Logic Epistemology And The Unity Of Science Mopubs

This book is the first in the field of paraconsistency to offer a comprehensive overview of the subject, including connections to other logics and applications in information processing, linguistics, reasoning and argumentation, and philosophy of science. It is recommended reading for anyone interested in the question of reasoning and argumentation in the presence of contradictions, in semantics, in the paradoxes of set theory and in the puzzling properties of negation in logic programming. Paraconsistent logic comprises a major logical theory and offers the broadest possible perspective on the debate of negation in logic and philosophy. It is a powerful tool for reasoning under contradictoriness as it investigates logic systems in which contradictory information does not lead to arbitrary conclusions. Reasoning under contradictions constitutes one of most important and creative achievements in contemporary logic, with deep roots in philosophical questions involving negation and consistency. This book offers an invaluable introduction to a topic of central importance in logic and philosophy. It discusses (i) the history of paraconsistent logic; (ii) language, negation, contradiction, consistency and inconsistency; (iii) logics of formal inconsistency (LFIs) and the main paraconsistent propositional systems; (iv) many-valued companions, possible-translations semantics and non-deterministic semantics; (v) paraconsistent modal logics;
(vi) first-order paraconsistent logics; (vii) applications to information processing, databases and quantum computation; and (viii) applications to deontic paradoxes, connections to Eastern thought and to dialogical reasoning.

This volume explores how vagueness matters as a specific problem in the context of theories that are primarily about something else. After an introductory chapter on the Sorites paradox, which exposes the various forms the paradox can take and some of the responses that have been pursued, the book proceeds with a chapter on vagueness and metaphysics, which covers important questions concerning vagueness that arise in connection with the deployment of certain key metaphysical notions. Subsequent chapters address the following: vagueness and logic, which discusses the sort of model theory that is suggested by the main, rival accounts of vagueness; vagueness and meaning, which focuses on contextualist, epistemicist, and indeterminist theories; vagueness and observationality; vagueness within linguistics, which focuses on approaches that take comparison classes into account; and the idea that vagueness in law is typically extravagant and that extravagant vagueness is a necessary feature of legal systems.

This book examines the role of acts of choice in classical and intuitionistic mathematics. Featuring fifteen papers – both new and previously published – it offers a fresh analysis of concepts developed by the mathematician and philosopher L.E.J. Brouwer, the founder of intuitionism. The author explores Brouwer’s idealization
of the creative subject as the basis for intuitionistic truth, and in the process he also discusses an important, related question: to what extent does the intuitionistic perspective succeed in avoiding the classical realistic notion of truth? The papers detail realistic aspects in the idealization of the creative subject and investigate the hidden role of choice even in classical logic and mathematics, covering such topics as bar theorem, type theory, inductive evidence, Beth models, fallible models, and more. In addition, the author offers a critical analysis of the response of key mathematicians and philosophers to Brouwer’s work. These figures include Michael Dummett, Saul Kripke, Per Martin-Löf, and Arend Heyting. This book appeals to researchers and graduate students with an interest in philosophy of mathematics, linguistics, and mathematics.

