Cognitive Sciences and Medieval Studies

This carefully designed, multi-authored textbook covers a broad range of theoretical issues in cognitive science, psychology, and neuroscience. Written specifically for this volume by experts in their fields who are also experienced teachers, the book's thirty chapters are organized into the following parts: I. Background Knowledge II. Classical Debates III. Consciousness IV. Crossing Boundaries Each chapter starts with relevant key words and definitions and a chapter overview, then presents historical coverage of the topic, explains and analyzes contemporary debates, and ends with a sketch of cutting edge research. A list of suggested readings and helpful discussion topics conclude each chapter. This uniform, student-friendly design makes it possible to teach a cohort of both philosophy and interdisciplinary students without assuming prior understanding of philosophical concepts, cognitive science, or neuroscience.

Key Features:
- Synthesizes the now decades-long explosion of scientifically informed philosophical research in the study of mind.
- Expands on the offerings of other textbooks by including chapters on language, concepts and non-conceptual content, and animal cognition.
- Offers the same structure in each chapter, moving the reader through an overview, historical coverage, contemporary debates, and finally cutting-edge research.
- Packed with pedagogical features, like defined Key Terms, Suggested Readings, and Discussion Questions for each chapter, as well as a General Glossary.
- Provides readers with clear, chapter-long introductions to Cognitive Neuroscience, Molecular and Cellular Cognition, Experimental Methods in Cognitive Neuroscience, Philosophy of Mind, Philosophy of Science, Metaphysical Issues, and Epistemic Issues.

Playing with Theory in Theatre Practice

Covers 15 broad subject groupings: social sciences (generic); psychology; sociology; social work & social welfare; politics; government; law; finance, accountancy & taxation; industries & utilities; business & management; education & learning; sport; media & communications; information & library sciences; and tools for information professionals.

The Cognitive Neurosciences

What is Cognitive Science?

A translation of the renowned French reference book, Vocabulaire de sciences cognitives, the Dictionary of Cognitive Science presents comprehensive definitions in more than 120 subjects. Topics range from 'Abduction' to 'Writing', and each entry is covered from as many perspectives as possible within the domains of psychology, artificial intelligence, neuroscience, philosophy, and linguistics. The editor and his advisory board, each a specialist in one of these areas, have brought together 60 internationally recognized scholars to give the reader a comprehensive understanding of the most current and dynamic thinking in the cognitive sciences.
Cognitive Informatics, Computer Modelling, and Cognitive Science

This dictionary, sponsored by the International Neuropsychological Society, is a practical resource for neuropsychologists, neurologists, speech pathologists, psychiatrists, clinical psychologists, and occupational therapists whose work or research involves patients with nervous system disorders. It will also be valuable for students of neuropsychology and related disciplines. The book provides concise definitions of neurobehavioral abnormalities, diseases affecting the nervous system, clinical syndromes, neuropsychological tests, rehabilitation methods, medical procedures, basic neuroscience and other important terms. Its broad scope not only encompasses the approaches, perspectives, and practice settings of neuropsychology, but also extends to the related disciplines of neuroanatomy, neurochemistry, neurophysiology, neurology, neuropsychiatry, and experimental and cognitive psychology. In addition to definitions, the dictionary includes other relevant information: abbreviations and acronyms that appear in medical charts and in clinical literature, the terms' origins to illustrate how concepts developed, and biographical information on figures who have influenced the understanding of syndromes, diseases, and anatomy.

INS Dictionary of Neuropsychology and Clinical Neurosciences

Through a collection of original essays and case studies, this innovative book explores theory as an accessible, although complex, tool for theatre practitioners and students. These chapters invite readers to (re)imagine theory as a site of possibility or framework that can shape theatre making, emerge from practice, and foster new ways of seeing, creating, and reflecting. Focusing on the productive tensions and issues that surround creative practice and intellectual processes, the contributing authors present central concepts and questions that frame the role of theory in the theatre. Ultimately, this diverse and exciting collection offers inspiring ideas, raises new questions, and introduces ways to build theoretically-minded, dynamic production work.

