

# The Rise Of Homo Sapiens The Evolution Of Modern Thinking

[#Homo Sapiens](#) [#human evolution](#) [#modern thought](#) [#cognitive development](#) [#origin of humanity](#)

Explore the incredible journey of Homo Sapiens, tracing their rise from early ancestors to the development of complex modern thinking. This piece delves into the fascinating aspects of human evolution, examining the key milestones in cognitive development that shaped our unique capacity for innovation, communication, and abstract thought, fundamentally defining the origin of humanity as we know it today.

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## The Rise of Homo sapiens

The Rise of Homo Sapiens: The Evolution of Human Thinking presents a provocative theory about the evolution of the modern mind based on archaeological evidence and the working memory model of experimental psychologist Alan Baddeley. A unique introduction and primer into the new discipline of cognitive archaeology Introduces scientists and college students (at all levels) to the fascinating interface between the worlds of archaeology and cognitive science

## The Rise of Homo Sapiens

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## Modern Humans

Modern humans, commonly referred to as Homo sapiens, are the dominant primate species on Earth today. They stand out for having highly developed brains, the capacity for language, and the capacity for abstract cognition. Because of their exceptional adaptability, humans have colonized all seven continents and thrived in a range of conditions. They can also build and use sophisticated tools, and they have a long cultural and social past. The only remaining members of the Homo genus, which also comprised species like Homo erectus and Homo neanderthalensis, are Homo sapiens. Around 300,000 years ago, modern humans are assumed to have begun to develop in Africa. From there, they moved to other parts of the world and ultimately supplanted other human species. The contemporary status of mankind is thoroughly examined in James Wicks' book Modern Humans. The whole of human history is covered in this book, which also examines the significant developments of the last century from an environmental, political, social, and economic standpoint.

## The Emergence of Religion in Human Evolution

Religious capacity is a highly elaborate, neurocognitive human trait that has a solid evolutionary foundation. This book uses a multidisciplinary approach to describe millions of years of biological innovations that eventually give rise to the modern trait and its varied expression in humanity's many religions. The authors present a scientific model and a central thesis that the brain organs, networks, and capacities that allowed humans to survive physically also gave our species the ability to create theologies, find sustenance in religious practice, and use religion to support the social group. Yet, the trait of religious capacity remains non-obligatory, like reading and mathematics. The individual can choose not to use it. The approach relies on research findings in nine disciplines, including the work of countless neuroscientists, paleoneurologists, archaeologists, cognitive scientists, and psychologists. This is a cutting-edge examination of the evolutionary origins of humanity's interaction with the supernatural. It will be of keen interest to academics working in Religious Studies, Neuroscience, Cognitive Science, Anthropology, Evolutionary Biology, and Psychology.

## Thinking Big

Tested against archaeological evidence, this pathbreaking and provocative book shows we still inhabit social worlds that originated deep in our evolutionary past. Our virtual contact lists, whether on Facebook or Twitter, are on average about 150 - the so-called 'Dunbar's Number' - some three times the size of those of apes and our early ancestors. - When and how did the brains of our hominin ancestors become human minds? - When and why did our capacity for language or art, music and dance evolve? The fruits of over seven years of research, 'Thinking Big' suggests that it was the need for early humans to live in ever-larger social groups that drove the enlargement of the human brain and the development of the human mind. The three authors are co-directors of the research project 'Lucy to Language' the Archaeology of the Social Brain'. 'Thinking Big' is destined to become a classic' - Brian Fagan, Emeritus Professor of Anthropology, University of California.

## The Emergence of Humans

The Emergence of Humans is an accessible, informative introduction to the scientific study of human evolution. It takes the reader through time following the emergence of the modern human species *Homo sapiens* from primate roots. Acknowledging the controversy surrounding the interpretation of the fossil record, the authors present a balanced approach in an effort to do justice to different views. Each chapter covers a significant time period of evolutionary history and includes relevant techniques from other disciplines that have applications to the field of human evolution. Self-assessment questions linked to learning outcomes are provided for each chapter, together with further reading and reference to key sources in the primary literature. The book will thus be effective both as a conventional textbook and for independent study. Written by two authors with a wealth of teaching experience The Emergence of Humans will prove invaluable to students in the biological and natural sciences needing a clear, balanced introduction to the study of human evolution.

