

Toward A New Philosophy Of Biology Observations Of An Evolutionist

Thank you unquestionably much for downloading **Toward A New Philosophy Of Biology Observations Of An Evolutionist** .Most likely you have knowledge that, people have look numerous time for their favorite books considering this **Toward A New Philosophy Of Biology Observations Of An Evolutionist** , but end occurring in harmful downloads.

Rather than enjoying a good PDF gone a mug of coffee in the afternoon, then again they juggled in imitation of some harmful virus inside their computer. **Toward A New Philosophy Of Biology Observations Of An Evolutionist** is genial in our digital library an online permission to it is set as public so you can download it instantly. Our digital library saves in complex countries, allowing you to acquire the most less latency period to download any of our books past this one. Merely said, the **Toward A New Philosophy Of Biology Observations Of An Evolutionist** is universally compatible past any devices to read.

Toward a New Philosophy of Biology - Ernst Mayr 1988

This is a beautifully presented collection of twenty-eight articles and essays, elegantly introduced and filled with important neologisms all contributing to clarity.

Darwin in a New Key - William J. Meyer 2015-12-30

Can one coherently integrate Darwin's view of evolution with an affirmation of the value of existence? In this fresh, lean, and substantive volume, William Meyer addresses this important question. By carefully analyzing Darwin's own writings and by drawing on the philosophical perspectives of William James, Alfred North Whitehead, and others, Meyer persuasively redirects the cultural conversation about Darwin away from the retrospective question of origins toward the prospective question concerning the ultimate significance of evolutionary life. As James recognized, the question about the reality of God is more critical for the forward-looking question of value than it is for the backward-looking question of origins. Darwin was a theist in search of a better theism, and because theology had not yet caught up to him, he became increasingly agnostic and caught between his mechanistic understanding of nature, on the one hand, and his affirmation of the value and beauty of the world, on the other. Whitehead's philosophy of organism offers a way to integrate Darwin's evolutionary insights with his affirmation of the grandeur of nature. Meyer's clearly written and richly argued book enables us to integrate our evolutionary understanding of the world with our experience of value within it.

Stephen Jay Gould and the Politics of Evolution - David Forrest Prindle 2009

Using The Biological Literature - Diane Schmidt 2001-12-06

"Provides an in-depth review of current print and electronic tools for research in numerous disciplines of biology, including dictionaries and encyclopedias, method guides, handbooks, on-line directories, and periodicals. Directs readers to an associated Web page that maintains the URLs and annotations of all major Internet resources discussed in th

Process Metaphysics and Mutative Life - Wahida Khandker 2020-05-11

This book provides a survey of key process-philosophical approaches that, in conversation with selected concepts across the biological and physical sciences, help us to think about living processes, or 'lived time,' at different scales of functioning. The first part is written from an opening perspective on the question of the differing scales of analysis provided by Alfred North Whitehead. In particular, his interest in questions arising from the quantum mechanical

reconciliation with classical mechanics informs the first two chapters that address problematic categorizations of life as variously 'despotic,' 'invasive,' or as primitive (in the radically more-than-human case of micro-organisms), whose potential recategorization relies on our willingness to acknowledge changes in value depending on the scale at which we view them. The second part of the book concerns methodologies, in the light of works by Henri Bergson, whose intertwining concerns with epistemology and ontology in his theories of mind and life serve as a model for a process philosophy of biology. The chapters focus on techniques used across philosophy and the sciences to visualize processes that are otherwise unavailable to us due to the limitations of our perceptual faculties, no matter how sophisticated the tools for analysis, from microscopes to telescopes, have become. This book concludes with a consideration of the relations between parts and wholes in process, panpsychist, and ecological terms. It revisits the question of ecological balance and the place of human activities in relation to it, with reference to works of Charles Hartshorne and William James.

