

## Sleep A Very Short Introduction Very Short Introductions

Logic is often perceived as having little to do with the rest of philosophy, and even less to do with real life. Graham Priest explores the philosophical roots of the subject, explaining how modern formal logic addresses many issues.

What is dreaming, and what causes it? Why are dreams so strange and why are they so hard to remember? Replacing dream mystique with modern dream science, J. Allan Hobson provides a new and increasingly complete picture of how dreaming is created by the brain. Focusing on dreaming to explain the mechanisms of sleep, this book explores how the new science of dreaming is affecting theories in psychoanalysis, and how it is helping our understanding of the causes of mental illness. J. Allan Hobson investigates his own dreams to illustrate and explain some of the fascinating discoveries of modern sleep science, while challenging some of the traditionally accepted theories about the meaning of dreams. He reveals how dreaming maintains and develops the mind, why we go crazy in our dreams in order to avoid doing so when we are awake, and why sleep is not just good for health but essential for life. 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.

In this fascinating book, Harvard researcher Hobson offers an intriguing look at the nightly odyssey through the illusory world of dreams. Hobson describes how the theory of dreaming has advanced dramatically over the past 50 years, sparked by the use of EEGs in the 1950s and by recent innovations in brain imaging. 20 illustrations.

Monasticism is a social and religious phenomenon which originated in antiquity and which still remains relevant in the twenty-first century. But what, exactly, is it, and how is it distinguished from other kinds of religious and non-religious practice? In this Very Short Introduction Stephen J. Davis discusses the history of monasticism, from our earliest evidence for it, and the different types which have developed from antiquity to the present day. He considers where monasteries are located, from East Asia to North America, and everywhere in between, and how their settings impact the everyday life and worldview of the monks and nuns who dwell there. Exploring how monastic communities are organized, he also looks at how aspects of life like food, sleep, sex, work, and prayer are regimented. Finally, Davis discusses what the stories about saints communicate about monastic identity and ethics, and considers what place there is for monasticism in the modern world. 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

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Series Copy The new Very Short Introductions series offers concise and original introductions to a wide range of subjects from politics to classics. Not simply a textbook of definitions, each book in the series provides trenchant, provocative, yet balanced discussions on the central issues of the field, gives a readable historical account of the subject, and demonstrates how each particular area of study has developed and shaped society. Eventually, the series will encompass every major academic discipline, offering readers an affordable, accessible, and complete reference library. Stimulating and lively, the Very Short Introductions are indispensable guides and essential reading for anyone interested in the development of these influential fields. Providing the general reader and the student with an introduction to the central issues of political science, *A Very Short Introduction to Politics* shows how political trends and maneuvers develop and how they help shape our society. Kenneth Minogue, with his lively and popular style, begins with a discussion of issues arising from a historical account of politics, and goes on to offer chapters dealing with the Ancient Greeks and the idea of citizenship; Roman law; medieval Christianity and individualism; freedom since Machiavelli and Hobbes; the challenge of ideologies; democracy, oligarchy, and bureaucracy; power and order in modern society; and politics in the West. Readable and pithy, this entertaining introduction is perfect for anyone looking for an accessible overview of the subject.

Clinical psychology makes a significant contribution to mental health care across the world. The essence of the discipline is the creative application of the knowledge base of psychology to the unique, personal experiences of individuals who are facing difficulties or changes in their lives. Rather than addressing such experiences as primarily a medical, political or legal problem, clinical psychologists approach personal distress as an unhappy outcome of certain ways of thinking, behaving and relating, often occurring within difficult social, cultural or economic circumstances. Clinical psychologists work with people to try and help them change what is distressing or concerning them, based on a belief in the value of the individual to determine what happens to them and on the importance of using approaches which have been demonstrated through research to be effective. In this Very Short Introduction Susan Llewellyn and Katie Aafjes-van Doorn provide insights into the world of clinical psychologists and their clients or patients, and cover the range of domains of practice, the difficulties tackled, and the approaches and models used. They consider the challenges and controversies facing the profession today, and also how it varies across the globe. Finally, they discuss the key questions surrounding clinical psychology, such as whether it should compete or collaborate with psychiatry, how far it is yet another instrument of social control, what new technology can offer in the future, and whether clinical psychology can ever really be considered a science. 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.