## The Rise of Homo Sapiens

The Rise of Homo Sapiens: The Evolution of Human Thinking presents a provocative theory about the evolution of the modern mind based on archaeological evidence and the working memory model of experimental psychologist Alan Baddeley. The book explains the mystery of the disappearance of the Neandertals and the ascendancy of modern Homo sapiens - and whether this was at the expense of the Neandertals. The Rise of Homo Sapiens has been written to introduce scientists and students to the fascinating interface between the worlds of archaeology and cognitive science, and argues that the evolution of modern thinking occurred in two major leaps; the advent of Homo erectus over 1.5 million years ago, and a final enhancement of working memory capacity sometime within the last 200,000 years. The authors argue that highly ritualized burials, personal ornaments, cave art and highly creative figurines, and age and gender divisions of economic labor, all of which were characteristic of Homo sapiens about 30,000 years ago, were clearly products of their cognitive functions, e.g., central executive functions. Neandertals, living at the same time, had virtually none of these cultural products despite larger brains! This is the first book to explain elaborately how thinking differences between Homo sapiens and Neandertals may have accounted for the ultimate demise of Neandertals. Cognitive archaeology is a quickly growing discipline yet archaeologists have been slow to adopt current theories, models, and findings within contemporary cognitive science. The Rise of Homo Sapiens will serve as a unique introduction and primer into both disciplines.

## How Homo Became Sapiens

In this work, Peter Gardenfors embarks on an evolutionary detective story to try and solve one of the big mysteries surrounding human existence - how has the modern human being's way of thinking come into existence. He starts by taking in turn the more basic cognitive processes - such as attention and memory, then builds upon these to explore more complex behaviours, such as self-consciousness, mind reading and imitation.

## Modern Humans

This series takes readers on a journey through the evolutionary history of humans.

## Guided Evolution of Society

Based on a comprehensive review of human and societal evolution the book develops an approach to conscious, self-guided evolution. In the course of the evolutionary journey of our species, there have been three seminal events. The first happened some seven million years ago, when our humanoid ancestors entered on the evolutionary scene. Their journey toward the second crucial event lasted over six million years when - as the greatest event of our evolutionary history - homo sapiens sapiens, started the revolutionary process of cultural evolution. Today, we have arrived at the threshold of the third major event, 'the revolution of conscious evolution,' when it becomes our responsibility to enter into the evolutionary design space and guide the evolutionary journey of our species. The book tells the story of the first six million years of the journey in just enough detail to understand how evolution had worked in times when it was primarily biological, driven by natural selection. With the human revolution some fifty thousand years ago, with the emergence of self-reflective consciousness, the evolutionary process transformed from biological into cultural. From this point on, the book follows the journey with detailed attention, in order to learn how cultural evolution works. The book is organized in three parts. Part One commences with an exposition of a brief history of the evolutionary idea through time with a focus on a review of the science of general evolution and specifically social and societal evolution. Next, the book unfolds the 'evolutionary story' of our species from the time when the first humanoids entered the evolutionary scene to our current era. Part Two develops a systems view of evolution, explores the ways and means of how evolution works, characterizes evolutionary consciousness and develops the idea of conscious evolution. Part Three builds upon the knowledge developed in the first two parts and sets forth the key conditions of conscious, self-guided evolution, elaborating the core condition, which is the acquisition of evolutionary competence through evolutionary learning. The focus of this part is on an approach to the design of evolutionary guidance systems that our families, neighborhoods, communities, organizations, social and societal systems can use to design the future they aspire to attain. The work is set aside from other statements in three important ways. It provides: (1) a comprehensive review of how evolution has worked with a focus on socio-cultural evolution, (2) an explanation of evolutionary consciousness and the conditions of engaging in conscious evolution, and

(3) most significantly, it develops a detailed approach and a methodology to the design of evolutionary guidance systems.

