critical review

Copi's Sixth Edition

Ronald Roblin
State University College at Buffalo

Copi, Irving. **Introduction to Logic.** 6th edition. New York: Macmillan, 1982. x, 604 pp. ISBN 0-02-324920-X

The sixth edition of this widely used and influential text is worth reviewing, first, because changes have been made in the new edition which are pedagogical improvements over previous editions and these deserve attention. Second and more importantly, a number of serious problems still persist into the sixth edition, and these warrant extended discussion.

The pedagogical improvements are due largely to the introduction of many new exercises in the text, especially in the introductory sections on arguments. In addition, Copi has incorporated a section in the first chapter entitled "Diagrams for Single Arguments" which outlines a method for clarifying the structure of arguments and is later used most effectively in conjunction with passages containing multiple arguments. Copi utilizes this method throughout his accompanying manual for the instructor, and it is most valuable for exhibiting implicit premisses and/or conclusions in arguments as well as complex interrelationships among premisses and conclusions in passages containing several arguments. As in the fifth edition, Copi has continued to strengthen the text in the area of its greatest appeal—the wealth of illustrative exercises which the student requires in order to both perfect his grasp of logical principles and to apply them effectively in practice.

If the major strength of Copi's text is its wealth of exercises, its most apparent weaknesses are found in its superficial treatment of such subjects as informal fallacies and in the lack of depth and precision in its discussion of such topics as the square of opposition and the standard form categorical syllogism. Unfortunately, Copi has not undertaken the task of extensive rewriting which is called for on these and other topics. Most of his time and energy has apparently been spent on up-dating and improving the exercises, with the result that topics of substantive importance continue to receive inadequate treatment. In what follows I will attempt to rectify some of the errors and omissions in Copi's presentation of the above mentioned topics.

Informal Fallacies

Copi's chapter on informal fallacies is among the weakest in the text. The thirteen errors in reasoning which he classifies as fallacies of relevance are a hodge-podge. Some should not be classified as fallacies of relevance at all while still others are characterized inadequately or incompletely. Copi maintains that in all fallacies of relevance "their premisses are logically irrelevant to, and therefore incapable of establishing the truth of their conclusions" (pp. 98-99). But this definition does not apply to the most important of the fallacies of relevance, the irrelevant conclusion (**ignoratio elenchi**). According to Copi, this fallacy is committed "when an argument supposedly intended to establish a particular conclusion is directed to proving a different conclusion" (p. 110). Copi even allows that the fallacy can be committed by one who may "succeed in **proving** his (irrelevant) conclusion" (my italics). The fault then is not that the premisses of such arguments are **logically irrelevant** to the conclusion drawn from them, but that the conclusion drawn is insufficient to justify the conclusion called for by the context. If a prosecutor, purporting to prove the defendant guilty of murder, shows only that he had sufficient opportunity and motive to commit the crime, he (the prosecutor) commits the fallacy of **insufficient conclusion.** If, on the other hand, he succeeds only in "proving" that murder is a horrible crime, he is guilty of an **ignoratio elenchi.** In effect, then, Copi does not distinguish between two different fallacies—the **ignoratio elenchi** and the insufficient conclusion. More importantly, his definition of a fallacy of relevance would exclude arguing "beside the point" in cases where a valid argument is produced which is (logically) irrelevant to the point at issue. And he has defined irrelevance in a way which does not include an insufficient conclusion.

There are also difficulties in Copi's account of a number of the fallacies of relevance which have been called "appeals to the passions." It is possible, reading Copi, to conclude that in most contexts an emotional appeal results in a fallacious argument. However, an appeal to emotion (fear, pity, patriotism, etc.) to secure agreement need not involve erroneous reasoning—or any reasoning at all. An appeal to sympathy is not **per se** an argument; nor is a threat to use force. However, a fallacy can be committed in a situation in which emotion is appealed to **illicitly**, i.e., in a circumstance where argument rather than emotional persuasion is appropriate. As a result, the logician must distinguish between emotional appeals which are and those which are not illicit and, among the latter, those which do and those which do not result in fallacious arguments. None of these distinctions emerge from Copi's **simpliste** treatment of illicit appeals under the artially adequate heading of fallacies of relevance.

Copi recognizes (p. 108) that the fallacy of "begging the question" is not a fallacy of relevance, a point which also holds for the related fallacy of complex question, the question-begging question. This is because the "premiss of a **petitio principii** is not logically irrelevant to the truth of the conclusion" (p. 108) nor is the conclusion irrelevant to the question at hand. The formula which Copi introduces **ad hoc** to cover this fallacy—"the premiss is logically irrelevant to the purpose of **proving**....the conclusion" (p. 108)—applies to almost all fallacious arguments of any sort. The difficulty here is that Copi has not worked out a satisfactory classification of fallacies within which the **petitio principii** can find a place. To do so requires a satisfactory conception of the **criteria** of proof and cannot be done solely by the consideration of the criteria of truth and validity.

