



PAIDEIA Studies in *Philosophia Mathematica* "at Large"

by J. Fang, Editor: *Philosophia Mathematica*, 1963-91

The Young Kant : Between Mathematics and Epistemology, I

Rigorous probes into the "Young" Kant's view of mathematics (*re* synthetic a priori) properly through the history of mathematics in the light of Kant's German contemporaries (*vs* French or other counterparts), to see his indirect influence on the young Gauss, or to prove that he had nothing to do with axiomatics (*vs* Martin etc.) or meta-mathematics (*vs* Kitcher etc.).

Kant in His Prime : Between Mathematics and Epistemology, II

The most comprehensive and comprehensible approach, or an attempt thereof, to Kant's first *Critique* as a "tough-minded" founding of epistemology, through his "Silent Decade" in the light of his insights for restructuring its second edition, concerning "modern" mathematics, physics, and computer science today.

"The Needham Question is certainly one of the most interesting in the whole of the history of mathematics." P.J. Davis, Brown University

The Needham Question : Between Mathematics and Sociology, I

Definitely answered here is the "Needham Question" (Why, in China, "Modern Science" never developed?) via a "sociology of mathematics" (explained here in theory and practice – *re* intrinsic relations between specific societal settings and the unique circumstances that gave birth to "exact" sciences); with a letter from Needham himself; a rejoinder, three more chapters for Sociology of Mathematics.

The Birth of Exact Sciences : Between Mathematics and Sociology, II

Theoretical exegeses and historical documentations for vol. I as above, on the "Shoulders of Giants": the great masters in Greek Classics, Greek Mathematicians, and Sociologists of Knowledge (of Science in particular).

Fads, Fashions, and Fallacies : Between Mathematics and Sociology, III

Such as the "historical circularity" (practiced by T. S. Kuhn, for one), the "death" of "proof" or a mathematical theory (while quite alive, contrary to a sociologist of science), and many other related topics in the light of philosophy-history-sociology on mathematics in particular and science in general.

Each volume (SC), c. 230-270 pages with Index, \$14.50

PAIDEIA & PM, 3054 Millers Landing Road,
Gloucester, VA 23061, FAX: (703) 899-2931

PHILOSOPHY FROM CAMBRIDGE

Announcing a new series...

**Cambridge Studies in
Philosophy and Biology**

From a Biological Point of View

Essays in Evolutionary Philosophy
Elliott Sober

Appealing to a readership extending well beyond the frontiers of the philosophy of science, this new collection of essays shows how ideas in evolutionary biology influence traditional problems in philosophy of mind and language, epistemology, and metaphysics.

47184-2 Hardback \$59.95
47753-0 Paperback \$18.95

The Immune Self: Theory or Metaphor

A Philosophical Inquiry

Alfred I. Tauber

The Immune Self is a critical study of immunology from its origins at the end of the 19th century to its contemporary formulation. The book offers the first extended philosophical critique of immunology, in which the function of the term "self" that underlies the structure of current immune theory is analyzed. However, this analysis is carefully integrated into a broad survey of the major scientific developments in immunology, a discussion of their historical context, and a review of the conceptual arguments that have molded this sophisticated modern science.

46188-X Hardback \$59.95

Optics in the Age of Euler

Conceptions of the Nature of Light,
1700–1795

Casper Hakfoort

This book studies the eighteenth-century origins and early phase of a fundamental debate in optics: whether light is a particle or a wave. Specifically, it is the first in-depth study of the contents and reception of Leonard Euler's wave theory of light.

40471-1 Hardback \$64.95

The Cambridge Companion to Leibniz

Nicholas Jolley, Editor

This volume provides a systematic and comprehensive account of the full range of Leibniz's thought, exploring the metaphysics in detail and showing its subtle and complex relationship to his views on logic, language, physics, and theology.

Contributors: *Roger Ariew, David Blumenfeld, Gregory Brown, Stuart Brown, Daniel Garber, Nicholas Jolley, Robert McRae, Christia Mercer, G. H. R. Parkinson, Donald Rutherford, R. C. Sleight, Jr., Catherine Wilson*

Cambridge Companions to Philosophy

36588-0 Hardback \$59.95
36769-7 Paperback \$18.95

Hume's Theory of Consciousness

Wayne Waxman

This book attempts a comprehensive analysis and reevaluation of Hume's *Treatise of Human Nature*. Kant viewed Hume as the skeptical destroyer of metaphysics. Yet for most of this century the consensus among interpreters is that for Hume skepticism was a means to a naturalistic, anti-skeptical end. The author argues for a new understanding of the nature of Hume's skepticism and its relation to his naturalism. The book also elucidates Hume's views on induction, causality, identity, language, time-consciousness, memory, aspect-seeing and animal reason.

