Consciousness And The Brain Deciphering How The Brain Codes Our Thoughts 9 Cds

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Modern medicine enables us to keep many people alive after they have suffered severe brain damage and show no reliable outward signs of consciousness. Many such patients are misdiagnosed as being in a permanent vegetative state when they are actually in a minimally conscious state. This mistake has far-reaching implications for treatment and prognosis. To alleviate this problem, neuroscientists have recently developed new brain-scanning methods to detect consciousness in some of these patients and even to ask them questions, including "Do you want to stay alive?" Finding Consciousness: The Neuroscience, Ethics, and Law of Severe Brain Damage addresses many questions regarding these recent neuroscientific methods: Is what these methods detect really consciousness? Do patients feel pain? Should we decide whether or not to let them die or are they competent to decide for themselves? And which kinds of treatment should governments and hospitals make available? This edited volume provides contextual information, surveys the issues and positions, and takes controversial stands from a wide variety of prominent contributors in fields ranging from neuroscience and neurology to law and policy to philosophy and ethics. Finding Consciousness should interest not only neuroscientists, clinicians, and ethicists but anyone who might suffer brain damage, which includes us all.

The brain, with its nearly one hundred billion neurons, is the most complex structure in the universe, and we are living in a period of revolutionary advancements in neuroscience. Yet scientists and skeptics often frame these findings in ways that challenge the Christian worldview. Many professionals and popularizers claim that human beings are their brains, and that all human behavior and experience are merely by-products of brain physiology. In The Brain, the Mind, and the Person Within, professor of psychology Mark Cosgrove not only explains what the brain is and what it does but also corrects common misinterpretations and demonstrates that what we know about the brain coheres with the teachings of Scripture. He contends that humans are unities of soul and body in which both the spiritual and the physical interact. From this perspective, he presents informative overviews of contemporary debates about the brain, including consciousness, free will, "God spots," personhood, and life after death. The better we understand the brain, the better we understand ourselves and our exquisite design that reflects the wisdom of the Creator. Thoughtful readers will find this to be a fascinating, accessible survey of this unique part of the body and the profound theological and technological issues surrounding it.

Updated and revised, the highly-anticipated second edition of The Blackwell Companion to Consciousness offers a collection of readings that together represent the most thorough and comprehensive survey of the nature of consciousness available today. Features updates to scientific chapters reflecting the latest research in the field Includes 18 new theoretical, empirical, and methodological chapters covering integrated information theory, renewed interest in panpsychism, and more Covers a wide array of topics that include the origins and extent of consciousness, various consciousness experiences such as meditation and drug-induced states, and the neuroscience of consciousness Presents 54 peer-reviewed chapters written by leading experts in the study of consciousness, from across a variety of academic disciplines

Matthew Owen argues in Measuring the Immeasurable Mind that it is possible to empirically detect and measure nonphysical consciousness. Toward this end, Owen proposes a model of neural correlates of consciousness informed by Aristotle's understanding of causal powers and Aquinas's view of human nature.

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Essays defend, discuss, and critique specific theories of consciousness with respect to various psychopathologies. In Disturbed Consciousness, philosophers and other scholars examine various psychopathologies in light of specific philosophical theories of consciousness. The contributing authors—some of them discussing or defending their own theoretical work—consider not only how a theory of consciousness can account for a specific psychopathological condition but also how the characteristics of a psychopathology might challenge such a theory. Thus one essay defends the higher-order thought

(HOT) theory of consciousness against the charge that it cannot account for somatoparaphrenia (a delusion in which one denies ownership of a limb). Another essay argues that various attempts to explain away such anomalies within subjective theories of consciousness fail. Other essays consider such topics as the application of a model of unified consciousness to cases of brain bisection and dissociative identity disorder; prefrontal and parietal underconnectivity in autism and other psychopathologies; self-deception and the self-model theory of subjectivity; schizophrenia and the vehicle theory of consciousness; and a shift in emphasis away from an internal (or brainbound) approach to psychopathology to an interactive one. Each essay offers a distinctive perspective from the intersection of philosophy, consciousness research, and psychiatry. Contributors Alexandre Billon, Andrew Brook, Paula Droege, Rocco J. Gennaro, Philip Gerrans, William Hirstein, Jakob Hohwy, Uriah Kriegel, Timothy Lane, Thomas Metzinger, Erik Myin, Inez Myin-Germeys, Myrto Mylopoulos, Gerard O'Brien, Jon Opie, J. Kevin O'Regan, Iuliia Pliushch, Robert Van Gulick

