**Scientific Structuralism**

Recently there has been a revival of interest in structuralist approaches to science. Taking their lead from scientific structuralists such as Henri Poincaré, Ernst Cassirer, and Bertrand Russell, some contemporary philosophers and scientists have argued that the most fruitful approach to solving many problems in the philosophy of science lies in focusing on the structural features of our scientific theories. Much of the work in scientific structuralism to date has been focused on the problem of scientific realism, where it has been argued that even in cases of radical theory change the most important structural features of predecessor theories are preserved. These structural realists argue that what our most successful theories get right about the world is these abstract structural features, rather than any particular ontological claims. More recently, philosophers of science have adopted structuralist approaches to many other issues in the philosophy of science, such as scientific explanation and intertheory relations. The nine articles collected in this volume, written by the leading researchers in scientific structuralism, represent some of the most important directions of research in this field. This book will be of particular interest to those philosophers, scientists, and mathematicians who are interested in the foundations of science.

**Features**
- Fills a glaring gap in the philosophy of science literature
- Includes articles on a variety of facets of scientific structuralism, including structural realism, structural empiricism, structural approaches to intertheoretic relations, and structuralism in physics
- The top contributors in these fields

**Field of interest**
Philosophy of Science

**Target groups**
Research

**Type of publication**
Contributed volume

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**Explaining Games**

**The Epistemic Programme in Game Theory**

Does game theory – the mathematical theory of strategic interaction – provide genuine explanations of human behaviour? Can game theory be used in economic consultancy or other normative contexts? Explaining Games: The Epistemic Programme in Game Theory – the first monograph on the philosophy of game theory – is a bold attempt to combine insights from epistemic logic and the philosophy of science to investigate the applicability of game theory in such fields as economics, philosophy and strategic consultancy. De Bruin proves new mathematical theorems about the beliefs, desires and rationality principles of individual human beings, and he explores in detail the logical form of game theory as it is used in explanatory and normative contexts. He argues that game theory reduces to rational choice theory if used as an explanatory device, and that game theory is nonsensical if used as a normative device. A provocative account of the history of game theory reveals that this is not bad news for all of game theory, though.

**Features**
- Draws together research in epistemic logic and the philosophy of the social sciences
- Provides the first book-length contribution to the emerging field of philosophy of game theory
- Gives a fascinating, new account of payoff-uncertainty
- Offers a new interpretation of the Nash Equilibrium Refinement Programme and the Epistemic Programme
- Examines the applicability of game theory in the social sciences and philosophy

**Contents**
- Introduction
- Preliminaries
- Part I Epistemic Logic
- 2. Normal Formal Games
- 3. Extensive Games
- Part II Epistemology
- 4. Applications of Game Theory
- 5. The Methodology of Game Theory
- 6. Conclusion
- A. Notation, Definitions, Theorems
- References
- Index

**Fields of interest**
Philosophy of Science; Logic; Game Theory/Mathematical Methods

**Target groups**
Research

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**Science Studies as Naturalized Philosophy**

This book approaches its subject matter in a way that combines a strong analytical and critical perspective with a historical and sociological framework for the understanding of the emergence of Science Studies. This is a novelty, since extant literature on this topic tends either to narrate the history of the field, with little criticism, or to criticize Science Studies from a philosophical platform but with little interest in its historical and social context.

The book provides a critical review of the most prominent figures in Science Studies (also known as Science and Technology Studies) and traces the historical roots of the discipline back to developments emerging after World War II. It also presents it as an heir to a long tradition in Western thought towards the naturalization of philosophy, where a priori modes of thought are replaced by empirical ones. Finally, it points to ways for Science Studies to proceed in the future.

**Features**
- Offers a critical overview of the main figures in Science and Technology Studies
- Provides a historical and social setting for the emergence of Science and Technology Studies that makes this phenomenon more transparent to newcomers to the field
- Points to fruitful lines of development for Science and Technology Studies in the future

**From the contents**
Preface

- Introduction

1. The Naturalization of Philosophy
- 2. Wittgenstein, Kuhn and the Turn towards Science Studies
- 3. David Bloor and the Strong Programme
- 4. The Strong Programme as Naturalized Philosophy
- 5. Harry Collins and the Empirical Programme of Relativism
- 7. Latour’s Metaphysics
- 8. Andrew Pickering and the Mangle of Practice
- 9. Steve Fuller and Social Epistemology
- 10. An Alternative Road for Science and Technology

