

LEŚNIEWSKI'S ANALYSIS OF RUSSELL'S ANTINOMY

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According to Sobociński, Leśniewski's analysis of Russell's antinomy ". . . fût point de départ pour la construction du système des fondements des mathématiques de Leśniewski . . .," and it ". . . déterminait, pour ainsi dire, le caractère des théories deductives comprises dans son système."¹ Leśniewski's theory of collective classes, which came to be called "Mereology," is a direct result of his first analysis of the antinomy. In 1914 he published this analysis in his paper "Czy klasa klas, niepodporządkowanych sobie, jest podporządkowana sobie?" (Is the class of classes which are not subordinate to themselves subordinate to itself?) in the Polish journal *Przegląd Filozoficzny* (Philosophical Review), XVII, pp. 63-75, and a year later he created his first axiomatization of Mereology which formalized the fundamental concepts he used in his earlier analysis of the antinomy.² During the period 1913-1914 he arrived at another analysis of the antinomy, and some of the results of this analysis were published in [27]. In [49-50] Sobociński recounted Leśniewski's third (unpublished) analysis of the antinomy.

Speaking of his 1914 paper, "Czy klasa klas . . .," Leśniewski said in 1927: "In this poor paper I expressed my views on Russell's antinomy. Not yet having my own axiomatic theory of classes, I there appealed from case to case to various theses of this discipline in which I believed and which were necessary for my analyses. My procedure was in this respect completely similar to the procedure of all those 'set theorists' who do not construct their work on clear, axiomatic foundations."³ Despite the disclaimer, this paper is a seminal work: Leśniewski's use of "is" (Polish "jest") foreshadows his use of "ε" in singular propositions of Ontology, and for the first time he introduces and uses the nuclear concept of Mereology, the concept of a collective class, a class literally constituted by its members.⁴

As mentioned above, Leśniewski's third analysis of Russell's antinomy has been published by Sobociński in [49-50]. Luschei in [62] summarized Leśniewski's second analysis, which was published in [27]. However, the historically important first analysis of 1914, the analysis which determined