This book reviews some of the most important scientific and philosophical theories concerning the nature of mind and consciousness. Current theories on the mind-body problem and the neural correlates of consciousness are presented through a series of biographical sketches of the most influential thinkers across the fields of philosophy of mind, psychology and neuroscience. The book is divided into two parts: the first is dedicated to philosophers of mind and the second, to neuroscientists/experimental psychologists. Each part comprises twenty short chapters, with each chapter being dedicated to one author. A brief introduction is given on his or her life and most important works and influences. The most influential theory/ies developed by each author are then carefully explained and examined with the aim of scrutinizing the strengths and weaknesses of the different approaches to the nature of consciousness.

Building on the groundbreaking research of Irreducible Mind and Beyond Physicalism, Edward Kelly and Paul Marshall gather a cohort of leading scholars to address the most recent advances in the psychology of consciousness. Currently emerging as a middle ground between warring fundamentalisms of religion and science, an expanded science-based understanding of nature finally accommodates empirical realities of spiritual sorts while also rejecting rationally untenable overbeliefs. The vision sketched here provides an antidote to the prevailing postmodern disenchantment of the world and demeaning of human possibilities. It not only more accurately and fully reflects our human condition but engenders hope and encourages ego-surpassing forms of human flourishing. It offers reasons for us to believe that freedom is real, that our human choices matter, and that we have barely scratched the surface of our human potentials. It also addresses the urgent need for a greater sense of worldwide community and interdependence - a sustainable ethos - by demonstrating that under the surface we and the world are much more extensively interconnected than previously recognized.

Science fiction explores the wonderful, baffling and wildly entertaining aspects of a universe unimaginably old and vast, and with a future even more immense. It reaches into that endless cosmos with the tools of rational investigation and storytelling. At the core of both science and science fiction is the engaged human mind--a consciousness that sees and feels and thinks and loves. But what is this mind, this aware and self-aware consciousness that seems unlike anything else we experience? What makes consciousness the Hard Problem of philosophy, still unsolved after millennia of probing? This book looks into the heart of this mystery - at the science and philosophy of consciousness and at many inspiring fictional examples - and finds strange, challenging answers. The book's content and entertaining style will appeal equally to science fiction enthusiasts and scholars, including cognitive and neuroscientists, as well as philosophers of mind. It is a refreshing romp through the science and science fiction of consciousness.

WINNER OF THE 2014 BRAIN PRIZE From the acclaimed author of Reading in the Brain and How We Learn, a breathtaking look at the new science that can track consciousness deep in the brain How does our brain generate a conscious thought? And why does so much of our knowledge remain unconscious? Thanks to clever psychological and brain-imaging experiments, scientists are closer to cracking this mystery than ever before. In this lively book, Stanislas Dehaene describes the pioneering work his lab and the labs of other cognitive neuroscientists worldwide have accomplished in defining, testing, and explaining the brain events behind a conscious state. We can now pin down the neurons that fire when a person reports becoming aware of a piece of information and understand the crucial role unconscious computations play in how we make decisions. The emerging theory enables a test of consciousness in animals, babies, and those with severe brain injuries. A joyous exploration of the mind and its thrilling complexities, Consciousness and the Brain will excite anyone interested in cutting-edge science and technology and the vast philosophical, personal, and ethical implications of finally quantifying consciousness.