### From Molecule To Modern Human

This book is divided into two parts. The first travels the history of human evolution in six chapters. It begins from the very beginning, when our planet was newborn, and the molecules of life were just forming. The chapters then climb ever higher as the journey takes the reader through the long, continually changing eons. The story concludes with the emergence of our own species, modern *Homo sapiens*. The second part of this book contains eight essays covering a wide range of subjects. An invaluable source of knowledge for many.

### An Introduction to Evolutionary Cognitive Archaeology

An Introduction to Evolutionary Cognitive Archaeology is the first concise introduction that lays out the epistemological foundations of evolutionary cognitive archaeology in a way that is accessible to students. The volume is divided into three sections. The first section situates cognitive archaeology in the pantheon of archaeological approaches and distinguishes between ideational cognitive archaeology and evolutionary cognitive archaeology. This is followed by a close look at the nature of cognitive archaeological inferences and concludes with brief summaries of the major methods of evolutionary cognitive archaeology. The second section of the book introduces the reader to a variety of cognitive phenomena that are accessible using the methods of cognitive archaeology: memory, technical cognition, spatial cognition, social cognition, art and aesthetics, and symbolism and language. The third section presents a brief outline of hominin cognitive evolution from the perspective of evolutionary cognitive archaeology. The authors divide the archaeological record into three major phases: The Bipedal Apes—3.3 million-1.7 million years ago; The Axe Age—1.7 million-300,000 years ago; and The Emergence of Modern Thinking—300,000–12,000 years ago. An Introduction to Evolutionary Cognitive Archaeology is an essential text for undergraduate students, graduate students, and scholars across the behavioral and social sciences interested in learning about cognitive archaeology, including psychologists, philosophers, anthropologists, and archaeologists.

### Sapiens

"Sapiens: Tracing Human Evolution" is a captivating exploration of our ancient origins and the remarkable journey of human evolution. Delving into the depths of history, this book unravels the mysteries surrounding our biological ancestry, from primordial beginnings to the rise of *Homo sapiens*. With meticulous research and engaging storytelling, it takes readers on a fascinating quest through time, uncovering the emergence of complex organisms, the triumph of *Homo sapiens* over other hominids, and the incredible migrations that shaped our species. From the enigmatic Neanderthals to the cognitive revolution that birthed modern minds, this book offers a gripping narrative that reflects on our shared heritage, emphasizing the significance of understanding our evolutionary past for a united human future.

### How Homo Became Sapiens

In this work, Peter Gardenfors embarks on an evolutionary detective story to try and solve one of the big mysteries surrounding human existence - how has the modern human being's way of thinking come into existence. He starts by taking in turn the more basic cognitive processes - such as attention and memory, then builds upon these to explore more complex behaviours, such as self-consciousness, mind reading and imitation.

### The Origins of Modern Humans

This update to the award-winning *The Origins of Modern Humans: A World Survey of the Fossil Evidence* covers the most accepted common theories concerning the emergence of modern *Homo sapiens*—adding fresh insight from top young scholars on the key new discoveries of the past 25 years. *The Origins of Modern Humans: Biology Reconsidered* allows field leaders to discuss and assess the assemblage of hominid fossil material in each region of the world during the Pleistocene epoch. It features new fossil and molecular evidence, such as the evolutionary inferences drawn from assessments of modern humans and large segments of the Neandertal genome. It also addresses the impact of digital imagery and the more sophisticated morphometricsthat have entered the analytical fray since

