

a given source analogue to a target. The output of such programs matches human performance in analogical thinking reasonably well, and compares favourably to that of competing computational models of analogical thinking.

The authors regard their theory as a partial contribution to understanding analogical thinking, and they conclude with a description of outstanding questions for investigation. On the question whether more effective use of analogies can be taught, they write:

Many courses on critical thinking include a component on analogy use and misuse, but it would be surprising if such instruction were very effective, given the impoverished views of analogy that are usually presupposed. (p. 264)

The authors think that their multiconstraint theory can provide a basis for instructing people how to avoid abuses of analogy, but are agnostic about whether any effective method can be devised for improving creative uses of analogy.

*David Hitchcock, Department of Philosophy, McMaster University,
1280 Main St. W., Hamilton, ON L8S 4K1*

CRITICAL THINKING, 2nd edition.

by **John Hoaglund**

Newport News: Vale Press, 1995. 666 pages. ISBN: 0-916475-077.
Paper. US \$29.45.

Reviewed by Don S. Levi

An author of a critical thinking textbook seems to be given a paradoxical mandate: help students to think for themselves by offering them lessons that seem to do the thinking for them. To justify its existence the book has to have a selling point, and this seems to mean that the book has to give students procedures to follow or techniques to master. The problem is that the procedures or techniques seem to function as substitutes rather than as aids for the thinking that students still need to do.

Hoaglund's book is a good example of how this can be a problem. He does an excellent job of teaching argument diagramming, and even someone like myself, who does not teach it, can see the value, in helping students to think about how the argument works, of lessons on serial, linked, convergent, and divergent (or compound) arguments.

However, because diagramming is given so much emphasis, and because Hoaglund teaches diagramming by taking what the arguer actually said, word-for-word, and rearranging it according to the requirements of the diagramming, other things students need to think about are neglected. After more than five hundred pages, he does discuss paraphrasing, and the discussion does make some good suggestions about the need to determine what is at issue and whether the arguer anticipates objections. But these matters are treated much more perfunctorily than is diagramming, and other important rhetorical considerations are neglected, such as why the argument is being given, whom it is addressing, and how it is being stated. No doubt this lack of emphasis or neglect is due to the fact that there are no techniques or procedures that are of much help to students in taking such considerations into account. If it is understandable that Hoaglund would emphasize what can be taught as a procedure or technique, it also is troubling that what he is teaching minimizes the importance of what cannot be taught that way.

Even enthusiasts for diagramming will wonder about what he says about how a diagrammed argument is to be evaluated. They will be impressed, as I am, by the variety and number of different arguments that Hoaglund has diagrammed. However, they will be reminded of Stephen Thomas's *Practical Reasoning in Natural Language*, which teaches the same techniques and also has many illustrations of diagramming. So, I suspect that they will be especially intrigued by what Hoaglund has to say about evaluation, because, by contrast with Thomas, Hoaglund makes little use of the concept of validity when he talks about how to evaluate an argument.

Hoaglund offers a number of rules for evaluating argument that involve determining: whether the argument can be made stronger; whether its premises or conclusions have unacceptable consequences; whether the argument is weak or strong when different scenarios are considered for it; and whether the same premises support a contrary conclusion. These and other rules are not intended to be exhaustive, and offering them as evaluation guides can be helpful to the students who can learn to apply them.

However, some of his evaluation advice seems wrong-headed. To assess the support provided by the premises of a convergent argument, he says, we need to add up the degree of support offered by each premise. For example, consider the claim: "The NCAA championship game was a great game because the final score was close and because both teams played well." He gives a 30% degree of support to the fact that the final score was close; 45% to the fact that the teams played well. The second percentage should be understood to be 45% of what is left of 100% after we subtract the first percentage. Adding the two quantities, we get: $30\% + (45\% \times 70\%) = 32\%$, which is the degree of support for the argument as a whole. Hoaglund does admit that "there is a degree of arbitrariness in assigning such numerical degrees of support" (p. 194). However, the problem is not with this arbitrariness, but with failure to consider what might be at issue in arguing about how great the game was. Maybe only the final score was close and there

never was any doubt about the outcome; maybe very little of the play was out of the ordinary, etc. Unless we know what the resistance is to his conclusion that the arguer has to overcome it seems pointless to consider how to assess the argument (or even to consider it as an argument).

Hoaglund's emphasis in argument assessment is misplaced because he encourages students to assess the strength of the reasons for a conclusion independently of a consideration of what turns on the conclusion or what the other parties to the argument are maintaining. That he does not see that his approach is problematic is due to the fact that so many of his examples, like the one I have just been discussing, are discussed as though they exist in a rhetorical vacuum.