Intuitionistic type theory can be described, somewhat boldly, as a partial fulfillment of the dream of a universal language for science. This book expounds several aspects of intuitionistic type theory, such as the notion of set, reference vs. computation, assumption, and substitution. Moreover, the book includes philosophically relevant sections on the principle of compositionality, lingua characteristica, epistemology, propositional logic, intuitionism, and the law of excluded middle. Ample historical references are given throughout the book. This book provides both an introduction to the philosophy of scientific modeling and a contribution to the discussion and clarification of two recent philosophical conceptions of models: artifactualism and fictionalism. These can be viewed as different stances concerning the standard
representationalist account of scientific models. By better understanding these two alternative views, readers will gain a deeper insight into what a model is as well as how models function in different sciences. Fictionalism has been a traditional epistemological stance related to antirealist construals of laws and theories, such as instrumentalism and inferentialism. By contrast, the more recent fictional view of models holds that scientific models must be conceived of as the same kind of entities as literary characters and places. This approach is essentially an answer to the ontological question concerning the nature of models, which in principle is not incompatible with a representationalist account of the function of models. The artifactual view of models is an approach according to which scientific models are epistemic artifacts, whose main function is not to represent the phenomena but rather to provide epistemic access to them. It can be conceived of as a non-representationalist and pragmatic account of modeling, which does not intend to focus on the ontology of models but rather on the ways they are built and used for different purposes. The different essays address questions such as the artifactual view of idealization, the use of information theory to elucidate the concepts of abstraction and idealization, the deidealization of models, the nature of scientific fictions, the structural account of representation and the ontological status of structures, the role of surrogate reasoning with models, and the use of models for explaining and predicting physical phenomena. This second volume in the series Logic, Epistemology,
and the Unity of Science brings a pragmatic perspective to the discussion of the unity of science. Contemporary philosophy and cognitive science increasingly acknowledge the systematic interrelation of language, thought and action. The principal function of language is to enable speakers to communicate their intentions to others, to respond flexibly in a social context and to act cooperatively in the world. This book will contribute to our understanding of this dynamic process by clearly presenting and discussing the most important hypotheses, issues and theories in philosophical and logical study of language, thought and action. Among the fundamental issues discussed are the rationality and freedom of agents, theoretical and practical reasoning, individual and collective attitudes and actions, the nature of cooperation and communication, the construction and conditions of adequacy of scientific theories, propositional contents and their truth conditions, illocutionary force, time, aspect and presupposition in meaning, speech acts within dialogue, the dialogical approach to logic and the structure of dialogues and other language games, as well as formal methods needed in logic or artificial intelligence to account for choice, paradoxes, uncertainty and imprecision. This volume contains major contributions by leading logicians, analytic philosophers, linguists and computer scientists. It will be of interest to graduate students and researchers from philosophy, logic, linguistics, cognitive science and artificial intelligence. There is no comparable survey in the existing literature.

This compelling reevaluation of the relationship between
logic and knowledge affirms the key role that the notion of judgement must play in such a review. The commentary repatriates the concept of judgement in the discussion, banished in recent times by the logical positivism of Wittgenstein, Hilbert and Schlick, and the Platonism of Bolzano. The volume commences with the insights of Swedish philosopher Per Martin-Löf, the father of constructive type theory, for whom logic is a demonstrative science in which judgement is a settled feature of the landscape. His paper opens the first of four sections that examine, in turn, historical philosophical assessments of judgement and reason; their place in early modern philosophy; the notion of judgement and logical theory in Wolff, Kant and Neo-Kantians like Windelband; their development in the Husserlian phenomenological paradigm; and the work of Bolzano, Russell and Frege. The papers, whose authors include Per Martin-Löf, Göran Sundholm, Michael Della Rocca and Robin Rollinger, represent a finely judged editorial selection highlighting work on philosophers exercised by the question of whether or not an epistemic notion of judgement has a role to play in logic. The volume will be of profound interest to students and academicians for its application of historical developments in philosophy to the solution of vexatious contemporary issues in the foundation of logic. 

Legal theory, political sciences, sociology, philosophy, logic, artificial intelligence: there are many approaches to legal argumentation. Each of them provides specific insights into highly complex phenomena. Different disciplines, but also different traditions in disciplines (e.g.
analytical and continental traditions in philosophy) find here a rare occasion to meet. The present book contains contributions, both historical and thematic, from leading researchers in several of the most important approaches to legal rationality. One of the main issues is the relation between logic and law: the way logic is actually used in law, but also the way logic can make law explicit. An outstanding group of philosophers, logicians and jurists try to meet this issue. The book is more than a collection of papers. However different their respective conceptual tools may be, the authors share a common conception: legal argumentation is a specific argumentation context. This is the first book to collect essays from philosophers, mathematicians and computer scientists working at the exciting interface of algorithmic learning theory and the epistemology of science and inductive inference. Readable, introductory essays provide engaging surveys of different, complementary, and mutually inspiring approaches to the topic, both from a philosophical and a mathematical viewpoint.