A Blueprint for the Hard Problem of Consciousness addresses the fundamental mechanism that allows physical events to transcend into subjective experiences, termed the Hard Problem of Consciousness. Consciousness is made available as the abstract product of self-referent realization of information by strange loops through the levels of processing of the brain. Readers are introduced to the concept of the Hard Problem of Consciousness and related concepts followed by a critical discourse of different theories of consciousness. Next, the author identifies the fundamental flaw of the Integrated Information Theory (IIT) and proposes an alternative that avoids the cryptic intelligent design and panpsychism of the IIT. This author also demonstrates how something can be created out of nothing without resorting to quantum theory, while pointing out neurobiological alternatives to the bottom-up approach of quantum theories of consciousness. The book then delves into the philosophy of qualia in different physiological knowledge networks (spatial, temporal and olfactory, cortical signals, for example) to explain an action-based model consistent with the generational principles of Predictive Coding, which maps prediction and predictive-error signals for perceptual representations supporting integrated goal-directed behaviors. Conscious experiences are considered the outcome of abstractions realized out of map overlays and provided by sustained oscillatory activity. The key feature of this blueprint is that it offers a perspective of the Hard Problem of Consciousness from the point of view of the subject; the experience of ‘being the subject’ is predicted to be the realization of inference inversely mapped out of hidden causes of global integrated actions. The author explains the consistencies of his blueprint with ideas of the Global Neuronal Workspace and the Adaptive Resonance Theory of

consciousness as well as with the empirical evidence supporting the Integrated Information Theory. A Blueprint for the Hard Problem of Consciousness offers a unique perspective to readers interested in the scientific philosophy and cognitive neuroscience theory in relation to models of the theory of consciousness.

Research on natural and artificial brains is proceeding at a rapid pace. However, the understanding of the essence of consciousness has changed slightly over the millennia, and only the last decade has brought some progress to the area. Scientific ideas emerged that the soul could be a product of the material body and that calculating machines could imitate brain processes. However, the authors of this book reject the previously common dualism—the view that the material and spiritual-psychic processes are separate and require a completely different substance as their foundation. Reductive Model of the Conscious Mind is a forward-thinking book wherein the authors identify processes that are the essence of conscious thinking and place them in the imagined, simplified structure of cells able to memorize and transmit information in the form of impulses, which they call neurons. The purpose of the study is to explain the essence of consciousness to the degree of development of natural sciences, because only the latter can find a way to embed the concept of the conscious mind in material brains. The book is divided into three parts. Part 1 works to convince readers that the emergence of consciousness does not require detailed knowledge of the structure and morphology of the brain, with the exception of some specific properties of the neural network structure that the authors attempt to point out. Part 2 proves that the biological structure of many natural brains fulfills the necessary conditions for consciousness and intelligent thinking. Similarly, Part 3 shows the ways in which artificial creatures imitating natural brains can meet these conditions, which gives great hopes for building artificially intelligent beings endowed with consciousness. Covering topics that include cognitive architecture, the embodied mind, and machine learning, this book is ideal for cognitive scientists, philosophers of mind, neuroscientists, psychologists, researchers, academicians, and advanced-level students. The book can also help to focus the research of linguists, neurologists, and biophysicists on the biophysical basis of postulated information processing into knowledge structures.

Chinese edition of SUM: Forty Tales from the Afterlives. A neuroscientist writes 40 stories, or rather, scenarios of afterlife that each one of us humans may live. He uses dark humor and wit to interpret the afterlife by way of how we lived this life. A great little book to carry around and read one story at a time. In Traditional Chinese. Distributed by Tsai Fong Books, Inc.

This book discusses the main milestones of early brain development and the emergence of consciousness, within and outside the mother’s environment, with a particular focus on the preterm infant. These insights offer new perspectives on issues concerning fetal pain, awareness in newborns, and the effects of current digital media on the developing infant brain. Among the topics covered: · Brain patterning, neural proliferation, and migration. · The stress of being born and first breaths. · The stream of consciousness. · Parenting and stimulating the brain of the child. · The moral status of the fetus and the infant. Infant Brain Development is an excellent resource for researchers, clinicians and related professionals, and graduate students across a variety of disciplines including developmental psychology, pediatrics, neurobiology, neuroscience, obstetrics, nursing and medical ethics. It is written with historic and philosophical remarks of interest for a broad readership. --- “This book is a joy to read for anyone interested in understanding where biology is heading in the 21st century, and it is essential for those who work in child development.” Eric Kandel, University Professor, Columbia University, Co-Director, Mortimer B. Zuckerman Mind Brain Behavior Institute, Nobel Laureate in Medicine 2000 "With the precision of a scientist, the depth of a philosopher, and the heart and sensitivity of a pediatrician, Hugo Lagercrantz weaves a story as readable and engrossing as any mystery novel, linking brain, genes, the environment, and behavior to explain the development of the mind of a newborn. A tour de force!" Patricia K. Kuhl, The Bezos Family Foundation Endowed Chair in Early Childhood Learning, Co-Director, Institute for Learning & Brain Sciences, University of Washington “This book is a noble and valiant effort by Dr. Lagercrantz to explain the immensely complex issue of normal and pathological development of the human brain in simple terms that are accessible to the general public.” Pasko Rakic, Duberg Professor of Neuroscience and Neurology, Yale University School of Medicine