45381-X Hardback \$54.95

The Cambridge Companion to Aristotle

Jonathan Barnes, Editor

Aristotle is one of the greatest thinkers in the Western tradition as well as one of the most difficult to understand. Contributors to this volume do not attempt to disguise the nature of that difficulty in the course of offering a clear exposition of the central philosophical concerns in his work.

Contributors: *Jonathan Barnes, Robin Smith, R. J. Hankinson, Stephen Everson, D. S. Hutchinson, C. C. W. Taylor*

Cambridge Companions to Philosophy

41133-5 Hardback \$59.95
42294-9 Paperback \$17.95

PHILOSOPHY FROM CAMBRIDGE

Probability and Conditionals

Belief Revision & Rational Decision

Ellery Eells and

Brian Skyrms, Editors

This is a state of the art collection of essays on the relation between probabilities, especially conditional probabilities, and conditionals. It provides new negative results which sharply limit the ways conditionals can be related to conditional probabilities. There are also positive ideas and results which will open up new areas of research.

Contributors: *Patrick Suppes, Brian Skyrms, Robert Stalnaker, Richard Jeffrey, Judea Pearl, Alan Hajek, Ned Hall, Charles S. Chibara, Vann McGee*

Cambridge Studies in Probability, Induction and Decision Theory

45359-3 Hardback \$49.95

Physics and Our View of the World

Jan Hilgevoord, Editor

The philosophical implications of having a blueprint for the Universe is a subject of great debate. A group of distinguished contributing physicists and philosophers accordingly examine not only the claims of modern physics, but the impact these claims can have on our view of the world.

Contributors: *Jan Hilgevoord, Gerard't Hooft, John Barrow, Dennis Dieks, Ernan McMullin, Bas vanFraassen, Paul Feyerabend, Willem Drees, Paul Davies, Mary Hesse*

45372-0 Hardback \$49.95

47680-1 Paperback \$22.95

Divine Will and the Mechanical Philosophy

Gassendi and Descartes on Contingency and Necessity in the Created World

Margaret J. Osler

Examines ways of understanding contingency and necessity in the world and how these ideas influenced the development of the mechanical philosophy in the seventeenth century with an emphasis on the transformation of medieval ideas about God's relationship to the Creation into seventeenth century ideas about matter and method.

46104-9 Hardback \$49.95

Eddington's Search for a Fundamental Theory

A Key to the Universe

C. W. Kilmister

This volume examines how Eddington came to write his last two books and what value they have to modern physics. The result is a unique, illuminating description of the development of theoretical physics in the first half of the twentieth century. This will provide fascinating reading for scholars in the philosophy of science, theoretical physics, applied mathematics and the history of science.

37165-1 Hardback \$59.95

The Quantum Theory of Motion

An Account of the de Broglie-Bohm Causal Interpretation of Quantum Mechanics

Peter R. Holland

"...the wealth of details and literature citations make this a valuable reference work with which anyone with a serious interest in foundations of quantum mechanics should become familiar...refreshingly open-minded."

—*Sheldon Goldstein, Science*

Presenting the first comprehensive exposition of the interpretation of quantum mechanics pioneered by Louis de Broglie and David Bohm, this work's purpose is to explain how quantum processes may be visualized without ambiguity or confusion in terms of a simple physical model.

35404-8 Hardback \$120.00

48543-6 Paperback \$39.95

Available in bookstores or from

CAMBRIDGE
UNIVERSITY PRESS

40 West 20th Street

New York, NY 10011-4211

Call toll-free 800-872-7423

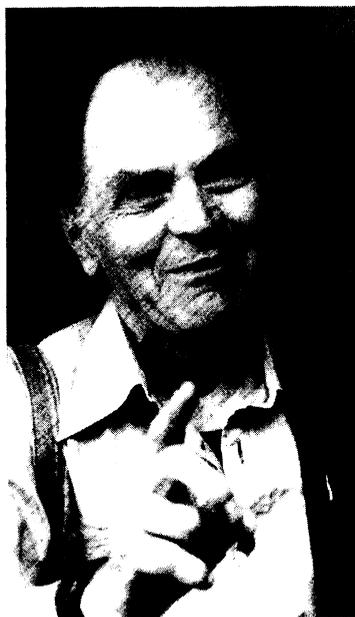
MasterCard/VISA accepted.

