

EXISTENTIAL IMPORT REVISITED

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The traditional logic supposed statements of the form $(x) \cdot Fx \supset Gx$ to have *existential import*, and so licensed the inference from $(x) \cdot Fx \supset Gx$ to $(\exists x) \cdot Fx \cdot Gx$. But let 'F' be 'a brakeless car' (or 'is a unicorn'), and 'G' be 'is dangerous' (or 'is a unicorn'). Then the false statement that there exists a brakeless car (or that there exists a unicorn) can be inferred.

The inference from $(x) \cdot Fx \supset Gx$ to $(\exists x) \cdot Fx \cdot Gx$ loses its validity when (at least) 'F' is replaced by a general term true of nothing. So the consistency of the traditional account can be restored by limiting replacement of (at least) 'F' to *general terms* true of something. But there are two disadvantages to this way out of the difficulty. First, it unduly limits the range of application of logic. For example, predicates like 'is a member of the null class' could not replace 'F'. Hence, logical justification of the statement that the null class is included in any class would not be forthcoming. Secondly, it does not allow discrimination of those statements having existential import from those not having existential import, and thus would fail to distinguish between inferences for whose validity the existence of the things characterized by 'F' is relevant and inferences for whose validity their existence is irrelevant.

The "modern" symbolic logic resolves the fallacy of existential import in another way. It allows *unlimited* substitution into the predicate placeholders 'F' and 'G', and replaces the inference from $(x) \cdot Fx \supset Gx$ to $(\exists x) \cdot Fx \cdot Gx$ by the inference from $(x) \cdot Fx \supset Gx \cdot (\exists x) \cdot Fx$ to $(\exists x) \cdot Fx \cdot Gx$. This move amounts to changing the notion of quantificational validity from 'true for every replacement of the predicate placeholders F, G, H, \dots by *applicative* predicates in every non-empty domain. . . ' to 'true for every replacement of the predicate placeholders F, G, H, \dots by predicates (*applicative* or *non-applicative*) in every non-empty domain'. Consequently, the range of application of logic is not restricted — so far as its predicate terms are concerned. Hence, it now becomes possible to justify such statements as 'The null class is included in every class'. Further, it is now possible to distinguish between statements having existential import and those not having same. 'All brakeless cars are dangerous'¹ gets rendered as $(x) \cdot Bx \supset Dx$, whereas 'All men are