

GEACH AND THE LEWIS RESULT

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Briskman is apparently the first to have observed that Geach, in virtue of (i) entailment theses that he explicitly endorses and (ii) what he says about entailment and valid derivation, is committed to one form (that B can be validly derived from A and $\text{not-}A$) of what might be called the "Lewis result" even as he avoids being committed to another form of it (that A and $\text{not-}A$ entails B).¹ But Geach is unimpressed; he dismisses Briskman's objection ("What logical difference does it make that p & \bar{p} does not entail q , when we can validly prove or infer q from p & \bar{p} ?" (p. 24)) as "merely rhetorical," (p. 186). Without attempting to produce "formal objections" to Geach's "formal account" (p. 186), I want to present an argument based on Briskman's observation which seems to me to have logical (and not just rhetorical) force against someone who accepts Geach's account along with certain other views which seem especially likely to be held by someone seeking to avoid the Lewis result and are at least plausible in their own right.

Everything depends on what one's reasons are for wanting to avoid the Lewis result in the first place, and Geach seems not to speak to this question. But suppose they have to do with the view, frequently asserted by objectors to the Lewis result, that arguments are rendered invalid if relevance is lacking between premises and conclusion, the view that there

1. Larry Briskman, "Classical Semantics and Entailment," and Geach's reply, "On Entailment," both appear in *Analysis*, Vol. 35. Page numbers not otherwise identified refer to this volume. See especially p. 124 for Briskman's argument. For the entailment theses in question, see wffs (1)-(4) on p. 188 of Geach's *Logic Matters* (Berkeley and Los Angeles, 1972). The relevant features of Geach's views about entailment and valid derivation are (i) that, although entailment is not transitive, valid derivation is (*Logic Matters*, p. 184) and (ii) that where each step of a derivation answers to an entailment the derivation is valid (*Logic Matters*, p. 188).

are "fallacies of relevance."² Let us formulate this view as the claim:

(1) If no premise of an argument is relevant to its conclusion, the argument is invalid.

Let us now add to this three claims which may be viewed as providing a minimal account of the notion of relevance just invoked, or, perhaps better, as embodying theses which any account of that notion will have to include:

(2) There are at least two propositions which are irrelevant to one another.

(3) If A is irrelevant to B , then $\text{not-}A$ is irrelevant to B .

(4) If C is irrelevant to B , and D is irrelevant to B , then C and D is irrelevant to B .

But now let us choose, in accordance with (2), two propositions which are irrelevant to one another as A and B in the schematic version of the Lewis result accepted by Geach (that B can be validly derived from A and $\text{not-}A$). Given (3) and (4), then, the premise of the instance of the schema thus generated will be irrelevant to the conclusion; hence, given (1), this instance of that schema will be invalid. But then the Lewis result, even in the form in which it is accepted by Geach, must be objectionable, since it sanctions invalid arguments.

Someone whose reasons for wanting to avoid the Lewis result depend upon considerations of relevance, then, cannot avail himself of Geach's strategy for avoiding it, for he must find it as objectionable in the form in which Geach is committed to it as he presumably does in the form in which Geach avoids it. And if Geach's reasons for wanting to avoid the Lewis result are not of this kind, he owes us, I think, an account of what they are.³

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2. See, for example, A. R. Anderson and N. D. Belnap, Jr., "The Pure Calculus of Entailment," *The Journal of Symbolic Logic*, vol. 27 (1962), especially pp. 33-34. Although something like this is, I think, the best reason for wanting to avoid the Lewis result, I am not certain that it is good enough. That is to say, it may be possible to show what is wrong with any argument which is clearly fallacious and which exhibits the suspect irrelevance without appealing to that irrelevance. There may be fallacious arguments where the premises are irrelevant to the conclusion without there being fallacies of relevance.

3. I am grateful to P. C. Mason, J. E. Windhorst, and D. W. Hamlyn for their comments on earlier versions of this paper.