Evolutionary Function Of Dreams A Test Of The Threat

"In this unique set of books, experts in the field from around the globe gather to show the newest and most exciting research and findings related to the biology and psychology of dreaming. Other research featured here describes the biology or psychology of realistic and bizarre dreams, of symbolic images in dreams, and of how differences in gender and personality affect dreams and dreaming. The newest and most extensive source of information on dreaming in existence, this set gives readers insights into how this new science could lead to innovations in the medical, social, technical, and biotech fields."--PUBLISHER'S WEBSITE.

Many contemporary neuroscientists are skeptical about the belief that dreaming accomplishes anything in the context of human adaptation and this skepticism is widely accepted in the popular press. This book provides answers to that skepticism from experimental and clinical psychologists, psychiatrists, neurologists, and anthropologists. Ranging across the human and life sciences, the authors provide provocative insights into the enduring question of dreaming from the point of view of the brain, the individual, and culture. The Functions of Dreaming contains both new theory and research on the functions of dreaming as well as revisions of older theories dating back to the founder of modern dream psychology, Sigmund Freud. Also explored are the many roles dreaming plays in adaptation to daily living, in human development, and in the context of different cultures: search, integration, identity formation, memory consolidation, the creation of new knowledge, and social communication.

Sequence - Evolution - Function is an introduction to the computational approaches that play a critical role in the emerging new branch of biology known as functional genomics. The book provides the reader with an understanding of the principles and approaches of functional genomics and of the potential and limitations of computational and experimental approaches to genome analysis. Sequence - Evolution - Function should help bridge the "digital divide" between biologists and computer scientists, allowing biologists to better grasp the peculiarities of the emerging field of Genome Biology and to learn how to benefit from the enormous amount of sequence data available in the public databases. The book is non-technical with respect to the computer methods for genome analysis and discusses these methods from the user's viewpoint, without addressing mathematical and algorithmic details. Prior practical familiarity with the basic methods for sequence analysis is a major advantage, but a reader without such experience will be able to use the book as an introduction to these methods. This book is perfect for introductory level courses in computational methods for comparative and functional genomics.

An ethologist shows man to be a gene machine whose world is one of savage competition and deceit

"This book is designed to introduce the evolutionary origins of the human brain's present structures and functions. Evolutionary neuropsychology is a new multidisciplinary science that embraces and uses empirical findings from the fields of evolution, neuroscience, cognitive sciences, psychology, anthropology, and archaeology. This book is designed for the intellectually curious, but styled especially for academics at any level and psychologists focusing on various aspects of human behavior. The bedrock foundation of evolutionary neuropsychology is the assumption that functionally-specialized brain regions are adaptations naturally selected in response to various environmental challenges over the course of billions of years of evolution. These adaptations and their brain regions and circuitry may now serve new functions, which are called exaptations, and they are particularly involved in higher cognitive functions"--

This fascinating reference covers the major topics concerning dreaming and sleep, based on the latest empirical evidence from sleep research as well as drawn from a broad range of dream-related interdisciplinary contexts, including history and anthropology. • 330

alphabetically arranged entries • An appendix provides resources for further reading, including online sources • A special index on dreams • Primary resources lists afer each entry for reference and review