Designed primarily as a text this volume is an up-to-date and integrated overview of physiological sleep mechanisms, brain function, psychological ramifications of sleep, dimensions of dreaming, and clinical disorders associated with sleep. It is accessibly written with specially boxed material that enhances the text. Authored by a researcher/clinician/professor with more than 25 years of experience in sleep studies, *Understanding Sleep and Dreaming* provides a solid basis for those who are not expert in this area. It offers a good foundation for those who will continue sleep studies, while at the same time offering enough information for those who will apply this knowledge in other ways such as clinicians in their individual practices or researchers for whom sleep may be part of a specific study. It is an excellent text for courses on sleep at the undergraduate and graduate levels.

"Julia Annas provides an incisive exploration of the many-sided and elusive genius whose wide-ranging, bold, and influential ideas continue to challenge, provoke, and inspire us today"--Page 4 of cover.

The idea of "The Green Book" is to give the Motorist and Tourist a Guide not only of the Hotels and Tourist Homes in all of the large cities, but other classifications that will be found useful wherever he may be. Also facts and information that the Negro Motorist can use and depend upon. There are thousands of places that the public doesn't know about and aren't listed. Perhaps you know of some? If so send in their names and addresses and the kind of business, so that we might pass it along to the rest of your fellow Motorists. You will find it handy on your travels, whether at home or in some other state, and is up to date. Each year we are compiling new lists as some of these places move, or go out of business and new business places are started giving added employment to members of our race.

Schizophrenia is the archetypal form of madness. Schizophrenia is a common disorder and has a devastating effect on sufferers and their families-patients typically hear voices in their heads and hold bizarre beliefs. The schizophrenic patient presented to the public in sensational press reports and lurid films bears little resemblance to reality of the illness. This book describes what schizophrenia is really like, how the illness progresses, and the treatments that have been applied. It also summarizes the most up-to-date knowledge available about the biological bases of this disorder. Finally it attempts to give some idea of what it is like to have schizophrenia and what this disorder tells us about the relationship between mind and brain. 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.

Consciousness, 'the last great mystery for science', remains a hot topic. How can a physical brain create our experience of the

world? What creates our identity? Do we really have free will? Could consciousness itself be an illusion? Exciting new developments in brain science are continuing the debates on these issues, and the field has now expanded to include biologists, neuroscientists, psychologists, and philosophers. This controversial book clarifies the potentially confusing arguments, and the major theories, whilst also outlining the amazing pace of discoveries in neuroscience. Covering areas such as the construction of self in the brain, mechanisms of attention, the neural correlates of consciousness, and the physiology of altered states of consciousness, Susan Blackmore highlights our latest findings. 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.

Forensic science is a subject of wide fascination. What happens at a crime scene? How does DNA profiling work? How can it help solve crimes that happened 20 years ago? In forensic science, a criminal case can often hinge on a piece of evidence such as a hair, a blood trace, half a footprint, or a tyre mark. Complex scientific findings must be considered carefully and dispassionately, and communicated with clarity, simplicity, and precision. High profile cases such as the Stephen Lawrence enquiry and the Madeleine McCann case have attracted enormous media attention and enhanced general interest in this area in recent years. In this Very Short Introduction, Jim Fraser introduces the concept of forensic science and explains how it is used in the investigation of crime. He begins at the crime scene itself, explaining the principles and processes of crime scene management, and drawing on his own personal experience of high profile cases including, the murder of Rachel Nickell and the unsolved murder of Jill Dando. Fraser explores how forensic scientists work; from the reconstruction of events to laboratory examinations. He considers the techniques they use, such as fingerprinting, and goes on to highlight the immense impact DNA profiling has had. Providing examples from forensic science cases in the UK, US, and other countries, he considers the techniques and challenges faced around the world. This new edition has been fully updated to take into account developments in areas such as DNA analysis and drug analysis, and the growing field of digital forensics. Topical areas explored include the growing significance of cognitive bias in forensic science, and recent research that raises doubts about the validity of some forensic techniques. 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.

