons (the premises) to the goal (the conclusion). So the arguer, to convince us to accept the conclusion, has to provide us with acceptable premises.<sup>14</sup>

Thus attention to one's audience in argumentation is not mere "window dressing," but an essential feature of critical thinking.

Critical thinking, like litigation, plays a justificatory role for our claims and beliefs. Thus Toulmin is correct in stressing that the role of critical thinking is primarily "a retrospective, justificatory one."<sup>15</sup> Of course, dialectic is not just the con-

frontation of retrospective justifications: it is also a creative, inventive process. Dialectic's focus upon the context and the communicative strategies of argumentation moves beyond retrospection to induction, hypothesis, and prediction. When two views clash it is rare that the argumentation produced to justify one side of an issue is sufficient to persuade the opponents to abandon their own viewpoint and adopt the other view. Rather, dialectic involves the creative and intersubjective exploration and development of new ideas and new views. These new views often go beyond mere compromise. While epistemologists differ concerning whether this process of development of ideas and beliefs is a discovery or a construction, none deny that dialectic at least appears to be a creative process. Thus rhetoric's focus upon strategies of **invention** is also an essential element of critical thinking.<sup>16</sup>

### III. Philosophical and logical elements of critical thinking.

Critical thinking requires a commitment to rational and ethical praxis. It is not a mere conglomeration of techniques. The philosophical element in critical thinking, then, involves the application of its logical elements.

Logic is a powerful tool. It can be used for good or for evil, to clarify or to confuse. Despite its ethical neutrality, its use in argumentation introduces an ethical element, as we try to persuade others to adopt our ethical beliefs and practices. While some hold strong beliefs on one side of issues such as abortion and capital punishment, others hold equally strong beliefs on the other side. Critical thinking shows that in ethical matters, as well as in other areas of dispute, just because someone believes something is no **rational** reason for others to believe it. (After all, people once believed the world to be flat.) Of course, there are many **contexts** in which we accept a person's belief as evidence for a certain claim. For example, a lost driver who asks a gas station attendant for directions is reasonable for believing the attendant's claim that the highway is 'Right down there, take a right, you can't miss it.'<sup>17</sup> It may turn out that he was a practical joker who was having fun at the driver's expense — but in general we would (inductively, perhaps) trust that he would play his social role correctly.<sup>18</sup>

The philosophical aspect of critical thinking is involved, then, when we ask: how should logic be applied? The 'should' here is an ethical 'should,' tantamount to seeking after the good (not the evil) uses of logic.<sup>19</sup> In order to answer this question in a rationally persuasive way, that is, not simply as an expression of the author's beliefs, I suggest the following contrast between two different ways of handling argumentative contexts: **philosophy** vs. **sophistry**.

I will often use the term **dialectic** as a synonym for 'philosophy,' since one of philosophy's basic methods is Socratic dialectic. In order to distinguish dialectic from sophistry, I will examine the goal, method, interpersonal relations, and results of these two methods of argumentation.

In dialectic, the goal of argumentation is to discover what we may reasonably believe. Ultimately, this means: to seek the truth. In sophistry, the goal of argumentation is to win the argument.<sup>20</sup>

Dialectic's method is that of an open, humble search for truth and reasonable belief. In sophistry the method is to use whatever works to "win" the argument, to sway the audience. It is in the context that one often hears of "tricks," which play upon the credulity of the listener or reader. In dialectic one admits one's ignorance and limitations (as well

as those of others), the better to learn more. In sophistry one hides one's ignorance and limitations in order to sway the audience. This is why philosophy examines and critically attacks arguments, claims, and positions, while sophistry often results in attacks upon persons or personalities. The calm and slightly detached mood of the philosopher is useful to keep the argumentation firmly focused upon issues and evidence, avoiding the sort of innuendo and personal abuse which is a mark of sophistry.

This does not, of course, mean that in dialectic one must not care about one's subject matter: robots do not do dialectic. The reason to practice dialectic is the passion for knowledge and values, for achieving intersubjective understanding and proper evaluation of ourselves and our lives. But this passion is a far cry from the kind of ego-involvement in which a threat to one's argument is a threat to one's pride. It is this latter sort of emotion which must be avoided, for it inevitably leads to sophistry and destructive debate. As Socrates has shown, we should be grateful for being shown where we are wrong—for thus we have increased our knowledge and found a further area for inquiry.

The interpersonal relation which predominates in philosophy is that of cooperation: all sides in an argument work together to improve everyone's understanding. In sophistry individuals compete to see who will be the "winner": one wins at the expense of others.