The Oxford Handbook of the Philosophy of Consciousness provides the most comprehensive overview of current philosophical research on consciousness. Featuring contributions from some of the most prominent experts in the field, it explores the wide range of types of consciousness there may be, the many psychological phenomena with which consciousness interacts, and the various views concerning the ultimate relationship between consciousness and physical reality. It is an essential and authoritative resource for anyone working in philosophy of mind or interested in states of consciousness.

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Strategic Advertising Management provides the firm foundation you need to understand the effective strategic planning of advertising and other marketing communications. Renowned experts in the field, the authors draw on their extensive experience to present the essential principles ofcommunication that demonstrate how advertising works. Using real world examples and case studies from a variety of international brands and companies, such as Samsung, McDonalds and Disney, the authors have created a resource that clearly illustrates how theory is put in to practice, and how strategic advertising operates in a global economy. The new edition features more coverage of social media, viral, and online advertising throughout, and a dedicated

chapter on 'Digital Media,' ensuring that the book continues to offer students the most complete guide to the rapidly evolving landscape of the advertising industry. Online Resource Centre For Students: * Flashcard glossary* Additional questions* Further reading updates* Web links * Video links to adverts exemplifying strategies discussed in the book, short films from advertising companies and relevant documentariesFor Lecturers: * Suggested IPA case histories* Suggested classroom exercises* PowerPoint slides
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Consciousness and the BrainDeciphering How the Brain Codes Our ThoughtsPenguin
Much progress has been made to understand the intricacies of the brain's workings. Some have claimed, and many assumed, that these findings have challenged faith in God to the point of destruction. Are we not mere neural machines? Are religious experiences not just 'in the mind', the products of abnormal 'brain events'? Is faith not just a side effect of evolution? Not so, according to neuroscientist Peter Clarke, after a lifetime's study of the brain. In this comprehensive book, the current state of neuroscientific evidence is weighed up alongside ideas of what it means to be human, the idea of the soul, near-death experiences, and questions of free will and responsibility. He engages with the leading thinkers in these areas, including Francis Crick, Richard Dawkins, Daniel Dennett, Sam Harris, and Daniel Wegner.
The book "Cognitive and Computational Neuroscience - Principles, Algorithms and Applications" will answer the following question and statements: System-level neural modeling: what and why? We know a lot about the brain! Need to integrate data: molecular/cellular/system levels. Complexity: need to abstract away higher-order principles. Models are tools to develop explicit theories, constrained by multiple levels (neural and behavioral). Key: models (should) make novel testable predictions on both neural and behavioral levels. Models are useful tools for guiding experiments. The hope is that the information provided in this book will trigger new researches that will help to connect basic neuroscience to clinical medicine.
Featuring a foreword by renowned neuroscientist Joseph E. LeDoux, The Elusive Brain is an illuminating, comprehensive survey of contemporary literature’s engagement with neuroscience. This fascinating book explores how literature interacts with neuroscience to provide a better understanding of the brain’s relationship to the self. Jason Tougaw surveys the work of contemporary writers—including Oliver Sacks, Temple Grandin, Richard Powers, Siri Hustvedt, and Tito Rajarshi Mukhopadhyay—analyzing the way they experiment with literary forms to frame new views of the immaterial experiences that compose a self. He argues that their work offers a necessary counterbalance to a wider cultural neuromania that seeks out purely neural explanations for human behaviors as varied as reading, economics, empathy, and racism. Building on recent scholarship, Tougaw’s evenhanded account will be an original contribution to the growing field of neuroscience and literature.
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* Our summary is short, simple and pragmatic. It allows you to have the essential ideas of a big book in less than 30 minutes. By reading this summary, you will discover the latest scientific advances, especially in the field of neurobiology, but especially the latest discoveries concerning the exploration of the brain. You will also discover : what consciousness is and its origin; what consciousness is used for; how information reaches consciousness; what access to consciousness is; that there are tools that allow you to follow the path of information; what happens when we become aware of this information; that there are signatures of consciousness; that an artificial consciousness is possible. Man has always had the intuition that the mind is not in the same domain as the body. Already, the paintings in the caves of Lascaux provide proof of this by representing the body on one side and the mind on the other, personified by a bird. This is the idea of a human dualism theorized by the philosopher René Descartes. However, scientists tend to refute this idea, which they consider to be responsible for a certain delay in scientific research on consciousness. In "The Code of Consciousness", the author demonstrates that the advent of brain imaging has made it possible to transform this philosophical concept into a concrete and scientifically viable subject. *Buy now the summary of this book for the modest price of a cup of coffee!