This Very Short Introduction examines Voltaire's (1694-1778) remarkable life and career. Exploring his most important writings, the impact his work had on our understanding of the European Enlightenment, and his status as a literary celebrity at the time, Nicholas Cronk considers his continued relevance in literature, politics, and philosophy.

Are we born with our fears or do we learn them? Why do our fears persist? What purpose does anxiety serve? In this Very Short Introduction we discover what anxiety is, what causes it, and how it can be treated. Looking at six major anxiety disorders, the

authors introduce us to this most ubiquitous and essential of emotions.

For two hundred years a noble Venetian family has suffered from an inherited disease that strikes their members in middle age, stealing their sleep, eating holes in their brains, and ending their lives in a matter of months. In Papua New Guinea, a primitive tribe is nearly obliterated by a sickness whose chief symptom is uncontrollable laughter. Across Europe, millions of sheep rub their fleeces raw before collapsing. In England, cows attack their owners in the milking parlors, while in the American West, thousands of deer starve to death in fields full of grass. What these strange conditions—including fatal familial insomnia, kuru, scrapie, and mad cow disease—share is their cause: prions. Prions are ordinary proteins that sometimes go wrong, resulting in neurological illnesses that are always fatal. Even more mysterious and frightening, prions are almost impossible to destroy because they are not alive and have no DNA—and the diseases they bring are now spreading around the world. In *The Family That Couldn't Sleep*, essayist and journalist D. T. Max tells the spellbinding story of the prion's hidden past and deadly future. Through exclusive interviews and original archival research, Max explains this story's connection to human greed and ambition—from the Prussian chemist Justus von Liebig, who made cattle meatier by feeding them the flesh of other cows, to New Guinean natives whose custom of eating the brains of the dead nearly wiped them out. The biologists who have investigated these afflictions are just as extraordinary—for example, Daniel Carleton Gajdusek, a self-described “pedagogic pedophilic pediatrician” who cracked kuru and won the Nobel Prize, and another Nobel winner, Stanley Prusiner, a driven, feared self-promoter who identified the key protein that revolutionized prion study. With remarkable precision, grace, and sympathy, Max—who himself suffers from an inherited neurological illness—explores maladies that have tormented humanity for centuries and gives reason to hope that someday cures will be found. And he eloquently demonstrates that in our relationship to nature and these ailments, we have been our own worst enemy.

Sleep disturbances and sleep deprivation are increasingly common in modern society. Epidemiological methods of investigation have shown that sleep deprivation is associated with a variety of chronic conditions and health outcomes. Sleep medicine is a rapidly growing field of clinical research, affecting people across their lifespan. Relevant to a wide range of specialties including respiratory medicine, neurology, cardiology, and psychiatry, sleep also has a significant impact on the study of epidemiology, public health, and preventive medicine. *Sleep, Health, and Society* presents epidemiological evidence linking sleep deprivation and disruption to several chronic conditions, and explores the public health implications with the view to developing preventive strategies. The new edition of *Sleep, Health, and Society* provides up-to-date information on recently discovered areas of sleep medicine. Fully updated to reflect new research and data, as well as additional new chapters exploring eating patterns, nutrition, pregnancy, cancer, pain, and CBT in relation to sleep. Written by leading experts in the field of sleep medicine, *Sleep, Health, and Society* is ideal for students and professionals in epidemiology and public health. The research presented would also be valuable to respiratory physicians, neurologists, cardiologists, and psychiatrists who are interested in the impact of sleep disturbances and disorders.