Prices subject to change.

PAUL FEYERABEND

KILLING TIME

The Autobiography of Paul Feyerabend



“Paul Feyerabend was one of the most gifted, colorful, original, and eccentric figures in post-war academic philosophy. . . . a free spirit—irreverent, brilliant, outrageous, life-enriching, unreliable, and for most who knew him, a lovable individual.”—John Watkins, *The Independent*

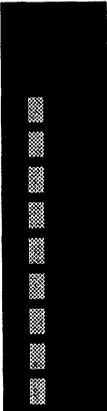
“The last chapter of the autobiography is called ‘Fading Away.’ It’s a great grief that Paul has now faded away. But we can still celebrate the brilliant cheerfully mischievous spirit that lives on in his work.”—Roy Edgley, *Radical Philosophy*

Killing Time is the self-portrait of one of this century’s most original and influential intellectuals. Here, for the first time, Feyerabend traces the trajectory that led him from an isolated, lower-middle-class childhood in Vienna to the height of international academic success. He writes of his experience in the German army on the Russian front, his promising talent as an operatic tenor, his encounters with everyone from Martin Buber to Bertolt Brecht, innumerable love affairs, four marriages, and a career so rich he once held tenured positions at four universities at the same time. Rarely has an intellectual of this stature told his story so openly.

Cloth \$22.95 208 pages 40 halftones

THE UNIVERSITY OF CHICAGO PRESS

5801 S. Ellis Ave., Chicago, IL 60637



AN INTERPRETIVE INTRODUCTION TO QUANTUM FIELD THEORY

Paul Teller

Because it presents a lucid view of quantum field theory and the debates that surround it, *An Interpretive Introduction to Quantum Field Theory* will interest students of physics as well as students of philosophy. Paul Teller presents the basic ideas of quantum field theory in a way that is understandable to readers who are familiar with non-relativistic quantum mechanics. He provides information about the physics of the theory without calculational detail, and enlightens readers on how to think about the theory physically. His goal is to raise questions about the philosophical implications of the theory and to offer some tentative interpretive views of his own.

This provocative and thoughtful book challenges both philosophers and scientists to consider the philosophical issues raised by quantum field theory.

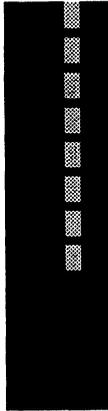
"In discussing the philosophical implications of quantum field theory, this book is ground-breaking. . . . On the interpretive side, this is the first extended treatment of the philosophical implications of the theory. It will be a benchmark for all further work."

—Tim Maudlin, Rutgers University

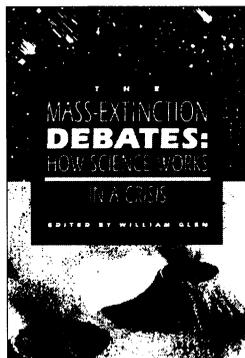
Cloth: \$35.00 ISBN 0-691-07408-9

PRINCETON UNIVERSITY PRESS

AVAILABLE AT FINE BOOKSTORES OR DIRECTLY FROM THE PUBLISHER: 800-777-4726



Writing Science



The Mass-Extinction Debates

How Science Works in a Crisis

Edited by
William Glen

This book examines the arguments and behavior of the scientists who have been locked in conflict over two competing theories to explain why, 65 million years ago, most life on earth—including the dinosaurs—perished.

\$49.50 cloth \$17.95 paper

Materialities of Communication

Edited by
Hans Ulrich Gumbrecht
and K. Ludwig Pfeiffer

Some of the most thought-provoking participants in the ongoing reorientation of the humanities investigate the underlying conditions and constraints of communication, whose technological, material, procedural, and performative potentials have been all too easily swallowed up by long-dominant interpretational habits.

