



How We Remember: Brain Mechanisms of Episodic Memory (MIT Press)

By Michael E. Hasselmo

Download now

Read Online ➔

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press)

By Michael E. Hasselmo

Episodic memory proves essential for daily function, allowing us to remember where we parked the car, what time we walked the dog, or what a friend said earlier. In *How We Remember*, Michael Hasselmo draws on recent developments in neuroscience to present a new model describing the brain mechanisms for encoding and remembering such events as spatiotemporal trajectories. He reviews physiological breakthroughs on the regions implicated in episodic memory, including the discovery of grid cells, the cellular mechanisms of persistent spiking and resonant frequency, and the topographic coding of space and time. These discoveries inspire a theory for understanding the encoding and retrieval of episodic memory not just as discrete snapshots but as a dynamic replay of spatiotemporal trajectories, allowing us to "retrace our steps" to recover a memory.

In the main text of the book, he presents the model in narrative form, accessible to scholars and advanced undergraduates in many fields. In the appendix, he presents the material in a more quantitative style, providing mathematical descriptions appropriate for advanced undergraduates and graduate students in neuroscience or engineering.

↓ [Download How We Remember: Brain Mechanisms of Episodic Memo
...pdf](#)

📖 [Read Online How We Remember: Brain Mechanisms of Episodic Me
...pdf](#)

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press)

By Michael E. Hasselmo

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo

Episodic memory proves essential for daily function, allowing us to remember where we parked the car, what time we walked the dog, or what a friend said earlier. In *How We Remember*, Michael Hasselmo draws on recent developments in neuroscience to present a new model describing the brain mechanisms for encoding and remembering such events as spatiotemporal trajectories. He reviews physiological breakthroughs on the regions implicated in episodic memory, including the discovery of grid cells, the cellular mechanisms of persistent spiking and resonant frequency, and the topographic coding of space and time. These discoveries inspire a theory for understanding the encoding and retrieval of episodic memory not just as discrete snapshots but as a dynamic replay of spatiotemporal trajectories, allowing us to "retrace our steps" to recover a memory.

In the main text of the book, he presents the model in narrative form, accessible to scholars and advanced undergraduates in many fields. In the appendix, he presents the material in a more quantitative style, providing mathematical descriptions appropriate for advanced undergraduates and graduate students in neuroscience or engineering.

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo Bibliography

- Sales Rank: #1682020 in Books
- Published on: 2013-08-16
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x .75" w x 7.00" l, 1.51 pounds
- Binding: Paperback
- 384 pages

 [Download How We Remember: Brain Mechanisms of Episodic Memo ...pdf](#)

 [Read Online How We Remember: Brain Mechanisms of Episodic Me ...pdf](#)

Download and Read Free Online How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo

Editorial Review

Review

With its broad scope -- encompassing personal experience, behavioral experiments, and neurobiological mechanisms -- Hasselmo's *How We Remember* draws the reader deep inside the world of episodic memory. Students and researchers alike will want to read this approachable yet richly detailed treatment of the brain mechanisms supporting our ability to recollect prior events and experiences.

(Jay McClelland, Lucie Stern Professor and Director, Center for Mind, Brain, and Computation, Stanford University)

This book is an incredible resource for anyone interested in the neural mechanisms underlying episodic memory -- it spans the spectrum from synaptic plasticity to neural systems to behavior, connecting everything together with concepts from computational models. Hasselmo has a real gift for conveying this complex material in a clear, approachable, uniquely personal style. The result is a cutting edge, authoritative, and comprehensive book that is also very entertaining and enlightening.

(Randall O'Reilly, Professor of Psychology & Neuroscience, Institute of Cognitive Science, Center for Neuroscience, University of Colorado at Boulder)

About the Author

Michael E. Hasselmo is Professor of Psychology and Director of the Computational Neurophysiology Laboratory at Boston University, where he is also a faculty member in the Center for Memory and Brain and the Program in Neuroscience and principal investigator on grants from the National Institute of Mental Health and the Office of Naval Research.

Users Review

From reader reviews:

Salina Juarez:

Here thing why that How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) are different and trusted to be yours. First of all studying a book is good nevertheless it depends in the content from it which is the content is as tasty as food or not. How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) giving you information deeper as different ways, you can find any guide out there but there is no guide that similar with How We Remember: Brain Mechanisms of Episodic Memory (MIT Press). It gives you thrill looking at journey, its open up your own personal eyes about the thing that will happened in the world which is possibly can be happened around you. It is possible to bring everywhere like in recreation area, café, or even in your means home by train. For anyone who is having difficulties in bringing the published book maybe the form of How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) in e-book can be your option.

Daniel Hartung:

Do you one of people who can't read satisfying if the sentence chained in the straightway, hold on guys this kind of aren't like that. This How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) book is readable simply by you who hate the perfect word style. You will find the information here are arrange for enjoyable reading through experience without leaving actually decrease the knowledge that want to offer to you. The writer regarding How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) content conveys prospect easily to understand by most people. The printed and e-book are not different in the content but it just different such as it. So , do you nevertheless thinking How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) is not loveable to be your top collection reading book?

Billy Taylor:

A lot of people always spent all their free time to vacation or perhaps go to the outside with them loved ones or their friend. Do you know? Many a lot of people spent they will free time just watching TV, as well as playing video games all day long. If you would like try to find a new activity that is look different you can read a new book. It is really fun for you personally. If you enjoy the book that you just read you can spent all day every day to reading a publication. The book How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) it is very good to read. There are a lot of people that recommended this book. They were enjoying reading this book. In case you did not have enough space to develop this book you can buy typically the e-book. You can m0ore quickly to read this book from the smart phone. The price is not too costly but this book offers high quality.

Marilyn Fox:

Don't be worry if you are afraid that this book may filled the space in your house, you may have it in e-book approach, more simple and reachable. This particular How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) can give you a lot of pals because by you checking out this one book you have point that they don't and make anyone more like an interesting person. That book can be one of one step for you to get success. This book offer you information that maybe your friend doesn't know, by knowing more than other make you to be great folks. So , why hesitate? Let's have How We Remember: Brain Mechanisms of Episodic Memory (MIT Press).

Download and Read Online How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo #KFT6ECDL4VX

Read How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo for online ebook

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo books to read online.

Online How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo ebook PDF download

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo Doc

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo Mobipocket

How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo EPub

KFT6ECDL4VX: How We Remember: Brain Mechanisms of Episodic Memory (MIT Press) By Michael E. Hasselmo