

“NOT BOTH  $p$  AND NOT  $q$ , THEREFORE IF  $p$  THEN  $q$ ”  
 IS A VALID FORM OF ARGUMENT

S. K. WERTZ

Recently (*Mind*, vol. LXXXII (1973), p. 280), Geoffrey Hunter has offered what he thinks is a counterexample to the valid argument form

(1) not both  $p$  and not  $q$ , therefore if  $p$  then  $q$ .

His example reads as

(2) Not both Geoffrey Hunter is a bachelor and Geoffrey Hunter is not married. Therefore if Geoffrey Hunter is a bachelor then Geoffrey Hunter is married.

Below I show that (2) fails to establish a counterinstance to (1), and that this is the result of logical and semantical confusions. Surely, Hunter would concede that

(3) bachelor  $\equiv$  a not married male.<sup>1</sup>

If so then the proper abstraction of (3) is

(4)  $p \equiv p$ .

However, (1) requires that the propositional variables be *distinct*. This is obvious from examining the truth table of (1). In other words, the truth value assignments of  $p$  and  $q$  are not the same (i.e., each has a different matrix):

(5)  $\sim(p \equiv q)$ .

But  $p$  abstracts the same thought—bachelor, not married male: the “not” is part of the predicate, and hence, it cannot be removed by the simple operation of negation as Hunter has done in the conclusion of (2). So in (2), Hunter cannot assign  $p$  to bachelor and  $q$  to a not married male, because they are synonyms, and  $p$  and  $q$  must abstract different states of affairs. (Again, this would be required by the truth table.) And furthermore, these states of affairs are to be independent of each other. There is an intensional relation between marriage and bachelorhood which there is not, say between bachelors and logicians; in negating the one conception—a married male—one arrives *a priori* at the other—bachelorhood, these are mutually exclusive and jointly exhaustive. Hunter’s example (2) is possible