**Fields of interest**
Philosophy of Science; Methodology of the Social Sciences

**Target groups**
Research

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Due October 2010

- 99.95 | 90.00
- 106.95 | 109.95 | sFr 155.50

Due July 2010

2010. 200 p. (Synthese Library, Volume 346) Hardcover
- approx. 89.95 | 77.50
- approx. 106.95 | 109.95 | sFr 155.50

Due October 2010

2011. 220 p. (Synthese Library, Volume 348) Hardcover
- approx. 99.95 | 90.00
- approx. 106.95 | 109.95 | sFr 155.50
ISBN 978-1-4020-9907-6
Humiliation, Degradation, Dehumanization

Human Dignity Violated

Degradation, dehumanization, instrumentalization, humiliation, and nonrecognition – these concepts point to ways in which we understand human beings to be violated in their dignity. Violations of human dignity are brought about by concrete practices and conditions; some commonly acknowledged, such as torture and rape, and others more contested, such as poverty and exclusion. This volume collates reflections on such concepts and a range of practices, deepening our understanding of human dignity and its violation, bringing to the surface interrelationships and commonalities, and pointing to the values that are thereby shown to be in danger. In presenting a streamlined discussion from a negative perspective, complemented by conclusions for a positive account of human dignity, the book is at once a contributive, complemented by conclusions for a positive account of human dignity, the book is at once a

Features

► The first volume on violations of human dignity in English language  ► The relation of specific forms of violations of human dignity, e.g. humiliation, degradation etc., as well as concrete practices are discussed  ► The approach is interdisciplinary and joins philosophers and lawyers working on human dignity

Fields of interest

Ethics; Law Theory/Law Philosophy

Target groups

Research

Type of publication

Contributed volume

Brazilian Studies in Philosophy and History of Science

An account of recent works

This volume in the Brazilian Studies in the Philosophy and History of Science is the first attempt to present to a general audience some major works which have been done in Brazil in the subject. The included papers are original, reaching a remarkable number of relevant topics of philosophy of science, logic and on the history of science. The Brazilian community has increased in the last years in quantity and in quality of the works, most of them being published in respectable international journals on the subject. There is an informal but general among the philosophers and historians of science that the works must be of high quality, and we hope this volume may contribute to widespread this idea.

From the contents


Fields of interest

Philosophy of Science; History of Science; Logic

Target groups

Research

Type of publication

Contributed volume

Belief Revision meets Philosophy of Science

Belief revision theory and philosophy of science both aspire to shed light on the dynamics of knowledge – on how our view of the world changes (typically) in the light of new evidence. Yet these two areas of research have long seemed strangely detached from each other, as witnessed by the small number of cross-references and researchers working in both domains. One may speculate as to what has brought about this surprising, and perhaps unfortunate, state of affairs. One factor may be that while belief revision theory has traditionally been pursued in a bottom-up manner, focusing on the endeavors of single inquirers, philosophers of science, inspired by logical empiricism, have tended to be more interested in science as a multi-agent or agent-independent phenomenon.

Features

► The only up-to-date book that addresses belief revision in the context of scientific enquiry
► Provides a number of new perspectives that are likely to steer research in new directions
► Establishes new connections between areas previously assumed unrelated, e.g. belief revision and conceptual spaces.

From the contents


Fields of interest

Philosophy of Science; Logic

Target groups

Research

Type of publication

Contributed volume
Gentzen Calculi for Modal Propositional Logic

The book is about proof theory for (the main systems of) modal logic. It is divided in three parts: the first part introduces and discusses the main philosophical ideas linked with proof theory, and defines what a good sequent calculus is. In the second part, presented in an uniform and detailed way, the attempts made from the 1950’s until today in order to provide modal logic with Gentzen calculi. In the last and final part, it analyzes new calculi, called tree-hypersequent calculus and recently introduced by the author, for modal logics. The book shows in a precise and clear way the main results and how to prove them.

