Wittgenstein On Rule Following And The Foundations Of Mathematics

#Wittgenstein philosophy #rule following #foundations of mathematics #philosophy of mathematics #mathematical logic

Delve into Ludwig Wittgenstein's profound insights on rule following and its crucial implications for the very foundations of mathematics. This topic explores how our understanding and application of rules shape mathematical concepts, certainty, and meaning, challenging traditional views within philosophical discourse.

Wittgenstein on the Foundations of Mathematics

It is by far the richest twentieth-century source of philosophical ideas, which it will take us more decades yet properly to apprehend and to absorb; despite the difficulty with which his work presents the reader, there is nothing that is likely to be more rewarding. The philosophy of mathematics was one of his earliest and most persistent .

Remarks on the Foundations of Mathematics

Shanker exposes the confusions underlying the currently prevailing interpretations of Wittgenstein. He shows how such approaches and their underlying critical frameworks are incapable of coming to terms with Wittgenstein's arguments in the philosophy of mathematics. This book explains not only Wittgenstein's approach, which was justly heralded as causing a turning point in the philosophy of mathematics, but also the philosophy of mathematics in general.

Wittgenstein and the Turning Point in the Philosophy of Mathematics

This book offers a detailed account and discussion of Ludwig Wittgenstein’s philosophy of mathematics. In Part I, the stage is set with a brief presentation of Frege’s logicist attempt to provide arithmetic with a foundation and Wittgenstein’s criticisms of it, followed by sketches of Wittgenstein’s early views of mathematics, in the Tractatus and in the early 1930s. Then (in Part II), Wittgenstein’s mature philosophy of mathematics (1937-44) is carefully presented and examined. Schroeder explains that it is based on two key ideas: the calculus view and the grammar view. On the one hand, mathematics is seen as a human activity — calculation — rather than a theory. On the other hand, the results of mathematical calculations serve as grammatical norms. The following chapters (on mathematics as grammar; rule-following; conventionalism; the empirical basis of mathematics; the role of proof) explore the tension between those two key ideas and suggest a way in which it can be resolved. Finally, there

are chapters analysing and defending Wittgenstein’s provocative views on Hilbert’s Formalism and the quest for consistency proofs and on Gödel’s incompleteness theorems.

Wittgenstein on Mathematics

"Maddy's short monograph looks at Wittgenstein's philosophy of logic, from the perspective of the form of naturalism that she calls "second philosophy." That view takes an empirical approach to logical truth -- essentially arguing that if philosophers want to understand the world, they should start from a position informed by scientific understandings of the world, because science is often a reliable guide to how the world works. Similarly, just like science, logic is also grounded in the structure of our world, and our basic cognitive machinery is tuned by evolutionary pressures to detect that structure where it occurs. Ludwig Wittgenstein (particularly in the "Tractatus") also linked the logical structure of representation with the structure of the world, but still insisted that the sense of our representations must be given prior to -- independently of -- any facts about how the world happens to be. When that requirement is removed, Wittgenstein's position in the Tractatus approaches Maddy's Second Philosophy -- that logic is grounded in the structure of the world and our representational systems reflect that structuring. The later Wittgenstein also hews closely to Second Philosophy, holding that our logical practices are grounded in our interests and motivations, and our natural inclinations, and the features of the world. In this sense, logic is no different from other descriptions of the world -- just more general and responding to features so basic and ubiquitous that they tend to go unnoticed. Maddy's Second Philosophy finds Wittgenstein as an important precursor and kindred spirit, and promotes a new view of him as a naturalistic phliosopher"--

The Logical Must

Ludwig Wittgenstein (1889–1951) is one of the most important, influential, and often-cited philosophers of the twentieth century, yet he remains one of its most elusive and least accessible. The essays in this volume address central themes in Wittgenstein's writings on the philosophy of mind, language, logic, and mathematics. They chart the development of his work and clarify the connections between its different stages. The contributors illuminate the character of the whole body of work by keeping a tight focus on some key topics: the style of the philosophy, the conception of grammar contained in it, rule-following, convention, logical necessity, the self, and what Wittgenstein called, in a famous phrase, 'forms of life'.