Given the exponential growth of Artificial Intelligence (AI) over the past few decades, AI and its related applications have become part of daily life in ways that we could never have dreamt of only a century ago. Our routines have been changed beyond measure by robotics and AI, which are now used in a vast array of services. Though AI is still in its infancy, we have already benefited immensely. This book introduces readers to basic Artificial Intelligence concepts, and helps them understand the relationship between AI and daily life. In the interest of clarity, the content is divided into four major parts. Part I (AI Concepts) presents fundamental concepts of and information on AI; while Part II (AI Technology) introduces readers to the five core AI Technologies that provide the building blocks for various AI applications, namely: Machine Learning (ML), Data Mining (DM), Computer Vision (CV), Natural Languages Processing (NLP), and Ontology-based Search Engine (OSE). In turn, Part III (AI Applications) reviews major contemporary applications that are impacting our ways of life, working styles and environment, ranging from intelligent agents and robotics to smart campus and smart city projects. Lastly, Part IV (Beyond AI) addresses related topics that are vital to the future development of AI. It also discusses a number of critical issues, such as AI ethics and privacy, the development of a conscious mind, and autonomous robotics in our daily lives.
Since the dawn of science, ideas about the relation between science and religion have always depended on what else is going on in a society. During the twentieth century, daily life changed dramatically. Technology revolutionized transportation, agriculture, communications, and housework. People came to rely on scientific predictability in their technology. Many wondered whether God's supposed actions were consistent with scientific knowledge. The twenty-first century is bringing new scientific research capabilities. They are revealing that scientific results are not totally predictable after all. Certain types of interaction lead to outcomes that are unpredictable, in principle. These in turn may lead to a whole new range of potential interactions. They do not rule out the reality of a dynamic God who can act in the world without breaking the known principles of science. God may in fact work with "the way things really are." Human experience of God may accurately reflect this reality. Interactive World, Interactive God illustrates such new understandings in religion and science by describing recent developments in a wide range of sciences, and providing theological commentary. The book is written for intelligent readers who may not be specialized in science but who are looking for ways to understand divine action in today's world.

Demystifying consciousness: how subjective experience can be explained by natural brain and evolutionary processes. Consciousness is often considered a mystery. How can the seemingly immaterial experience of consciousness be explained by the material neurons of the brain? There seems to be an unbridgeable gap between understanding the brain as an objectively observed biological organ and accounting for the subjective experiences that come from the brain (and life processes). In this book, Todd Feinberg and Jon Mallatt attempt to demystify consciousness—to naturalize it, by explaining that the subjective, experiencing aspects of consciousness are created by natural brain processes that evolved in natural ways. Although subjective experience is unique in nature, they argue, it is not necessarily mysterious. We need not invoke the unknown or unknowable to explain its creation. Feinberg and Mallatt flesh out their theory of neurobiological naturalism (after John Searle's biological naturalism) that recognizes the many features that brains share with other living things, lists the neural features unique to conscious brains, and explains the subjective–objective barrier naturally. They investigate common neural features among the diverse groups of animals that have primary consciousness—the type of consciousness that experiences both sensations received from the world and affects such as emotions. They map the evolutionary development of consciousness and find an uninterrupted progression over time, without inserting any mysterious forces or exotic physics. Finally, bridging the previously unbridgeable, they show how subjective experience, although different from objective observation, can be naturally explained.

