Conjectures And Refutations The Growth Of Scientific Knowledge Karl Popper

This comprehensive anthology draws together writings by leading philosophers of science and will prove invaluable for any philosophy of science course.

This book seeks to rectify misrepresentations of Popperian thought with a historical approach to Popper’s philosophy, an approach which applies his own mature view, that we gain knowledge through conjectures and refutations, to his own development, by portraying him in his intellectual growth as just such a series. Gattei seeks to reconstruct the logic of Popper’s development, in order to show how one problem and its tentative solution led to a new problem.

Popper and After: Four Modern Irrationalists focuses on a tendency in the philosophy of science, of which the leading representatives are Professor Sir Karl Popper, the late Professor Imre Lakatos, and Professors T. S. Kuhn and P. K. Feyerabend. Their philosophy of science is in substance irrationalist. They doubt, or deny outright, that there can be any reason to believe any scientific theory; and a fortiori they doubt or deny, for example, that there has been any accumulation of knowledge in recent centuries. The book is composed of two parts and Part One explains how these writers succeeded in making irrationalism about science acceptable to readers. Part Two explores the intellectual influence that led these writers to embrace irrationalism about science.

In a career spanning sixty years, Sir Karl Popper has made some of the most important contributions to the twentieth century discussion of science and rationality. The Myth of the Framework is a new collection of some of Popper's most important material on this subject. Sir Karl discusses such issues as the aims of science, the role that it plays in our civilization, the moral responsibility of the scientist, the structure of history, and the perennial choice between reason and revolution. In doing so, he attacks intellectual fashions (like positivism) that exagerrate what science and rationality have done, as well as intellectual fashions (like relativism) that denigrate what science and rationality can do. Scientific knowledge, according to Popper, is one of the most rational and creative of human achievements, but it is also inherently fallible and subject to revision. In place of intellectual fashions, Popper offers his own critical rationalism - a view that he regards both as a theory of knowlege and as an attitude towards human life, human morals and democracy. Published in cooperation with the Central European University.

In a letter of 1932, Karl Popper described Die beiden Grundprobleme der Erkenntnistheorie – The Two Fundamental Problems of the Theory of Knowledge – as ‘...a child of crises, above all of ...the crisis of physics.’ Finally available in English, it is a major contribution to the philosophy of science, epistemology and twentieth century philosophy generally. The two fundamental problems of knowledge that lie at the centre of the book are the problem of induction, that although we are able to observe only a limited number of particular events, science nevertheless advances unrestricted universal statements; and the problem of demarcation, which asks for a separating line between empirical science and non-science. Popper seeks to solve these two basic problems with his celebrated theory of falsifiability, arguing that the inferences made in science are not inductive but deductive; science does not start with observations and proceed to generalise them but with problems, which it attacks with bold conjectures. The Two Fundamental Problems of the Theory of Knowledge is essential reading for anyone interested in Karl Popper, in the history and philosophy of science, and in the methods and theories of science itself.

Realism and the Aim of Science is one of the three volumes of Karl Popper’s Postscript to the Logic of scientific Discovery. The Postscript is the culmination of Popper’s work in the philosophy of physics and a new famous attack on subjectivist approaches to philosophy of science. Realism and the Aim of Science is the first volume of the Postcript. Popper here formulates and explains his non-justificationist theory of knowledge: science aims at true explanatory theories, yet it can never prove, or justify, any theory to be true, not even if is a true theory. Science must continue to question and criticise all its theories, even those that happen to be true. Realism and the Aim of Science presents Popper’s mature statement on scientific knowledge and offers important insights into his thinking on problems of method within science.