The Cambridge Companion to Wittgenstein

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Wittgenstein on Rules and Private Language

For several terms at Cambridge in 1939, Ludwig Wittgenstein lectured on the philosophical foundations of mathematics. A lecture class taught by Wittgenstein, however, hardly resembled a lecture. He sat on a chair in the middle of the room, with some of the class sitting in chairs, some on the floor. He never used notes. He paused frequently, sometimes for several minutes, while he puzzled out a problem. He often asked his listeners questions and reacted to their replies. Many meetings were largely conversation. These lectures were attended by, among others, D. A. T. Gasking, J. N. Findlay, Stephen Toulmin, Alan Turing, G. H. von Wright, R. G. Bosanquet, Norman Malcolm, Rush Rhees, and Yorick Smythies. Notes taken by these last four are the basis for the thirty-one lectures in this book. The lectures covered such topics as the nature of mathematics, the distinctions between mathematical and everyday languages, the truth of mathematical propositions, consistency and contradiction in formal systems, the logicism of Frege and Russell, Platonism, identity, negation, and necessary truth. The mathematical examples used are nearly always elementary.

Wittgenstein's Lectures on the Foundations of Mathematics, Cambridge, 1939

Wittgenstein's work remains, undeniably, now, that off one of those few philosophers who will be read by all future generations.

Remarks on the Foundations of Mathematics

Wittgenstein scholarship has continued to grow at a pace few could have anticipated - a testament both to the fertility of his thought and to the thriving state of contemporary philosophy. In response to this ever-growing interest in the field, we are delighted to announce the publication of a second series of critical assessments on Wittgenstein, emphasising both the breadth and depth of contemporary Wittgenstein research.As well as papers on the nature and method of Wittgenstein's philosophy, this second collection also relates to a broader range of topics, including psychology, politics, art, music and culture.

Ludwig Wittgenstein: The later Wittgenstein : from Philosophical investigations to On certainty

Wittgenstein's role was vital in establishing mathematics as one of this century's principal areas of philosophic inquiry. In this book, the three phases of Wittgenstein's reflections on mathematics are viewed as a progressive whole, rather than as separate entities. Frascolla builds up a systematic construction of Wittgenstein's representation of the role of arithmetic in the theory of logical operations. He also presents a new interpretation of Wittgenstein's rule-following considerations - the `community view of internal relations'.

Strict finitism

Mathieu Marion offers a careful, historically informed study of Wittgenstein's philosophy of mathematics. This area of his work has frequently been undervalued by Wittgenstein specialists and by philosophers of mathematics alike; but the surprising fact that he wrote more on this subject thanon any other indicates its centrality in his thought. Marion traces the development of Wittgenstein's thinking in the context of the mathematical and philosophical work of the times, to make coherent sense of ideas that have too often been misunderstood because they have been presented in adisjointed and incomplete way. In particular, he illuminates the work of the neglected 'transitional period' between the Tractatus and the Investigations. Marion shows that study of Wittgenstein's writings on mathematics is essential to a proper understanding of his philosophy; and he alsodemonstrates that it has much to contribute to current debates about the foundations of mathematics.

Wittgenstein's Philosophy of Mathematics

This first of two volumes brings together invited papers of the 32nd International Wittgenstein Symposium (Kirchberg/W. (Austria), 2009). The relation between language and the world was undoubtedly one if not the central issue in Wittgenstein’s whole philosophical oeuvre. His one hundred and twentieth birthday provided an occasion for foregrounding this aspect of his work. A special workshop was dedicated to new aspects of Wittgenstein’s Nachlass. In this volume Frank Cioffi, Peter Hacker, Ian Hacking, Roy Harris, Lars Hertzberg, Jaakko Hintikka, Marie McGinn, Danièle Moyal-Sharrock, Hans Sluga among others provide substantial contributions on various aspects of Wittgenstein’s writings such as the philosophy of mathematics, the problem of rule following or the relation between meaning and use.

Wittgenstein, Finitism, and the Foundations of Mathematics

Wittgenstein's remarks on mathematics have not received the recogni tion they deserve; they have for the most part been either ignored, or dismissed as unworthy of the author of the Tractatus and the I nvestiga tions. This is unfortunate, I believe, and not at all fair, for these remarks are not only enjoyable reading, as even the harshest critics have con ceded, but also a rich and genuine source of insight into the nature of mathematics. It is perhaps the fact that they are more suggestive than systematic which has put so many people off; there is nothing here of formal derivation and very little attempt even at sustained and organized argumentation. The remarks are fragmentary and often obscure, if one does not recognize the point at which they are directed. Nevertheless, there is much here that is good, and even a fairly system atic and coherent account of mathematics. What I have tried to do in the following pages is to reconstruct the system behind the often rather disconnected commentary, and to show that when the theory emerges, most of the harsh criticism which has been directed against these re marks is seen to be without foundation. This is meant to be a sym pathetic account of Wittgenstein's views on mathematics, and I hope that it will at least contribute to a further reading and reassessment of his contributions to the philosophy of mathematics.