1984. Beginning with a thoughtful introduction by the authors on modern human origins, the book offers such insightful chapter contributions as: Africa: The Cradle of Modern People Crossroads of the Old World: Late Hominin Evolution in Western Asia A River Runs through It: Modern Human Origins in East Asia Perspectives on the Origins of Modern Australians Modern Human Origins in Central Europe The Makers of the Early Upper Paleolithic in Western Eurasia Neandertal Craniofacial Growth and Development and Its Relevance for Modern Human Origins Energetics and the Origin of Modern Humans Understanding Human Cranial Variation in Light of Modern Human Origins The Relevance of Archaic Genomes to Modern Human Origins The Process of Modern Human Origins: The Evolutionary and Demographic Changes Giving Rise to Modern Humans The Paleobiology of Modern Human Emergence Elegant and thought provoking, *The Origins of Modern Humans: Biology Reconsidered* is an ideal read for students, grad students, and professionals in human evolution and paleoanthropology.

### The Book of Humans

Now in paperback: From the author of the acclaimed *A Brief History of Everyone Who Ever Lived* (57,000 copies in print), a magisterial exploration of the paradox of our identity as animals—both within the animal kingdom, yet distinct from all others

### The Rise of Empires

This book describes and evaluates how institutional innovation and technological innovation have impacted on humanity from pre-historical times to modern times, and how societies have been transformed in history. The author interrogates the relationship between innovation and civilisation — particularly the dynamic whereby innovation leads to empire-building — and explores innovation efforts that stimulated economic and social synergies from the Babylonian Empire in 1900 BC up to the British Empire in the twentieth century. The author uses historical cross-cultural case studies to establish the factors which have given competitive advantages to societies and empires. This book will be of interest to researchers and students in political economy, economic history, economic growth and innovation economics.

### Sapiens

Official U.S. edition with full color illustrations throughout. #1 New York Times Bestseller The Summer Reading Pick for President Barack Obama, Bill Gates, and Mark Zuckerberg, now available as a beautifully packaged paperback From a renowned historian comes a groundbreaking narrative of humanity's creation and evolution—a #1 international bestseller—that explores the ways in which biology and history have defined us and enhanced our understanding of what it means to be “human.” One hundred thousand years ago, at least six different species of humans inhabited Earth. Yet today there is only one—homo sapiens. What happened to the others? And what may happen to us? Most books about the history of humanity pursue either a historical or a biological approach, but Dr. Yuval Noah Harari breaks the mold with this highly original book that begins about 70,000 years ago with the appearance of modern cognition. From examining the role evolving humans have played in the global ecosystem to charting the rise of empires, *Sapiens* integrates history and science to reconsider accepted narratives, connect past developments with contemporary concerns, and examine specific events within the context of larger ideas. Dr. Harari also compels us to look ahead, because over the last few decades humans have begun to bend laws of natural selection that have governed life for the past four billion years. We are acquiring the ability to design not only the world around us, but also ourselves. Where is this leading us, and what do we want to become? Featuring 27 photographs, 6 maps, and 25 illustrations/diagrams, this provocative and insightful work is sure to spark debate and is essential reading for aficionados of Jared Diamond, James Gleick, Matt Ridley, Robert Wright, and Sharon Moalem.

### Human Evolution

The last decade has seen an explosive burst of new information about human origins and our evolutionary status with respect to other species. We have long been considered unique as upright, bipedal creatures endowed with language, the ability to use tools, to think and introspect. We now know that other creatures may be more or less capable of similar behaviour, and that these human capacities in many cases have long evolutionary trajectories. Our information about such matters comes from a diverse variety of disciplines, including experimental and neuropsychology, primatology, ethology, archaeology, palaeontology, comparative linguistics and molecular biology. It is the interdisciplinary

