

The Validity of Disjunctive Syllogism Is Not So Easily Proved

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I This note is prompted by John Burgess's "Relevance: A Fallacy?" [2], which offers an argument in favour of the deductive validity of the argument form Disjunctive Syllogism, $DS (A, \text{not-}A \text{ or } B / \therefore B)$. The kind of argument he gives is not so unusual, and can be encountered around the literature (e.g., [3], p. 666) and not infrequently in the verbal pronouncements of philosophers. The bones of the reply I will give to Burgess can also be found in a number of places and as long ago as 1972 (e.g., [4]-[6]), though I do not think it has been systematically developed anywhere. Since Burgess's argument is representative of a widespread kind of mistake about relevant logics, it is worthwhile to try to say clearly what is wrong with it.

Burgess disclaims any attempt to discuss the extensive literature on relevant logics other than Anderson and Belnap's 1975 "masterwork" *Entailment*. Hence, his argument is best viewed as a piece of internal criticism of that book. However, he makes several remarks which imply fairly clearly that his sights are on more general targets, and are intended to apply to all "self-styled" relevant logicians. Let me therefore concede straight away that in my view Anderson and Belnap's discussion of DS in *Entailment* is inadequate. It would be rash, however, to draw the conclusion that there is no hope offered within the broad programme loosely classifiable as "relevantist" for shoring up their rejection of DS . Indeed, in view of the well-known Lewis proofs of the irrelevant principle of *Ex Falso Quodlibet*, there had better be.

Burgess says that the issue as far as he is concerned is whether relevant logics "are in better agreement with common sense than classical logic", and

*I wish to thank Bob Meyer, Graham Priest, and Stephen Read for helpful comments.