Big dreams are rare but highly memorable dream experiences that make a strong and lasting impact on the dreamer's waking awareness. Moving far beyond "I forgot to study and the finals are today" and other common scenarios, such dreams can include vivid imagery, intense emotions, fantastic characters, and an uncanny sense of being connected to forces beyond one's ordinary dreaming mind. In Big Dreams, Kelly Bulkeley provides the first full-scale cognitive scientific analysis of such dreams, putting forth an original theory about their formation, function, and meaning. Big dreams have played significant roles in religious and cultural history, but because of their infrequent occurrence and fantastical features, they have rarely been studied in light of modern science. We know a great deal about the religious manifestations of big dreams throughout history and around the world, but until now that cross-cultural knowledge has never been integrated with scientific research on their psychological roots in the brain-mind system. In Big Dreams, Bulkeley puts a classic psychological thesis to the scientific test by clarifying and improving it with better data, sharper analysis, and a broader evolutionary framework. He brings evidence from multiple sources, shows patterns of similarity and difference, questions prior assumptions, and provides predictive models that can be applied to new sets of data. The notion of a connection between dreaming and religion has always been intuitively compelling; Big Dreams transforms it into a solid premise of religious studies and brain-mind science. Combining evidence from religious studies, psychology, anthropology, evolutionary biology, and neuroscience, Big Dreams makes a compelling argument that big dreams are a primal wellspring of religious experience. They represent an innate, neurologically hard-wired capacity of our species that regularly provokes greater self-awareness, creativity, and insight into the existential challenges and spiritual potentials of human life.

Linden sets the record straight about the construction of the human brain; rather than the “beautifully-engineered optimized device, the absolute pinnacle of design” portrayed in many dumbed-down text books, pop-science tomes, and education televisions programs, Linden’s organ is a complicated assembly of cobbled-together functionality that created the mind as a by-product of ad-hoc solutions to questions of survival. His guided tour of the glorious amalgam of “crummy parts” includes pit-stops in the histories and fundamentals of neurology, neural-psychology, physiology, molecular and cellular biology, and genetics.

A Harvard psychologist explains how our once-helpful instincts get hijacked in our garish modern world. Our instincts—for food, sex, or territorial protection—evolved for life on the savannahs 10,000 years ago, not in today’s world of densely populated cities, technological innovations, and pollution. We now have access to a glut of larger-than-life objects, from candy to pornography to atomic weapons—that gratify these gut instincts with often-dangerous results. Animal biologists coined the term “supernormal stimuli” to describe imitations that appeal to primitive instincts and exert a stronger pull than real things, such as soccer balls that geese prefer over eggs. Evolutionary psychologist Deirdre Barrett applies this concept to the alarming disconnect between human instinct and our created environment, demonstrating how supernormal stimuli are a major cause of today’s most pressing problems, including obesity and war. However, Barrett does more than show how unfettered instincts fuel dangerous excesses. She also reminds us that by exercising self-control we can rein them

in, potentially saving ourselves and civilization.

The well-known astronomer and astrobiologist surveys current knowledge of the development of intelligence on Earth in various forms of life and explains his persuasion that intelligence must have developed along similar lines throughout the universe

This fascinating reference covers the major topics concerning dreaming and sleep, based on the latest empirical evidence from sleep research as well as drawn from a broad range of dream-related interdisciplinary contexts, including history and anthropology. * 330 alphabetically arranged entries * An appendix provides resources for further reading, including online sources * A special index on dreams * Primary resources lists afer each entry for reference and review

Introduces the neuroscience of sleep and dreams, including an investigation into their potential evolutionary and social functions.

The transformative wave of Darwinian insight continues to expand throughout the human sciences. While still centered on evolution-focused fields such as evolutionary psychology, ethology, and human behavioral ecology, this insight has also influenced cognitive science, neuroscience, feminist discourse, sociocultural anthropology, media studies, and clinical psychology. This handbook's goal is to amplify the wave by bringing together world-leading experts to provide a comprehensive and up-to-date overview of evolution-oriented and influenced fields. While evolutionary psychology remains at the core of the collection, it also covers the history, current standing, debates, and future directions of the panoply of fields entering the Darwinian fold. As such, The Cambridge Handbook of Evolutionary Perspectives on Human Behavior is a valuable reference not just for evolutionary psychologists but also for scholars and students from many fields who wish to see how the evolutionary perspective is relevant to their own work.

