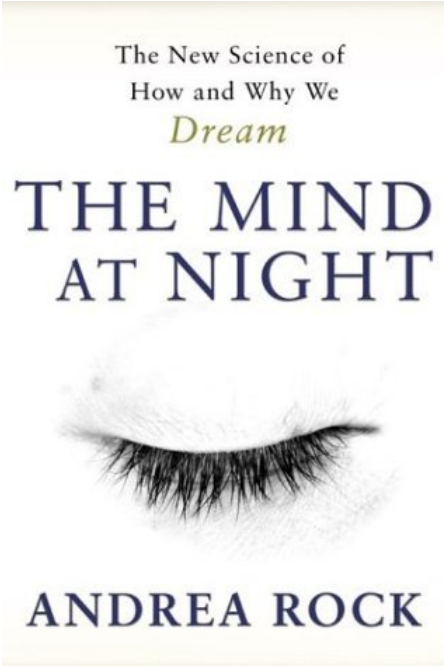

The Mind At Night: The New Science Of How And Why We Dream

Andrea Rock

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Over the past few decades, there has been a revolution in scientific knowledge about why we dream, what's actually happening to the brain when we do, and what the sleeping mind reveals about our waking hours. Beginning with the birth of dream research in the 1950s, award-winning science reporter Andrea Rock traces the brief but fascinating history of this emerging scientific field. She then takes us into modern sleep labs across the country, bringing the scientists to life as she interprets their intellectual breakthroughs and asks the questions that intrigue us all: Why do we remember only a fraction of our dreams? Why are dreams usually accompanied by intense emotion, such as fear or anxiety? Can we really control our dreams without waking up? Are universal dream interpretations valid? Is dreaming our way of consolidating long-term memories and filtering the day's mental detritus? Can dreams truly spark creative thought or help solve problems? Accessible and engaging, The Mind at Night shines a bright light on our nocturnal journeys, while revealing the crucial role dreams could play in penetrating the mystery of consciousness.

The Mind At Night: The New Science Of How And Why We Dream Details

Date	:	Published March 2nd 2004 by Basic Books
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From Reader Review The Mind At Night: The New Science Of How And Why We Dream for online ebook

Rachel B says

3.5 stars

A very interesting book that explores how dreaming is possible as well as the purpose of dreams.

I loved all the neuroscience here. (Though frequently, brain scans were described and I would have loved to see photos of those included.) I was very frustrated, however, by Rock's portrayal of the evolutionary theory as fact. She did a great job at portraying other theories for what they were - possibilities - and yet evolution is referred to as a fact over and over and over, without actual facts to back it up.

The first few chapters held my attention very easily, but then the book began to get very repetitive and a little drawn out. It *is* interesting if you already like science, but could be tedious if you're not.

My favorite chapters were the ones exploring memory, REM sleep in peoples who are depressed, and lucid dreams.

Irina11 says

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P.S. ????? ???? ???????? ??? ????, ??? ??? ???? ????? ???????? ????????? ???? ?? ???. ????? ???????, ?????? ??????? ?????? ???, ?? ????????, ??? ?? ???? ? ????? ??????? ? ????? ???, ??????? ???????? ?? ? ???????? :D

Justarius says

Some of the other reviews criticize the lack of depth, but honestly, how much can you pack into 200ish pages? Given the brevity of the book, the author paints a fine picture of what we currently know about dreaming and where the field might be headed next. She weaves in background history and personal stories so that it isn't just another dry science textbook. This is a good, compact, and highly readable introduction to the science of dreaming.

Daniel R. says

This book provides an excellent history and discussion of current research around dreaming. It is by the far the most approachable book on the topic I've read. Each chapter explores a different aspect of the mind at mind and calls out specific researchers leading the exploration of that area. The books builds upon itself such that the later topics, while dealing with more current and technical material, are digestible as previous chapters laid the groundwork for understanding them.

Nessy Dimitrova says

I read this book thanks to Blinkist.

The key message in this book:

Dreaming is an incredibly important function of the human mind that has, in many different ways, helped us get to where we are as a species today. Although remembering your dreams isn’t that important, knowing how and why you dream most certainly is.

Wiktor Dynarski says

Despite the fact that there are a few issues with the author's thinking surrounding culture and gender, this book is a fascinating read, especially for someone like myself who, although interested in science, is most definitely an amateur and requires an elaborate and downgraded introduction to concept that for many people of science may be quite basic.
I highly recommend this journey through what we know and what we WILL know about dreaming in the future.