The Oxford Handbook of Thinking and Reasoning

The INS Dictionary of Neuropsychology and Clinical Neurosciences provides concise definitions of neurobehavioral abnormalities, diseases affecting the nervous system, clinical syndromes, neuropsychological tests, neuroanatomy, rehabilitation methods, medical procedures, basic neuroscience, and other important clinical neuroscience terms. Its broad scope not only encompasses the approaches, perspectives, and practice settings of neuropsychology, but also extends to the related disciplines of pharmacology, neurophysiology, neurology, neuropsychiatry, and experimental and cognitive psychology. The Second Edition expands on the content of the First, emphasizing the methodology necessary to critically evaluate research publications according to the highest clinical standards involving evidence-based practice. In addition to definitions, the INS Dictionary includes other information relevant to neuropsychology: abbreviations and acronyms that appear in medical charts and in clinical literature, the origins of specific terminology and how concepts developed, and biographical information on individuals who have influenced the understanding of syndromes, diseases, and anatomy. Although definitions for most terms are readily available on the Internet, the INS Dictionary presents definitions with a neuropsychological perspective with relevance for neuropsychologists more clearly identified. The INS Dictionary is also conceptualized as an active textbook: entries were derived from a variety of sources ranging from grand rounds to scientific literature and professional neuropsychology conferences. The wide variety of terms that have been specifically selected for inclusion makes the INS Dictionary a valuable resource for neuropsychologists and clinical neuroscientists at all levels.

The New Walford

With the rapid development of the cognitive sciences and their importance to how we contemplate questions about the mind and society, recent research in the humanities has been characterised by a 'cognitive turn'. For their part, the humanities play an important role in forming popular ideas of the human mind and in analysing the way cognitive, psychological and emotional phenomena are experienced in time and space. This collection aims to inspire medievalists and other scholars within the humanities to engage with the tools and investigative methodologies deriving from cognitive sciences. Contributors explore topics including medieval and modern philosophy of mind, the psychology of religion, the history of psychological medicine and the re-emergence of the body in cognition. What is the value of mapping how neurons fire when engaging with literature and art? How can we understand psychological stress as a historically specific phenomenon? What can medieval mystics teach us about contemplation and cognition?

The Cognitive Neuroscience of Development
The Mind and Brain are usually considered as one and the same nonlinear, complex dynamical system, in which information processing can be described with vector and
tensor transformations and with attractors in multidimensional state spaces. Thus, an internal neurocognitive representation concept consists of a dynamical process which
filters out statistical prototypes from the sensorial information in terms of coherent and adaptive n-dimensional vector fields. These prototypes serve as a basis for dynamic,
probabilistic predictions or probabilistic hypotheses on prospective new data (see the recently introduced approach of "predictive coding" in neurophilosophy). Furthermore,
the phenomenon of sensory and language cognition would thus be based on a multitude of self-regulatory complex dynamics of synchronous self-organization mechanisms,
in other words, an emergent "flux equilibrium process" ("steady state") of the total collective and coherent neural activity resulting from the oscillatory actions of neuronal
assemblies. In perception it is shown how sensory object informations, like the object color or the object form, can be dynamically related together or can be integrated to a
neurally based representation of this perceptual object by means of a synchronization mechanism ("feature binding"). In language processing it is shown how semantic
corcepts and syntactic roles can be dynamically related together or can be integrated to neurally based systematic and compositional connectionist representations by means
of a synchronization mechanism ("variable binding") solving the Fodor-Pylshyn-Challenge. Since the systemtheoretical connectionism has succeeded in modeling the
sensory objects in perception as well as systematic and compositional representations in language processing with this vector- and oscillation-based representation format, a
new, convincing theory of neurocognition has been developed, which bridges the neuronal and the cognitive analysis level. The book describes how elementary neuronal
information is combined in perception and language, so it becomes clear how the brain processes this information to enable basic cognitive performance of the humans.