Challenging a medical model which has supplied few effective answers to long-standing conundrums, Evolutionary Psychiatry proposes a new conceptual framework for psychiatry based on Darwinian theory. Anthony Stevens and John Price argue that psychiatric symptoms are manifestations of ancient adaptive strategies which are no longer necessarily appropriate but which can best be understood and treated in an evolutionary and developmental context. They propose theories to account for the widespread existence of affective disorders, borderline states and schizophrenia, as well as offering solutions for puzzles such as sadomasochism and the function of dreams. This comprehensive introduction to the new science of Darwinian Psychiatry is readily accessible to both the specialist and non-specialist reader. It describes in detail the disorders and conditions commonly encountered in psychiatric practice and show how evolutionary theory can account for their biological origins and functional nature.

Dreams are a puzzle. We don't know what to make of them. This book explores the evolutionary significance of dreaming, its role in memory, unconscious prediction, creativity and psychiatric illness. It will be compelling reading for

anyone interested in psychology, psychiatry, consciousness, and the arts. This work is for everyone who has been puzzled, moved or frightened by a dream, and for every therapist, psychologist and seeker after the true meaning of human behaviour.

"This two-volume set examines dreams and dreaming from a variety of angles--biological, psychological, and sociocultural--in order to provide readers with a holistic introduction to this fascinating subject"--

Explores the latest beliefs about why people tell stories and what stories reveal about human nature, offering insights into such related topics as universal themes and what it means to have a storytelling brain.

What, if anything, do dreams tell us about ourselves? What is the relationship between types of sleep and types of dreams? Does dreaming serve any purpose? Or are dreams simply meaningless mental noise--"unmusical fingers wandering over the piano keys"? With expertise in philosophy, psychology, and neuroscience, Owen Flanagan is uniquely qualified to answer these questions. And in Dreaming Souls he provides both an accessible survey of the latest research on sleep and dreams and a compelling new theory about the nature and function of dreaming. Flanagan argues that while sleep has a clear biological function and adaptive value, dreams are merely side effects, "free riders," irrelevant from an evolutionary point of view. But dreams are hardly unimportant. Indeed, Flanagan argues that dreams are self-expressive, the result of our need to find or to create meaning, even when we're sleeping. Rejecting Freud's theory of manifest and latent content--of repressed wishes appearing in disguised form--Flanagan shows how brainstem activity during sleep generates a jumbled profusion of memories, images, thoughts, emotions, and desires, which the cerebral cortex then attempts to shape into a more or less coherent story. Such dream-narratives range from the relatively mundane worries of non REM sleep to the fantastic confabulations of deep REM that resemble psychotic episodes in their strangeness. But however bizarre these narratives may be, they can shed light on our mental life, our well being, and our sense of self. Written with clarity, lively wit, and remarkable insight, Dreaming Souls offers a fascinating new way of apprehending one of the oldest mysteries of mental life.

This two-volume set examines dreams and dreaming from a variety of angles--biological, psychological, and sociocultural--in order to provide readers with a holistic introduction to this fascinating subject. Whether good or bad and whether we remember them or not, each night every one of us dreams. But what biological or psychological function do dreams serve? What do these vivid images and strange storylines mean? How have psychologists, religions, and society at large interpreted dreams, and how can a closer examination of our dreams provide useful insights? Dreams: Understanding Biology, Psychology, and Culture presents a holistic view of dreams and the dreaming experience that answers these and many other questions. Divided thematically, this two-volume book examines the complex and often misunderstood subject of dreaming through a variety of lenses. This collection is written by a large and diverse team of experts and edited by leading members of the International Association for the Study of Dreams (IASD) but remains an approachable and accessible introduction to this captivating topic for all readers. * Provides comprehensive coverage of the physiology, psychology, and cultural contexts of dreaming * Explores both dream theory and the practical applications of dreamwork in everyday life * Features contributions by more than 75 authors, all recognized experts in their fields * Offers readers suggestions for further reading and additional study in an extensive bibliography

¿7FWhy does the brain create music? This text argues that the key to music's function lies in the very complexity of musical experience. As well as being both personal and social, the creation of music taps into the whole spectrum of human skills, both physical and mental."