Linguistics falls in the gap between arts and science, on the edges of which the most fascinating discoveries and the most important problems are found. Rather than following the conventional organization of many contemporary introductions to the subject, the author of this stimulating guide begins his discussion with the oldest, 'arts' end of the subject and moves chronologically through to the newest research - the 'science' aspects. A series of short thematic chapters look in turn at such areas as the prehistory of languages and their common origins, language and evolution, language in time and space (the nature of change inherent in language), grammars and dictionaries (how systematic is language?), and phonetics. Explication of the newest discoveries pertaining to language in the brain completes the coverage of all major aspects of linguistics from a refreshing and insightful angle. 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.

Who were the Druids? What do we know about them? Do they still exist today? The Druids first came into focus in Western Europe - Gaul, Britain, and Ireland - in the second century BC. They are a popular subject; they have been known and discussed for over 2,000 years and few figures flit so elusively through history. They are enigmatic and puzzling, partly because of the lack of knowledge about them has resulted in a wide spectrum of interpretations. Barry Cunliffe takes the reader through the evidence relating to the Druids, trying to decide what can be said and what can't be said about them. He examines why the nature of the druid caste changed quite dramatically over time, and how successive generations have interpreted the phenomenon in very different ways. 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.

Popular science at its most exciting: the breaking new world of chronobiology - understanding the rhythm of life in humans and all plants and animals. The entire natural world is full of rhythms. The early bird catches the worm -and migrates to an internal calendar. Dormice hibernate away the winter. Plants open and close their flowers at the same hour each day. Bees search out nectar-rich flowers day after day. There are cicadas that can breed for only two weeks every 17 years. And in humans: why are people who work anti-social shifts more illness prone and die younger? What is jet-lag and can anything help? Why do teenagers refuse to get up in the morning, and are the rest of us really 'larks' or 'owls'? Why are most people born (and die) between 3am-5am? And should patients be given medicines (and operations) at set times of day, because the body reacts so differently in the morning, evening and at night? The answers lie in our biological clocks the mechanisms which give order to all living things. They impose a structure that enables us to change our behaviour in relation to the time of day, month or year. They are reset at sunrise and sunset each day to link astronomical time with an organism's internal time.

### Sleep: A Very Short Introduction Oxford University Press

Though he was a prolific writer and an original thinker of vast erudition, Jung lacked a gift for clear exposition and his ideas are less widely appreciated than they deserve. In this concise introduction, Anthony Stevens explains clearly the basic concepts of Jungian psychology: the collective unconscious, complex, archetype, shadow, persona, anima, animus, and the individuation of the Self. He examines Jung's views on such disparate subjects as myth, religion, alchemy, 'synchronicity', and the psychology of gender differences, and he devotes separate chapters to the stages of life, Jung's theory of psychological types, the interpretation of dreams, the practice of Jungian analysis, and to the unjust allegation that Jung was a Nazi sympathizer. Finally, he argues that Jung's visionary powers and profound spirituality have helped many to find an alternative set of values to the arid materialism prevailing in Western society. 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 Gothic is wildly diverse. It can refer to ecclesiastical architecture, supernatural fiction, cult horror films, and a distinctive style of rock music. It has influenced political theorists and social reformers, as well as Victorian home décor and contemporary fashion. Nick Groom shows how the Gothic has come to encompass so many meanings by telling the story of the Gothic from the ancient tribe who sacked Rome to the alternative subculture of the present day. This unique Very Short Introduction reveals that the Gothic has predominantly been a way of understanding and responding to the past. Time after time, the Gothic has been invoked in order to reveal what lies behind conventional history. It is a way of disclosing secrets, whether in the constitutional politics of seventeenth-century England or the racial politics of the United States. While contexts change, the Gothic perpetually regards the past with fascination, both yearning and horrified. It reminds us that neither societies nor individuals can escape the consequences of their actions. The anatomy of the Gothic is richly complex and perversely contradictory, and so the thirteen chapters here range deliberately widely. This is the first time that the entire story of the Gothic has been written as a continuous history: from the historians of late antiquity to the gardens of Georgian England, from the mediaeval cult of the macabre to German Expressionist cinema, from Elizabethan Revenge Tragedy to American consumer society, from folk ballads to vampires, from the past to the present. 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.

