ingly minor right to take part in planning—a matter that, in Germany's case, is yet to be spelled out in detail. The newly appointed Minister for Education and Science, Hans Lüssink, a civil engineer and former chancellor of the Karlsruhe Technical University, has proclaimed that he wishes to promote education rather than legal controversy. In line with this, Lüssink, who has also served as president of the West German Conference of University Chancellors and as president of the German Science Council, has already taken a number of steps that suggest a well-sharpened sense for orchestrating power without falling into constitutional entanglements. Thus, after a meeting Lüssink held last November with the education ministers of the 11 states, it was announced that the federal and state governments had decided to look into "the establishment of a data bank as a basis for educational planning; the foundation of an institute for curriculum research . . .; questions of vocational education, particularly in connection with the establishment of a federal institute for research into vocational courses; questions concerning the promotion of refresher courses and in connection with this further social questions relating to students at university level, such as student health insurance, students' hostels, housing for students, etc."

Another of Lüssink's early moves was to equip his sprawling, mushrooming Ministry with a central planning staff, which reports to the number two man in the Ministry, a 41-year-old newly elected member of Parliament, Klaus von Dohnanyi, a Yale law graduate who from 1956 to 1960 was chief of planning for the Ford Motor Company in Germany. From 1960 until his election last year, Dohnanyi was the managing partner in Germany's largest market research and management consulting firm. Dohnanyi is the Ministry's Parliamentary State Secretary, normally an important position, and especially so in this case since Minister Lüssink is not a member of Parliament and is regarded as being without political affiliation.

With university enrollments that rose from 140,000 in 1954 to 320,000 last year, and with further rapid growth on the way, the Ministry has initiated a crash building program directed by a planning council drawn from the states and the federal government. The most packed and blighted places are being given priority, in what is apparently a desperation move to make the most of the relative calm that has now settled on German campuses. In the meantime, the Ministry is conducting extensive consultations and discussions throughout the country on long-range reform in the schools and universities, and controversy and debate go on in the press and in public meetings. To a visitor, "healthy" is the word that comes to mind in viewing Germany's efforts to deal with its educational problems. But many persons living among those efforts, while grateful that they are at last being attempted, are not very cheerful about the prospects. An American whose work involves keeping a close watch on German education said, "They'll need an enormous amount of money to fix things up, and I doubt that they're going to want to pay that bill." To return to the American pollution analogy, the similarities are apparent.

—D. S. GREENBERG

# Bertrand Russell (1872–1970): The Constant Critic

Bertrand Russell lived so long and, in the last half century of his life, was so prominent a dissenter on political and social issues that now the controversy seems to outweigh his contributions. But what is likely to count at least as much in the long run is that he belonged to that remarkable generation of Europeans whose experimental and theoretical work at the beginning of the 20th century transformed science and deeply influenced society. For just as in their work Planck, Bohr, and Einstein broke the bounds of Newtonian physics, Russell forged on beyond Aristotelian logic and Euclidian geometry.

He had gone to Cambridge as a student in 1890 and for two decades engaged primarily in work on the frontiers of technical philosophy. It is fair to say that he and his friend and fellow philosopher G. E. Moore led the revolt that freed British philosophy from the absolutes of Hegelian idealism which had dominated the universities and influenced British thought in the later years of the 19th century. But Russell's main interest was in the foundations of mathematics, and he gained lasting recognition with his book *The Principles of Mathematics*, which he completed in 1900. Then, in collaboration with Alfred North Whitehead, he worked for 10 years on the monumental three-volume *Principia Mathematica*, in which Russell's central thesis that mathematics is derived from logic is elaborated in symbolic language which he and Whitehead developed.

The *Principia*, a highly difficult work still accessible only to specialists, became a foundation stone of symbolic logic. But Russell's ideas were also highly influential in the development of a strain of analytical philosophy that was apposite to the "scientific revolution" of the 20th century and became dominant on the Continent and in the United States as well as in Britain. As it evolved it was called by various names, including logical positivism, logical empiricism, and linguistic analysis. To put it in oversimplified terms, its practitioners sought to reexamine traditional philosophic problems and to distinguish questions which can be answered by logic and mathematics from those which require empirical means for their solution, and also from those which yield to neither method. They were interested in clarifying the difference between language that expresses emotion and that which conveys information, and this interest in clarification extended to the language and the structure of science.

Russell was in his late thirties when he finished his work on the *Principia*. Because of a combination of intense effort and personal unhappiness at the time, he says in his *Autobiography*, "my intellect never quite recovered from the strain. I have been ever since definitely less capable of dealing with abstractions than I was before. This is part, though by no means the whole, of the reason for the change in the nature of my work."

His absorption in philosophy during his Cambridge years did not prevent the development of his political and

social views. He traveled fairly widely, and his first book, published in 1896, was a study of German socialism. During the Boer War Russell underwent a revulsion of feeling which led him to adopt definite pacifist views. In 1910 he ran unsuccessfully for a seat in Parliament as candidate of a women's suffrage group, and soon after was rejected, because of his agnosticism, when he sought adoption as a Liberal Party candidate. He reacted to the coming of World War I with a militant pacificism which led ultimately to a 6-months' jail term for what the courts decided was a canard on the British government and the American Army. While imprisoned he was able to complete the manuscript of a book thanks to the special treatment accorded him as an eminent intellectual who happened to be the brother of an earl.