nature of the newly-emerging information which bears upon one of the profoundest scientific human questions - our origin and place in the animal kingdom, whether unique or otherwise - which makes the general topic so fascinating to layperson, student, and expert alike. The book attempts to integrate across a wide range of disciplines an evolutionary view of human psychology, with particular reference to language, praxis and aesthetics. A chapter on evolution, from the appearance of life to the earliest mammals, is followed by one which examines the appearance of primates, hominids and the advent of bipedalism. There follows a more detailed account of the various species of Homo, the morphology and origin of modern H. sapiens sapiens as seen from the archaeological/palaeontological and molecular-biological perspectives. The origins of art and an aesthetic sense in the Acheulian and Mousterian through to the Upper Palaeolithic are seen in the context of the psychology of art. Two chapters on language address its nature and realization centrally and peripherally, the prehistory and neuropsychology of speech, and evidence for speech and/or language in our hominid ancestors. A chapter on tool use and praxis examines such behaviour in other species, primate and non-primate, the neurology of praxis and its possible relation to language. Encephalization and the growth of the brain, phylogenetically and ontogenetically, and its relationship to intellectual capacity leads on finally to a consideration of intelligence, social intelligence, consciousness and self awareness. A final chapter reviews the issues covered. The book, of around 70.000 words of text, includes over 500 references over half of which date from 1994 or later.

### From Apes to Cyborgs

This book offers fascinating insights into the lives of our ancestors and investigates the dynamic processes that led to the establishment of complex human societies. It provides a holistic view of human history and social evolution by drawing on the latest evidence from a wide range of disciplines and proposes new hypotheses on the origins of human behaviour. After exploration of the encounters of Homo sapiens with other human species, diverse aspects of life in emerging societies are examined, including clothing, work, leisure, learning, diet, disease, and the role of women. Attention is drawn to the key role of self-domestication – the process of reducing natural aggression and increasing playfulness – in enabling survival. Another focus is Homo oeconomicus. The significance of symbolic thought for the emergence of surpluses in goods and services is highlighted, with analysis of how this led to private accumulation of wealth and development of the first hierarchical societies. Finally, the discussion turns to humans of the future and the potential risks posed by artificial intelligence. The aim is to unveil the deep roots of our social behaviour and how it is going to intertwine with the development of digital technologies and social networks.

### Human Evolution and the Origins of Hierarchies

In this book, Benoît Dubreuil explores the creation and destruction of hierarchies in human evolution. Combining the methods of archaeology, anthropology, cognitive neuroscience and primatology, he offers a natural history of hierarchies from the point of view of both cultural and biological evolution. This volume explains why dominance hierarchies typical of primate societies disappeared in the human lineage and why the emergence of large-scale societies during the Neolithic period implied increased social differentiation, the creation of status hierarchies, and, eventually, political centralisation.

### THE EMERGENCE AND NATURE OF HUMAN HISTORY Volume One

This book attempts to define the issues that face us in trying to understand the often-overwhelming complexity of the human experience. It is intellectually challenging, broad in its scope, richly detailed, and densely argued. It is the first in a projected series of five volumes in which the author will seek to touch on every aspect of human historical reality and all the multitudinous variables that have shaped it.

### Oxford Handbook of Cognitive Archaeology

Cognitive Archaeology is a relatively young though fast growing discipline. The intellectual heart of cognitive archaeology is archaeology, the discipline that investigates the only direct evidence of the actions and decisions of prehistoric people. Its theories and methods are an eclectic mix of psychological, neuroscientific, paleoneurological, philosophical, anthropological, ethnographic, comparative, aesthetic, and experimental theories, methods, and models, united only by their focus on cognition. The Oxford Handbook of Cognitive Archaeology is a landmark publication, showcasing the theories, methods, and accomplishments of archaeologists who investigate the human mind,

including its evolutionary development, its ideation (thoughts and beliefs), and its very nature-through material forms. The volume encompasses the wide spectrum of the discipline, showcasing contributions from more than 50 established and emerging scholars from Europe, Africa, Asia, Australia, and the Americas. Prominent among these are contributions that discuss the epistemological frameworks of both the evolutionary and ideational approaches and the leading theories that ground interpretations. Significantly, the majority of chapters deliver substantive contributions that analyze specific examples of material culture, from the oldest known stone tools to ceramic and rock art traditions of the recent millennium. These examples include the gamut of methods and techniques, including typology, replication studies, chaînes opératoires, neuroarchaeology, ethnographic comparison, and the direct historical approach. In addition, the book begins with retrospective essays by several of the pioneers of cognitive archaeology, presenting a broad range of state-of-the-art investigations into cognitive abilities, tackling thorny issues like the cognitive status of Neandertals, and concluding with speculative essays about the future of an archaeology of mind, and of the mind itself.