With this volume of the series Logic, Epistemology, and the Unity of Science edited by S. Rahman et al. a challenging dialogue is being continued. The series’ first volume argued that one way to recover the connections between logic, philosophy of sciences, and sciences is to acknowledge the host of alternative logics which are currently being developed. The present volume focuses on four key themes. First of all, several chapters unpack the connection between knowledge and epistemology with particular focus on the notion of knowledge as resulting from interaction. Secondly, new epistemological
perspectives on linguistics, the foundations of mathematics and logic, physics, biology and law are a subject of analysis. Thirdly, several chapters are dedicated to a discussion of Constructive Type Theory and more generally of the proof-theoretical notion of meaning. Finally, the book brings together studies on the epistemic role of abduction and argumentation theory, both linked to non-monotonic approaches to the dynamics of knowledge.

This open access book examines the many contributions of Paul Lorenzen, an outstanding philosopher from the latter half of the 20th century. It features papers focused on integrating Lorenzen's original approach into the history of logic and mathematics. The papers also explore how practitioners can implement Lorenzen’s systematical ideas in today’s debates on proof-theoretic semantics, databank management, and stochastics. Coverage details key contributions of Lorenzen to constructive mathematics, Lorenzen’s work on lattice-groups and divisibility theory, and modern set theory and Lorenzen’s critique of actual infinity. The contributors also look at the main problem of Grundlagenforschung and Lorenzen’s consistency proof and Hilbert’s larger program. In addition, the papers offer a constructive examination of a Russell-style Ramified Type Theory and a way out of the circularity puzzle within the operative justification of logic and mathematics. Paul Lorenzen's name is associated with the Erlangen School of Methodical Constructivism, of which the approach in linguistic philosophy and philosophy of science determined philosophical discussions especially in
Science is a dynamic process in which the assimilation of new phenomena, perspectives, and hypotheses into the scientific corpus takes place slowly. The apparent disunity of the sciences is the unavoidable consequence of this gradual integration process. Some thinkers label this dynamical circumstance a ‘crisis’. However, a retrospective view of the practical results of the scientific enterprise and of science itself, grants us a clear view of the unity of the human knowledge seeking enterprise. This book provides many arguments, case studies and examples in favor of the unity of science. These contributions touch upon various scientific perspectives and disciplines such as: Physics, Computer Science, Biology, Neuroscience, Cognitive Psychology, and Economics.

This anthology of the very latest research on truth features the work of recognized luminaries in the field, put together following a rigorous refereeing process. Along with an introduction outlining the central issues in the field, it provides a unique and unrivaled view of contemporary work on the nature of truth, with papers selected from key conferences in 2011 such as Truth Be Told (Amsterdam), Truth at Work (Paris), Paradoxes of Truth and Denotation (Barcelona) and Axiomatic Theories of Truth (Oxford). Studying the nature of the concept of ‘truth’ has always been a core role of philosophy, but recent years have been a boom time in the topic. With a wealth of recent conferences examining
the subject from various angles, this collection of essays recognizes the pressing need for a volume that brings scholars up to date on the arguments. Offering academics and graduate students alike a much-needed repository of today’s cutting-edge work in this vital topic of philosophy, the volume is required reading for anyone needing to keep abreast of developments, and is certain to act as a catalyst for further innovation and research.

In the last century, developments in mathematics, philosophy, physics, computer science, economics and linguistics have proven important for the development of logic. There has been an influx of new ideas, concerns, and logical systems reflecting a great variety of reasoning tasks in the sciences. This book embodies the multi-dimensional interplay between logic and science, presenting contributions from the world's leading scholars on new trends and possible developments for research.