Features
► First book which gives an uniform and exhaustive presentation of both types of sequent calculus for modal logic, the purely syntactic sequent calculus as well as the semantic ones ► First book that gives a complete and accurate description of the tree-hypersequent method ► One of the few books which are mainly based on logical results, but that are also accompanied by philosophical discussion

Contents

Fields of interest
Philosophy; Mathematics, general; Computer Imaging, Vision, Pattern Recognition and Graphics

Type of publication
Monograph

Due October 2010

► approx. € 99,95 | £90.00
► approx. * € (D) 106,95 | € (A) 109,95 | sFr 155,50

S. Pollard, Truman State University, Kirksville, MO, USA (Ed.)

Essays on the Foundations of Mathematics by Moritz Pasch

Moritz Pasch (1843-1930) is justly celebrated as a key figure in the history of axiomatic geometry. Less well known are his contributions to other areas of foundational research. This volume features English translations of 14 papers Pasch published in the decade 1917-1926. In them, Pasch argues that geometry and, more surprisingly, number theory are branches of empirical science; he provides axioms for the combinatorial reasoning essential to Hilbert’s program of consistency proofs; he explores “implicit definition” (a generalization of definition by abstraction) and indicates how this technique yields an “empiricist” reconstruction of set theory; he argues that we cannot fully understand the logical structure of mathematics without clearly distinguishing between decidable and undecidable properties; he offers a rare glimpse into the mind of a master of axiomatics, surveying in detail the thought experiments he employed as he struggled to identify fundamental mathematical principles; and much more.

Features
► Gives English speaker access to an important body of work from a turbulent and pivotal period in the history of mathematics ► Helps us look beyond the familiar triad of formalism, intuitionism and logicism ► Explains how we can see with the help of a guide determined to present fundamental mathematical ideas in ways that match our human capacities

From the contents

Fields of interest
Philosophy

Target groups
Research

Type of publication
Monograph

Due July 2010

► approx. € 99,95 | £90.00
► approx. * € (D) 106,95 | € (A) 109,95 | sFr 155,50

G. Santinello, G. Piaia (Eds.)

Models of the History of Philosophy

Volume II: From Cartesian Age to Brucker

This volume is the translation of “Dall’età cartesiana a Brucker”; the second volume of the multi-volume work “Storia delle storie generali della filosofia”. It guides the reader from the Cartesian rejection of the ‘philosophical past’ that found voice in the work of Malebranche, to the establishment of a ‘critical’ history of philosophy by 18th century thinkers A.-F. Boureau-Deslandes and J.J. Brucker. The latter pair investigated philosophy from its most ancient origins up to the contemporary age, and oversaw the transformation of the history of philosophy into a genre in its own right, thus spawning dozens of works that made a major contribution to the culture of the Enlightenment. Through careful analysis of more than 36 separate works, the authors show how in the span of a single century the theoretical and methodological techniques used to assess the history of philosophy were refined and developed.

Features
► It is the most detailed and complete work to date concerning the history of philosophical historiography ► A major contribution to the intellectual history of the 17th and 18th centuries ► It lends itself to interdisciplinary study and with the history of historiography and the history of literary genres

From the contents

Fields of interest
History of Philosophy; Modern Philosophy

Target groups
Research

Type of publication
Contributed volume

Due October 2010

► € 249,00 | £224.50
► * € (D) 266,43 | € (A) 273,90 | sFr 386,50

...
Kant’s Idealism
New Interpretations of a Controversial Doctrine

This key collection of essays sheds new light on long-debated controversies surrounding Kant’s doctrine of idealism and is the first book in the English language that is exclusively dedicated to the subject. Well-known Kantians Karl Ameriks and Manfred Baum present their considered views on this most topical aspect of Kant’s thought. Several essays by acclaimed Kant scholars broach a vastly neglected problem in discussions of Kant’s idealism, namely the relation between his conception of logic and idealism: The standard view that Kant’s logic and idealism are wholly separable comes under scrutiny in these essays. A further set of articles addresses multiple facets of the notorious notion of the thing in itself, which continues to hold the attention of Kant scholars. The volume also contains an extensive discussion of the often overlooked chapter in the Critique of Pure Reason on the Transcendental Ideal. Together, the essays provide a whole new outlook on Kantian idealism. No one with a serious interest in Kant’s idealism can afford to ignore this important book.

Features
► Presents novel readings by acclaimed Kant scholars of Kant’s still controversial doctrine of idealism ► First publication uniquely dedicated to Kant’s idealism ► Focuses on hitherto neglected relation between Kant’s idealism and his transcendental logic

Fields of interest
History of Philosophy; Epistemology; Metaphysics

Target groups
Research

Type of publication
Contributed volume

Due November 2010

2011. X, 190 p. (Philosophy and Medicine, Volume 110) Hardcover
► approx. € 99,95 | £90.00
► approx. $ (D) 108,95 | $ (A) 109,95 | sFr 155,50
A. Tymieniecka, The World Institute for Advanced Phenomenological Research and Learning, Hanover, VA, USA (Ed.)