Copi does not follow the practice of many modern

logicians in classifying the fallacies of accident and converse accident as fallacies of ambiguity rather than as fallacies of relevance. He also errs in identifying the fallacy of converse accident with that of hasty generalization. The fallacy of accident can be renamed the "fallacy of introducing qualification," for it involves an inference from the unqualified use of a term to its use as qualified. Conversely, the fallacy of converse accident involves an inference from the qualified use of a term to its use as unqualified. It can therefore be called the "fallacy of eliminating qualification."[1]

Deduction

In previous editions of the text, Copi did not discuss the differences in truth–value which hold respectively for necessary and contingent standard-form categorical propositions (having identical subject and predicate terms) on the square of opposition. In the fifth edition, Copi made an unsuccessful attempt to deal with this question. To begin with Copi recognizes that the definition of contraries as standard-form categorical propositions (SFCP's) which cannot both be true "though they might both be false" does not apply to necessary propositions like "All men are animals" and "No men are animals" because the former must be true and the latter must be false, so both cannot be false. Similarly, the definition of subcontraries as SFCP's which cannot both be false although both might be true does not apply to the necessary propositions "Some men are animals" and "Some men are not animals" because the former must be true and the latter must be false, so both cannot be false. Similarly, the definition of subcontraries as SFCP's which cannot both be false although both might be true does not apply to the necessary propositions "Some men are animals" and "Some men are not animals" because only the former proposition can be true. Copi mentions such exceptions to the rules applying for contingent propositions but does not show how to resolve the difficulty painlessly. For if "All men are animals" and "No men are animals" have opposite truth–values, they will be contradictories rather than contraries, a point which also applies to the subcontraries "Some men are animals" and "Some men are not animals." This difficulty can best be dealt with by defining contrariety and subcontrariety in terms of the 'opposition' of quality and quantity in SFCP's rather than in terms of their truth values. Accordingly, contraries may be defined as universal SFCP's opposed in quality, subcontraries as particular SFCP's opposed in quality, etc. The advantage of defining contrariety in this way is the elimination of much of the confusion which can result from the realization that such garden-variety necessary propositions as "All squares are rectangles" and "No squares are rectangles" turn out to be contradictories instead of contraries if their logical relationships are conceived in terms of truth–values. On the modern definition of contrariety, for example, the **A** proposition must be a contrary of the **E** when it is a contingent proposition and must be a contradictory of the **E** and the subcontrary of the **I** garden-variety necessary proposition.[2] Medieval logicians recognized this state of affairs and we are simply following their procedure in defining contrariety, etc. in terms of "oppositions" in quality and quantity of the four SFCP's. Accordingly, the truth–values which the four SFCP's will assume s necessary and as contingent can be worked out independently of their (scholastic) definitions. Probably the best procedure is first to establish the entailments which hold **both** for necessary and for contingent SFCP's. Then the rules applying specifically to contingent SFCP's can be elaborated. Additionally, it should be noted that not all necessary propositions rae of the garden-variety sort mentioned above. In the case of such SFCP's as "All numbers are prime" and "No numbers are prime", **both** contraries are necessarily false. Consequently, it is necessary to map the logical relationships both for garden-variety necessary propositions and for this less common variety of necessary proposition. These complications in the traditional square of opposition have for the most part been ignored by the authors of logic textbooks.

Copi's section on the rules (pp. 227-232) for testing the validity of standard form categorical syllogisms (SFCS's) is afflicted with difficulties similar to those we discussed on the square of opposition. Copi builds his **definition** of a SFCS into his statement of Rule 1 (pp. 227-8) with the consequence that a rule of semantic validity—"a valid SFCS must contain exactly these terms, each of which is used in the same sense throughout the argument"—is introduced in a section otherwise concerned with rules for the determination of **formal validity**. But an argument in violation of Rule 1 cannot be SFCS simply because it fails to contain exactly three terms, for this is a defining characteristic of a SFCS. As a result, Rule 1 cannot count s a rule which is applicable to its ostensible subject matter—the SFCS. Copi's procedure would have been more satisfactory, I believe, if he had set this semantic rule apart from the formal rules which follow it (Rules 2-6). He might have simply directed the reader in this context first to examine an argument which is ostensibly a SFCS for the "Fallacy of Four Terms," after which a set of rules for testing formal validy could be given.

There is a second difficulty in Copi's Rule 1. It is not only redundant, given his earlier definition of a SFCS, but insufficient as well. Copi does not specify in Rule 1, as he does earlier, that each term "occurs in exactly two of the constituent propositions" (p. 210). This is essential if the rule is to be complete. Otherwise, someone who mistakes Rule 1 for a **complete** definition of a SFCS would conclude that the following argument is invalide: "All men are animals, no men are stones, therefore some animals are men." This argument, while it passes Rule 1, is in violation of Rule 5, stating that "if either premiss of a SFCS is negatie, the conclusion must be negative" (pp. 230-1). This difficulty can be avoided simply by a restatement of Copi's definition of a SFCS (p. 210).

Despite these difficulties, Copi's text contains much that is worthwhile and deserves its continued popularity. Its wealth of exercises is a boon to any instructor who stresses, as I do, the application of logic to everyday life. In addition, students seem to have few complaints about the book's style. For the most part, it is accessible to introductory level students, who at least **think** they understand Copi's exposition. Finally, it covers a wide and very nerly extensive number of topics of potential interest to teachers of introductory logic.

Notes

[1] On this question, see W.T. Parry and E.A. Hacker, **Aristotelian Logic: Selected Chapters of Proposed Textbook**, 2nd revised ad. (Northeastern U.P., 1978), 32c5. I am much indebted to my former teacher and colleague, Professor William T. Parry, for his helpful discussion of numerous points in this review.

[2] Parry and Hacker, 8F2. ●