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WITTGENSTEIN'S PHILOSOPHY OF MATHEMATICS

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Wittgenstein's Philosophy of Mathematics

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Abstract: For Wittgenstein, mathematics is a human activity characterizing ways of seeing conceptual possibilities and empirical situations, proof and logical methods central to its progress. Sentences exhibit differing "aspects," or dimensions of meaning, projecting mathematical "realities." Mathematics is an activity of constructing standpoints on equalities and differences of these. Wittgenstein's Later Philosophy of Mathematics (1934–51) grew from his Early (1912–21) and Middle (1929–33) philosophies, a dialectical path reconstructed here partly as a response to the limitative results of Gödel and Turing.

Keywords: Wittgenstein, rule-following, philosophy of mathematics, history and philosophy of mathematics, logicism, meaning in mathematics, surveyability, realism in mathematics, mathematical knowledge, logical necessity, mathematical necessity, language and mathematics, foundations of mathematics, philosophy of logic, logic and communication, mathematics and language, naturalism in philosophy of mathematics, philosophy of mathematical practice

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