Knowledge in the Age of Digital Capitalism

The fourth edition of the work that defines the field of cognitive neuroscience, offering completely new material.

Mind, Cognition, and Neuroscience

This book, a member of the Series in Affective Science, is a unique interdisciplinary sequence of articles on the cognitive neuroscience of emotion by some of the most well-
known researchers in the area. It explores what is known about cognitive processes in emotion at the same time it reviews the processes and anatomical structures involved
in emotion, determining whether there is something about emotion and its neural substrates that requires they be studied as a separate domain. Divided into four major focal
points and presenting research that has been performed in the last decade, this book covers the process of emotion generation, the functions of amygdala, the conscious
experience of emotion, and emotion regulation and dysregulation. Collectively, the chapters constitute a broad but selective survey of current knowledge about emotion and
the brain, and they all address the close association between cognitive and emotional processes. By bringing together diverse strands of investigation with the aim of
documenting current understanding of how emotion is instantiated in the brain, this book will be of use to scientists, researchers, and advanced students of psychology and
neuroscience.

Cognitive Science

takes a distinctive, commonsense approach to help newcomers easily learn the basics of how the brain functions when we learn, act, feel, speak and socialize. This updated
edition includes contents and features that are both academically rigorous and engaging, including a step-by-step introduction to the visible brain, colorful brain illustrations,
and new chapters on emerging topics in cognition research, including emotion, sleep and disorders of consciousness, and discussions of novel findings that highlight
cognitive neuroscience’s practical applications. Written by two leading experts in the field and thoroughly updated, this book remains an indispensable introduction to the
study of cognition. Presents an easy-to-read introduction to mind-brain science based on a simple functional diagram linked to specific brain functions Provides new, up-to-
date, colorful brain images directly from research labs Contains "In the News" boxes that describe the newest research and augment foundational content Includes both a
student and instructor website with basic terms and definitions, chapter guides, study questions, drawing exercises, downloadable lecture slides, test bank, flashcards,
sample syllabi and links to multimedia resources

Cognitive Science

Up to the 1960s, psychology was deeply under the influence of behaviourism, which focused on stimuli and responses, and regarded consideration of what may happen in the
mind as unapproachable scientifically. This began to change with the devising of methods to try to tap into what was going on in the 'black box' of the mind, and the development of 'cognitive psychology'. With the study of patients who had suffered brain damage or injury to limited parts of the brain, outlines of brain components and processes began to take shape, and by the end of the 1970s, a new science, cognitive neuroscience, was born. But it was with the development of ways of accessing activation of the working brain using imaging techniques such as PET and fMRI that cognitive neuroscience came into its own, as a science cutting across psychology and neuroscience, with strong connections to philosophy of mind. Experiments involving subjects in scanners while doing various tasks, thinking, problem solving, and remembering are shedding light on the brain processes involved. The research is exciting and new, and often makes media headlines. But there is much misunderstanding about what brain imaging tells us, and the interpretation of studies on cognition. In this Very Short Introduction Richard Passingham, a distinguished cognitive neuroscientist, gives a provocative and exciting account of the nature and scope of this relatively new field, and the techniques available to us, focusing on investigation of the human brain. He explains what brain imaging shows, pointing out common misconceptions, and gives a brief overview of the different aspects of human cognition: perceiving, attending, remembering, reasoning, deciding, and acting. Passingham concludes with a discussion of the exciting advances that may lie ahead.

ABOUT THE SERIES: The Very Short Introductions series from Oxford University Press contains hundreds of titles in almost every subject area. These pocket-sized books are the perfect way to get ahead in a new subject quickly. Our expert authors combine facts, analysis, perspective, new ideas, and enthusiasm to make interesting and challenging topics highly readable.