Roberta says

This is a book about the science of dreaming - NOT dream interpretation. It took me forever to read the 200 pages and even though I found parts of it enlightening, I felt relieved when I was finished. I learned that your body actually sometimes becomes paralyzed when you dream. I had a hard time distinguishing between "lucid dreaming" and being awake. Seem like a very fine line to me.

Danielle says

I highly recommend *"The Mind at Night"* for readers who are interested in dreaming as it relates to brain function, neurophysiology and chemistry, psychology, personal identity, lucid dreaming, creativity, sleep disorders, mental health, memory and the history of scientific discovery. The development of dream research and discovery is told through the lives and works of the scientists and researchers who studied how the brain creates dreams, and how those dreams affect us.

She plays experiments and scientists off of each other in order to effectively advance the reader's understanding of the development of dream theory:

Solms became more convinced that the brainstem alone did not trigger dreaming when he encountered another fascinating group of brain lesion patients: those who couldn't stop dreaming, even when they were awake. These patients suffered damage to a specific group of cells in the base of the forebrain that played a crucial role in Hobson's view of how dreams are created. Hobson contended that the brainstem's dream-generating signals projected onto these cells (called basal forebrain nuclei) and that they in turn activiated the forebrain structures needed to create visual images and the other stuff of which dreams are made. If Hobson's theory were correct, then damaging those cells should result in a loss of dreaming, but Solms found just the opposite was true. Damage to those cells and closely related brain structures instead created patients whose nighttime dreams were unusually vivid and frequent and who had difficulty distingiuishing between dreams and waking experience during the day. The reality-testing system that goes off-line when we dream - allowing us to fully believe that we're back at the high school prom wearing nothing but our underwear - normally comes back online when we awaken. Not so for patients with damage to these clusters of cells.

Rock's sense of humour and details of the scientists' personal lives and professional rivalries added a depth that kept the book from becoming dry, as in the following excerpt:

In order to run his dream experiments without having to spend nights away from his wife, he converted part of his apartment to a sleep lab, running local ads to recruit test subjects. A member of the Rockettes happened to see the ad, and she spread the word among other members of the Radio City dance troupe that they could earn money for simply sleeping in Dement's lab - an idea with great appeal to many of the young women. Though the research was entirely aboveboard, the routine that ensued made Dement quite the object of curiosity in his apartment building as a steady parade of women came straight from the chorus line to do their nightly stint in the lab.

"A lovely woman, still in theatrical makeup, would arrive at the apartment building and ask the doorman for my room," Dement recalls. "In the morning, she would reappear, sometimes with one of my unshaven and exhausted male colleagues who had spent the night monitoring the EEG. One day, the doorman could finally stand it no longer. 'Dr. Dement,' he demanded, 'exactly what goes on in your apartment?' I just smiled."

Each chapter features an overarching theory, with subsections that neatly fold into each other to create the summarized argument at the end. Each subsection contains the main theory/argument, a major experiment, supporting research if it exists, a note about how this either confirms or challenges previous ideas, and occasionally quotations from the scientists themselves.

The Theory

Dreaming can also be understood via principles of chaos. Most of the time when we're awake, neuromodulators such as serotonin act to restrain cerebral chaos, but in REM, the physiological shifts that occur bump the brain into a chaotic state, and vivid, complex dreaming is the outward sign of its self-organizing response, argue Hobson and Kahn. The only constraining forces come from internal memories and traces of recent experience, leaving the door open for a broad repertoire of possible combinations in forming dream imagery and story lines.

The Quotation

"Dreaming may be our most creative conscious state, one in which the chaotic, spontaneous recombination of cognitive elements produces novel configurations of information: new ideas. While many or even most of these ideas may be nonsensical, if even a few of its fanciful products are truly useful our dream time will not have been wasted," says Hobson.

The Supporting Research

In fact, suggests long-time dream researcher Stephen LaBerge, the creative and novel neural connections that are possible in REM may serve an even more fundamental purpose that gives us an edge in the

Darwinian scheme of survival of the fittest. "Perhaps dreaming generates a wide range of behavioural schema or scripts guiding perception and action from which to select adaptive fits to changing environments," says LaBerge.

Each chapter has a thought-provoking closing:

Concludes Barrett: "Dreaming is, above all, a time when the unheard parts of ourselves are allowed to speak - and we would do well to listen."