The result of sophistry is that it weakens the participants. By swaying opinion on the basis of tricks, it leaves participants still far from understanding and clarity, and thus at the mercy of the next glib speaker or writer to come along. Dialectic, on the other hand, strengthens participants by increasing their grasp both of the reasons and evidence for drawing particular conclusions, and of the methods, contexts, and attitudes of rational inquiry.

Critical thinking borrows from philosophy the view that a good argument—whether or not it leads to the conclusion we expected or desired at the outset—is one which **promotes dialectic**. Of special importance, then, will be the avoidance of strong claims which are not rationally defensible, and the preference for smaller claims which are rationally defensible.

In addition to these practical (in the sense of practical reasoning)<sup>21</sup> elements, critical thinking borrows from philosophy the notions of reflection, reflexion, and critique.

Critical thinking involves a reflective attitude. As a critical thinker, one does not just let situations and claims slip by. Rather, one focuses upon and assesses beliefs, claims, events, discoveries, etc. This focusing is not adventitious, but results from a conscious decision to think about or think through the things one encounters, and to develop habits which promote the implementation of such a decision.

Critical thinking is also reflexive. The critical thinker examines his own beliefs, claims, hypotheses, and arguments, as well as the assumptions which underlie them. This is a never-ending process: ". . . the full implications of reasoning are rarely (if ever) exhausted or displayed in arguments," since the individual arguments examined critically exist in a context of belief networks or world views.<sup>22</sup> The reflective and reflexive aspects of critical thinking make examination of the **context** of an argument's content an inescapable feature of the critical evaluation of argumentation.<sup>23</sup> Indeed, there is a sense in which the idea of an argument is itself a misleading abstraction: "Arguments are not things-in-themselves but con-

structions of specific people who must further interpret and develop them when objections, for example, are raised.<sup>24</sup> My own use of "argument" and "argumentation" in this essay is intended to stress this distinction between an abstracted "argument-in-itself" and the on-going, living context of argumentation, in which those abstracted constructions are produced, modified, and evaluated.

The sense in which critical thinking is "critical" also merits discussion. It is not only "critique," in the sense of exploring the scope and limits of the rational assessment of beliefs, but also "criticism," in the sense that it examines the strengths and weaknesses of arguments-in-context. The reflexive nature of critical thinking implies that criticism involves self-criticism.<sup>25</sup> That is, the examination of an argument in critical thinking necessarily involves the assessment of relevant beliefs and assumptions of one's own. Thus critical thinking's paradigm of argumentation is not that of isolated views and arguments but of interchanges among integrated belief systems, ideologies, and historical argument-chains.

Critical thinking, by stressing intersubjectivity and self-criticism, recognizes the limits of knowledge and the importance of ways of being, including the existential situation of particular partners in dialogue.<sup>26</sup> Thus the theory of critical thinking includes both epistemological and ontological foundations for the living use of critical thinking. From Plato to Kant, from Pyrrho to Hume, philosophers have recognized both that they are (that they have some grasp of being), and that they are so existentially situated that they cannot aspire to absolute or god-like knowledge. Thus **interpretation**, the living understanding and fitting together of diverse structures of events, conjectures, and language into individual and social situations (ways of being-in-the-world), is central to the theory of critical thinking.<sup>27</sup> We all recognize that—try as we might—we end up misunderstanding one another's actions, explanations, and questions. Human fallibility and our inventive and methodological ways of dealing with this fallibility are, therefore, central to the theory of critical thinking. Thus, the nature of language, discourse, and interpretation must be analysed as part of the ground for and living of critical thinking.<sup>28</sup>

Thus critical thinking differs from traditional treatments of formal and informal logic by its wider philosophical and rhetorical focus upon the nature of on-going argumentation as a living and intersubjective process.