The Mind of the Horse

In Cognitive Science 3e Friedenberg and Silverman provide a solid understanding of the major theoretical and empirical contributions of cognitive science. Their text, thoroughly updated for this new third edition, describes the major theories of mind as well as the major experimental results that have emerged within each cognitive science discipline. Throughout history, different fields of inquiry have attempted to understand the great mystery of mind and answer questions like: What is the mind? How do we see, think, and remember? Can we create machines that are conscious and capable of self-awareness? This books examines these questions and many more. Focusing on the approach of a particular cognitive science field in each chapter, the authors describe its methodology, theoretical perspective, and findings and then offer a critical evaluation of the field. Features: Offers a wide-ranging, comprehensive, and multidisciplinary introduction to the field of cognitive science and issues of mind. Interdisciplinary Crossroads sections at the end of each chapter focus on research topics that have been investigated from multiple perspectives, helping students to understand the link between varying disciplines and cognitive science. End-of-chapter “Summing Up” sections provide a concise summary of the major points addressed in each chapter to facilitate student comprehension and exam preparation “Explore More” sections link students to the Student Study Site where the authors have provided activities to help students more quickly master course content and prepare for examinations. Supplements: A password-protected Instructor’s Resource contains PowerPoint lectures, a test bank and other pedagogical material. The book’s Study Site features Web links, E-flash cards, and interactive quizzes.

The Provocation of the Senses in Contemporary Theatre

Di Benedetto considers theatrical practice through the lens of contemporary neuroscientific discoveries in this provoking study, which lays the foundation for considering the physiological basis of the power of theatre practice to affect human behavior. He presents a basic summary of the ways that the senses function in relation to cognitive science and physiology, offering an overview of dominant trends of discussion on the realm of the senses in performance. Also presented are examples of how those ideas are illustrated in recent theatrical presentations, and how the different senses form the structure of a theatrical event. Di Benedetto concludes by suggesting the possible implications these neuroscientific ideas have upon our understanding of theatrical composition, audience response, and the generation of meaning.

Reference and User Services Quarterly

Updated fully, this accessible and comprehensive text highlights the most important theoretical, conceptual and methodological issues in cognitive neuroscience. Written by two experienced teachers, the consistent narrative ensures that students link concepts across chapters, and the careful selection of topics enables them to grasp the big
picture without getting distracted by details. Clinical applications such as developmental disorders, brain injuries and dementias are highlighted. In addition, analogies and examples within the text, opening case studies, and 'In Focus' boxes engage students and demonstrate the relevance of the material to real-world concerns. Students are encouraged to develop the critical thinking skills that will enable them to evaluate future developments in this fast-moving field. A new chapter on Neuroscience and Society considers how cognitive neuroscience issues relate to the law, education, and ethics, highlighting the clinical and real-world relevance. An expanded online package includes a test bank.

Mind as Machine

INS Dictionary of Neuropsychology

Gualtiero Piccinini presents a systematic and rigorous philosophical defence of the computational theory of cognition. His view posits that cognition involves neural computation within multilevel neurocognitive mechanisms, and includes novel ideas about ontology, functions, neural representation, neural computation, and consciousness.

The Mind's New Science

Cognitive Informatics, Computer Modelling, and Cognitive Science: Volume Two, Application to Neural Engineering, Robotics, and STEM presents the practical, real-world applications of Cognitive Science to help readers understand how it can help them in their research, engineering and academic pursuits. The book is presented in two volumes, covering Introduction and Theoretical Background, Philosophical and Psychological Theory, and Cognitive Informatics and Computing. Volume Two includes Statistics for Cognitive Science, Cognitive Applications and STEM Case Studies. Other sections cover Cognitive Informatics, Computer Modelling and Cognitive Science: Application to Neural Engineering, Robotics, and STEM. The book's authors discuss the current status of research in the field of Cognitive Science, including cognitive language processing that paves the ways for developing numerous tools for helping physically challenged persons, and more. Identifies how foundational theories and concepts in cognitive science are applicable in other fields includes a comprehensive review of cognitive science applications in multiple domains, applying it to neural engineering, robotics, computer science and STEM. Presents basic statistics and cognitive maps, testing strategies of hypothesis, maximum likelihood estimator, Bayesian statistics, and discrete probability models of neural computation. Contains in-depth technical coverage of cognitive applications and case studies, including neuro-computing, brain modeling, cognitive ability and cognitive robots.