And in my haste, I said: “All men are Liars” 1—Psalms 116:11 The Original Lie Philosophical analysis often reveals and seldom solves paradoxes. To quote Stephen Read: A paradox arises when an unacceptable conclusion is supported by a plausible argument from apparently acceptable premises. [...] So three different reactions to the paradoxes are possible: to show that the reasoning is fallacious; or that the premises are not true after all; or that 2 the conclusion can in fact be accepted. There are sometimes elaborate ways to endorse a paradoxical conclusion. One might be prepared to concede that indeed there are a number of grains that make a heap, but no possibility to know this number.
However, some paradoxes are more threatening than others; showing the conclusion to be acceptable is not a serious option, if the acceptance leads to triviality. Among semantic paradoxes, the Liar (in any of its versions) offers as its conclusion a bullet no one would be willing to bite. One of the most famous versions of the Liar Paradox was proposed by Epimenides, though its attribution to the Cretan poet and philosopher has only a relatively recent history. It seems indeed that Epimenides was mentioned neither in ancient nor in medieval treatments of the Liar. Jewish Publication Society translation. 2 Read [1].

Gottfried Wilhelm Leibniz was an outstanding contributor to many fields of human knowledge. The historiography of philosophy has tagged him as a “rationalist”. But what does this exactly mean? Is he a “rationalist” in the same sense in Mathematics and Politics, in Physics and Jurisprudence, in Metaphysics and Theology, in Logic and Linguistics, in Technology and Medicine, in Epistemology and Ethics? What are the most significant features of his “rationalism”, whatever it is? For the first time an outstanding group of Leibniz researchers, some acknowledged as leading scholars, others in the beginning of a promising career, who specialize in the most significant areas of Leibniz’s contributions to human thought and action, were requested to spell out the nature of his rationalism in each of these areas, with a view to provide a comprehensive picture of what it amounts to, both in its general drive and in its specific features and eventual inner tensions. The chapters of the book are the result of intense discussion in the course of
an international conference focused on the title question of this book, and were selected in view of their contribution to this topic. They are clustered in thematically organized parts. No effort has been made to hide the controversies underlying the different interpretations of Leibniz’s “rationalism” – in each particular domain and as a whole. On the contrary, the editor firmly believes that only through a variety of conflicting interpretive perspectives can the multi-faceted nature of an oeuvre of such a magnitude and variety as Leibniz’s be brought to light and understood as it deserves.

In the last two decades modal logic has undergone an explosive growth, to the point that a complete bibliography of this branch of logic, supposing that someone were capable to compile it, would fill itself a ponderous volume. What is impressive in the growth of modal logic has not been so much the quick accumulation of results but the richness of its thematic developments. In the 1960s, when Kripke semantics gave new credibility to the logic of modalities, which was already known and appreciated in the Ancient and Medieval times, no one could have foreseen that in a short time modal logic would become a lively source of ideas and methods for analytical philosophers, historians of philosophy, linguists, epistemologists and computer scientists. The aim which oriented the composition of this book was not to write a new manual of modal logic (there are a lot of excellent textbooks on the market, and the expert reader will realize how much we benefited from many of them) but to offer every reader, even with no specific background in logic, a conceptually linear path in the labyrinth of the current panorama of modal logic. The notion which in our opinion looked suitable to work as a compass in this enterprise was the notion of multimodality, or,
more specifically, the basic idea of grounding systems on languages admitting more than one primitive modal operator. Unity of science was once a very popular idea among both philosophers and scientists. But it has fallen out of fashion, largely because of its association with reductionism and the challenge from multiple realisation. Pluralism and the disunity of science are the new norm, and higher-level natural kinds and special science laws are considered to have an important role in scientific practice. What kind of reductionism does multiple realisability challenge? What does it take to reduce one phenomenon to another? How do we determine which kinds are natural? What is the ontological basis of unity? In this Element, Tuomas Tahko examines these questions from a contemporary perspective, after a historical overview. The upshot is that there is still value in the idea of a unity of science. We can combine a modest sense of unity with pluralism and give an ontological analysis of unity in terms of natural kind monism.

This is the first volume in a series aimed at considering the scientific enterprise in light of recent developments in logic and philosophy. This work explores new ways of achieving the integration of science in all its diversity.

