

ON CERTAIN INCAPACITIES CLAIMED FOR LOGICIANS

BENJAMIN S. HAWKINS

Paul Foulkes¹ has recently expressed certain dubiety about 'and' as a logical constant. He alleges a general failure by logicians to distinguish two different meanings and functions of 'and' in ' α and β ':

First, there is the conjunctive "and", which puts items in the same place: it is collocative, or syntopic. Secondly, there is the prepositional "and", which binds items into instrumental relation: it is colligative, or syndetic.²

According to Foulkes, logicians since Leibniz (or Aristotle) have interpreted 'and' in the *syntopic* sense, ignoring the *syndetic* sense of 'and' altogether.³

My concern here shall be Foulkes' polemics, not his work in defining the syndetic 'and',⁴ something requiring no excuse—though his criticism of logicians does appear just such an unnecessary apology. As might be supposed, because $\lceil \sim(\alpha \cdot \sim\beta) \equiv (\alpha \supset \beta) \rceil$, Foulkes' doubts are part of a general suspicion of rendering *deduction* by extensional (truth) functions of propositions.⁵ He adduces it to be "a sorting mechanism for truth values" committed to "idealist metaphysics: the view that everything is connected with everything else, or that all propositions are ultimately interlinked, this is a theory that has the ring of Hegelianism."⁶ But this is extravagant, for deductive rules of inference (procedure) are indifferent to whatever metaphysics is involved in an object language and the semantic conception of truth is metaphysically (and epistemologically) neutral.⁷

A leading idea recognized in the development of Logic since Boole has been that of supplementing syntactical calculi with different interpretations.⁸ Yet Foulkes intimates that a study of *deduction* is to issue from historical semantics, and thereby that Logic is to reduce to the formalization of colloquial language.⁹ Unfortunately, as such a reduction of the *logica utens* of colloquial language would be descriptive linguistics, norms for 'correct' deduction (the *logica docens*) would not be forthcoming.¹⁰ However, a theory proposed as a norm of valid deduction need not be itself in the first instance a theory of inference; it need only provide methods (these