Cognitive Neuroscience of Emotion

How are the experiences of childhood incorporated into the structures of the developing brain, and how do these changes in the brain influence behaviour? This is one of the many questions motivating research in the relatively new field of developmental cognitive neuroscience. This book provides an extensive overview of the methods used to study such questions, and a thorough investigation into the emerging interface between neurobiological and psychological perspectives in the study of typical and atypical cognitive behaviour. The Cognitive Neuroscience of Development is a collection of essays written by international experts in the field. It covers not only traditional topics such as language, attention and memory development, but also includes individual chapters covering the theories of neurocognitive development and methods of studying brain activity in young infants and children. There are additional chapters on hormonal influences on brain and behavioural development, gender differences in the brain, and genetic disorders. This exceptional series of contributions surveys the study of both cognitive and neural development. The book takes into account brain architecture as well as the behavioural context of development, thus it succeeds in integrating the multiple methods and domains of research that have previously been studied in a more fragmented way. It will be invaluable to upper level students as well as researchers and teachers in Psychology, Neuroscience, Cognitive Science, Paediatrics and related fields.

Cognitive Informatics, Computer Modelling, and Cognitive Science

In a richly detailed analysis, Von Eckardt (philosophy, U. of Nebraska) lays the foundation for understanding what it means to be a cognitive scientist. She characterizes the...
basic assumptions that define the cognitive science approach and systematically sorts out a host of recent issues and controversies surrounding them. A notation copyright by Book News, Inc., Portland, OR

Neurocognitive Mechanisms

Emerging Cognitive Neuroscience and Related Technologies, from the National Research Council, identifies and explores several specific research areas that have implications for U.S. national security, and should therefore be monitored consistently by the intelligence community. These areas include: neurophysiological advances in detecting and measuring indicators of psychological states and intentions of individuals; the development of drugs or technologies that can alter human physical or cognitive abilities; advances in real-time brain imaging breakthroughs in high-performance computing and neuronal modeling that could allow researchers to develop systems which mimic functions of the human brain, particularly the ability to organize disparate forms of data. As these fields continue to grow, it will be imperative that the intelligence community be able to identify scientific advances relevant to national security when they occur. To do so will require adequate funding, intelligence analysts with advanced training in science and technology, and increased collaboration with the scientific community, particularly academia. A key tool for the intelligence community, this book will also be a useful resource for the health industry, the military, and others with a vested interest in technologies such as brain imaging and cognitive or physical enhancers.

Mind, Cognition, and Neuroscience

This carefully designed, multi-authored textbook covers a broad range of theoretical issues in cognitive science, psychology, and neuroscience. With accessible language, a uniform structure, and many pedagogical features, Mind, Cognition, and Neuroscience: A Philosophical Introduction is the best high-level overview of this area for an interdisciplinary readership of students. Written specifically for this volume by experts in their fields who are also experienced teachers, the book's thirty chapters are organized into the following parts: I. Background Knowledge. II. Classical Debates. III. Consciousness. IV. Crossing Boundaries. Each chapter starts with relevant key words and definitions and a chapter overview, then presents historical coverage of the topic, explains and analyzes contemporary debates, and ends with a sketch of cutting edge research. A list of suggested readings and helpful discussion topics conclude each chapter. This uniform, student-friendly design makes it possible to teach a cohort of both philosophy and interdisciplinary students without assuming prior understanding of philosophical concepts, cognitive science, or neuroscience. Key Features: Synthesizes the now decades-long explosion of scientifically informed philosophical research in the study of mind. Expands on the offerings of other textbooks by including chapters on language, concepts and non-conceptual content, and animal cognition. Offers the same structure in each chapter, moving the reader through an overview, historical coverage, contemporary debates, and finally cutting-edge research. Packed with pedagogical features, like defined Key Terms, Suggested Readings, and Discussion Questions for each chapter, as well as a General Glossary. Provides readers with clear, chapter-long introductions to Cognitive Neuroscience, Molecular and Cellular Cognition, Experimental Methods in Cognitive Neuroscience, Philosophy of Mind, Philosophy of Science, Metaphysical Issues, and Epistemic Issues.