Another example that exists in such a vacuum is one he uses to illustrate how the assessment of an argument is a function of how strong a claim the conclusion is making: "The leading cause of AIDS is sexual contact with an infected person. So by avoiding contact with infected persons you won't get AIDS." Whether the conclusion is to be stated in terms of an unqualified guarantee that you won't get AIDS by avoiding sexual contact, or a qualified assurance that you will only decrease your chances of doing so by avoiding it, is what interests Hoaglund. That the analyst has a choice about how to interpret the conclusion is due to the fact that Hoaglund really is not thinking of the argument as something someone actually is giving. Otherwise he would have been more concerned to provide more details about whom the argument is addressing (only those contemplating sex with someone who is HIV-positive?) or why it is being given.

Although the chapter on logical puzzles is strong, several other chapters, such as the ones on fallacies and conditional arguments, need more work. He does try to incorporate some dialogic ideas about the characterization of fallacies, but this is not a well-developed part of his account. Moreover, his illustrations are not always examples of the fallacies he says they commit. He quotes Dale Crowley as committing a straw man when he attacks academic freedom on the grounds that it stops attempts at preventing the use of public money to teach humanism and socialism. Hoaglund says that Crowley commits it because he "fails to come to grips with any of the serious reasons for supporting academic freedom." Hoaglund confuses an attack on a position not held by the opponent with an attack on the opponent that ignores the opponent's reasons.

Even less successful is Hoaglund's discussion of conditional argument forms. He says of *modus ponens* and *modus tollens*, that "in those cases where both premises are true, this is nearly always a strong argument" (p. 446). The qualifier ("nearly always") will be puzzling to many logicians until they look at a typical example that he discusses: "If he gets a good lawyer, he'll be acquitted. He is convicted. So, he didn't get a good lawyer." The first premise is in the future tense, the second in the present tense, and the conclusion in the past tense. These shifts in tense suggest that he has in mind a reading of the argument where it is not truth preserving, where the conditional premise is understood as saying that the case against the defendant is very weak, and so does not rule out the possibility

that the lawyer, who is a good one, performed badly. If Hoaglund has such a reading in mind then he is not thinking of a case of *modus tollens*, as any logician would be happy to point out to him.

More than anything, I am troubled by the fact that several of his interpretations of arguments are questionable. Let me give two examples. To illustrate inconsistency he cites the case of Glenn who supports the war in Vietnam but opposes abortion because it involves the destruction of human life. According to Hoaglund, Glenn is “claiming that destroying human life is always wrong and that destroying human life is sometimes right” (p. 12), an interpretation that seems to put too much emphasis on the exact wording of Glenn’s views, and not enough on what Glenn really believes.

Even more troubling is a discussion of a version of an example in Michael Scriven’s *Reasoning*. Powell, a nominee for Secretary of State, is being questioned at a confirmation hearing by Senator Sharp, who reminds him that the public does not know about his homosexuality, even though he did acknowledge it when asked to confirm what the Senate committee’s investigators uncovered. Sharps asks Powell whether he can allay the committee’s fears that he could be the target for blackmail by a foreign power which discovers that he is a homosexual. Powell replies that his private life is not at issue, only how he will conduct foreign policy.

Hoaglund dismisses this reply because Powell’s homosexuality “bears significantly on the candidate’s effectiveness as Secretary of State” (p. 404). But, as Scriven points out in his discussion of this argument, if the members of the Senate committee know that Powell is gay, then he can’t be very vulnerable to threats of exposure by foreign powers. Hoaglund’s claim that “a committee that possessed this information yet failed to deal with it would certainly be remiss in its duty” is sufficiently distressing that I wonder whether he has done enough to think about the issues raised by the example.

Despite my reservations about his book, I want to applaud Hoaglund for how hard he has worked on his pedagogy. In addition to the lengthy sets of exercises in each chapter, he also includes at the end of each chapter a section under the heading “Critical Thinking Journal,” which asks students to work on more exercises and to carry out certain projects. This journal is a valuable pedagogical resource, and Hoaglund includes a sample student journal, something that teachers and students should find helpful.

This is a long book: 666 pages. Despite the Satanic associations with this number, there is nothing of a disturbing nature in this book. Perhaps, there should have been. Even though the book does a good job of teaching diagramming techniques, I think that it would have benefited from the inclusion of more interesting and even provocative arguments, where the value of these techniques would be more evident.

*Don S. Levi, Department of Philosophy, University of Oregon, Eugene OR
97403-1295*