Conjectures and RefutationsThe Growth of Scientific KnowledgePsychology Press

`Philippe Baumard has observed that strategic success seems to lie more in top managers' ability to use tacit knowledge than in their gaining or updating explicit knowledge' - William H Starbuck, New York University `This important new book effectively illustrates how, in conditions of ambiguity, managers `over-manage', i.e. rely too much on explicit plans and interpretations. Here, Philippe Baumard develops an alternative analysis and with it a new approach to management' - Frank Blackler, Lancaster University This landmark book delves below the surface of organizations in order to understand the complex processes of top managers' decision making. Philippe

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At the age of eight, Karl Popper was puzzling over the idea of infinity and by fifteen was beginning to take a keen interest in his father's well-stocked library of books. Unended Quest recounts these moments and many others in the life of one of the most influential thinkers of the twentieth century, providing an indispensable account of the ideas that influenced him most. As an introduction to Popper's philosophy, Unended Quest also shines. Popper lucidly explains the central ideas in his work, making this book ideal for anyone coming to Popper's life and work for the first time.

This volume aims to interest students of modern economic theory in the history of economics. For this purpose, past economic theories are considered from the point of view of current economic theories and translated, if possible and necessary, into mathematical models. It is emphasized that the currently dominating mainstream theory is not the only possible theory, and that there are many past theories which have important significance to the advancement of economic theory in the present situation, or will have it in the near future. After a brief discussion on the history of economics from the point of view of contemporary economic theory, a bird's-eye view of the historical development of

economics is given so that readers can see the significance of topics to be discussed in subsequent chapters in a proper historical perspective. These topics are carefully chosen to show not only what great economists in the past contributed to the development of economics, but also what suggestions for solving our own current problems we can obtain by reworking problems they had to face. The book can be used in advanced undergraduate as well as graduate classes on the history of economics. Mathematical techniques used can easily be understood by advanced undergraduates of economics major, since some models constructed originally by contemporary mathematical economists are carefully reformulated without losing the essence, basic calculus and the rudiments of linear algebra being sufficient for understanding.

The human mind is the single most powerful entity in the universe. Yet we have made no progress in our efforts to simulate it as artificial general intelligence. Why is that? In this groundbreaking book, software engineer and philosopher Dennis Hackethal explains the mistakes intelligence researchers have been making - and how to avoid them. Based out of Silicon Valley, he proposes a research program for building truly intelligent machines. He argues for a fundamental unification of software engineering and reason generally that will aid greatly in our goal to simulate intelligence. Taking you on a journey through several fields, including the theory of evolution, epistemology, psychotherapy, and astronomy, Hackethal provides insight into the unlimited potential of artificial general intelligence that may one day take us to the stars. A Window on Intelligence is your field guide to the exciting world of your mind.

This unique collection of essays, published together for the first time, not only elucidates the complexity of ancient Greek thought, but also reveals Karl Popper's engagement with Presocratic philosophy and the enlightenment he experienced in his reading of Parmenides. As Karl Popper himself states himself in his introduction, he was inspired to write about Presocratic philosophy for two reasons - firstly to illustrate the thesis that all history is the history of problem situations and secondly, to show the greatness of the early Greek philosophers, who gave Europe its philosophy, its science and its humanism.

In this long-awaited volume, Jeremy Shearmur and Piers Norris Turner bring to light Popper's most important unpublished and uncollected writings from the time of The Open Society until his death in 1994. After The Open Society: Selected Social and Political Writings reveals the development of Popper's political and philosophical thought during and after the Second World War, from his early socialism through to the radical humanitarianism of The Open Society. The papers in this collection, many of which are available here for the first time, demonstrate the clarity and pertinence of Popper's thinking on such topics as religion, history, Plato and Aristotle, while revealing a lifetime of unwavering political commitment. After The Open Society illuminates the thought of one of the twentieth century's greatest philosophers and is essential reading for anyone interested in the recent course of philosophy, politics, history and society.

On its publication in 1957, The Poverty of Historicism was hailed by Arthur Koestler as 'probably the only book published this year which will outlive the century.' A devastating criticism of fixed and predictable laws in history, Popper dedicated the book to all those 'who fell victim to the fascist and communist belief in Inexorable Laws of Historical Destiny.' Short and beautifully written, it has inspired generations of readers, intellectuals and policy makers. One of the most important books on the social sciences since the Second World War, it is a searing insight into the ideas of this great thinker.