"Sleep is one of the most important but least understood aspects of our life, wellness, and longevity ... An explosion of scientific discoveries in the last twenty years has shed new light on this fundamental aspect of our lives. Now ... neuroscientist and sleep expert Matthew Walker gives us a new understanding of the vital importance of sleep and dreaming"--Amazon.com.
Domhoff's neurocognitive model helps explain the neural and cognitive bases for dreaming. He discusses how dreams express conceptions and concerns, and how they are consistent over years and decades. He also shows that there may be limits to understanding the meaning of dreams as there are many aspects of dream content that cannot be related to waking cognition or personal concerns. In addition, the book includes a detailed explanation of the methods needed to test the new model as well as a case study of a comprehensive dream journal. Particularly valuable is a discussion of a new system of content analysis that can be used for highly sophisticated studies of dream content. In this provocative book, Domhoff sets forth a convincing argument that will encourage a resurgence in dream research among both new and established cognitive psychologists and neuropsychologists.
Explains an unprecedented application of evolutionary analysis to REM sleep and dreams, showing how evolutionary conflict theory and costly signaling theory can shed new light on old problems and puzzles in the study of sleep and dreams.
Neurophilosophy is a rich interdisciplinary study of the prospects for a unifiedcognitive neurobiology. Contemporary research in the empirical neurosciences, and recent research inthe philosophy of mind and the philosophy of science, are used to illuminate fundamental questionsconcerning the relation between abstract cognitive theory and substantiveneuroscience. A Bradford Book.
Unlike most current researchers in philosophy and psychology, who view interpretation as a way to understand the minds and behavior of others, Radu J. Bogdan sets out to establish a new evolutionary and practical view of interpretation. According to Bogdan, the ability to interpret others' mental states has evolved under communal, political, and epistemic pressures to enable us to cope with the impact of other organisms on our own goals in the competition to survive. Interpretation evolved among primates by natural and then cultural selection. As an adaptation, it is a competence in the form of a battery of practical skills that serve the interpreter's interests in social interactions. Evolutionary theory does not just deepen our understanding of interpretation; without it, we cannot understand what interpretation is and how it does its job. Interpreting Minds raises many thought-provoking issues for philosophers of mind and culture; evolutionary, developmental, and social psychologists; ethologists; cognitive and cultural anthropologists; evolutionary biologists; and others interested in cognitive development.
Evolutionary Psychiatry was first published in 1996, the second edition followed in 2000. This ground breaking book challenged the medical model which supplied few effective answers to long-standing conundrums. A comprehensive introduction to the science of Darwinian Psychiatry, the second edition included important fresh material on a number of disorders, along with a chapter on research. Anthony Stevens and John Price argue that psychiatric symptoms are manifestations of ancient adaptive strategies which are no longer necessarily appropriate but which can best be understood and treated in an evolutionary and developmental context. Particularly important are the theories Stevens and Price propose to account for the worldwide existence of mood disorders and schizophrenia, as well as offering solutions for such puzzles as paedophilia, sado-masochism and the function of dreams. Readily accessible to both

the specialist and non-specialist reader, Evolutionary Psychiatry describes in detail the disorders and conditions commonly encountered in psychiatric practice and shows how evolutionary theory can account for their biological origins and functional nature.

An edgy and ambitious debut by a powerful new voice in contemporary literary fiction Monday, Kierk wakes up. Once a rising star in neuroscience, Kierk Suren is now homeless, broken by his all-consuming quest to find a scientific theory of consciousness. But when he’s offered a spot in a prestigious postdoctoral program, he decides to rejoin society and vows not to self-destruct again. Instead of focusing on his work, however, Kierk becomes obsessed with another project—investigating the sudden and suspicious death of a colleague. As his search for truth brings him closer to Carmen Green, another postdoc, their list of suspects grows, along with the sense that something sinister may be happening all around them. The Revelations, not unlike its main character, is ambitious and abrasive, challenging and disarming. Bursting with ideas, ranging from Greek mythology to the dark realities of animal testing, to some of the biggest unanswered questions facing scientists today, The Revelations is written in muscular, hypnotic prose, and its cyclically dreamlike structure pushes the boundaries of literary fiction. Erik Hoel has crafted a stunning debut of rare power—an intense look at cutting-edge science, consciousness, and human connection.