Essays on the philosophy of Wittgenstein

Taking Wittgenstein at His Word is an experiment in reading organized around a central question: What kind of interpretation of Wittgenstein's later philosophy emerges if we adhere strictly to his claims that he is not in the business of presenting and defending philosophical theses and that his only aim is to expose persistent conceptual misunderstandings that lead to deep philosophical perplexities? Robert Fogelin draws out the therapeutic aspects of Wittgenstein's later work by closely examining his account of rule-following and how he applies the idea in the philosophy of mathematics. The first of the book's two parts focuses on rule-following, Wittgenstein's "paradox of interpretation," and his naturalistic response to this paradox, all of which are persistent and crucial features of his later philosophy. Fogelin offers a corrective to the frequent misunderstanding that the paradox of interpretation is a paradox about meaning, and he emphasizes the importance of Wittgenstein's often undervalued appeals to natural responses. The second half of the book examines how Wittgenstein applies his reflections on rule-following to the status of mathematical propositions, proofs, and objects, leading to remarkable, demystifying results. Taking Wittgenstein at His Word shows that what Wittgenstein claims to be doing and what he actually does are much closer than is often recognized. In doing so, the book underscores fundamental—but frequently underappreciated—insights about Wittgenstein's later philosophy.

Wittgenstein’s Philosophy of Mathematics

This ebook is a selective guide designed to help scholars and students of social work find reliable sources of information by directing them to the best available scholarly materials in whatever form or format they appear from books, chapters, and journal articles to online archives, electronic data sets, and blogs. Written by a leading international authority on the subject, the ebook provides bibliographic information supported by direct recommendations about which sources to consult and editorial commentary to make it clear how the cited sources are interrelated related. This ebook is a static version of an article from Oxford Bibliographies Online: Philosophy, a dynamic, continuously updated, online resource designed to provide authoritative guidance through scholarship and other materials relevant to the study Philosophy. Oxford Bibliographies Online covers most subject disciplines within the social science and humanities, for more information visit www.oxfordbibligraphies.com.

Taking Wittgenstein at His Word

This volume, published on the fiftieth anniversary of Wittgenstein's death, brings together thirteen of Crispin Wright's most influential essays on Wittgenstein's later philosophies of language and mind, many hard to obtain, including the first publication of his Whitehead Lectures given at Harvard in 1996. Organized into four groups, the essays focus on issues about following a rule and the objectivity of meaning; on Saul Kripke's contribution to the interpretation of Wittgenstein; on privacy and self-knowledge; and on aspects of Wittgenstein's philosophy of mathematics. Wright uses the cutting edge of Wittgenstein's thought to expose and undermine the common assumptions in platonistic views of mathematical and logical objectivity and Cartesian ideas about self-knowledge. The great question remains: How to react to the demise of these assumptions? In response, the essays develop a concerted, evolving approach to the possibilities--and limitations--of constructive philosophies of mathematics and mind. Their collection constitutes a major statement by one of Britain's most important philosophers--and will provide an indispensable tool both for students of Wittgenstein and for scholars working more generally in the metaphysics of mind and language.

Rule-Following: Oxford Bibliographies Online Research Guide

A selection of readings on a central topic in contemporary philosophy of language, mind, and meta-physics.

Rails to Infinity

This brief text assists students in understanding Wittgenstein's philosophy and thinking so that they can more fully engage in useful, intelligent class dialogue and improve their understanding of course content. Part of the "Wadsworth Philosophers Series," (which will eventually consist of approximately 100 titles, each focusing on a single "thinker" from ancient times to the present), ON WITTGENSTEIN is written by a philosopher deeply versed in the philosophy of this key thinker. Like other books in the series, this concise book offers sufficient insight into the thinking of a notable philosopher better enabling students to engage in the reading and to discuss the material in class and on paper.