Darwin's Dice - Curtis N. Johnson 2015

"Discusses the chance and randomness as motifs in the writing of Charles Darwin" - publisher

Biological Information: New Perspectives - Proceedings Of The Symposium - John C Sanford 2013-06-03

In the spring of 2011, a diverse group of scientists gathered at Cornell University to discuss their research into the nature and origin of biological information. This symposium brought together experts in information theory, computer science, numerical simulation, thermodynamics, evolutionary theory, whole organism biology, developmental biology, molecular biology, genetics, physics, biophysics, mathematics, and linguistics. This volume presents new research by those invited to speak at the conference. The contributors to this volume use their wide-ranging expertise in the area of biological information to bring fresh insights into the many explanatory difficulties associated with biological information. These authors raise major challenges to the conventional scientific wisdom, which attempts to explain all biological information exclusively in terms of the standard mutation/selection paradigm. Several clear themes emerged from these research papers: 1) Information is indispensable to our understanding of what life is; 2) Biological information is more than the material structures that embody it; 3) Conventional chemical and evolutionary mechanisms seem insufficient to fully explain the labyrinth of information that is life. By exploring new perspectives on biological information, this volume seeks to expand, encourage,

and enrich research into the nature and origin of biological information.

Understanding Urban Ecosystems - Alan R. Berkowitz 2003

Nowhere on Earth is the challenge for ecological understanding greater, and yet more urgent, than in those parts of the globe where human activity is most intense - cities. This book is a first of its kind effort to bring together leaders in the biological, physical and social dimensions of urban ecosystem research with leading education researchers, administrators and practitioners, to show how an understanding of urban ecosystems is vital for urban dwellers to grasp the fundamentals of ecological and environmental science and to understand their own environment.

Aquinas on Virtue - Nicholas Austin 2017

Aquinas on Virtue is an original interpretation of one of the most compelling accounts of virtue in the Western tradition, that of the great theologian and philosopher Thomas Aquinas. This book offers a systematic analysis of Aquinas on the nature, genesis, and role of virtue in human life.

The End of Final Causes in Biology - Lucas John Mix 2022-10-31

This book provides a straightforward introduction to teleology in biology, the work it did and the work it can do. Informed by history and philosophy, it focuses on scientific concerns. Seventeenth, eighteenth, and nineteenth century biologists proposed a menagerie of biological "actors" to explain power without appealing to Aristotelian vegetable souls and final causes. Three constraints on teleology narrowed the field, selecting among the various actors as they mutated and recombined. Methodological naturalism, local adaptation, and blind chance each represent a significant philosophical advance in biology. Kant, Darwin, and the Modern Synthesis provided a new teleology, grounded in natural selection, an etiological recursion of form and function, and the details of carbon chemistry on Earth. They naturalized teleology, but they also finalized nature, shifting conceptions about the world and science. Understanding these links - historical, philosophical, and theoretical - sets the stage for new work moving forward.

Beyond Mechanism - Brian G. Henning 2013

Pairing scientists and philosophers together, this book is an exploration of some of the new frontiers in biology (e.g., Emergence, Complex Systems, Biosemiotics, Symbiogenesis, Organic Selection, Epigenetics, Niche Construction, Teleodynamics, etc.). The chapters in this volume challenge the mechanistic metaphysic that is implicit in the reigning neo-Darwinist paradigm, point to more inclusive modes of thinking in relation to the nature of life, and contribute to the novel synthesis that is presently "in the air."

Darwinian Conservatism - Kenneth C. Blanchard Jr. 2015-11-30

A reprint of Larry Arnhart's essay Darwinian Conservatism with comment and criticism from a variety of contributors.

Astrobiology, History, and Society - Douglas A. Vakoch 2013-05-23

This book addresses important current and historical topics in astrobiology and the search for life beyond Earth, including the search for extraterrestrial intelligence (SETI). The first section covers the plurality of worlds debate from antiquity through the nineteenth century, while section two covers the extraterrestrial life debate from the twentieth century to the present. The final section examines the societal impact of discovering life beyond Earth, including both cultural and religious dimensions. Throughout the book, authors draw links between their own chapters and those of other contributors, emphasizing the interconnections between the various strands of the history and societal impact of the search for extraterrestrial life. The chapters are all written by

internationally recognized experts and are carefully edited by Douglas Vakoch, professor of clinical psychology at the California Institute of Integral Studies and Director of Interstellar Message Composition at the SETI Institute. This interdisciplinary book will benefit everybody trying to understand the meaning of astrobiology and SETI for our human society.