Ondrej Majer, Ahti-Veikko Pietarinen, and Tero Tulenheimo

Games and logic in philosophy Recent years have witnessed a growing interest in the unifying methodologies over what have been perceived as pretty disparate logical ‘systems’, or else merely an assortment of formal and mathematical ‘approaches’ to philosophical inquiry. This development has largely been fueled by an increasing dissatisfaction to what has earlier been taken to be a straightforward outcome of ‘logical pluralism’ or ‘methodological diversity’. These phrases appear to reflect the everyday chaos of our academic pursuits rather than any genuine attempt to clarify the general principles underlying the miscellaneous ways in which logic
appears to us. But the situation is changing. Unity among plurality is emerging in contemporary studies in logical philosophy and neighbouring disciplines. This is a necessary follow-up to the intensive research into the intricacies of logical systems and methodologies performed over the recent years. The present book suggests one such peculiar but very unrestrained methodological perspective over the field of logic and its applications in mathematics, language or computation: games. An allegory for opposition, cooperation and coordination, games are also concrete objects of formal study.

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.

One of the most basic problems in the philosophy of science involves determining the extent to which nature is governed by laws. This volume presents a wide-ranging overview of the contemporary debate and includes some of its foremost participants. It begins with an extensive introduction describing the historical, logical and philosophical background of the problems dealt with in the essays. Among the topics treated in the essays is the relationship between laws of nature and causal laws as well as the role of ceteris paribus clauses in scientific explanations. Traditionally, the problem of the unity of science was intimately connected to the problem of understanding the unity of nature. This fourth volume of Logic, Epistemology, and the Unity of Science tackles these problems as part of our consideration of the most
This book is about philosophy, mathematics and logic, giving a philosophical account of Pluralism which is a family of positions in the philosophy of mathematics. There are four parts to this book, beginning with a look at motivations for Pluralism by way of Realism, Maddy’s Naturalism, Shapiro’s Structuralism and Formalism. In the second part of this book the author covers: the philosophical presentation of Pluralism; using a formal theory of logic metaphorically; rigour and proof for the Pluralist; and mathematical fixtures. In the third part the author goes on to focus on the transcendental presentation of Pluralism, and in part four looks at applications of Pluralism, such as a Pluralist approach to proof in mathematics and how Pluralism works in regard to together-inconsistent philosophies of mathematics. The book finishes with suggestions for further Pluralist enquiry. In this work the author takes a deeply radical approach in developing a new position that will either convert readers, or act as a strong warning to treat the word ‘pluralism’ with care.

The first volume in this new series explores, through extensive co-operation, new ways of achieving the integration of science in all its diversity. The book offers essays from important and influential philosophers in contemporary philosophy, discussing a range of topics from philosophy of science to epistemology, philosophy of logic and game theoretical approaches. It will be of interest to philosophers, computer scientists and all others interested in the scientific rationality.

Written by experts in the field, this volume presents a comprehensive investigation into the relationship between argumentation theory and the philosophy of mathematical practice. Argumentation theory studies
reasoning and argument, and especially those aspects not addressed, or not addressed well, by formal deduction. The philosophy of mathematical practice diverges from mainstream philosophy of mathematics in the emphasis it places on what the majority of working mathematicians actually do, rather than on mathematical foundations. The book begins by first challenging the assumption that there is no role for informal logic in mathematics. Next, it details the usefulness of argumentation theory in the understanding of mathematical practice, offering an impressively diverse set of examples, covering the history of mathematics, mathematics education and, perhaps surprisingly, formal proof verification. From there, the book demonstrates that mathematics also offers a valuable testbed for argumentation theory. Coverage concludes by defending attention to mathematical argumentation as the basis for new perspectives on the philosophy of mathematics. ? From a Geometrical Point of View explores historical and philosophical aspects of category theory, trying therewith to expose its significance in the mathematical landscape. The main thesis is that Klein’s Erlangen program in geometry is in fact a particular instance of a general and broad phenomenon revealed by category theory. The volume starts with Eilenberg and Mac Lane’s work in the early 1940’s and follows the major developments of the theory from this perspective. Particular attention is paid to the philosophical elements involved in this development. The book ends with a presentation of categorical logic, some of its results and its significance in the foundations of mathematics. From a Geometrical
Point of View aims to provide its readers with a conceptual perspective on category theory and categorical logic, in order to gain insight into their role and nature in contemporary mathematics. It should be of interest to mathematicians, logicians, philosophers of mathematics and science in general, historians of contemporary mathematics, physicists and computer scientists.