Consciousness is widely perceived as one of the most fundamental, interesting and difficult problems of our time. However, we still know next to nothing about the relationship between consciousness and the brain and we can only speculate about the consciousness of animals and machines. Human and Machine Consciousness presents a new foundation for the scientific study of consciousness. It sets out a bold interpretation of consciousness that neutralizes the philosophical problems and explains how we can make scientific predictions about the consciousness of animals, brain-damaged patients and machines. Gamez interprets the scientific study of consciousness as a search for mathematical theories that map between measurements of consciousness and measurements of the physical world. We can use artificial intelligence to discover these theories and they could make accurate predictions about the consciousness of humans, animals and artificial systems. Human and Machine Consciousness also provides original insights into unusual conscious experiences, such as hallucinations, religious experiences and out-of-body states, and demonstrates how ‘designer’ states of consciousness could be created in the future. Gamez explains difficult concepts in a clear way that closely engages with scientific research. His punchy, concise prose is packed with vivid examples, making it suitable for the educated general reader as well as philosophers and scientists. Problems are brought to life in colourful illustrations and a helpful summary is given at the end of each chapter. The endnotes provide detailed discussions of individual points and full references to the scientific and philosophical literature.

Neurotechnology and Direct Brain Communication focuses on recent neuroscientific investigations of infant brains and of patients with disorders of consciousness (DOC), both of which are at the forefront of contemporary neuroscience. The prospective use of neurotechnology to access mental states in these subjects, including neuroimaging, brain simulation, and brain computer interfaces, offers new opportunities for clinicians and researchers, but has also received specific attention from philosophical, scientific, ethical, and legal points of view. This book offers the first systematic assessment of these issues, investigating the tools neurotechnology offers to care for verbally non-communicative subjects and suggesting a multidisciplinary approach to the ethical and legal implications of ordinary and experimental practices. The book is divided into three parts: the first and second focus on the scientific and clinical implications of neurological tools for DOC patient and infant care. With reference to these developments, the third and final part presents the case for re-evaluating classical ethical and legal concepts, such as authority, informed consent, and privacy. Neurotechnology and Direct Brain Communication will appeal to researchers and postgraduate students in the fields of cognitive science, medical ethics, medical technology, and the philosophy of the mind. With implications for patient care, it will also be a useful resource for clinicians, medical centres, and health practitioners.

The problem of how the brain produces consciousness, subjectivity and "something it is like to be" remains one of the greatest challenges to a complete science of the natural world. While various scientists and philosophers approach the problem from their own unique perspectives and in the terms of their own respective fields, Biophysics of Consciousness: A Foundational Approach attempts a consilience across disparate disciplines to explain how it is possible that an objective brain produces subjective experience. This volume unites the crème de la crème of physicists, neuroscientists, and psychiatrists in the attempt to understand consciousness through a foundational approach encompassing ontological, evolutionary, neurobiological, and Freudian interpretations with the focus on conscious phenomena occurring in the brain. By integrating the perspectives of these diverse disciplines with the latest research and theories on the biophysics of the brain, the book tries to explain how consciousness can be an adaptive and causal element in the natural world.

The “Natural Problem of Consciousness” is the problem of understanding why there are presently conscious beings at all. Given a non-reductive naturalist framework taking consciousness as an ontologically subjective biological phenomenon, how can we rationally explain the fact that the actual world has turned out to be one where there are presently living beings that can feel, rather than having developed as a zombie-world in which there would be no conscious experiences of any kind? This book introduces the Natural Problem by relating it to central problems in the philosophy of mind (metaphysical mind-body problem, Hard Problem of consciousness) and emphasizing the distinctive interest of its diachronic dimension. Ranging from philosophy to biology and neuroscience, it offers a thorough analysis aimed at better understanding what could explain why phenomenal consciousness has been preserved throughout evolution by natural selection. This is an original, engaging, and thought provoking philosophical study of a neglected but fundamental question regarding the nature and origin of consciousness.