In recent years neuroscientists have uncovered the countless ways our brain trips us up in day-to-day life, from its propensity toward irrational thought to how our intuitions deceive us. The latest research on sleep, however, points in the opposite direction. Where old wives tales have long advised to "sleep on a problem," today scientists are discovering the truth behind these folk

sayings, and how the busy brain radically improves our minds through sleep and dreams. In *The Secret World of Sleep*, neuroscientist Penny Lewis explores the latest research into the nighttime brain to understand the real benefits of sleep. She shows how, while our body rests, the brain practices tasks it learned during the day, replays traumatic events to mollify them, and forges connections between distant concepts. By understanding the roles that the nocturnal brain plays in our waking life, we can improve the relationship between the two, and even boost creativity and become smarter. This is a fascinating exploration of one of the most surprising corners of neuroscience that shows how science may be able to harness the power of sleep to improve learning, health, and more.

Why do we need sleep? What happens when we don't get enough? From the biology and psychology of sleep and the history of sleep in science, art, and literature; to the impact of a 24/7 society and the role of society in causing sleep disruption this introduction answers everything you've ever wanted to know about sleep.

*Very Short Introductions: Brilliant, Sharp, Inspiring* Four o'clock in the morning, and the lights are on and still there's no way we're going to sleep, not after the film we just saw. The book we just read. Fear is one of the most primal human emotions, and one of the hardest to reason with and dispel. So why do we scare ourselves? It seems almost mad that we would frighten ourselves for fun, and yet there are thousands of books, films, games, and other forms of entertainment designed to do exactly that. As Darryl Jones shows, the horror genre is huge. Ranging from vampires, ghosts, and werewolves to mad scientists, Satanists, and deranged serial killers, the cathartic release of scaring ourselves has made its appearance in everything from Shakespearean tragedies to internet memes. Exploring the key tropes of the genre, including its monsters, its psychological chills, and its love affair with the macabre, this *Very Short Introduction* discusses why horror stories disturb us, and how society responds to literary and film representations of the gruesome and taboo. Should the enjoyment of horror be regarded with suspicion? Are there different levels of the horrific, and should we distinguish between the commonly reviled carnage of contemporary torture porn and the culturally acceptable bloodbaths of ancient Greek tragedies? Analysing the way in which horror manifests multiple personalities, and has been used throughout history to articulate the fears and taboos of the current generation, Darryl Jones considers the continuing evolution of the genre today. As horror is mass marketed to mainstream society in the form of romantic vampires and blockbuster hits, it also continues to maintain its former shadowy presence on the edges of respectability, as banned films and violent internet phenomena push us to question both our own preconceptions and the terrifying capacity of human nature. 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. First published in hardback as *Sleeping with the Lights on*.

*Fundamentals of Sleep Technology* provides a thorough understanding of the use of polysomnography and other technologies in the evaluation and management of sleep disorders. Coverage includes in-depth reviews of the neurophysiology and cardiopulmonary aspects of sleep, along with the pathophysiology of sleep disorders. Detailed sections on polysomnography include recording procedures, identifying and scoring sleep stages and sleep-related events, and report generation. Chapters discuss therapeutic interventions including positive airway pressure, supplemental oxygen, surgical and pharmacologic treatments, and patient education. A section focuses on pediatric sleep disorders and polysomnography. Also included are chapters on establishing and managing a sleep center and accrediting a sleep program.



Fundamentals of Sleep Technology is endorsed by American Association of Sleep Technologists (AAST). AAST committees oversaw the development of this book, defining the table of contents, recruiting the Editors, and providing most of the contributors.

What do anaesthetists do? How does anaesthesia work? What are the risks? And how does the anaesthetist know if you are really asleep? Anaesthesia is a mysterious and sometimes threatening process. In this Very Short Introduction, Aidan O'Donnell takes the reader on a tour through the whole of the modern anaesthetic practice. He begins by explaining general anaesthesia: what it is, how it is produced, and how it differs from natural sleep and other forms of unconsciousness. He goes on to consider the main categories of anaesthetic drugs, including anaesthetic vapours, intravenous agents, muscle relaxants, and analgesics, together with explanations of how they work and what their purpose is. Set against the historical background of anaesthetic and surgical practice, O'Donnell examines the large role anaesthetists play in specialised areas such as intensive care medicine, pain medicine, and childbirth; and finally, he considers the risks of anaesthesia, putting in to context that anaesthesia is a very safe process. 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.