This book brings together philosophers, mathematicians and logicians to penetrate important problems in the philosophy and foundations of mathematics. In philosophy, one has been concerned with the opposition between constructivism and classical mathematics and the different ontological and epistemological views that are reflected in this opposition. The dominant foundational framework for current mathematics is classical logic and set theory with the axiom of choice (ZFC). This framework is, however, laden with philosophical difficulties. One important alternative foundational programme that is actively pursued today is predicativistic constructivism based on Martin-Löf type theory. Associated philosophical foundations are meaning theories in the tradition of Wittgenstein, Dummett, Prawitz and Martin-Löf. What is the relation between proof-theoretical semantics in the tradition of Gentzen, Prawitz, and Martin-Löf and Wittgensteinian or other accounts of meaning-as-use? What can proof-theoretical analyses tell us about the scope and limits of constructive and predicative mathematics?

This book develops a novel generalization of possible world semantics, called ‘world line semantics’, which
recognizes worlds and links between world-bound objects (world lines) as mutually independent aspects of modal semantics. Addressing a wide range of questions vital for contemporary debates in logic and philosophy of language and offering new tools for theoretical linguistics and knowledge representation, the book proposes a radically new paradigm in modal semantics. This framework is motivated philosophically, viewing a structure of world lines as a precondition of modal talk. The author provides a uniform analysis of quantification over individuals (physical objects) and objects of thought (intentional objects). The semantic account of what it means to speak of intentional objects throws new light on accounts of intentionality and singular thought in the philosophy of mind and offers novel insights into the semantics of intensional transitive verbs.

This volume critically reexamines Otto Neurath’s conception of the unity of science. Some of the leading scholars of Neurath’s work, along with many prominent philosophers of science critically examine his place in the history of philosophy of science and evaluate the relevance of his work for contemporary debates concerning the unity of science.

This book develops a philosophical and logical interpretation of the concept of information within the formal structure of Constructive Type Theory (CTT), in a manner concurrent with a diverse range of contemporary perspectives on the philosophy of information. It presents a newly formulated and conceptually developed presentation of the Problem of Analyticity, and a new interesting perspective on the constructive interpretation
of knowledge processes. Logic, Epistemology, and the Unity of Science Springer Science & Business Media

The book provides a historical (with an outline of the history of the concept of truth from antiquity to our time) and systematic exposition of the semantic theory of truth formulated by Alfred Tarski in the 1930s. This theory became famous very soon and inspired logicians and philosophers. It has two different, but interconnected aspects: formal-logical and philosophical. The book deals with both, but it is intended mostly as a philosophical monograph. It explains Tarski’s motivation and presents discussions about his ideas (pro and contra) as well as points out various applications of the semantic theory of truth to philosophical problems (truth-criteria, realism and anti-realism, future contingents or the concept of correspondence between language and reality).

the demise of the logical positivism programme. The answers given to these questions have deepened the already existing gap between philosophy and the history and practice of science. While the positivists argued for a spontaneous, steady and continuous growth of scientific knowledge the post-positivists make a strong case for a fundamental discontinuity in the development of science which can only be explained by extrascientific factors. The political, social and cultural environment, the argument goes on, determine both the questions and the terms in which they should be answered. Accordingly, the
sociological and historical interpretation - volves in fact two kinds of discontinuity which are closely related: the discontinuity of science as such and the discontinuity of the more inclusive political and social context of its development. More precisely it explains the discontinuity of the former by the discontinuity of the latter subordinating in effect the history of science to the wider political and social history. The underlying idea is that each historical and - cial context generates scientific and philosophical questions of its own. From this point of view the question surrounding the nature of knowledge and its development are entirely new topics typical of the twentieth-century social context reflecting both the level and the scale of the development of science.