Darwinism and the Divine - Alister E. McGrath 2013-05-20

Darwinism and the Divine examines the implications of evolutionary thought for natural theology, from the time of publication of Darwin's *On the Origin of Species* to current debates on creationism and intelligent design. Questions whether Darwin's theory of natural selection really shook our fundamental beliefs, or whether they served to transform and illuminate our views on the origins and meaning of life. Identifies the forms of natural theology that emerged in 19th-century England and how they were affected by Darwinism. The most detailed study yet of the intellectual background to William Paley's famous and influential approach to natural theology, set out in 1802. Brings together material from a variety of disciplines, including the history of ideas, historical and systematic theology, evolutionary biology, anthropology, sociology, and the cognitive science of religion. Considers how Christian belief has adapted to Darwinism, and asks whether there is a place for design both in the world of science and the world of theology. A thought-provoking exploration of 21st-century views on evolutionary thought and natural theology, written by the world-renowned theologian and bestselling author.

Biological Information - Robert J Marks II 2013-06-03

In the spring of 2011, a diverse group of scientists gathered at Cornell University to discuss their research into the nature and origin of biological information. This symposium brought together experts in information theory, computer science, numerical simulation, thermodynamics, evolutionary theory, whole organism biology, developmental biology, molecular biology, genetics, physics, biophysics, mathematics, and linguistics. This volume presents new research by those invited to speak at the conference. The contributors to this volume use their wide-ranging expertise in the area of biological information to bring fresh insights into the many explanatory difficulties associated with biological information. These authors raise major challenges to the conventional scientific wisdom, which attempts to explain all biological information exclusively in terms of the standard mutation/selection paradigm. Several clear themes emerged from these research papers: 1) Information is indispensable to our understanding of what life is; 2) Biological information is more than the material structures that embody it; 3) Conventional chemical and evolutionary mechanisms seem insufficient to fully explain the labyrinth of information that is life. By exploring new perspectives on biological information, this volume seeks to expand, encourage, and enrich research into the nature and origin of biological information.

Ornithology, Evolution, and Philosophy - Jürgen Haffer 2007-08-16

This book is the first detailed biography of Ernst Mayr. He was an 'architect' of the Synthetic Theory of Evolution, and the greatest evolutionary biologist since Charles Darwin, influential historian and philosopher of biology, outstanding taxonomist and ornithologist, and naturalist. He is one of the most widely known biologists of the 20th century. Mayr used the theories of natural selection and population thinking as theoretical models within the framework of historical biological studies. He was the first to emphasize the role of biopopulations, thereby pointing out the basic difference between 'population thinking' and typological essentialism.

Darwin and International Relations - Bradley A. Thayer 2021-03-17

Pathbreaking and controversial, *Darwin and International Relations* offers the first comprehensive analysis of international affairs of state through the lens of evolutionary theory. Bradley A. Thayer provides a new method for investigating and explaining

The Philosophy of Biology - Marjorie Grene 2004-08-02

Is life different from the non-living? If so, how? And how, in that case, does biology as the study of living things differ from other sciences? These questions are traced through an exploration of episodes in the history of biology and philosophy. The book begins with Aristotle, then moves on to Descartes, comparing his position with that of Harvey. In the eighteenth century the authors consider Buffon and Kant. In the nineteenth century the authors examine the Cuvier-Geoffroy debate, pre-Darwinian geology and natural theology, Darwin and the transition from Darwin to the revival of Mendelism. Two chapters deal with the evolutionary synthesis and such questions as the species problem, the reducibility or otherwise of biology to physics and chemistry, and the problem of biological explanation in terms of function and teleology. The final chapters reflect on the implications of the philosophy of biology for philosophy of science in general.

