Russell's Logics

Philippe de Rouilhan

(LC2000; Symposium on the Foundations of Mathematics around 1900)

In 1903, in Appendix B of the Principles of Mathematics, Russell described a paradox he had discovered late in 1902. This paradox is more difficult than the better known paradox of 1901, which depends upon the notion of set. The later paradox concerns what we should call today the hyperintensional notion of proposition, understood as the meaning of a possible sentence, and it reveals that this notion is subject to difficulties analogous to those that the earlier paradox uncovered in the concept of set. Russell must have forgotten or ignored the 1903 paradox, for he seems never to have mentioned it again. John Myhill rediscovered it, in a slightly different form, in 1958, and consequent to this it attracted the attention of logicians, notably Church, in the seventies.

The hyperintensional paradox, and others of the same sort, have been misunderstood and neglected. When they and their implications are taken into account, the development of Russell's thought, and the history of logic in general, from the Principles to Principia appears in a new light. I argue that in the rational reconstruction and evaluation of the logics that Russell successively conceived, following the way that Russell himself understood them, too much weight has been attributed to the semantical paradoxes and not enough to the hyperintensional paradox. In this talk, I propose to correct this.

The great Russellian logical enterprise was subject to powerful constraints quite exogenous to Russell's thought and mind. Russell may not have been aware of them, but their effects were in no way diminished by his ignorance, and these same forces apply today to any attempt to construct a hyperintensional logic.

Address: Université Paris 1, Panthéon Sorbonne
E-mail: rouilhan@ext.jussieu.fr