This book is aimed at researchers and graduate students in neuroscience, evolutionary biology, and biological anthropology and to biomedical researchers studying sleep medicine.

Harvard psychologist Deirdre Barrett tackles the obesity and fitness crisis from an evolutionary standpoint. In the modern jungle of burgers, couches, and remote controls, obesity is an enormous and growing epidemic. Weight-loss books and diet gurus urge us to "listen to our bodies," but our instincts are designed for the African savannah, not food courts. The sugary and fatty foods that we, as hunter-gatherers, are programmed to forage used to be hard to come by. Now they're as close as the vending machine down the hall. Radical changes are necessary and, fortunately, are biologically easier than small or gradual changes in diet. Barrett tells us how to reprogram our bodies, break food addictions, and ignore our attraction to "supernormal stimuli"—artificial creations that appeal to our instincts more than the natural objects they mimic. Barrett delves into scientific research—from animal ethology to evolution—to show the disastrous direction in which our instincts have led us, and how, using our intellect, we can get back on course.

This two-volume set examines dreams and dreaming from a variety of angles—biological, psychological, and sociocultural—in order to provide readers with a holistic introduction to this fascinating subject. • Provides comprehensive coverage of the physiology, psychology, and cultural contexts of dreaming • Explores both dream theory and the practical applications of dreamwork in everyday life • Features contributions by more than 75 authors, all recognized experts in their fields • Offers readers suggestions for further reading and additional study in an extensive bibliography

G. William Domhoff presents a new neurocognitive theory of dreams in his book The Emergence of Dreaming. His theory stresses the similarities between dreaming and drifting waking thought, based on laboratory and non-laboratory studies that show as many as 70 to 80 percent of dreams are dramatized enactments of significant waking

personal concerns about the past, present, and future. Domhoff discusses a developmental dimension of dreaming based on the unexpected laboratory discovery that young children dream infrequently and with less complexity until ages 9-11-supported by new findings with children who are awake that demonstrate the gradual emergence of cognitive skills necessary for dreaming. Domhoff's theory locates the neural substrate for dreaming in the same brain network now known to be most active during mind-wandering, and explains the transition into dreaming. Various strands of evidence lead to the conclusion that dreaming does not have any adaptive function, and is best viewed as an accidental by-product of adaptive waking cognitive abilities. However, cross-cultural and historical studies reveal that human inventiveness has made dreams an essential part of healing and religious ceremonies in many societies. Three chapters present detailed critiques of other current theories of dreams. The final chapter suggests how new and better studies of dreaming and its neurocognitive basis can be carried out using recent technological developments in both communications (e.g., smartphone apps) and neuroimaging (e.g., near infrared spectroscopy). As one of the first empirical and scientific treatments on dream research, The Emergence of Dreaming will be of interest to psychologists, cognitive neuroscientists, sleep researchers, and psychiatrists.

Positive psychologists focus on ways that we can advance the lives of individuals and communities by studying the factors that increase positive outcomes such as life satisfaction and happiness. Evolutionary psychologists use the principles of evolution, based on Darwin's understanding of life, to help shed light on any and all kinds of psychological phenomena. This book brings together both fields to explore positive evolutionary psychology: the use of evolutionary psychology principles to help people and communities experience more positive and fulfilling lives. Across eleven chapters, this book describes the basic ideas of both evolutionary and positive psychology, elaborates on the integration of these two fields as a way to help advance the human condition, discusses several domains of human functioning from the perspective of positive evolutionary psychology, and finally, looks with an eye toward the future of work in this emerging and dynamic field. Over the past few decades, evolutionary psychologists have begun to crack the code on such phenomena as happiness, gratitude, resilience, community, and love. This book describes these facets of the human experience in terms of their evolutionary origins and proposes how we might guide people to optimally experience such positive phenomena in their everyday lives.