The Restless Clock - Jessica Riskin 2016-03-10

A core principle of modern science holds that a scientific explanation must not attribute will or agency to natural phenomena. *The Restless Clock* examines the origins and history of this, in particular as it applies to the science of living things. This is also the story of a tradition of radicals—dissenters who embraced the opposite view, that agency is an essential and ineradicable part of nature. Beginning with the church and courtly automata of early modern Europe, Jessica Riskin guides us through our thinking about the extent to which animals might be understood as mere machines. We encounter fantastic robots and cyborgs as well as a cast of scientific and philosophical luminaries, including Descartes and Leibnitz, Lamarck and Darwin, whose ideas gain new relevance in Riskin's hands. The book ends with a riveting discussion of how the dialectic continues in genetics, epigenetics, and evolutionary biology, where work continues to naturalize different forms of agency. *The Restless Clock* reveals the deeply buried roots of current debates in artificial intelligence, cognitive science, and evolutionary biology.

One Long Argument - Ernst Mayr 1993-03-15

Evolutionary theory ranks as one of the most powerful concepts of modern civilization. Its effects on our view of life have been wide and deep. One of the most world-shaking books ever published, Charles Darwin's *On the Origin of Species*, first appeared in print over 130 years ago, and it touched off a debate that rages to this day. Every modern evolutionist turns to Darwin's work again and again. Current controversies in the life sciences very often have as their starting point some vagueness in Darwin's writings or some question Darwin was unable to answer owing to the insufficient biological knowledge available during his time. Despite the intense study of Darwin's life and work, however, many of us cannot explain his theories (he had several separate ones) and the evidence and reasoning behind them, nor do we appreciate the modifications of the Darwinian paradigm that have kept it viable throughout the twentieth century. Who could elucidate the subtleties of Darwin's thought and that of his contemporaries and intellectual heirs—A. R. Wallace, T. H. Huxley, August Weismann, Asa Gray—better than Ernst Mayr, a man considered by many to be the greatest evolutionist of the century? In this gem of historical scholarship, Mayr has achieved a remarkable

distillation of Charles Darwin's scientific thought and his enormous legacy to twentieth-century biology. Here we have an accessible account of the revolutionary ideas that Darwin thrust upon the world. Describing his treatise as "one long argument," Darwin definitively refuted the belief in the divine creation of each individual species, establishing in its place the concept that all of life descended from a common ancestor. He proposed the idea that humans were not the special products of creation but evolved according to principles that operate everywhere else in the living world; he upset current notions of a perfectly designed, benign natural world and substituted in their place the concept of a struggle for survival; and he introduced probability, chance, and uniqueness into scientific discourse. This is an important book for students, biologists, and general readers interested in the history of ideas—especially ideas that have radically altered our worldview. Here is a book by a grand master that spells out in simple terms the historical issues and presents the controversies in a manner that makes them understandable from a modern perspective.

Philosophy of Biological Science - David L. Hull 1974

What Makes Biology Unique? - Ernst Mayr 2007-04-16

This book, a collection of essays written by the most eminent evolutionary biologist of the twentieth century, explores biology as an autonomous science, offers insights on the history of evolutionary thought, critiques the contributions of philosophy to the science of biology, and comments on several of the major ongoing issues in evolutionary theory. Notably, Mayr explains that Darwin's theory of evolution is actually five separate theories, each with its own history, trajectory and impact. Natural selection is a separate idea from common descent, and from geographic speciation, and so on. A number of the perennial Darwinian controversies may well have been caused by the confounding of the five separate theories into a single composite. Those interested in evolutionary theory, or the philosophy and history of science will find useful ideas in this book, which should appeal to virtually anyone with a broad curiosity about biology.

Populations, Species, and Evolution - Ernst Mayr 1970

Studies the biological characteristics and internal structure of animal species, and analyzes the significance of the genetic factor in evolution

Biology, Religion, and Philosophy - Michael Peterson 2021-04-08

A comprehensive and accessible survey of the major issues at the biology-religion interface.