The Oxford Handbook of Cognitive Science

Cognitive Science is an avowedly multidisciplinary field, drawing upon many traditional disciplines or research areas—including Linguistics, Neuroscience, Philosophy, Psychology, Anthropology, Artificial Intelligence, and Education—that contribute to our understanding of cognition. Just as learning and memory cannot truly prove effective as disconnected studies, practical applications of cognitive research, such as the improvement of education and human-computer interaction, require dealing with more complex cognitive phenomena by integrating the methods and insights from multiple traditional disciplines. The societal need for such applications has played an important role in the development of cognitive science. The Oxford Handbook of Cognitive Science emphasizes the research and theory that is most central to modern cognitive science. Sections of the volume address computational theories of human cognitive architecture; cognitive functioning, such as problem solving and decision making as they have been studied with both experimental methods and formal modeling approaches; and cognitive linguistics and the advent of big data. Chapters provide concise introductions to the present achievements of cognitive science, supplemented by references to suggested reading, and additional facets of cognitive science are discussed in the handbook's introductory chapter, complementing other key publications to access for further study. With contributions from among the best representatives in their fields, this volume will appeal as the critical resource for the students in training who determine the future of cognitive science.

The New Palgrave Dictionary of Economics
The topic of this book is mental representation, a theoretical concept that lies at the core of cognitive science. Together with the idea that thinking is analogous to computational processing, this concept is responsible for the "cognitive turn" in the sciences of the mind and brain since the 1950s. Conceiving of cognitive processes (such as perception, reasoning, and motor control) as consisting of the manipulation of contentful vehicles that represent the world has led to tremendous empirical advancements in our explanations of behaviour. Perhaps the most famous discovery that explains behavior by appealing to the notion of mental representations was the discovery of 'place' cells that underlie spatial navigation and positioning, which earned researchers John O'Keeffe, May-Britt Møser, and Edvard I. Møser a joint Nobel Prize in 2014. And yet, despite the empirical importance of the concept, there is no agreed definition or theoretical understanding of mental representation. This book constitutes a state-of-the-art overview on the topic of mental representation, assembling some of the leading experts in the field and allowing them to engage in meaningful exchanges over some of the most contentious questions. The collection gathers both proponents and critics of the notion, making room for debates dealing with the theoretical and ontological status of representations, the possibility of formulating a general account of mental representation which would fit our best explanatory practices, and the possibility of delivering such an account in fully naturalistic terms. Some contributors explore the relation between mutually incompatible notions of mental representation, stemming from the different disciplines composing the cognitive sciences (such as neuroscience, psychology, and computer science). Others question the ontological status and explanatory usefulness of the notion. And finally, some try to sketch a general theory of mental representations that could face the challenges outlined in the more critical chapters of the volume.

Philosophy

3-System Theory of the Cognitive Brain: A Post-Piagetian Approach to Cognitive Development puts forward Olivier Houdé's 3-System theory of the cognitive brain, based on numerous post-Piagetian psychological and brain imaging data acquired from children and adults. This ground-breaking theory simultaneously anchors itself in a deep understanding of the history of psychology and fuels current debates on thinking, reasoning and cognitive development. Spanning the long-term history of psychology, from Plato and Aristotle to more current experimental psychology, this pioneering work goes beyond the approaches of Kahneman (i.e. System 1 theory) and Piaget (i.e. System 2 theory) to put forward a theory in which the inhibitory-control system (i.e. System 3) takes precedence. Houdé argues that the brain contains a third control system located in the prefrontal cortex which is dedicated to inhibiting Kahneman's intuitive heuristics system and activating Piaget's logical algorithms system anywhere in the brain on a case-by-case basis, depending on the goal and context of the task. 3-System Theory of the Cognitive Brain simultaneously explains the early logical abilities discovered in babies, the dynamic, strategic and non-linear process of cognitive development in children, and the fast heuristics and biases observed in adults. Houdé considers the exciting implications of this theory on neuro-education using examples from the classroom. This book is essential reading for students and researchers in cognitive development and education, child psychology, reasoning and neurosciences.