## Notes

1. See Paul (June, 1983).
2. The variety of views of critical thinking was evident to those of us who attended the First International Conference on Critical Thinking, Education and the Rational Person at Sonoma State University, August 15-19, 1983. I prefer the term "critical thinking" to "informal logic" because the tradition brought to mind by the latter is somewhat different from the "new wave" of the critical thinking movement referred to in Johnson and Blair (1980: 13). I feel that this difference is of sufficient philosophical import to merit the change of terminology.
3. I am currently working on an essay which attempts to develop such a grounding.
4. The emphasis upon belief I owe to Robert Ennis, from a lecture presented at Sonoma State University conference mentioned in note 2, above.
5. The tradition of "topics of invention," as they are called by rhetoricians, goes back to Aristotle's RHETORIC, and includes such modern methods as Kenneth Burke's 'pentad' (see Burke (1978)) and Kenneth L. Pike's 'tagmemics' (for the clearest introduction for non-linguists, see Pike (1982)).
6. Here I am in agreement with Richard Paul (May 1982: 3): "... virtually all teachers of critical thinking want their teaching to have a global 'Socratic' effect . . ." Cf. Maker (December, 1982). Even those like Robert Binkley, who stress that instruction in informal logic is "a matter of skill teaching," admit that "What we want in addition [to these skills] is an attitude, or set of attitudes, towards the use of these skills." (1980: 82f). The union of cognitive skills and affective attitudes was a recurrent theme at the conference at Sonoma State University, mentioned in footnote 2, above.
7. Paul (May, 1982: 3).
8. Maker (December, 1982: 18) connects the criteria of rationality "with effective communication and thereby with freedom." Many rhetoricians stress the role of rationality in persuasive contexts. For instance, Perelman and Olbrechts-Tyteca (1969: 26-31) note that one interested in "the rational character of adherence to an argument" will be more interested in convincing than in persuading.
9. **Aristotle, Rhetoric, Bk. I, 1354a, 3-6.**
10. I explain this distinction in more detail toward the end of the next section of this essay. Fohr (April, 1980: 6) uses the term 'possible argument' somewhat similarly to my use of 'argument.'
11. Aristotle, **Rhetoric, Bk. I, 1354a, 20ff.** Toulmin (1980: 7f).
12. Young, Becker, and Pike (1970: 7).
13. Young, Becker, and Pike (1970: 275).
14. Johnson and Blair (1977: 7-8), my brackets.
15. Toulmin (1980: 6). To be fair to Toulmin, I should note that he says this of logic, not of critical thinking. However, in context, I feel that my use of the term 'critical thinking' reflects what he is addressing in this statement.
16. Weddle (October, 1980: 12) seems to recognize the importance of invention's role in argumentation when he says "My present intentions, if any, regarding the argument I now confront scarcely matter, since I will be trying to let the argument **form** my intentions." I would add, however, that the 'since I will . . . my intentions' is itself often an intention in argument.
17. I owe this example to Professor Ralph Johnson, to whom I give thanks for his insightful comments.
18. On social roles and typified behavior, see Schutz (1976: Part I, Section II).
19. The ethical nature of critical thinking is reflected in the interchange between R.H. Johnson (June, 1981) and (November, 1981), Govier (November, 1981), and Griffin (November, 1981).
20. See Adler (May, 1982: 16) for the importance of the Principle of Charity to this issue.
21. See Maker (December, 1982: 18).
22. Paul (May, 1982: 3f). Cf. Carroll (June, 1983: 23).
23. See Govier (July, 1982: 11).
24. Paul (May, 1982: 5). Cf. Fohr (April, 1980: 5-6). Weddle (October, 1980: 2) notes that the same distinction applies to claims, and Bickenbach (May, 1982: 7) suggests that "part of what it means for an argument to be a proof is that [i<sup>1</sup>] is **seen** (in the argumentative context in which it appears) as a proof . . ." The interchange between Weddle, F. Johnson, Hitchcock and Fohr in **Informal Logic Newsletter** ii.2, ii.3, and iii.1, makes my choice of words preferable, I think. F. Johnson's discussion of the identity of arguments pronounced by different persons and on dif-

- ferent occasions reflects the problem of ideal objects as discussed in Husserl (1970, I, Prolegomena), and Frege (1966: 30-33). 'Argument' in my sense is an ideal object which is studied by abstracting it from argumentation (or by imaginative creation). The precise nature of ideal objects is much too vast a question to be taken up in the present essay. However, I add that Fohr's position (October, 1980: 10) seems, *prima facie*, to agree in a broad way with my interpretation of 'argument' as an ideal object. See his reference to "possible arguments" at (April, 1980: 6). There is, of course, a sense in which arguments are things-in-themselves. This is the sense which I give to the word 'argument'. Formal logic's analyses of argument forms and its creative use of calculative systems make up a large part of the science of arguments-in-themselves.
25. Adler (May, 1982: 16) points out the importance of self-criticism in Popper's philosophy of science.
  26. Fohr (October, 1980: 8) states emphatically that his concern is "with the real arguments of real people."
  27. R. H. Johnson (June, 1981: 8) notes 'hermeneutic tasks at four different levels' of analysis of argument[ation]. Cf. Govier (July, 1983: 11).
  28. If this list sounds staggering, it must be recognized that it is only the "tip of the iceberg." As Fohr (October, 1980: 9) notes: "Analyzing real-life arguments rather than textbook examples is a very complex matter, much more complex than one would think from reading most books on logic." Cf. Weddle (October, 1980: 11): "... our subject-matter is the reasoning by which one attempts to regulate the affairs of life ...". Moberg (December, 1982: 21-22) notes the epistemological component of argumentation.

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