The Dome of Eden - Stephen H. Webb 2010-01-01

What would biology look like if it took the problem of natural evil seriously? This book argues that biological descriptions of evolution are inherently moral, just as the biblical story of creation has biological implications. A complete account of evolution will therefore require theological input. *The Dome of Eden* does not try to harmonize evolution and creation. Harmonizers typically begin with Darwinism and then try to add just enough religion to make evolution more palatable, or they begin with Genesis and pry open the creation account just wide enough to let in a little bit of evolution. By contrast, Stephen Webb provides a theory of how evolution and theology fit together, and he argues that this kind of theory is required by the internal demands of both theology and biology. *The Dome of Eden* also develops a theological account of evolution that is distinct from the intelligent design movement. Webb shows how intelligent design properly discerns the inescapable dimension of purpose in nature but, like Darwinism itself, fails

to make sense of the problem of natural evil. Finally, this book draws on the work of Karl Barth to advance a new reading of the Genesis narrative and the theology of Duns Scotus to provide the necessary metaphysical foundation for evolutionary thought.

Who Knows - Lynn Nelson 2010-07-02

Establishes a framework for a much-needed dialogue between feminist science critics and other scientists and scholars about the nature of science.

Psychological Concepts and Biological Psychiatry - Peter Zachar 2000-01-01

This interdisciplinary work addresses the question, What role should psychological conceptualization play for thinkers who believe that the brain is the organ of the mind? It offers readers something unique both by systematically comparing the writings of eliminativist philosophers of mind with the writings of the most committed proponents of biological psychiatry, and by critically scrutinizing their shared [anti-anthropomorphism] from the standpoint of a diagnostician and therapist. Contradicting the contemporary assumption that common sense psychology has already been proven futile, and we are just waiting for an adequate scientifically-based replacement, this book provides explicit philosophical and psychological arguments showing why, if they did not already have both cognitive and psychodynamic psychologies, philosophers and scientists would have to invent them to better understand brains. (Series A)

Toward a New Philosophy of Biology - Ernst Mayr 1988

A collection of twenty-eight essays, five previously unpublished, grouped into nine categories: Philosophy, Natural Selection, Adaptation, Darwin, Diversity, Species, Speciation, Macroevolution, and Historical Perspective. The book, Ernst Mayr notes in the Foreword, is an attempt "to strengthen the bridge between biology and philosophy, and point to the new direction in which a new philosophy of biology will move."

The Explanatory Autonomy of the Biological Sciences - Wei Fang 2021-12-24

This book argues for the explanatory autonomy of the biological sciences. It does so by showing that scientific explanations in the biological sciences cannot be reduced to explanations in the fundamental sciences such as physics and chemistry and by demonstrating that biological explanations are advanced by models rather than laws of nature. To maintain the explanatory autonomy of the biological sciences, the author argues against explanatory reductionism and shows that explanation in the biological sciences can be achieved without reduction. Then, he demonstrates that the biological sciences do not have laws of nature. Instead of laws, he suggests that biological models usually do the explanatory work. To understand how a biological model can explain phenomena in the world, the author proposes an inferential account of model explanation. The basic idea of this account is that, for a model to be explanatory, it must answer two kinds of questions: counterfactual-dependence questions that concern the model itself and hypothetical questions that concern the relationship between the model and its target system. The reason a biological model can answer these two kinds of questions is due to the fact that a model is a structure, and the holistic relationship between the model and its target warrants the hypothetical inference from the model to its target and thus helps to answer the second kind of question. The Explanatory Autonomy of the Biological Sciences will be of interest to researchers and advanced students working in philosophy of science, philosophy of biology and metaphysics.

Philosophical Perspectives on the Israeli-Palestinian Conflict - Tomis Kapitan 2015-06-11

This volume addresses a number of philosophical problems that arise in consideration of the century-old conflict between Israeli Jews and Palestinian Arabs. Consisting of essays by fifteen contributors (including both Israeli and Palestinian philosophers) and a lengthy introduction by the editor, it deals with rights to land, sovereignty, self-determination, the existence and legitimacy of states, cultural prejudice, national identity, intercommunal violence, and religious intransigence.

