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ON THE CONTRIBUTION OF LOGIC TO PHILOSOPHY AND VICE VERSA:
TWO EXAMPLES

Abstract

During the nineteenth century philosophy of logic has been depsychologised and logic made organic (predicate calculus is superimposed on propositional calculus). It is usual to claim that Frege championed a depsychologised philosophy of logic thanks to his antipsychologism and made logic an integrated system thanks to his introduction of quantifiers. In this paper I have tried to show that the story is another. In *Bs*, Frege started from a psychologistic point of view. The “content” of possible judgment is defined as “*a mere complex of ideas*”. The “content” of such expressions as “house” and “the number 20” is said to be an idea. Frege arrives to claim that the content of some expressions can not be an idea only after having introduced his distinction between function and argument (cf. *Bs*, par. 9). That distinction is the first step toward the Fregean antipsychologism. Therefore, the depsychologising of philosophy of logic finds its origins in the mathematization of logic. Boole was the first one to mathematize it. Going far beyond the limited horizons of syllogistic, algebra of logic supplies a broader and more reliable criterion of correct reasoning. It becomes obvious that ordinary reasoning often contains mistakes and that therefore it can not be identical with logical reasoning. Logical reasoning in fact produces only correct arguments. The way by which Boole obtains logical laws from the analysis of natural language is a total repudiation of both psychologistic and linguistic philosophy (cfr. Musgrave [1972]). The organicity of logic is due to Frege, but not mainly to his introduction of quantifiers. Frege accepted the priority of judgment over concept, a Kantian principle. In his view, his logic is organic because of that principle: “it avoids the division in Boolean logic into two parts (primary and secondary propositions) by construing judgements as prior to concept formation” (*PW*, p. 46). Moreover that principle brought him to analyze first of all judgments, that is contents of sentences and not concepts. In *Bs* it is the unity of judgeable content which produces the need of separating the logical structure from the grammatical one and leads to function/argument analysis. In its turn, this analysis leads to the introduction of quantifiers (cfr. *Bs*, par. 3 and 9). Boolean logic is not organic, the Fregean one is organic (cfr. Dudman [1976]). Boole gave priority to concepts over judgments, Frege did not. This means that philosophy, particularly epistemology, affords a great contribution to logic. It is plain however that mathematical logic on the other hand affords a great contribution to philosophy giving the first important impetus of depsychologising its philosophy. This impetus conveys in the Fregean antipsychologism.