Perception is our key to the world. It plays at least three different roles in our lives. It justifies beliefs and provides us with knowledge of our environment. It brings about conscious mental states. It converts informational input, such as light and sound waves, into representations of invariant features in our environment. Corresponding to these three roles, there are at least three fundamental questions that have motivated the study of perception. How does perception justify beliefs and yield knowledge of our environment? How does perception bring about conscious mental states? How does a perceptual system accomplish the feat of converting varying informational input into mental representations of
invariant features in our environment? This book presents a unified account of the phenomenological and epistemological role of perception that is informed by empirical research. So it develops an account of perception that provides an answer to the first two questions, while being sensitive to scientific accounts that address the third question. The key idea is that perception is constituted by employing perceptual capacities - for example the capacity to discriminate instances of red from instances of blue. Perceptual content, consciousness, and evidence are each analyzed in terms of this basic property of perception. Employing perceptual capacities constitutes phenomenal character as well as perceptual content. The primacy of employing perceptual capacities in perception over their derivative employment in hallucination and illusion grounds the epistemic force of perceptual experience. In this way, the book provides a unified account of perceptual content, consciousness, and evidence. This book creates a conceptual schema that acts as a correlation between Epistemology and Epistemic Logic. It connects both fields and offers a proper theoretical foundation for the contemporary developments of Epistemic Logic regarding the dynamics of information. It builds a bridge between the view of Awareness Justification Internalism, and a dynamic approach to Awareness Logic. The book
starts with an introduction to the main topics in Epistemic Logic and Epistemology and reviews the disconnection between the two fields. It analyses three core notions representing the basic structure of the conceptual schema: “Epistemic Awareness”, “Knowledge” and “Justification”. Next, it presents the Explicit Aware Knowledge (EAK) Schema, using a diagram of three ellipses to illustrate the schema, and a formal model based on a neighbourhood-model structure, that shows one concrete application of the EAK-Schema into a logical structure. The book ends by presenting conclusions and final remarks about the uses and applications of the EAK-Schema. It shows that the most important feature of the schema is that it serves both as a theoretical correlate to the dynamic extensions of Awareness Logic, providing it with a philosophical background, and as an abstract conceptual structure for a re-interpretation of Epistemology.

Is reality logical and is logic real? What is the origin of logical intuitions? What is the role of logical structures in the operations of an intelligent mind and in communication? Is the function of logical structure regulative or constitutive or both in concept formation? This volume provides analyses of the logic-reality relationship from different approaches and perspectives. The point of convergence lies in the exploration of the connections between reality – social, natural or ideal – and logical structures.
employed in describing or discovering it. Moreover, the book connects logical theory with more concrete issues of rationality, normativity and understanding, thus pointing to a wide range of potential applications. The papers collected in this volume address cutting-edge topics in contemporary discussions amongst specialists. Some essays focus on the role of indispensability considerations in the justification of logical competence, and the wide range of challenges within the philosophy of mathematics. Others present advances in dynamic logical analysis such as extension of game semantics to non-logical part of vocabulary and development of models of contractive speech act. A logic is called 'paraconsistent' if it rejects the rule called 'ex contradictione quodlibet', according to which any conclusion follows from inconsistent premises. While logicians have proposed many technically developed paraconsistent logical systems and contemporary philosophers like Graham Priest have advanced the view that some contradictions can be true, and advocated a paraconsistent logic to deal with them, until recent times these systems have been little understood by philosophers. This book presents a comprehensive overview on paraconsistent logical systems to change this situation. The book includes almost every major author currently working in the field. The papers are on the cutting edge of the literature some of which
discuss current debates and others present important new ideas. The editors have avoided papers about technical details of paraconsistent logic, but instead concentrated upon works that discuss more "big picture" ideas. Different treatments of paradoxes takes centre stage in many of the papers, but also there are several papers on how to interpret paraconsistent logic and some on how it can be applied to philosophy of mathematics, the philosophy of language, and metaphysics. The book offers a characterization of the meaning and role of the notion of truth in natural languages and an explanation of why, in spite of the big amount of proposals about truth, this task has proved to be resistant to the different analyses. The general thesis of the book is that defining truth is perfectly possible and that the average educated philosopher of language has the tools to do it. The book offers an updated treatment of the meaning of truth ascriptions from taking into account the latest views in philosophy of language and linguistics.

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