A sampling of the philosophical writings of Karl Popper includes discussions of rationalism, knowledge, human freedom, and the scientific method

This book traces the history of the concept of work from its earliest stages and shows that its further formalization leads to equilibrium principle and to the principle of virtual works, and so pointing the way ahead for future research and applications. The idea that something remains constant in a machine operation is very old and has been expressed by many mathematicians and philosophers such as, for instance, Aristotle. Thus, a concept of energy developed. Another important idea in machine operation is Archimedes' lever principle. In modern times the concept of work is analyzed in the context of applied mechanics mainly in Lazare Carnot mechanics and the mechanics of the new generation of polytechnical engineers like Navier, Coriolis and Poncelet. In this context the word "work" is finally adopted. These engineers are also responsible for the incorporation of the concept of work into the discipline of economics when they endeavoured to combine the study of the work of machines and men together.

Described by the philosopher A.J. Ayer as a work of 'great originality and power', this book revolutionized contemporary thinking on science and knowledge. Ideas such as the now legendary doctrine of 'falsificationism' electrified the scientific community, influencing even working scientists, as well as post-war philosophy. This astonishing work ranks alongside The Open Society and Its Enemies as one of Popper's most enduring books and contains insights and arguments that demand to be read to this day.

"Comprising more than 500 entries, the Encyclopedia of Research Design explains how to make decisions about research design, undertake research projects in an ethical manner, interpret and draw valid inferences from data, and evaluate experiment design strategies and results. Two additional features carry this encyclopedia far above other works in the field: bibliographic entries devoted to significant articles in the history of research design and reviews of contemporary tools, such as software and statistical procedures, used to analyze results. It covers the spectrum of research design strategies, from material presented in introductory classes to topics necessary in graduate research; it addresses cross- and multidisciplinary research needs, with many examples drawn from the social and behavioral sciences, neurosciences, and biomedical and life sciences; it provides summaries of advantages and disadvantages of often-used strategies; and it uses hundreds of sample tables, figures, and equations based on real-life cases."--Publisher's description.

This is a systematic exposition of Popper's philosophy covering in part 1 the philosophy of science, in part 2 the social philosophy, and in part 3 the later metaphysics, in particular the theses to solve indeterminism/determinism and mind/body problems, and the famous idea of a third world of objective thought.This book is more comprehensive than any current introduction to Popper. Its perspicuous structure and lucid exposition should ensure that it could be used in courses in both the philosophy of science and the philosophy of social science.

One of the most important books of the twentieth century, Karl Popper's The Open Society and Its Enemies is an uncompromising defense of liberal democracy and a powerful attack on the intellectual origins of totalitarianism. Popper was born in 1902 to a Viennese family of Jewish origin. He taught in Austria until 1937, when he emigrated to New Zealand in anticipation of the Nazi annexation of Austria the following year, and he settled in England in 1949. Before the annexation, Popper had written mainly about the philosophy of science, but from 1938 until the end of the Second World War he focused his energies on political philosophy, seeking to diagnose the intellectual origins of German and Soviet totalitarianism. The Open Society and Its Enemies was the result. An immediate sensation when it was first published in two volumes in 1945, Popper's monumental achievement has attained legendary status on both the Left and Right and is credited with inspiring anticommunist dissidents during the Cold

War. Arguing that the spirit of free, critical inquiry that governs scientific investigation should also apply to politics, Popper traces the roots of an opposite, authoritarian tendency to a tradition represented by Plato, Marx, and Hegel. In a substantial new introduction written for this edition, acclaimed political philosopher Alan Ryan puts Popper's landmark work in biographical, intellectual, and historical context. Also included is a personal essay by eminent art historian E. H. Gombrich, in which he recounts the story of the book's eventual publication despite numerous rejections and wartime deprivations.

Imre Lakatos's Proofs and Refutations is an enduring classic, which has never lost its relevance. Taking the form of a dialogue between a teacher and some students, the book considers various solutions to mathematical problems and, in the process, raises important questions about the nature of mathematical discovery and methodology. Lakatos shows that mathematics grows through a process of improvement by attempts at proofs and critiques of these attempts, and his work continues to inspire mathematicians and philosophers aspiring to develop a philosophy of mathematics that accounts for both the static and the dynamic complexity of mathematical practice. With a specially commissioned Preface written by Paolo Mancosu, this book has been revived for a new generation of readers.

