Supplement

News from the Russell Editorial Project

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THE TORONTO RUSSELL CONFERENCE

The Russell Conference of 1984, on "Russell's Early Technical Philosophy", was held on 21–24 June at Trinity College, University of Toronto. The Bertrand Russell Society and the Advisory Editorial Board of *The Collected Papers of Bertrand Russell* held meetings in conjunction with the Conference. It was supported by the Social Sciences and Humanities Research Council of Canada, the Russell Editorial Project at McMaster University, the Institute for History and Philosophy of Science and Technology of the University of Toronto, and the Ontario Institute for Studies in Education (OISE). An audio recording was made of the discussions and it is expected that the proceedings will be published. The Conference was organized by Dr. Ian Winchester, OISE, 252 Bloor St. West, Toronto, Canada M5S 1V6. The following summary of the conference has benefited from suggestions by several participants who read an earlier draft.

The sessions, all held in Ignatieff Theatre, were:

I. From *The Foundations of Geometry* to *Leibniz*
   - JOHN G. SLATER (Toronto)—Russell's Conception of Philosophy
   - JOAN RICHARDS (Brown)—Russell's *Foundations of Geometry* and the Cambridge Mathematical Tradition
   - NICHOLAS GRIFFIN (McMaster)—The Tiergarten Programme
   - IAN WINCHESTER (OISE)—The Picture of Physical Science in *Leibniz* and *The Principles*
   - GREGORY H. MOORE (Stanford)—The Roots of Russell's Discovery of the Paradoxes in Logic and Set Theory

II. Early Work on the Theory of Knowledge and the Philosophy of Mind
   - MICHAEL BRADIE (Bowling Green)—Russell's Scientific Realism

ROBERT TULLY (Toronto)—Neutral Monism
JANET FARRELL SMITH (Massachusetts)—Russell's Re-Evaluation of Meinong

III. Philosophy of Logic and Language from *The Principles* to *Principia*
DANIEL O'LEARY (Maine)—The Propositional Logic of *Principia Mathematica* and Some of Its Forerunners
ALASDAIR URQUHART (Toronto)—Russell's Zigzag Path to the Ramified Theory of Types
I. GRATTAN-GUINNESS (Middlesex Polytechnic)—Russell's Logical Manuscripts: An Apprehensive Brief
MARTHA HARRELL (St. John's, N.Y.)—Extension to Geometry of *Principia Mathematica* and Related Systems

IV. Logical Questions in *Principia*
MICHEL SEYMOUR (Québec)—The Referential Uses of Definite Descriptions
JOCELYNE COUTURE (Montréal)—On the Efficacy of Substitutional Quantifiers for the Elimination of Classes in *Principia Mathematica*

Discussion on the tenability of Russell's early technical philosophy, led by the panel: A. J. Ayer, I. Grattan-Guinness, Nicholas Griffin, and Robert Tully.

The conference theme was set by John Slater's presentation of Russell's demarcation between logic and science, which he once described as "what we know", on the one hand, and philosophy, "what we don't know", on the other; and of Russell's conception of *Principia* as a "scientific" work whose precision (cold but far from passionless according to letters to Ottoline Morrell) was to be contrasted with the "usual", loose, pre-Russellian philosophy. (Ayer remarked that Russell's emphasis on passion may only have been an attempt to demonstrate to Ottoline Morrell that he was not a "dry-as-dust" philosopher.)

Joan Richards' analysis of *An Essay on the Foundations of Geometry* and her description of it as a work which straightened out substantial parts of the quite muddled area of the foundations of geometry, were well received by other participants. Her thesis, however, that *The Foundations of Geometry* was part of a "peculiarly British and Cambridge-centred mathematical tradition" was questioned since Russell's relatively few references to Arthur Cayley and Sir Robert Ball seemed to be the only supporting evidence.

Nicholas Griffin coined the term "Tiergarten Programme" to refer to the projects for future work Russell thought out in 1895 during a walk in the Berlin Tiergarten park. In his *Autobiography* Russell divides them into two series: one on the philosophy of the sciences and the other on social questions. Griffin described the science series in terms not only of *The Foundations of Geometry* and *The Principles of Mathematics*—which can be viewed as the first and last parts respectively to appear—but also in terms of unpublished outlines, tables of contents, and other papers from the period 1895 to 1903 now in the Russell Archives.