Many are familiar with the beauty and ubiquity of fractal forms within nature. Unlike the study of smooth forms such as spheres, fractal geometry describes more familiar shapes and patterns, such as the complex contours of coastlines, the outlines of clouds, and the branching of trees. In this Very Short Introduction, Kenneth Falconer looks at the roots of the 'fractal revolution' that occurred in mathematics in the 20th century, presents the 'new geometry' of fractals, explains the basic concepts, and explores the wide range of applications in science, and in aspects of economics. This is essential introductory reading for students of mathematics and science, and those interested in popular science and mathematics. 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.

Psychologists and philosophers have long grappled with the mysteries of dreaming, and now thanks largely to recent innovations in brain imaging -neuroscientists are starting to join the conversation. In this groundbreaking book, award-winning journalist Andrea Rock traces the brief but fascinating history of this emerging field. She then takes us into modern sleep labs across the country, asking the questions that intrigue us all: Why do we remember only a fraction of our dreams? Why are dreams usually accompanied by intense emotions? Can dreams truly spark creative thought or help solve problems? Are the universal dream interpretations of Freud and Jung valid? Accessible and engaging, *The Mind at Night* shines a bright light on our nocturnal journeys and tells us what the sleeping mind reveals about our waking hours.

What is dreaming? Why are dreams so strange and why are they so hard to remember? In this fascinating book, Harvard researcher Allan Hobson offers an intriguing look at our nightly odyssey through the illusory world of dreams. Hobson describes how the theory of dreaming has advanced dramatically over the past fifty years, sparked by the use of EEGs in the 1950s and by recent innovations in brain imaging. We have learned for instance that, in dreaming, some areas of the brain are very active--the visual and auditory centers, for instance--while others are completely shut down, including the centers for self-awareness, logic, and memory. Thus we can have visually vivid dreams, but be utterly unaware that the sequence of events or locales may be bizarre and, quite often, impossible. And because the memory center is

inactive, we don't remember the dream at all, unless we wake up while it is in progress. Hobson also shows that modern research has disproved most of Freud's *The Interpretation of Dreams* (as one scientist put it, "Freud was 50% right and 100% wrong"), but we have gained new insight into the nature of mental illness. The book also discusses dream disorders (nightmares, night terrors, sleep walking), the possible link between dreaming and the regulation of body temperature, the effects of sleep deprivation, and much more. With special boxed features that highlight intriguing questions--Do we dream in color? (yes), Do animals dream? (probably), Do men and women dream differently? (no)--Dreaming offers a cutting-edge account of the most mysterious area of our mental life.

The earth's daily rotation affects just about every living creature. From dawn through to dusk, there are changes in light, temperature, humidity, and rainfall. However, these changes are regular, rhythmic and, therefore, predictable. Thus, the near 24 hour circadian rhythm is innate: a genetically programmed clock that essentially ticks of its own accord. This *Very Short Introduction* explains how organisms can -know- the time and reveals what we now understand of the nature and operation of chronobiological processes. Covering variables such as light, the metabolism, human health, and the seasons, Foster and Kreitzman illustrate how jet lag and shift work can impact on human well-being, and consider circadian rhythms alongside a wide range of disorders, from schizophrenia to obesity. 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.

