

THE FORM OF *REDUCTIO AD ABSURDUM*

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A recent discussion of this topic by Donald Scherer in [6], pp. 247-252, begins thus:

*Reductio ad Absurdum* is clearly a valid argument form. Yet logicians tend in their writings either to ignore it or to treat it in a confusing and confused way. The aims of this paper are to expose this confusion as it appears in one of the fullest accounts given (by Copi in his *Symbolic Logic*), and to develop an adequate formulation.

After giving the form of Copi's *reductio ad absurdum* proofs,<sup>1</sup> Scherer argues (1) "that the form presented by Copi fails to manifest the basis upon which *reductio ad absurdum* is informally conceived to rest," (2) "that it is given a form which is . . . less than intuitive," and (3) that it is given a form which is "both *epistemologically and formally*<sup>2</sup> impossible." It seems to me unprofitable to argue about (1) and (2), since one man's informal conception or intuition is all too often another's stumbling-block. Besides, even if Scherer's intuition is better than Copi's, it does not follow that Copi is confused; to show confusion on Copi's part, Scherer must prove (3), which I now discuss.

Consider first what Scherer calls the *epistemological* impossibility. According to him, Copi's typical *reductio* sequence, including the steps<sup>3</sup>

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|----|------------------|------------|
| 1. | $r \cdot \sim r$ |            |
| 2. | $r$              | 1, Simp.   |
| 3. | $\sim r \cdot r$ | 1, Com.    |
| 4. | $\sim r$         | 3, Simp.   |
| 5. | $r \vee q$       | 2, Add.    |
| 6. | $q$              | 5, 4, D.S. |

is epistemologically impossible because, on the standard tabular interpretations of negation, conjunction and alternation, the conclusion  $q$  (line 6) is not acceptably derived from the premise  $r \cdot \sim r$  (line 1): "the derivation is unacceptable because it involves the supposition that both conjuncts of the contradiction  $r \cdot \sim r$  are true." How then does the derivation involve this supposition?