Ian Winchester juxtaposed texts from *A Critical Exposition of the Philosophy of Leibniz* and the *Principles* to show how an interest in the foundations of science could have led Russell to purely logical considerations and to his break with F. H. Bradley and the neo-Hegelians. Russell's break with neo-Hegelianism, in spite of his own description of it as both instantaneous and complete, still left him with an interest in antinomies or paradoxes as keys to analyzing a subject. This continuing interest, Gregory Moore posited in his talk, lay behind Russell's discovery of his famous paradox. The further contention, however, that Russell's neo-Hegelian background disposed him to report the paradox to G. Frege in 1902 as if it were no more significant than other paradoxes of Russell's, was questioned by Nicholas Griffin. He believed Russell must have been aware of its potentially devastating effect but deliberately underplayed his presentation of it. John Passmore made the observation that Russell's self-styled instant conversions never entailed a total loss of all previous attitudes, but that in this case, though his earlier Hegelian views on the status of paradoxes were abandoned, he did not like the "life-threatening" aspect of a paradox at what he regarded as the most fundamental level of mathematico-logical analysis.

A carefully detailed look at the development of Russell's scientific realism in the period 1912–17 was provided by Michael Bradie. Neutral monism, the theory that mental things and physical things differ only in arrangement and context and not in any intrinsic property, was viewed by Robert Tully as a consistent attempt by Russell to find a role in science for sensible qualities. Ayer thought that this explanation of Russell would not work at all, that in the period before *The Analysis of Mind* Russell's sense-data, though objects, were only signs from which external objects might be inferred, leaving open the question of the nature of the ultimate objects of science; Russell forsook this position for realism after *The Analysis of Mind* and is thus inconsistent on the subject. Ayer stated that Russell had "naughty" periods when he wrote as if there could be no real doubt about the existence of external reality. But Russell is "much odder" than people generally allow—he thought common sense a tissue of absurdities and thought it a genuine possibility that there was no physical world. Tully agreed that Russell at least distinguished between a practical, common-sense view and physics, hence the relevance of

psychology in helping to explain how the differences could be constituted. W. V. O. Quine suggested that use of predicates as indicators, allowing demonstratives to have the same status as singular terms, was an answer to the question of what we were to take as being the true subject of our observations.

In the "On Denoting" period, 1904–07, and in the *Theory of Knowledge* manuscript of 1913, Russell made extensive use of A. Meinong's psychological theory while remaining critical of his logic. Janet Farrell Smith showed that though Russell has been pictured simply as largely rejecting Meinong, his connection with Meinong is rich with affinities, borrowings and contrasts.

Daniel O'Leary has made use of computers in analyzing the proofs of *Principia* and thereby revealed some gaps and inconsistencies. This technique has also helped to make explicit Russell's proof methods and allowed a closer comparison with earlier works from Peano's "Formule di logica matematica" (1891) through Russell's "Theory of Implication" (1906).

When the importance of Russell's set-theory paradox became clear, Russell sought a solution of it. Alasdair Urquhart identified three main theories Russell worked on before settling on the ramified theory of types: the type theory of the *Principles*, the zigzag theory of 1904, and the substitutional theory of 1905. Urquhart was struck by Russell's reluctance to adopt any form of type theory and attributed it to the Frege–Russell view of logic as a universal science applicable to all conceivable entities. Quantifiers thus would have unlimited range as opposed to the modern practice, apparently first used by A. De Morgan, of always establishing at the beginning a limited "universe of discourse".

Urquhart referred to one of Russell's "logical diary" manuscripts in the Russell Archives. I. Grattan-Guinness made a page from such a manuscript, displayed by projector, part of his talk on the logical manuscripts. While some manuscripts are clearly in a publishable form and others clearly of a working, "diary" nature, many are less easy to describe; these manuscripts present classification problems for the *Collected Papers*. Grattan-Guinness surveyed the mathematico-logical material, indicated what we may be able to learn from them, and presented an evaluation of a number of possible ways of meeting the typographical challenge of their special symbolism. His solution, which he admitted to be not ideal, was to typeset only the editorial apparatus in the most challenging cases and include microfiche copies of the texts with the volumes.