Psychoanalytic Defense Mechanisms in Cognitive Multi-Agent Systems

A WINNER OF THE AMERICAN LIBRARIES ASSOCIATION ‘OUTSTANDING REFERENCE SOURCES’ AWARD. The most up-to-date dictionary of psychology available, described as ‘the best single volume dictionary of its kind’ (Library Journal), and ‘impressive’ (THES). With over 10,500 entries, this authoritative and up-to-date dictionary of psychology is ideal for students, professional psychologists, and the general reader. Featuring: Clear and wide-ranging entries cover all branches of psychology and related disciplines, including psychoanalysis, psychiatry, the neurosciences, and statistics. Extensive coverage of key areas including cognition, sensation and perception, emotion and motivation, learning and skills, language, mental disorder, and research methods. Over 700 commonly used abbreviations and symbols, listed separately for easy reference Comprehensive list of phobias and phobic stimuli Word origins and derivations supplied. Extensive cross-referencing Over 700 illustrations

Emerging Cognitive Neuroscience and Related Technologies

The Oxford Handbook of Thinking and Reasoning brings together the contributions of many of the leading researchers in thinking and reasoning to create the most comprehensive overview of research on thinking and reasoning that has ever been available.

The Cambridge Handbook of Cognitive Development

A newly reorganized, up-to-date overview of key reference works in philosophy published over the past decade.
How to Build a Theory in Cognitive Science

A authoritative, up-to-date survey of the state of the art in cognitive science, written for non-specialists.

The Cambridge Handbook of Cognitive Science

How to Build a Theory in Cognitive Science specifies the characteristics of fruitful interdisciplinary theories in cognitive science and shows how they differ from the successful theories in the individual disciplines composing the cognitive sciences. It articulates a method for integrating the various disciplines successfully so that unified, truly interdisciplinary theories are possible. This book makes three contributions of utmost importance. First, it provides a long-overdue, systematic examination of the field of cognitive science itself. Second, it provides a template for linking domains without loss of autonomy. This philosophical treatment of integration serves as a blueprint for future endeavors. Third, the book provides a solid theoretical foundation that will prevent future missteps and enhance collaboration.

Representation in Cognitive Science

The first full-scale history of cognitive science, this work addresses a central issue: What is the nature of knowledge?

Dictionary of Cognitive Science

Horses were first domesticated about 6,000 years ago on the vast Eurasian steppe, yet only in the last two decades have scientists begun to explore the mental capacities of these animals. In The Mind of the Horse, Michel-Antoine Leblanc presents an encyclopedic synthesis of scientific knowledge about equine behavior and cognition, providing experts and enthusiasts alike with an up-to-date understanding of how horses perceive, think about, and adapt to their physical and social worlds. Much of what we think we know about “the intelligence of the horse” derives from fragmentary reports and anecdotal evidence. Putting this accumulated wisdom to the test, Leblanc introduces readers to rigorous experimental investigations into how horses make sense of their world under varying conditions. He describes the anatomical and neurophysiological characteristics of the horse's brain, and compares these features with those of other species, to gain an evolutionary perspective. A horseman himself, Leblanc also considers the opinions of renowned riding masters, as well as controversies surrounding the horse's extraordinary mental powers that have stirred in equestrian and scientific circles. The Mind of the Horse brings together in one volume the current state of equine research and will likely stimulate surprising new discoveries.