Methodologies of Legal Research - Mark Van Hoecke 2011-02-28

Until quite recently questions about methodology in legal research have been largely confined to understanding the role of doctrinal research as a scholarly discipline. In turn this has involved asking questions not only about coverage but, fundamentally, questions about the identity of the discipline. Is it (mainly) descriptive, hermeneutical, or normative? Should it also be explanatory? Legal scholarship has been torn between, on the one hand, grasping the expanding reality of law and its context, and, on the other, reducing this complex whole to manageable proportions. The purely internal analysis of a legal system, isolated from any societal context, remains an option, and is still seen in the approach of the French academy, but as law aims at ordering society and influencing human behaviour, this approach is felt by many scholars to be insufficient. Consequently many attempts have been made to conceive legal research differently. Social scientific and comparative approaches have proven fruitful. However, does the introduction of other approaches leave merely a residue of 'legal doctrine', to which pockets of social sciences can be added, or should legal doctrine be merged with the social sciences? What would such a broad interdisciplinary field look like and what would its methods be? This book is an attempt to answer some of these questions.

Applying Evolutionary Archaeology - Michael J. O'Brien 2007-05-08

Anthropology, and by extension archaeology, has had a long-standing interest in evolution in one or several of its various guises. Pick up any lengthy treatise on humankind written in the last quarter of the nineteenth century and the chances are good that the word evolution will appear somewhere in the text. If for some reason the word itself is absent, the odds are excellent that at least the concept of change over time will have a central role in the discussion. After one of the preeminent (and often vilified) social scientists of the nineteenth century, Herbert Spencer, popularized the term in the 1850s, evolution became more or less a household word, usually being used synonymously with change, albeit change over extended periods of time. Later, through the writings of Edward Burnett Tylor, Lewis Henry Morgan, and others, the notion of evolution as it applies to stages of social and political development assumed a prominent position in anthropological discussions. To those with only a passing knowledge of American anthropology, it often appears that evolutionism in the early twentieth century went into a decline at the hands of Franz Boas and those of similar outlook, often termed particularists. However, it was not evolutionism that was under attack but rather comparativism— an approach that used the ethnographic present as a key to understanding how and why past peoples lived the way they did (Boas 1896).

Organisms, Agency, and Evolution - D. M. Walsh 2015-11-13

The central insight of Darwin's *Origin of Species* is that evolution is an ecological phenomenon, arising from the activities of organisms in the 'struggle for life'. By contrast, the Modern Synthesis theory of evolution, which rose to prominence in the twentieth century, presents evolution as a fundamentally molecular phenomenon, occurring in populations of sub-organismal entities - genes.

After nearly a century of success, the Modern Synthesis theory is now being challenged by empirical advances in the study of organismal development and inheritance. In this important study, D. M. Walsh shows that the principal defect of the Modern Synthesis resides in its rejection of Darwin's organismal perspective, and argues for 'situated Darwinism': an alternative, organism-centred conception of evolution that prioritises organisms as adaptive agents. His book will be of interest to scholars and advanced students of evolutionary biology and the philosophy of biology.

Dawkins' God - Alister E. McGrath 2015-01-20

A fully updated new edition of a critically acclaimed examination of the theories and writings of Richard Dawkins by a world-renowned expert on the relation of science and religion. Includes in-depth analysis of Dawkins' landmark treatise *The God Delusion* (2006), as well as coverage of his later popular works *The Magic of Reality* (2011) and *The Greatest Show on Earth* (2011), and a new chapter on Dawkins as a popularizer of science. Tackles Dawkins' hostile and controversial views on religion, and examines the religious implications of his scientific ideas including a comprehensive investigation of the 'selfish gene'. Written in an accessible and engaging style that will appeal to anyone interested in better understanding the interplay between science and religion.