Apart from a couple of pages, there is no extant manuscript of *Principia*, let alone of its projected fourth volume, which was to be on geometry and by Whitehead alone. Martha Harrell was evidently used to the initial scepticism which scholars felt about her description of "Volume IV", but she presented clues from a variety of sources—Whitehead's reports to Russell on progress in the geometry volume, forward references in *Principia*, and other publications by Russell and Whitehead—which, pieced together, provide a basis for comparing *Principia*'s version of the foundations of geometry to other approaches.

The last two papers, by Michel Seymour and Jocelyne Couture, applied modern logical techniques to aspects of problems raised in Russell's logic. Seymour basically accepted Russell's theory of descriptions but rejected certain parts in order to handle more effectively, as a "pragmatic phenomenon", cases of referential uses of definite descriptions. Couture took issue with what she believed to be the widely accepted view that it is possible to give a substitutional interpretation of quantifiers in *Principia*, thus allowing the elimination of classes. She argued that such an interpretation does not in fact allow the elimination of classes from *Principia* language, even if we mean by "elimination" nothing more than the replacing of classes by propositional functions having no ontological or epistemological "reality".

The panel discussion, led by Ayer, picked up points made in the papers and earlier discussions, with members of the audience joining in. One of the extended discussions returned to *Principia* and the paradoxes. Grattan-Guinness suggested that one of *Principia*'s problems was Russell's doubtfulness about the status of the assumption that there are infinitely many individuals; Russell thought that the need for an infinity axiom was an empirical matter. Quine said that this sort of problem is the reason why he prefers an approach like von Neumann's, where the natural numbers are constructed from sets by letting 0 be defined as the null set, 1 as the set containing the null set, and so forth—thereby avoiding positing the existence of infinitely many individuals. Russell really wanted to *reduce* mathematics to logic, Ayer and Grattan-Guinness agreed, since logical entities were less mysterious for him than numbers. To Quine's question whether Russell would have liked von Neumann's numbers, Ayer replied no. Russell stuck to analyticity, Ayer asserted, which he considered very important for mathematics, to the extent of disliking Kant's synthetic a priori description of mathematics; in general, Russell thought Kant a disaster for philosophy.

Grattan-Guinness emphasized the fact that Russell made no use of a theory–meta-theory distinction which would have helped him, for example, avoid some of the flaws O'Leary pointed out in *Principia*. This fundamental limitation of logicism was augmented by the fact that *Principia* has little to do with mathematics as mathematicians conceived

it at the time. Quine pointed out that the logicist thesis has come to be asserted as "classical areas of mathematics (such as number theory and analysis) can be embedded in set theory", rather than as "mathematics is logic". As a historical matter, the circularity of this latter thesis could only be broken, Grattan-Guinness asserted, if Russell had had a definition of logic independent of logicism. Yvon Gauthier agreed with Grattan-Guinness and pointed out that for some modern French mathematicians, notably Dieudonné and Thom, set theory is "not serious enough" to even be a part of mathematics.

Thanks to the unobtrusive efficiency of the organizer the overrun time, seemingly inevitable at any conference, was kept within reasonable limits. Though this meant not allowing as much discussion after some papers as some might have liked, there was ample time during the coffee breaks and alfresco lunches in the quadrangle for further discussion. Interest in Russell studies was heightened by the availability at the Conference of *Intellect and Social Conscience*, the proceedings of last year's conference, and the first two volumes of the *Collected Papers*.

The evening banquet at the University Faculty Club provided another opportunity for informal conversations. In addition, the nearly 100 people there were treated to an after-dinner talk by Quine, who traced his long and happy relationship to Russell on a personal level by means of apt anecdotes and excerpts from letters. To listeners, the talk also illustrated Russell's ability to spot and support talent comparable to his own and thereby to help continue the precision of thought he brought to philosophy.—Albert C. Lewis