Reason, Spirit and the Sacral in the New Enlightenment
Islamic Metaphysics Revived and Recent Phenomenology of Life

Rationality in its various expressions and innumerable applications sustains understanding and our sense of reality. It is traditionally differentiated according to its sources in the soul: in consciousness, in reason, in experience, and in elevation. Such a functional approach, however, leaves us searching for the common foundation harmonizing these rationalities. The perennial quest to resolve the aporias of rationality is finding in contemporary science's focus on origins, on the generative roots of reality, tantalizing hints as to how this may be accomplished. This project is enhanced by the wave of recent phenomenology/ontopoiesis of life, which reveals the workings of the logos at the root of beingness and all rationality, whereby we gaze upon the prospect of a New Enlightenment. In the rays of this vision the revival of the intuitions of classical Islamic metaphysics, particularly intuition of the continuity of beingness in the gradations of life, receive fresh confirmation.

Features
» Explores common themes in Islamic metaphysics and occidental phenomenology
» Common themes in eastern and western philosophy opens ways for a fruitful dialogue
» Concentrates on foundations of rationality
» Shows the importance of reason, spirit and sacral elevation as the basis of reality

Fields of interest
Philosophy; Non-Western Philosophy; Metaphysics

Target groups
Research

Type of publication
Contributed volume

A. Tymieniecka, World Institute for Advanced Phenomenological Research and Learning, Hanover, MD, USA; A. Grandpierre, Konkoly Observatory, Hungary (Eds.)

Astronomy and Civilization in the New Enlightenment
Passions of the Skies

This volume represents the first which interfaces with astronomy as the fulcrum of the sciences. It gives full expression to the human passion for the skies. Advancing human civilization has unfolded and matured this passion into the comprehensive science of astronomy. Advancing science's quest for the first principles of existence meets the ontopoietic generative logos of life, the focal point of the New Enlightenment. It presents numerous perspectives illustrating how the interplay between human beings and the celestial realm has informed civilizational trends. Scholars and philosophers debate in physics and biology, the findings of which are opening a more inclusive, wider picture of the universe. The different models of the universal order and of life here presented, all aiming at the first principles of existence—accord with the phenomenology/ontopoiesis of life within the logos-promoted primogenital stream of becoming and action, which points to a future of progressing culture.

Features
» Brings the sciences and metaphysics together
» Ontopoiesis of life reveals the geo-cosmic positioning of man in the universe
» Ground is laid for a 21st Century breakthrough by which the sciences and philosophy can present a more complete picture of the universe
» Passions of the skies prompting civilization and science
» Cosmos as natural home of the human being

Fields of interest
Phenomenology

Target groups
Research

Type of publication
Contributed volume

S. Cozzens, Georgia Institute of Technology, Atlanta, USA; J. Wetmore, Arizona State University, Tempe, USA. (Eds.)

Nanotechnology and the Challenges of Equity, Equality and Development

Nanotechnology is enabling applications in materials, microelectronics, health, and agriculture, which are projected to create the next big shift in production, comparable to the industrial revolution. Such major shifts always co-evolve with social relationships. This book focuses on how nanotechnologies might affect equity/equality in global society. Nanotechnologies is likely to open gaps by gender, ethnicity, race, and ability status, as well as between developed and developing countries, unless steps are taken now to create a different outcome. Organizations need to change their practices, and cultural ideas must be broadened if currently disadvantaged groups are to have a more equal position in the nano-society rather than a more disadvantaged one.

Economic structures are likely to shift in the nano-revolution, but policymakers and participatory processes can invent newly invented institutions for social welfare, better suited to the new economic order than those of the past.

Features
» Societal key issues in emerging technology
» Includes practical advice for avoiding negative social consequences
» Perspectives on gender, race/ethnicity, and ability status
» Nanotechnology in emerging economies
» International and multidisciplinary contributions

Contents
Part I: Dimensions of Nano Fairness.

Fields of interest
Social Sciences, general; Nanotechnology; Ethics

Target groups
Research

Type of publication
Contributed volume