N. Katherine Hayles is known for breaking new ground at the intersection of the sciences and the humanities. In Unthought, she once again bridges disciplines by revealing how we think without thinking—how we use cognitive processes that are inaccessible to consciousness yet necessary for it to function. Marshalling fresh insights from neuroscience, cognitive science, cognitive biology, and literature, Hayles expands our understanding of cognition and demonstrates that it involves more than consciousness alone. Cognition, as Hayles defines it, is applicable not only to nonconscious processes in humans but to all forms of life, including unicellular organisms and plants. Startlingly, she also shows that cognition operates in the sophisticated information-processing abilities of technical systems: when humans and cognitive technical systems interact, they form “cognitive assemblages”—as found in urban traffic control, drones, and the trading algorithms of finance capital, for instance—and these assemblages are transforming life on earth. The result is what Hayles calls a “planetary cognitive ecology,” which includes both human and technical actors and which poses urgent questions to humanists and social scientists alike. At a time when scientific and technological advances are bringing far-reaching aspects of cognition into the public eye, Unthought reflects deeply on our contemporary situation and moves us toward a

more sustainable and flourishing environment for all beings.

Over the last years, a large body of experimental data have been generated in the attempt to understand consciousness and its neural underpinnings. In this respect, particular interest has been paid to the attempt to distinguish between conscious experience and unconscious states which however may still be considered as mental states (e.g., in virtue of their representational nature). This is of course not without reason. A deep understanding of that which specifically characterizes conscious states, including neural correlates and cognitive functions, may crucially inform the ambition of understanding the relation between experience and the physical world. Nevertheless, the question has historically been challenged by the fact that consciousness is available in the first person only – not to other people, including scientists. Different methodological traditions and choices have led to quite different understandings of how conscious and unconscious states relate, and diverse empirical work has been inspired and guided by various cognitive and neurobiological theories of consciousness. The very diverse viewpoints include such different positions as the idea that unconscious states are associated with the very same functional characteristics as conscious states, and the idea that no informational state that is available for action can be completely unconscious. The Research Topic “Transitions between consciousness and unconsciousness” is therefore devoted to this particular question, how to understand the relation and transition between consciousness and unconsciousness. We hope that the reader will find the collected articles both informative and thought-provoking, and that this Research Topic will stimulate the scientific debate.

"The story Modern tells ranges from eighteenth-century brain anatomies to the MRI; from the spread of phrenological cabinets and mental pieties in the nineteenth century to the discovery of the motor cortex and the emergence of the brain wave as a measurable manifestation of cognition; from cybernetic research into neural networks and artificial intelligence to the founding of brain-centric religious organizations such as Scientology; from the deployments of cognitive paradigms in electric shock treatment to the work of Barbara Brown, a neurofeedback pioneer who promoted the practice of controlling one's own brainwaves in the 1970s. What Modern reveals via this grand tour is that our ostensibly secular turn to the brain is bound up at every turn with the 'religion' it discounts, ignores, or actively dismisses. Nowhere are science and religion closer than when they try to exclude each other, at their own peril"--

Without consciousness we would not have the experientially flavoured world we have, but without the non-conscious we would not have it at all; for we would not be able to breathe, eat, move, walk, feel, mimic, gesture, laugh, etc., and even see, talk, remember, reason, understand, think, imagine, and make myriad spontaneous decisions as we continuously do in all life situations, from trivial to existential ones. Without consciousness we would not be the kind of creatures we are, but what makes us really unique is our specific non-conscious constellation - a basis from which all mentality germinates and which is irreducible, that is, not representable or in any way simulable. This collection of essays by leading scholars in consciousness aims to show that in order to understand mind as a whole we have to also consider its non-conscious part. Obtaining a more thorough insight into the non-conscious is indispensable for a better understanding of consciousness - the two spheres are to be perceived not as separated but rather as interconnected. The non-conscious is habitually associated with automatized motor behaviour, skills, and habits, but even in their most elementary forms these aspects of mind require a high level of sophistication and cognitive competence. Most complex cognitive tasks, such as perception, memory, decision making, etc. also rely heavily on non-conscious processing, which is not only faster but also proves to be in many respects more fundamental. The investigations included in this volume point to the conclusion that we can behave in a cognitively competent way without recourse to consciousness; that we may act in a reasoned manner even away from awareness; that thinking can be instantiated without engaging the sober conscious reasoner; that our coping in the world is meaningful and fulfilling even when conscious control and volition are dormant. This book aims to integrate the non-conscious as a constitutive dimension of the mind and also to outline how it is indispensable in virtually everything we do.