Writing Science

\$52.50 cloth \$17.95 paper

Craters, Cosmos, and Chronicles

A New Theory of Earth

Herbert R. Shaw

"I cannot exaggerate the importance of this book to the sciences. The central thesis is that the cratering pattern on Earth is not random, but is instead aligned along swaths that intersect at approximately constant locations over much of Earth's history. It is a new view of Earth based on a pioneering, chaos-theory analysis of the most important earth processes and records."

—Digby J. McLaren,
Former Director of the
Canadian Geological Society

\$79.50

Now in Paperback



Big Science

The Growth of Large-Scale Research

Edited by
Peter Galison and
Bruce Healy

\$22.50

The Age of the Earth

By Brent Dalrymple

\$24.95

Available in bookstores or from



STANFORD UNIVERSITY PRESS

Stanford, CA 94305-2235 415/723-1593 fax 725-3457

PHILOSOPHY OF SCIENCE

Typescript. Typescript, double-spaced, should be submitted (in triplicate) to Professor Philip Kitcher, Department of Philosophy, 0302, University of California, San Diego, La Jolla, CA 92093-0302 U.S.A. Typescripts will not be returned unless return postage is prepaid by check, money order, International Postal Reply Coupons or U.S. stamps. A bibliographical list of cited references beginning with the author's last name, initials, followed by the year of publication in parentheses, should be headed 'References' and placed on a separate sheet in alphabetical order. Simple citations should then be made by employing in the text, *rather than by footnote*, the reference list by citing author and year of publication, for example, Jones (1958) or (Smith 1974, 46). A detailed guide to the new reference style appears in the March issue of each year. Discursive footnotes (consecutively numbered) should be kept to an *absolute* minimum. *An abstract (also in triplicate) of approximately 100 words must accompany typescript. Typescript must not exceed 9,500 words, including abstract, footnotes and references. A word count must be submitted with each essay. Longer essays will be returned (at the author's expense) to be cut to the acceptable maximum. All figures must be professionally drawn and lettered.* All formulas and equations should be put in such a form as to help minimize the number of printed lines in the journal. In the following examples the form on the right is preferable to that on the left:

$$(1) \quad p = -\frac{dx}{dy} = -\frac{dz}{dt} \qquad p = -dx/dy = -dz/dt$$

$$(2) \quad \frac{1}{x} \prod_{n=1}^{\infty} \frac{\left(1 + \frac{1}{a_n}\right)}{\left(1 - \frac{1}{b_n}\right)} \qquad (1/x) \prod_{n=1}^{\infty} [(1 + 1/a_n)/(1 - 1/b_n)]$$

Processing fee. There is a fifteen dollar per submission processing fee for individuals who are not members of the Philosophy of Science Association.

Copyright. Manuscripts should be submitted to *Philosophy of Science* with the understanding that upon publication copyright will be transferred to the Philosophy of Science Association.

Reprints. Contributors of articles to this journal will receive, gratis, 25 reprints. Authors desiring additional reprints may order them by sending in, with their corrected galleys, the order forms that they will find enclosed with their galleys.

Reviews. Publications intended for review should be sent to Professor Merrilee Salmon, at the address given above.

Philosophy of Science is published quarterly; issues are dated *March, June, September and December* of each year. Correspondence concerning business matters should be addressed to Peter D. Asquith, Executive Secretary, Department of Philosophy, 503 South Kedzie Hall, Michigan State University, East Lansing, Michigan 48824-1032 U.S.A.

Membership and Subscriptions. Membership in the Philosophy of Science Association may be applied for by writing to the Executive Secretary of the Association. Membership dues are graduated based on income: income below \$40,000—\$55.00; \$40,000—\$49,999—\$65.00; \$50,000—\$59,999—\$75.00; \$60,000 or above—\$85.00 U.S.A. a year and include subscription to the journal. Memberships at a reduced rate of \$25.00 a year are available to qualified students; inquire of the Executive Secretary. Subscription price for non-members is \$65.00 U.S.A. (\$70.00 non-U.S.A.) per volume. New subscriptions and renewals are entered to begin with the first issue of the current volume. Should any issue of the current volume be out of print at the time the subscription order is received, the pro-rata value will be refunded to the subscriber. Duplicate copies may be obtained (if available) from the Executive Secretary at the regular price of single issues (\$15.00).

Published Quarterly By
THE PHILOSOPHY OF SCIENCE ASSOCIATION
 503 South Kedzie Hall, Michigan State University
 East Lansing, Michigan 48824-1032
 U.S.A.