### Always the Unorthodox

Between the wars he earned his living as a lecturer, journalist, and writer on topics ranging from metaphysics to the theory of relativity to progressive education to sex and morality. After World War I he had traveled in Russia at a time when political liberals and radicals in Europe tended to be sympathetic to the Soviet Union. Russell wrote the *Practice and Theory of Bolshevism*, in which he viewed developments in postrevolutionary Russia with alarm and antagonized people such as Beatrice and Sidney Webb and G. B. Shaw, with whom he had shared a favorable view of the Soviets. This willingness to be loyal above all to his own convictions and feelings and to give up old positions, whether in philosophy, politics, or personal relationships, was characteristic of Russell and was one of the traits that made him a difficult friend, husband, or ally.

If Russell dared frequently to contradict himself, this is not so surprising in a late product of the Whig aristocracy which in the 18th and 19th centuries had traditionally formed the opposition in British politics. Russell's grandfather was Lord John Russell, who during his long parliamentary career was sponsor of the Reform Bill of 1832, prime minister, and, during the American Civil War, foreign secretary. Bertrand Russell's parents were freethinkers in religion, espoused the cause of women's suffrage, and held generally advanced political views. Both parents died before Russell was four, and the dominant influence in his childhood was his paternal grandmother, an intelligent, strong-minded woman whom Russell in his autobiography describes as a "Victorian Puritan." The family's place in society is indicated by Bertrand Russell's boyhood recollections of Queen Victoria coming to call, Gladstone dining with the family, and Robert Browning coming to tea. Russell's godfather was John Stuart Mill.

At Cambridge, by reason of birth and ability he was befriended by the most able of his contemporaries. He became one of the Apostles, a discussion group which in the Edwardian years must have set some sort of permanent record for concentration of brilliance. With other, later arrivals at Cambridge, such as J. M. Keynes, E. M. Forster, and Lytton Strachey, Russell was part of that small world of talent, sensibility, and radical politics to which "everybody" belonged in prewar London.

For those interested in the development of creative intelligence, Russell represents a fascinating type. There was the family inheritance of intelligence, eccentricity, long life, and abundant energy; a childhood solitary but not without affection or encouragement; and an education outside the conventional school, with its high Victorian middle-class ethos. Russell was taught rather unsystematically by tutors and relatives, and given freedom to follow his interests in mathematics and other subjects. The books in his grandfather's library were thought unsuitable for the young Russell, but characteristically he ignored the ban. As a young man Russell had access to conversation and intellectual competition with the best minds of his generation. Most significantly, he had in his grandmother a model of aristocratic conduct of a kind often extolled but seldom actually observed. She combined a scrupulous code of personal behavior with radical political views and was utterly unmoved by hostile public opinion. The roots of Russell's intellectual self-confidence—many called it arrogance—ran very deep.

From the time of World War I on, Russell's views, his causes and his four marriages landed him more often in the tabloids than in the philosophic journals. In the late 1930's and during World War II he spent turbulent years in the United States which culminated in the annulment of his appointment to a professorship at City College in New York. In an opinion upholding a taxpayer's suit against Russell the judge cited "immoral and salacious opinions" contained in Russell's books.

After the war Russell made a triumphant return to Britain and Cambridge. He had qualified his pacifism to support the war against the fascists, and he and the public appeared to have mellowed in their attitudes toward each other. He had succeeded to the title as the third Earl Russell and even spoke occasionally in the House of Lords. In 1949 he received the Order of Merit, an honor which the Crown bestows on artists and sages. And in 1950 he received the Nobel prize for literature. Russell was far from finished, however. He continued to rethink his positions and, after a period in which his old mistrust of Russia dominated, became deeply involved in the campaign for nuclear disarmament. In recent years his participation in the peace movement was more symbolic than active, but his criticism of American intervention overseas grew steadily sharper, and he gave impetus and his name to the so-called Russell War Crimes Tribunal aimed at public condemnation of the American role in the Vietnam war.

### No System Builder

Russell's ultimate reputation is unlikely to depend on a single book or doctrine. As a philosopher he tried to relate his logic to his theory of knowledge but never attempted to construct a comprehensive philosophical system, as many philosophers have. He sought to turn the full power of his reason on what he thought were the most important problems in philosophy or in other sectors of experience. It was characteristic of Russell, for example, that when he had young children of his own he wrote provocatively on educational theory and operated an experimental school for several years. Russell was an intellectual who was a committed activist long before that was common. The comforts of respectability seemed not to concern him, and at the same time he appeared not to feel the need to find identity in loyalty to comrades and an ideology, as many revolutionaries do. In his own way Russell espoused empiricism in philosophy and personal liberty in politics. This was deeply in the British grain, and it is not outrageous to speculate that he may ultimately be compared in perception and influence with Locke and Mill. But what will certainly be remembered is that Russell made his impact on his times not simply through his ideas but by the way he lived his life.—JOHN WALSH