Wittgenstein's Lectures on the Foundations of Mathematics, Cambridge, 1939

“Tell me," Wittgenstein once asked a friend, "why do people always say, it was natural for man to assume that the sun went round the earth rather than that the earth was rotating?" His friend replied, "Well, obviously because it just looks as though the Sun is going round the Earth." Wittgenstein replied, "Well, what would it have looked like if it had looked as though the Earth was rotating?” What would it have looked like if we looked at all sciences from the viewpoint of Wittgenstein’s philosophy? Wittgenstein is undoubtedly one of the most influential philosophers of the twentieth century. His complex body of work has been analysed by numerous scholars, from mathematicians and physicists, to philosophers, linguists, and beyond. This volume brings together some of his central perspectives as applied to the modern sciences and studies the influence they may have on the thought processes underlying science and on the world view it engenders. The contributions stem from leading scholars in philosophy, mathematics, physics, economics, psychology and human sciences; all of them have written in an accessible style that demands little specialist knowledge, whilst clearly portraying and discussing the deep issues at hand.

Rule-following and Meaning

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 (1934–1951) grew from his Early (1912–1921) and Middle (1929–33) philosophies, a dialectical path reconstructed here partly as a response to the limitative results of Gödel and Turing.

Foundations of Mathematics

This five-volume German-English edition presents, for the first time, new translations of all of Wittgenstein's mature 1937-1944 writings on mathematics and logic. The 1st (1956) and 3rd (1978) editions of Wittgenstein's Remarks on the Foundations of Mathematics omitted, unsystematically, more than half of Wittgenstein's later writings on mathematics; for that reason, the reader will here read some entire manuscripts for the first time, and other manuscripts for the first time as unabridged, sustained pieces of writing. Philosophers and other interested readers will gain fresh insight into Wittgenstein's perspectives on a wide range of topics, from Gödelian propositions and the Cantorian conception of real numbers, to the nature of mathematical propositions and the diversity of proof techniques. Other subjects covered include: mathematical sense; axioms and self-evidence; prudish proofs; the functionality of extra-mathematical application; undecided mathematical conjectures; rule-governed unwinding; and G. H. Hardy's conceptions and claims.

On Wittgenstein

The rule-following debate, in its concern with the metaphysics and epistemology of linguistic meaning and mental content, goes to the heart of the most fundamental questions of contemporary philosophy of mind and language. This volume gathers together the most important contributions to the topic, including papers by Simon Blackburn, Paul Boghossian, Graeme Forbes, Warren Goldfarb, Paul Horwich, John McDowell, Colin McGinn, Ruth Millikan, Philip Pettit, George Wilson, Crispin Wright, and Jose Zalabardo. The debate has centred on Saul Kripke's reading of the rule-following sections in Wittgenstein and his consequent posing of a sceptical paradox that threatens our everyday notions of linguistic meaning and mental content. These essays are attempts to respond to this challenge and represent some of the most important work in contemporary theory of meaning. With an introductory essay and a comprehensive guide to further reading this book is an excellent resource for courses in philosophy of mind, philosophy of language, Wittgenstein, and metaphysics, as well as for all philosophers, linguists, and cognitive scientists with interests in these areas.

WITTGENSTEINIAN (adj.)

2014 Reprint of 1956 Edition. Full facsimile of the original edition, not reproduced with Optical Recognition Software. Published in English and German with each text presented on opposing pages. "Remarks on the Foundations of Mathematics" are Wittgenstein's notes on the philosophy of mathematics. It has been translated from German to English by G.E.M. Anscombe, edited by G.H. von Wright and Rush Rhees, and published first in 1956. The text has been produced from passages in various sources by selection and editing. The notes have been written during the years 1937-1944 and

a few passages are incorporated in the "Philosophical Investigations" which were composed later. Wittgenstein's philosophy of mathematics is exposed chiefly by simple examples on which further skeptical comments are made. The text offers an extended analysis of the concept of mathematical proof and an exploration of Wittgenstein's contention that philosophical considerations introduce false problems in mathematics. Wittgenstein in the "Remarks" adopts an attitude of doubt in opposition to much orthodoxy in the philosophy of mathematics. Wittgenstein's influence has been felt in nearly every field of the humanities and the social sciences, though many of his views remain controversial. Wittgenstein's work remains, undeniably, now, that of one of those few philosophers who will be read by all future generations. It is by far the richest twentieth-century source of philosophical ideas, which it will take us more decades yet properly to apprehend and to absorb; despite the difficulty with which his work presents the reader, there is nothing that is likely to be more rewarding. The philosophy of mathematics was one of his earliest and most persistent preoccupations.... The present edition is a selection from seven distinct pieces of writing by Wittgenstein prior to his death in 1951.