### Rethinking the Human Revolution

Arising from a conference Rethinking the Human Revolution reconsiders all of the central issues in modern human behavioural, cognitive, biological and demographic origins in the light of new information and new theoretical perspectives which have emerged over the past twenty years of intensive research in this field. The 34 papers cover topics ranging from the DNA and skeletal evidence for modern human origins in Africa, through the archaeological evidence for the emergence of distinctively 'modern' patterns of human behaviour and cognition, to the various lines of evidence for the geographical dispersal patterns of biologically and behaviourally modern populations from their African origins throughout Asia, Australasia and Europe, over the past 60,000 years.

### Homo Sapiens Rediscovered

Who are we? How do scientists define Homo sapiens, and how does our species differ from the extinct hominins that came before us? This illuminating book explores how the latest scientific advances, especially in genetics, are revolutionizing our understanding of human evolution. Paul Pettitt reveals the extraordinary story of how our ancestors adapted to unforgiving and relentlessly changing climates, leading to remarkable innovations in art, technology and society that we are only now beginning to comprehend. Drawing on twenty-five years of experience in the field, Paul Pettitt immerses readers in the caves and rockshelters that provide evidence of our African origins, dispersals to the far reaches of Eurasia, Australasia and ultimately the Americas. Popular accounts of the evolution of Homo sapiens emphasize biomolecular research, notably genetics, but this book also draws from the wealth of information from specific excavations and artefacts, including the authors own investigations into the origins of art and how it evolved over its first 25,000 years. He focuses in particular on behaviour, using archaeological evidence to bring an intimate perspective on lives as they were lived in the almost unimaginably distant past.

### How To Think Like a Neandertal

In this book, the authors provide a fascinating narrative of the mental life of Neandertals, to the extent that it can be reconstructed from fossil and archaeological remains.

### Modern Humans

Modern Humans is a vivid account of the most recent—and perhaps the most important—phase of human evolution: the appearance of anatomically modern people (Homo sapiens) in Africa less than half a million years ago and their later spread throughout the world. Leaving no stone unturned, John F. Hoffecker demonstrates that Homo sapiens represents a “major transition” in the evolution of living systems in terms of fundamental changes in the role of non-genetic information. Modern Humans synthesizes recent findings from genetics (including the rapidly growing body of ancient DNA), the human fossil record, and archaeology relating to the African origin and global dispersal of anatomically modern people. Hoffecker places humans in the broad context of the evolution of life, emphasizing the critical role of genetic and non-genetic forms of information in living systems as well as how changes in the storage, transmission, and translation of information underlie major transitions in evolution. He also draws on information and complexity theory to explain the emergence of Homo sapiens in Africa several hundred thousand years ago and the rapid and unprecedented spread of our species into a variety of environments in Australia and Eurasia, including the Arctic and Beringia, beginning between 75,000

and 60,000 years ago. This magisterial work will appeal to all with an interest in the ever-fascinating field of human evolution.

### Human Evolution

Originally published in 1987, *Human Evolution* looks at theories of the evolution of human behaviour (contemporary at the time of publication). The book reviews competing theories of psychological and social evolution and provides a detailed historical introduction to the subject. A key theoretical concern which emerges in the book includes the psychological significance of the human evolution issue itself. The period of human evolution covered ranges from the demise of the Miocene hominoids, to the emergence of 'civilization'. Topics covered include: functions of 'origin myths', history of the study of human evolution, methods and data-bases, theories of the nature of 'hominisation', origins of bipedalism, language and tool-use, theories of social evolution, theories of cave art and the spread of *Homo sapiens* to America and Australia.

### The Oxford Handbook of Language Evolution

Leading scholars present critical accounts of every aspect of the field, including work in animal behaviour; anatomy, genetics and neurology; the prehistory of language; the development of our uniquely linguistic species; and language creation, transmission, and change.