Biological Robustness - Marta Bertolaso 2019-01-04

This volume reviews examples and notions of robustness at several levels of biological organization. It tackles many philosophical and conceptual issues and casts an outlook on the future challenges of robustness studies in the context of a practice-oriented philosophy of science. The focus of discussion is on concrete case studies. These highlight the necessity of a level-dependent description of robust biological behaviors. Experts from the neurosciences, biochemistry, ecology, biology, and the history and the philosophy of life sciences provide a multiplex perspective on the topic. Contributions span from protein folding, to cell-level robustness, to organismal and developmental robustness, to sensorimotor systems, up to the robustness of ecological systems. Several chapters detail neurobiological case-studies. The brain, the poster child of plasticity in biology, offers multiple examples of robustness. Neurobiology explores the importance of temporal organization and multiscalarity in making this robustness-with-plasticity possible. The discussion also includes structures well beyond the brain, such as muscles and the complex feedback loops involved in the peculiar robustness of music perception. Overall, the volume grounds general reflections upon concrete case studies, opening to all the life sciences but also to non-biological and bio-inspired fields such as post-modern engineering. It will appeal to researchers, students, as well as non-expert readers.

The Making of the Humanities - Rens Bod 2010

This first volume in 'The making of the humanities' series focuses on the early modern period. Specialists from various disciplines offer their view on the history of linguistics, literary studies, musicology, historiography, and philosophy.

Evolutionary Computation 1 - Thomas Baeck 2018-10-03

The field of evolutionary computation is expanding dramatically, fueled by the

vast investment that reflects the value of applying its techniques. Culling material from the Handbook of Evolutionary Computation, *Evolutionary Computation 1: Basic Algorithms and Operators* contains up-to-date information on algorithms and operators used in evolutionary computing. This volume discusses the basic ideas that underlie the main paradigms of evolutionary algorithms, evolution strategies, evolutionary programming, and genetic programming. It is intended to be used by individual researchers, teachers, and students working and studying in this expanding field.

Unifying Biology - Vassiliki Betty Smocovitis 2020-11-10

Unifying Biology offers a historical reconstruction of one of the most important yet elusive episodes in the history of modern science: the evolutionary synthesis of the 1930s and 1940s. For more than seventy years after Darwin proposed his theory of evolution, it was hotly debated by biological scientists. It was not until the 1930s that opposing theories were finally refuted and a unified Darwinian evolutionary theory came to be widely accepted by biologists. Using methods gleaned from a variety of disciplines, Vassiliki Betty Smocovitis argues that the evolutionary synthesis was part of the larger process of unifying the biological sciences. At the same time that scientists were working toward a synthesis between Darwinian selection theory and modern genetics, they were, according to the author, also working together to establish an autonomous community of evolutionists. Smocovitis suggests that the drive to unify the sciences of evolution and biology was part of a global philosophical movement toward unifying knowledge. In developing her argument, she pays close attention to the problems inherent in writing the history of evolutionary science by offering historiographical reflections on the practice of history and the practice of science. Drawing from some of the most exciting recent approaches in science studies and cultural studies, she argues that science is a culture, complete with language, rituals, texts, and practices. *Unifying Biology* offers not only its own new synthesis of the history of modern evolution, but also a new way of "doing history."

The Lagoon - Armand Marie Leroi 2014-09-25

A brilliant study of Aristotle as biologist. The philosophical classics of Aristotle loom large over the history of Western thought, but the subject he most loved was biology. He wrote vast volumes about animals. He described them, classified them, told us where and how they live and how they develop in the womb or in the egg. He founded a science. It can even be said that he founded science itself. In *The Lagoon*, acclaimed biologist Armand Marie Leroi recovers Aristotle's science. He revisits Aristotle's writings and the places where he worked. He goes to the eastern Aegean island of Lesbos to see the creatures that Aristotle saw, where he saw them. He explores Aristotle's observations, his deep ideas, his inspired guesses—and the things he got wildly wrong. He shows how Aristotle's science is deeply intertwined with his philosophical system and reveals that he was not only the first biologist, but also one of the greatest. *The Lagoon* is both a travelogue and a study of the origins of science. And it shows how a philosopher who lived almost two millennia ago still has so much to teach us today.

The Philosophy of Information - Luciano Floridi 2011-01-27

Includes bibliographical references