This inaugural handbook documents the distinctive research field that utilizes history and philosophy in investigation of theoretical, curricular and pedagogical issues in the teaching of science and mathematics. It is contributed to by 130 researchers from 30 countries; it provides a logically structured, fully referenced guide to the ways in which science and mathematics education is, informed by the history and philosophy of these disciplines, as well as by the philosophy of education more generally. The first handbook to cover the field, it lays down a much-needed marker of progress to date and provides a platform for informed and coherent future analysis and research of the subject. The publication comes at a time of heightened worldwide concern over the standard of science and mathematics education, attended by fierce debate over how best to reform curricula and enliven student engagement in the subjects. There is a growing recognition among educators and policy makers that the learning of science must dovetail with learning about science; this handbook is uniquely positioned as a locus for the discussion. The handbook features sections on pedagogical, theoretical, national, and biographical research, setting the literature of each tradition in its historical context. It reminds readers at a crucial juncture that there has been a long and rich tradition of historical and philosophical engagements with science and mathematics teaching, and that lessons can be learnt from these engagements for the resolution of current theoretical, curricular and pedagogical questions that face teachers and administrators. Science educators will be grateful for this unique, encyclopaedic handbook, Gerald Holton, Physics Department, Harvard University This handbook gathers the fruits of over thirty years’ research by a growing international and cosmopolitan community Fabio Bevilacqua, Physics Department, University of Pavia

Modern philosophy of science has paid great attention to the understanding of scientific 'practice', in contrast to concentration on scientific 'method'. Paul Feyerabend's acclaimed work, which has contributed greatly to this new emphasis, shows the deficiencies of some widespread ideas about the nature of knowledge. He argues that the only feasible explanations of scientific successes are historical explanations, and that anarchism must now replace rationalism in the theory of knowledge. The third edition of this classic text contains a new preface and additional reflections at various points in which the author takes account both of recent debates on science and on the impact of scientific products and practices on the human community. While disavowing populism or relativism, Feyerabend continues to insist that the voice of the inexpert must be heard. Thus many environmental perils were first identified by non-experts against prevailing assumptions in the scientific community. Feyerabend's challenging reassessment of scientific claims and understandings are as pungent and timely as ever.

'Never before has there been so many and such dreadful weapons in so many irresponsible hands.' - Karl Popper, from the Preface All Life is Problem Solving is a stimulating and provocative selection of Popper's writings on his main preoccupations during the last twenty-five years of his life. This collection illuminates Popper's process of working out key formulations in his theory of science, and indicates his view of the state of the world at the end of the Cold War and after the collapse of communism.

"An important collection of significant papers." American Scientist

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Conjectures and Refutations is one of Karl Popper's most wide-ranging and popular works, notable not only for its acute insight into the way scientific knowledge grows, but also for applying those insights to politics and to history. It provides one of the clearest and most accessible statements of the fundamental idea that guided his work: not only our knowledge, but our aims and our standards, grow through an unending process of trial and error.

The essays in this volume represent an approach to human knowledge that has had a profound influence on many recent thinkers. Popper breaks with a traditional commonsense theory of knowledge that can be traced back to Aristotle. A realist and fallibilist, he argues closely and in simple language that scientific knowledge, once stated in human language, is no longer part of ourselves but a separate entity that grows through critical selection.

Rethinking questions of identity, social agency and national affiliation, Bhabha provides a working, if controversial, theory of cultural hybridity - one that goes far beyond previous attempts by others. In The Location of Culture, he uses concepts such as mimicry, interstice, hybridity, and liminality to argue that cultural production is always most productive where it is most ambivalent. Speaking in a voice that combines intellectual ease with the belief that theory itself can contribute to practical political change, Bhabha has become one of the leading post-colonial theorists of this era.