### Steering Human Evolution

Humanity must steer its evolution. As human knowledge moves a step ahead of Darwin's theories, this book presents the emergence of human-made meta-evolution shaping our alternative futures. This novel process poses fateful challenges to humanity, which require regulation of emerging science and technology which may endanger the future of our species. However, to do so successfully, a novel 'humanity-craft' has to be developed; main ideologies and institutions need redesign; national sovereignty has to be limited; a decisive global regime becomes essential; some revaluation of widely accepted norms becomes essential; and a novel type of political leader, based on merit in addition to public support, is urgently needed. Taking into account the strength of nationalism and vested interests, it may well be that only catastrophes will teach humanity to metamorphose into a novel epoch without too high transition costs. But initial steps, such as United Nation reforms, are urgent in order to contain calamities and may soon become feasible. Being both interdisciplinary and based on personal experience of the author, this book adds up to a novel paradigm on steering human evolution. It will be of great interest to scholars and researchers of modern history, evolution sciences, future studies, political science, philosophy of action, and science and technology. It will also be of wide appeal to the general reader anxious about the future of life on Earth. Comments on the Corona pandemic add to the book's concrete significance.

### Evolving Brains, Emerging Gods

Religions and mythologies from around the world teach that God or gods created humans. Atheist, humanist, and materialist critics, meanwhile, have attempted to turn theology on its head, claiming that religion is a human invention. In this book, E. Fuller Torrey draws on cutting-edge neuroscience research to propose a startling answer to the ultimate question. *Evolving Brains, Emerging Gods* locates the origin of gods within the human brain, arguing that religious belief is a by-product of evolution. Based on an idea originally proposed by Charles Darwin, Torrey marshals evidence that the emergence of gods was an incidental consequence of several evolutionary factors. Using data ranging from ancient skulls and artifacts to brain imaging, primatology, and child development studies, this book traces how new cognitive abilities gave rise to new behaviors. For instance, autobiographical memory, the ability to project ourselves backward and forward in time, gave *Homo sapiens* a competitive advantage. However, it also led to comprehension of mortality, spurring belief in an alternative to death. Torrey details the neurobiological sequence that explains why the gods appeared when they did, connecting archaeological findings including clothing, art, farming, and urbanization to cognitive developments. This book does not dismiss belief but rather presents religious belief as an inevitable outcome of brain evolution. Providing clear and accessible explanations of evolutionary neuroscience, *Evolving Brains, Emerging Gods* will shed new light on the mechanics of our deepest mysteries.

### The Cambridge Handbook of Working Memory and Language

Bringing together cutting-edge research, this Handbook is the first comprehensive text to examine the pivotal role of working memory in first and second language acquisition, processing, impairments, and training. Authored by a stellar cast of distinguished scholars from around the world, the Handbook provides authoritative insights on work from diverse, multi-disciplinary perspectives, and introduces key models of working memory in relation to language. Following an introductory chapter by working memory pioneer Alan Baddeley, the collection is organized into thematic sections that discuss working memory in relation to: Theoretical models and measures; Linguistic theories and frameworks; First language processing; Bilingual acquisition and processing; and Language disorders, interventions, and instruction. The Handbook is sure to interest and benefit researchers, clinicians, speech therapists, and advanced undergraduate and postgraduate students in linguistics, psychology, education, speech therapy, cognitive science, and neuroscience, or anyone seeking to learn more about language, cognition and the human mind.

### The Evolutionary Emergence of Language

Leading primatologists, cognitive scientists, anthropologists, and linguists consider how language evolution can be understood by means of inference from the study of linked or analogous phenomena in language, animal behaviour, genetics, neurology, culture, and biology.