Wittgenstein's Philosophy of Mathematics

The Logical Must is an examination of Ludwig Wittgenstein's philosophy of logic, early and late, undertaken from an austere naturalistic perspective Penelope Maddy has called "Second Philosophy." The Second Philosopher is a humble but tireless inquirer who begins her investigation of the world with ordinary perceptual beliefs, moves from there to empirical generalizations, then to deliberate experimentation, and eventually to theory formation and confirmation. She takes this same approach to logical truth, locating its ground in simple worldly structures and our knowledge of it in our basic cognitive machinery, tuned by evolutionary pressures to detect those structures where they occur. In his early work Tractatus Logico-Philosophicus, Wittgenstein also links the logical structure of representation with the structure of the world, but he includes one key unnaturalistic assumption: that the sense of our representations must be given prior to-independently of-facts about how the world is. When that assumption is removed, the general outlines of the resulting position come surprisingly close to the Second Philosopher's roughly empirical account. In his later discussions of logic in Philosophical Investigations and Remarks on the Foundations of Mathematics, Wittgenstein also rejects this earlier assumption in favor of a picture that arises in the wake of the famous rule-following considerations. Here Wittgenstein and the Second Philosopher operate in even closer harmony-locating the ground of our logical practices in our interests, our natural inclinations and abilities, and very general features of the world-until the Second Philosopher moves to fill in the account with her empirical investigations of the world and cognition. At this point, Wittgenstein balks, but as a matter of personal animosity rather than philosophical principle.

Ludwig Wittgenstein: Writings on Mathematics and Logic, 1937-1944: Volume 4, June 5, 1941-January 6, 1943

The Second Edition of Wittgenstein: Rules, Grammar and Necessity (the second volume of the landmark analytical commentary on Wittgenstein’s Philosophical Investigations) now includes extensively revised and supplemented coverage of the Wittgenstein's complex and controversial remarks on following rules. Includes thoroughly rewritten essays and the addition of one new essay on communitarian and individualist conceptions of rule-following Includes a greatly expanded essay on Wittgenstein’s conception of logical, mathematical and metaphysical necessity Features updates to the textual exegesis as the result of taking advantage of the search engine for the Bergen edition of the Nachlass Reflects the results of scholarly debates on rule-following that have raged over the past 20 years

Perspectives on Psychologism

Dedicated to educators who are not philosophy specialists, this book offers an overview of the connections between Wittgenstein’s later philosophy and his own training and practice as an educator. Arguing for the centrality of education to Wittgenstein’s life and works, the authors resist any reduction of Wittgenstein’s philosophy to remarks on pedagogy while addressing the current controversy surrounding the role of training in the enculturation process. Significant events in his education and life are examined as the background for successful interpretation, without lending biographical details explanatory force. The book discusses the importance of Wittgenstein’s training and dismissal as an elementary teacher (1920-26) in light of his later, frequent use (1930s-40s) of many ‘scenes of instruction’ in his Cambridge lectures and notebooks. These depictions culminated in his now

famous Philosophical Investigations -- a counter to his earlier philosophy in the Tractatus. Wittgenstein came to distinguish between empirical inquiries into how education, language or mathematics might ideally work, from grammatical studies of how we learn on the rough ground to normatively go-on as others do – often without explicit rules and with considerable degrees of ambiguity, for instance, in implementing new guidelines during a curriculum reform or in evaluating teachers. The book argues that Wittgenstein’s reflections on education -- spanning from mathematics training to the acquisition of language and cultivation of aesthetic appreciation -- are of central significance to both the man and his pedagogical style of philosophy.

Rule-following and Meaning

No serious philosopher or student of philosophy can afford to neglect Wittgenstein's work. Professor Fogelin provides an authoritative critical evaluation of both the Tractatus Logico-Philosophicus and Philosophical Investigations, enabling the reader to come to grips with these difficult yet key works. Fogelin explains Wittgenstein's attempt in the Tractatus to combine a picture theory of propositional structure, and also explores Wittgenstein's own criticisms of the Tractarian synthesis. He gives particular attention to topics in the philosophy of language, logic, psychology and the foundations of mathematics, examining Wittgenstein's work on these fields and arguing that Wittgenstein's criticisms in these areas form the basis for a radically new standpoint in philosophy.