The book finishes with some summaries of current research and planned future projects, as well as applications for said research:

Also, she has been examining the effects of sleep deprivation on rats' brains at the molecular level. Initial results reveal that there is only one gene whose expression is caused by long-term sleep deprivation, and it is one that is involved in balancing levels of neurotransmitters such as dopamine, norepinephrine, and serotonin. Being awake nonstop keeps these brain chemicals circulating in the brain in high concentrations continually rather than being shut off periodically as the brain moves through its various sleep stages. Her research thus far suggests an interesting hypothesis. "It may be that an important part of sleep's function is to give the brain a break from neurotransmitters that are predominant in waking hours. Having them around at high levels all of the time could somehow be toxic to neurons," she says.

The amount of information contained in this book is staggering, and yet never overwhelming. Each chapter is well planned and organized, with each point supported by a range of methods. This lends a narrative flow that aids comprehension and makes for an enjoyable reading experience. Rock also has a knack for knowing when the reader may need to be reminded of certain names or pertinent information. A fascinating read. Five stars.

Richard Eyster says

I have read many books on dreaming -- on the science and the mystery of dreaming.
There are books that range from dopey astrology to those written by professors trying to make a name for themselves through their pet theories.

Andrea Rock is an extraordinary journalist. This is probably the best book on dreaming I've ever read -- out of many. Highly, highly recommended.

Rusfet says

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Vladimir says

An interesting read. If you know about this field of research you are not likely to find it as interesting, it is after all a pop science book. However, what is remarkable in this book is how nearly every neuroscientist

interviewed had the need out point that, my God, "Freud was wrong". This need to insult psychoanalysis at every chance possible is downright hilarious, because sometimes they come up with explanations "it's not unconscious in the way Freud believed, but it is unconscious because it is not conscious". It's highly entertaining, whatever your position may be on this subject if you can appreciate a funny frustration when you see one.

Daria Vesnina says

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Maddy Maxey says

An enjoyable exploration of consciousness.

Sienna says

There's a forest of page markers sticking out of this fascinating journey through sleep & dream research. When I reached chapter seven, "the ultimate spin doctor," I tried to stop marking everything that stopped me in my tracks.
126
"'Once you realize the brain is so gullible, you don't want to believe a damn thing it does. It's always trying to make sense, and in doing so, it fabricates more than just dreams,' says John Antrobus."
It took me a while to finish the book because it made me think so much -- & dream! Two wonderful lucid dreams that must have come from the tips & explanations in the book. Highly recommend to anybody interested in dreams or how the brain works, & plays.
85
"We remember only what we have encoded and what the brain decides to encode depends on our past experiences knowledge and needs."
100
"As Robert Stickgold puts it, 'Figuring out what memory means, rather than simply recording events, is the brain's mission at night.'"
104
"Cartwright argues that when you're dreaming, you're updating your concept of who you are."
112
"...some psychologists suggest that a properly functioning dreaming system may actually be more effective than forms of psychotherapy that encourage the depressed to become introspective and ruminate still further."
120
"'We send our study subjects transcripts of the dreams they reported in the lab along with questionnaires asking if they recognize anyone, if there are any relationships between one dream and another, any connections to what's going on now in their lives,' says Rosalind Cartwright. 'And even the subjects who deny that dreams have any importance or meaning -- boy, do they go to town and write and write. It's do-it-yourself psychoanalysis.'"

134
"Says psychophysiologist Stephen Laberge, 'If what people see in ink blots can tell something about their personal concerns and personality, how much more revealing should dreams be, because they are the worlds we have created from the contents of our minds. Dreams may not be messages, but they are our own most intimately personal creations. As such, they are unmistakably colored by who and what we are, and could become.'"
157
"Maintaining lucidity for any length of time in a dream requires the delicate balance of remaining a detached, receptive observer of your emotions, actions, and thoughts at the same time that you were actively experiencing them -- the same mix that's required for meditation."
163
[an insight within a lucid dream, full dream is fantastic]
"The degree of awareness one is able to achieve while in the dream is in direct proportion to the degree of awareness one experiences in waking life."
175
"The human brain appears to be uniquely capable of using its computing power to figure out its own operating rules."

Julie says

One of my favorites on dream books. Anything dealing with the unconscious mind, dreamily floats its way onto my reading list. The Mind at Night is wonderfully researched and one the best, offering many insights into memory and dreaming that I had not read elsewhere. Some hard-core researchers detailed in this book, one must give respect. The day, I will be truly excited in this area of learning is when dreams can be recorded, though, I will be reluctant to let anyone into my unconscious mind. It must be said, Jung and Freud are on my list to read for dreaming study, and so I should let the psychological greats walk me through wonderland and see what is revealed. Otherwise, I personally, gained a lot of information from this work. Andrea Rocks the Dream World.