Evolutionary Psychiatry was first published in 1996, the second edition followed in 2000. This ground breaking book challenged the medical model which supplied few effective answers to long-standing conundrums. A comprehensive introduction to the science of Darwinian Psychiatry, the second edition included important fresh material on a number of disorders, along with a chapter on research. Anthony Stevens and John Price argue that psychiatric symptoms are manifestations of ancient adaptive strategies which are no longer necessarily appropriate but which can best be understood and treated in an evolutionary and developmental context. Particularly important are the theories Stevens and Price propose to account for the worldwide existence of mood disorders and schizophrenia, as well as offering solutions for such puzzles as paedophilia, sado-masochism and the function of dreams. Readily accessible to both the specialist and non-specialist reader, Evolutionary Psychiatry describes in detail the

disorders and conditions commonly encountered in psychiatric practice and shows how evolutionary theory can account for their biological origins and functional nature.? This Classic Edition of the book includes a new preface by Anthony Stevens and a foreword by Paul Gilbert.

A groundbreaking history of the human mind told through our experience of dreams—from the earliest accounts to current scientific findings—and their essential role in the formation of who we are and the world we have made. What is a dream? Why do we dream? How do our bodies and minds use them? These questions are the starting point for this unprecedented study of the role and significance of this phenomenon. An investigation on a grand scale, it encompasses literature, anthropology, religion, and science, articulating the essential place dreams occupy in human culture and how they functioned as the catalyst that compelled us to transform our earthly habitat into a human world. From the earliest cave paintings—where Sidarta Ribeiro locates a key to humankind's first dreams and how they contributed to our capacity to perceive past and future and our ability to conceive of the existence of souls and spirits—to today's cutting-edge scientific research, Ribeiro arrives at revolutionary conclusions about the role of dreams in human existence and evolution. He explores the advances that contemporary neuroscience, biochemistry, and psychology have made into the connections between sleep, dreams, and learning. He explains what dreams have taught us about the neural basis of memory and the transformation of memory in recall. And he makes clear that the earliest insight into dreams as oracular has been elucidated by contemporary research. Accessible, authoritative, and fascinating, The Oracle of Night gives us a wholly new way to understand this most basic of human experiences.

A comprehensive, eye-opening exploration of what dreams are, where they come from, what they mean, and why we have them. Questions on the origins and meaning of dreams are as old as humankind, and as confounding and exciting today as when nineteenth-century scientists first attempted to unravel them. Why do we dream? Do dreams hold psychological meaning or are they merely the reflection of random brain activity? What purpose do dreams serve? When Brains Dream addresses these core questions about dreams while illuminating the most up-to-date science in the field. Written by two world-renowned sleep and dream researchers, it debunks common myths?that we only dream in REM sleep, for example—while acknowledging the mysteries that persist around both the science and experience of dreaming. Antonio Zadra and Robert Stickgold bring together state-of-the-art neuroscientific ideas and findings to propose a new and innovative model of dream function called NEXTUP—Network Exploration to Understand Possibilities. By detailing this model's workings, they help readers understand key features of several types of dreams, from prophetic dreams to nightmares and lucid dreams. When Brains Dream reveals recent discoveries about the sleeping brain and the many ways in which dreams are psychologically, and neurologically, meaningful experiences; explores a host of dream-related disorders; and explains how dreams can facilitate creativity and be a source of personal insight. Making an eloquent and engaging case for why the human brain needs to dream, When Brains Dream offers compelling answers to age-old questions about the mysteries of sleep.

"Is this a Dream?" – Evolutionary, Neurobiological and Psychopathological

Perspectives on Lucid DreamingFrontiers Media SADreaming SoulsSleep, Dreams and the Evolution of the Conscious MindOxford University Press
"A journalist travels the world and investigates current socioeconomic theories of happiness to discover why most modern cities are designed to make us miserable, what we can do to change this, and why we have more to learn from poor cities than from prosperous ones"--