Remarks on the Foundation of Mathematics [Bemerkungen Uber Die Grundlagen Der Mathematik]

This study defends a version of epistemological relativism, taking as its point of departure some key arguments from the later work of Ludwig Wittgenstein - especially those concerning rule following and forms of life. An opposition is established between the dominant form of epistemological realism - that which relies upon 'truth-conditions'- and theories in which knowledge and truth are fundamentally dependent upon context. It is argued in Part One that Wittgenstein proves the necessity for a contextual understanding of knowledge. Part Two develops a clearer idea of that context, using Thomas Kuhn's concept of paradigm. It is argued that this concept has been largely misunderstood (even by Kuhn), but that it can be developed to be remarkably consistent with Wittgenstein's arguments. All those - philosophers, historians, sociologists and others - who wish finally to understand the complex issues involved in debates about epistemological relativism will find this book invaluable.

The Logical Must

First published in 2005. Routledge is an imprint of Taylor & Francis, an informa company.

Philosophy of Mathematics

Philosophical Approaches to the Foundations of Logic and Mathematics consists of eleven articles addressing various aspects of the "roots" of logic and mathematics, their basic concepts and the mechanisms that work in the practice of their use.

Wittgenstein: Rules, Grammar and Necessity

“Providing up-to-date, in-depth coverage of the central question, and written and edited by some of the foremost practitioners in the field, this timely new edition will no doubt be a go-to reference for anyone with a serious interest in the philosophy of language.” Kathrin Glüer-Pagin, Stockholm University Now published in two volumes, the second edition of the best-selling Companion to the Philosophy of Language provides a complete survey of contemporary philosophy of language. The Companion has been greatly extended and now includes a monumental 17 new essays – with topics chosen by the editors, who curated suggestions from current contributors – and almost all of the 25 original chapters have been updated to take account of recent developments in the field. In addition to providing a synoptic view of the key issues, figures, concepts, and debates, each essay introduces new and original contributions to ongoing debates, as well as addressing a number of new areas of interest, including two-dimensional semantics, modality and epistemic modals, and semantic relationism. The extended “state-of-the-art” chapter format allows the authors, all of whom are internationally eminent scholars in the field, to incorporate original research to a far greater degree than competitor volumes. Unrivaled in scope, this volume represents the best contemporary critical thinking relating to the philosophy of language.

Wittgenstein’s Education: 'A Picture Held Us Captive’

No serious philosopher or student of philosophy can afford to neglect Wittgenstein's work. Professor Fogelin provides an authoritative critical evaluation of both the Tractatus Logico-Philosophicus and Philosophical Investigations, enabling the reader to come to grips with these difficult yet key works. Fogelin explains Wittgenstein's attempt in the Tractatus to combine a picture theory of propositional structure, and also explores Wittgenstein's own criticisms of the Tractarian synthesis. He gives particular attention to topics in the philosophy of language, logic, psychology and the foundations of mathematics, examining Wittgenstein's work on these fields and arguing that Wittgenstein's criticisms in these areas form the basis for a radically new standpoint in philosophy.

Wittgenstein

This monograph examines the private annotations that Ludwig Wittgenstein made to his copy of G.H. Hardy’s classic textbook, A Course of Pure Mathematics. Complete with actual images of the annotations, it gives readers a more complete picture of Wittgenstein’s remarks on irrational numbers, which have only been published in an excerpted form and, as a result, have often been unjustly criticized. The authors first establish the context behind the annotations and discuss the historical role of Hardy’s textbook. They then go on to outline Wittgenstein’s non-extensionalist point of view on real numbers, assessing his manuscripts and published remarks and discussing attitudes in play in the philosophy of mathematics since Dedekind. Next, coverage focuses on the annotations themselves. The discussion encompasses irrational numbers, the law of excluded middle in mathematics and the notion of an “improper picture," the continuum of real numbers, and Wittgenstein’s attitude toward functions and limits.

Forms of Life and Following Rules

This volume discusses Wittgenstein’s work, as well as hisoeuvre in general, and its implications for the nature of reason. Investigates the nature of reason which has always been a topicat the very heart of Western philosophy Analyses how Wittgenstein raised crucial questions about thesubject - most notably in his critique of Frazer’s GoldenBough, his discussions of various philosophical aspects ofreligion, and the famous ‘rule-followingconsiderations’ from his PhilosophicalInvestigations Contributors include prominent Wittgenstein scholars from theUK and continental Europe including Hanjo Glock, GeniaSchönbaumsfeld, Severin Schroeder Joachim Schulte and CrispinWright Contains a translation of an important paper by the FrenchWittgenstein scholar Jacques Bouveresse, alongside six new papersby other contributors

Wittgenstein and the Turning Point in the Philosophy of Mathematics

Philosophical Approaches to the Foundations of Logic and Mathematics