Fundamentals of Cognitive Neuroscience

The award-winning The New Palgrave Dictionary of Economics, 2nd edition is now available as a dynamic online resource. Consisting of over 1,900 articles written by leading figures in the field including Nobel prize winners, this is the definitive scholarly reference work for a new generation of economists. Regularly updated! This product is a subscription based product.

Cognitive Neuroscience

Cognitive Informatics, Computer Modelling, and Cognitive Science: Theory, Case Studies, and Applications presents the theoretical background and history of cognitive science to help readers understand its foundations, philosophical and psychological aspects, and applications in a wide range of engineering and computer science case studies. Cognitive science, a cognitive model of the brain, knowledge representation, and information processing in the human brain are discussed, as is the theory of consciousness, neuroscience, intelligence, decision-making, mind and behavior analysis, and the various ways cognitive computing is used for information manipulation, processing and decision-making. Mathematical and computational models, structures and processes of the human brain are also covered, along with advances in machine learning, artificial intelligence, cognitive knowledge base, deep learning, cognitive image processing and suitable data analytics.

Cognitive Neuroscience
3-System Theory of the Cognitive Brain

Human cognitive processes and defense mechanisms, as described in psychoanalysis, bring about new notions and paradigms for artificial intelligence systems. One key reason is that the human cognitive processes and defense mechanisms in question can accomplish conflict detection functionalities, filter functionalities, and other system stabilizing tasks within artificial intelligence systems. Yet artificial cognitive architectures lack the capability to analyze complex situations as well as the universal competencies needed to orientate themselves in complex environments in various domains. Psychoanalytic Defense Mechanisms in Cognitive Multi-Agent Systems addresses this dilemma by exploring how to describe, model, and implement psychoanalytic defense mechanisms in the course of a project that provides a functional model of the human mind. With discussions focusing on the development of a mathematical description for the implementation of conflict detection, the activation and selection of defense mechanisms, and the processing of defense mechanisms, Psychoanalytic Defense Mechanisms in Cognitive Multi-Agent Systems describes the decisive points for the application of defense mechanisms in artificial intelligence. Formulae that treat defense mechanisms as transformations are also provided. Interdisciplinary cooperation between the scientific fields of psychoanalysis and artificial intelligence is highlighted as the foundation of new research findings throughout the book. Innovative and exciting, this book will be of great interest to academics, researchers, and postgraduates in the fields of cognitive science, artificial intelligence, and psychoanalysis.

A Dictionary of Psychology

Knowledge in the Age of Digital Capitalism proposes a new critical theory concerning the functioning of capitalism and how we consider knowledge and information. This ambitious book systematically and lucidly introduces contemporary phenomena into the framework of cognitive materialism to address some of the great themes of the social sciences: knowledge, exploitation and social class in an account of capitalism's totality in the present day. Author Mariano Zukerfeld reinvigorates materialist study of communications, presenting a typology of knowledge to explain the underlying material forms of information, intellectual property and cognitive work in contemporary societies. Using current examples the book also examines concerns such as free labour and the pivotal role of intellectual property. The book offers nothing less than an introduction to the theory of cognitive materialism and an account of the entirety of the digital (or knowledge) capitalism of our time.

Guide to Reference in Medicine and Health

Our thoughts are meaningful. We think about things in the outside world; how can that be so? This is one of the deepest questions in contemporary philosophy. Ever since the 'cognitive revolution', states with meaning-mental representations-have been the key explanatory construct of the cognitive sciences. But there is still no widely accepted theory of how mental representations get their meaning. Powerful new methods in cognitive neuroscience can now reveal information processing in the brain in unprecedented detail. They show how the brain performs complex calculations on neural representations. Drawing on this cutting-edge research, Nicholas Shea uses a series of case studies from the cognitive sciences to develop a naturalistic account of the nature of mental representation. His approach is distinctive in focusing firmly on the 'subpersonal' representations that pervade so much of cognitive science. The diversity and depth of the case studies, illustrated by numerous figures, make this book unlike any previous treatment. It is important reading for philosophers of psychology and philosophers of mind, and of considerable interest to researchers throughout the cognitive sciences.

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