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(b. Vienna, Austria, 26 April 1889; d. Cambridge, England, 29 April 1951)

philosophy.

Wittgenstein was one of the most imaginative and original thinkers of the twentieth century, a legend during his lifetime and an enduring influence since. To his numerous admirers and followers, his work marks a decisive turn in the history of philosophy and in all fields of investigation to which philosophical method is pertinent.

[Ludwig Wittgenstein](#), as he always called himself, was the youngest of eight children. His father, an engineer and a successful steel magnate, was a prominent patron of the arts in Vienna. Wittgenstein was never at home in this worldly and sophisticated setting; and his life and work alike show the imprint of a deeply serious temperament, radically at odds with the compromises of bourgeois society.

Educated privately until he was fourteen Wittgenstein spent only three years at school (in Linz) before entering the Technical Institute at Berlin Charlottenburg with a view to becoming an engineer. As a research student at Manchester University (1908–1911) he made original contributions to the design of a jet-reaction propeller for airplanes. His interests having turned to the foundations of mathematics and to logic, in 1911, on the advice of [Gottlob Frege](#), he became a student of Bertrand Russell at [Cambridge University](#). In 1913–1914, while living in solitude in Norway, he was already composing the *Tractatus*, although it was not published until 1921. During the period 1919–1926 Wittgenstein studied for and obtained a diploma qualifying him for [elementary school](#) teaching, and eventually taught in a number of small village schools in Austria. For a while he worked as a gardener's assistant at a convent near Vienna. He also designed and built, for one of his sisters, a remarkable house that is still standing (at the time this article was written) in the Kundmannsgasse (and declared a national monument by the Austrian government). In 1929, Wittgenstein returned to Cambridge, was made a fellow of Trinity College, and began the famous succession of informal classes through which his philosophical views gradually became known. Ten years later he was appointed professor of philosophy in succession to G. E. Moore. He worked in a medical school and a medical hospital as a professorship in 1947. He died of cancer four years later.

The last two decades of Wittgenstein's life were filled with unremitting intellectual work. His many manuscripts include, in addition to his masterpiece, the *Philosophical Investigations* (which he left almost ready for press), several full-length books, and thousands of pages of additional materials. His last finished piece of work, *On Certainty* (composed in 1950–1951), shows him in full possession of penetrating powers of insight and expression.

Wittgenstein's later work stands in sharp contrast with and opposition to the conceptions presented in the *Tractatus*. That book, written in short, epigrammatic paragraphs carefully arranged in quasi-logical form (with a special system of decimal references marking the relative subordination of successive items), remains cryptic on essential points and lends itself to a variety of different interpretations. A central theme is the delineation of the essential characteristics that any language or symbol system must manifest. It would therefore not be unfair to call it a "Critique of Pure Language." Wittgenstein's celebrated "picture theory of language" insists upon the presence in language, as the root of its semantic power, of an isomorphism between sentences and the possible states of affairs to which they ultimately refer. Reality must be composed of "facts"—patterned clusters of ultimate simples or "objects"—each standing in one-to-one correspondence to the simple names that underlie the superficial complexity of ordinary language. Thus the "logical form" of reality (roughly speaking, the pattern of possible co-occurrence of the simple "objects") must be reflected in the "logic of language" (the corresponding patterns of co-occurrence of the semantic elements).

It was part of the originality of this version of "logical atomism" to reject any possibility of the representation, from some external standpoint, of the "logical form" itself. The "logic" of reality and its linguistic mirror must "show itself," through the impossibility of "saying" what *cannot* be said: the limits of language are the "limits of thought." What philosophers have tried to say about metaphysics, transcendental ethics and aesthetics, and theology turns out to consist of pseudo-propositions that are "nonsense." The book accordingly ends with the much-quoted line, "Whereof one cannot speak, one must be silent." (This article must necessarily omit reference to Wittgenstein's important technical contributions to the foundations of logic, focusing on the notion of "tautology"; to probability theory; and the philosophy of science.)

Some hostile critics, such as [Karl Popper](#), have regarded the conclusion of the *Tractatus* as a self-refutation, which reduces the book itself to the sort of "nonsense" that cannot be "said"; other readers, notably early members of the Vienna Circle, have sought to purge the *Tractatus* of its allegedly irrelevant "mystical" instructions and to quarry from it a positivistic critique of metaphysics. But a more sympathetic reading would treat it as a peculiar sort of demonstration ("showing") of how a powerful

conception of the necessary relations between symbolism and reality, pushed to its logical consequences, results in an impasse, from which there is no escape except through a revolution in perspective and approach. From this standpoint the *Tractatus* is a prime example of what Wittgenstein later came to call a “metaphysical cramp,” an obsession with a single conception of what the metaphysical situation *must be* – and the natural springboard for his subsequent revolution in method.

Although there is considerable continuity between the *Tractatus* and the later masterpiece, the *Philosophical Investigations* (completed some twenty-five years later), the second work reads at first sight like a wholesale rejection of the earlier methodology. In the *Investigations*, the earlier interest in the one and only “logical form,” manifested in every adequate linguistic or symbolic system, is rejected as arising from a distorted metaphysical conception. Attention shifts to language as it is used in concrete social practices, constituted partly by rules of syntax and application, but even more importantly by a background “agreement in the form of life” that shows itself in practice but is not reducible to formal principles. The a priori considerations that dominated the *Tractatus* are replaced by meticulous attention to the “natural history” of language, the complex and various ways in which men actually communicate and express their thoughts. The prime philosophical error is to impose upon this motley of speech practices some a priori model of what language *must be* like. Wittgenstein shows, by detailed discussion of questions that have been the staple of philosophical dispute for two thousand years, how such oversimplified impositions generate *insolubilia*. He hoped to have shown how such “philosophical sickness” can yield to rational treatment.

Wittgenstein’s later work introduced a number of special notions that continue to be high value, despite their often cryptic and controversial character. Among them are the notions of a “language game” (a deliberately simplified model of speech practice, introduced for the sake of comparison), of a “criterion” of use, and of “family resemblances” (the overlapping pattern of relations that hold together the items referred to by some general term).

Wittgenstein’s later methods of investigation are “dialectical,” in the sense of proceeding repeatedly from the real or fancied philosophical difficulties of an imaginary interlocutor. His writing provides tantalizing glimpses of his incomparable style of face-to-face philosophizing with friends and pupils.

Despite a lifelong interest in science and its relations to philosophy, Wittgenstein did comparatively little work on the philosophy of science (although the *Tractatus* contains some important on the other hand, he left voluminous manuscripts, still in process of publication and critical evaluation.

It is misleading to assign to Wittgenstein, as is too often done, the stock labels “behaviorist” or “positivist.” His life was devoted, with exemplary single-mindedness, to discovering a radically new way of leading men out of the darkness of conceptual confusion.

BIBLIOGRAPHY

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[Max Black](#)