Viruses are big news. From pandemics such as HIV, swine flu, and SARS, we are constantly being bombarded with information about new lethal infections. In this *Very Short Introduction* Dorothy Crawford demonstrates how clever these entities really are. From their discovery and the unravelling of their intricate structures, Crawford demonstrates how these tiny parasites are by far the most abundant life forms on the planet. With up to two billion of them in each litre of sea water, viruses play a vital role in controlling the marine environment and are essential to the ocean's delicate ecosystem. Analyzing the threat of emerging virus infections, Crawford recounts stories of renowned killer viruses such as Ebola and rabies as well as the less known bat-borne Nipah and Hendra viruses. Pinpointing wild animals as the source of the most recent pandemics, she discusses the reasons behind the present increase in potentially fatal infections, as well as evidence suggesting that long term viruses can eventually lead to cancer. By examining our lifestyle in the 21st century, Crawford looks to the future to ask whether we can ever live in harmony with viruses, and considers the ways in which we may need to adapt to prevent emerging viruses with devastating consequences. 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.

Why do we sleep? What causes insomnia? How many hours of sleep are adequate? Sleep is a complex phenomenon, and even though we spend one-third of our lives sleeping, there's still very little that we know about it. In this path-breaking book on sleep, Dr Manvir Bhatia, one of the country's top sleep specialists, sheds light on the fascinating connection between sleep and the brain, sleep and beauty, and sleep and weight, among other things. From delving into common sleep problems and weird phenomena observed in sleep like sexsomnia, narcolepsy (falling asleep at random times) and sleep apnea (pauses in breathing during sleep) to the specific tools needed to ensure good sleep, *The Sleep*

Solution is the go-to book for all your sleep-related problems. 'Don't go to bed without reading this'—Suhel Seth 'Grab this book, absorb it and then sleep deep'—Dilip Cherian

The applications of Artificial Intelligence lie all around us; in our homes, schools and offices, in our cinemas, in art galleries and - not least - on the Internet. The results of Artificial Intelligence have been invaluable to biologists, psychologists, and linguists in helping to understand the processes of memory, learning, and language from a fresh angle. As a concept, Artificial Intelligence has fuelled and sharpened the philosophical debates concerning the nature of the mind, intelligence, and the uniqueness of human beings. In this Very Short Introduction, Margaret A. Boden reviews the philosophical and technological challenges raised by Artificial Intelligence, considering whether programs could ever be really intelligent, creative or even conscious, and shows how the pursuit of Artificial Intelligence has helped us to appreciate how human and animal minds are possible. 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.

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.

'What is real?' has been one of the key questions of philosophy since its beginning in antiquity. But it is not just a question that philosophers ask. This Very Short Introduction discusses what reality is by looking at a variety of arguments, theories, and thought-experiments from philosophy, physics, and cognitive science.

There is no denying that thinking comes naturally to human beings. But what are thoughts? How is thought realized in the brain? Does thinking occur in public or is it a purely private affair? Do young children and non-human animals think? Is human thought the same everywhere, or are there culturally specific modes of thought? What is the relationship between thought and language? What kind of responsibility do we have for our thoughts? In this compelling Very Short Introduction, Tim Bayne looks at the nature of thought. Beginning with questions about what thought is and what distinguishes it from other kinds of mental states, he goes on to examine various interpretations of thought from philosophy, psychology, neuroscience, and anthropology. By exploring the logical structures of thought and the relationship between thought and other mental phenomena, as well as the mechanisms that make thought possible and the cultural variations that may exist in our thought processes, Bayne looks at what we know - and don't know - about our great capacity for thought. 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.

Having spent centuries in the shadows of its neighbours China and Japan, Korea is now the object of considerable interest for radically different reasons-- the South as an economic success story and for its vibrant popular culture; the North as the home to one of the world's most repressive regimes, at once both bizarre and menacing. This Very Short Introduction explores the history, culture, and society of a deeply divided region. Michael Seth considers what it means to be Korean, and analyses how the various peoples of the Korean peninsula became one of the world's most homogeneous nations, before exploring how this nation evolved, in a single lifetime, into today's sharply contrasting societies. He also discusses how Korea fits into the larger narrative of both East Asian and world history, economically, politically, and socially. 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

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Discusses the basic components of computers; how increasingly miniature parts have led to products, applications, and networks that solve problems; the issues that increased connectivity has produced; and some of the emerging technologies in the field.

Explores sleep disorders, describes breakthroughs in the study of sleep, and considers the impact of modern society on it.

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