### Cognitive Science

This volume provides an overview of cognitive science and critically assess areas within the topic that are evolving rapidly. It discusses the effects of religious and meditative practices on its core components. Using multidisciplinary studies and rich empirical literature, discussions and demonstrations, this volume • Discusses the evolution of cognition with reference to material records and the use of brain imaging. • Highlights emerging domains and novel themes within cognitive science such as transgender cognition, space cognition, cross-cultural cognition, futuristic artificial intelligence, social cognition and moral cognition • Reflects on the status of cognition research in these emerging areas and critically evaluates their current progress • Explores data both from behavioural and neuroimaging research literature, and sheds light on the potential effects of technological growth and changing habits on attention and cognitive abilities of humans • Speculates research domains that would gain importance in the next few decades in cognitive science research A comprehensive study finding commonalities in theoretical frameworks and models in emerging areas in cognition research, this book will be of interest to students, researchers and teachers of cognitive psychology, cognitive science, neurosciences, medical sciences, and computer sciences. It will also be helpful for academicians, psychologists, neuroscientists, mental health professionals, medical professionals, counsellors, and those looking for an alternate perspective on the topic.

### The Oxford Handbook of African Archaeology

This Handbook provides a comprehensive synthesis of African archaeology, covering the entirety of the continent's past from the beginnings of human evolution to the archaeological legacy of European colonialism. It includes a mixture of key methodological and theoretical issues and debates and situates the subject's contemporary practice.

### Cognitive Models in Palaeolithic Archaeology

"Cognitive Models in Palaeolithic Archaeology grew out of a specialized thematic session that we organized for the 2013 meeting of the European Society for the Study of Human Evolution."

### The Speciation of Modern Homo Sapiens

The book presents an integrative review of paleoneurology, the study of endocranial morphology in fossil species. The main focus is on showing how computed methods can be used to support advances in evolutionary neuroanatomy, paleoanthropology and archaeology and how they have contributed to creating a completely new perspective in cognitive neuroscience. Moreover, thanks to its multidisciplinary approach, the book addresses students and researchers approaching human paleoneurology from different angles and for different purposes, such as biologists, physicians, anthropologists, archaeologists and computer scientists. The individual chapters, written by international experts, represent authoritative reviews of the most important topics in the field. All the concepts are presented in an easy-to-understand style, making them accessible to university students, newcomers

and also to anyone interested in understanding how methods like biomedical imaging, digital anatomy and computed and multivariate morphometrics can be used for analyzing ontogenetic and phylogenetic changes according to the principles of functional morphology, morphological integration and modularity.

### Human Paleoneurology

This interdisciplinary volume brings together expert researchers coming from primatology, anthropology, ethology, philosophy of cognitive sciences, neurophysiology, mathematics and psychology to discuss both the foundations of non-human primate and human social cognition as well as the means there currently exist to study the various facets of social cognition. The first part focusses on various aspects of social cognition across primates, from the relationship between food and social behaviour to the connection with empathy and communication, offering a multitude of innovative approaches that range from field-studies to philosophy. The second part details the various epistemic and methodological means there exist to study social cognition, in particular how to ascertain the proximal and ultimate mechanisms of social cognition through experimental, modelling and field studies. In the final part, the mechanisms of cultural transmission in primate and human societies are investigated, and special attention is given to how the evolution of cognitive capacities underlie primates' abilities to use and manufacture tools, and how this in turn influences their social ecology. A must-read for both, young scholars as well as established researchers!

### Evolution of Primate Social Cognition

This volume presents recent empirical advances using neuroscience techniques to investigate how culture influences neural processes underlying a wide range of human abilities, from perception and scene processing to memory and social cognition. It also highlights the theoretical and methodological issues with conducting cultural neuroscience research. Section I provides diverse theoretical perspectives on how culture and biology interact are represented. Sections II –VI is to demonstrate how cultural values, beliefs, practices and experience affect neural systems underlying a wide range of human behavior from perception and cognition to emotion, social cognition and decision-making. The final section presents arguments for integrating the study of culture and the human brain by providing an explicit articulation of how the study of culture can inform the study of the brain and vice versa.

### Cultural Neuroscience: Cultural Influences on Brain Function