



Causal Models: How People Think About the World and Its Alternatives

Steven Sloman

Download now

[Click here](#) if your download doesn't start automatically

Causal Models: How People Think About the World and Its Alternatives

Steven Sloman

Causal Models: How People Think About the World and Its Alternatives Steven Sloman

Human beings are active agents who can think. To understand how thought serves action requires understanding how people conceive of the relation between cause and effect, between action and outcome. In cognitive terms, how do people construct and reason with the causal models we use to represent our world? A revolution is occurring in how statisticians, philosophers, and computer scientists answer this question. Those fields have ushered in new insights about causal models by thinking about how to represent causal structure mathematically, in a framework that uses graphs and probability theory to develop what are called causal Bayesian networks. The framework starts with the idea that the purpose of causal structure is to understand and predict the effects of intervention. How does intervening on one thing affect other things? This is not a question merely about probability (or logic), but about action. The framework offers a new understanding of mind: Thought is about the effects of intervention and cognition is thus intimately tied to actions that take place either in the actual physical world or in imagination, in counterfactual worlds. The book offers a conceptual introduction to the key mathematical ideas, presenting them in a non-technical way, focusing on the intuitions rather than the theorems. It tries to show why the ideas are important to understanding how people explain things and why thinking not only about the world as it is but the world as it could be is so central to human action. The book reviews the role of causality, causal models, and intervention in the basic human cognitive functions: decision making, reasoning, judgment, categorization, inductive inference, language, and learning. In short, the book offers a discussion about how people think, talk, learn, and explain things in causal terms, in terms of action and manipulation.

"Sloman has written an accessible, popular-level book that will serve as a useful general introduction to the tricky and complex issues involved in understanding causality and its role in cognitive processing. For people who are unfamiliar with the issues and the research involved, this is a good starting point, although parts may require thoughtful rereadings. For people who are generally familiar with the issues but not the recent research or theoretical conceptions (*e.g.*, the use of counterfactuals), this book can serve as a useful guide to update one's knowledge. People who are actively working in this area will probably find this book a quick and enjoyable read."--Michael Palij, *PsycCRITIQUES*

"The field of Bayesian causal models is becoming increasingly important for theory building in cognitive science. This book provides a lively and lucid introduction to the core concepts, and weaves them together with the latest research on causality and related topics from the cognitive sciences. Elegant and entertaining."--Nick Chater, Director of the Institute for Applied Cognitive Science and Professor of Psychology, University of Warwick

"The scientific analysis of causal systems has become much more sophisticated with recent developments in computer science, statistics, and philosophy during the past decade. For the first time, we have available a comprehensive formal language in which to represent complex causal systems and which can be used to define normative solutions to causal inference and judgment problems. Steven Sloman's book makes these important developments easily accessible to the reader, as well as presenting many of his own exciting applications of these new ideas in behavioral studies of learning and judging causal relationships. This well-written book is full of profound insights and fascinating results. Anyone who wants to know what's going on at the cutting edge of cognitive science should read it." --Reid Hastie, Professor of Behavioral Science,

University of Chicago

"In the last 15 years, there has been a quiet revolution in how we model, understand, and learn about the causal structure of the world. Having started in philosophy and computer science, but now vital in psychology and statistics, the causal revolution has been slowed by the conspicuous absence of a truly readable book-length introduction. Fortunately, Steve Sloman has now written one. In a book that includes all the key ideas behind causal modeling but none of the tedious technical details, hundreds of worked examples ranging from marketing to arithmetic, and dozens of applications ranging from how we categorize the world to how we might be evolved to learn about its causal structure, Sloman has made a difficult subject exciting and simple." --Richard Scheines, Professor of Philosophy, Carnegie Mellon University

"Steven Sloman's *Causal Models* is the first broadly accessible book to survey an important and growing field of cognitive research: how people understand the causal structure of their world, and the role of causal understanding in all aspects of thinking, perceiving, and acting. No difficult technical concepts are assumed. Important unifying themes are explained clearly and illustrated with numerous examples. It will provide an excellent entry into this field for students, researchers, or interested general readers." --Joshua B. Tenenbaum, Paul E. Newton Career Development Professor, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology

 [Download Causal Models: How People Think About the World an ...pdf](#)

 [Read Online Causal Models: How People Think About the World ...pdf](#)

Download and Read Free Online Causal Models: How People Think About the World and Its Alternatives Steven Sloman

From reader reviews:

Brad Black:

Book is to be different for every grade. Book for children till adult are different content. To be sure that book is very important for people. The book Causal Models: How People Think About the World and Its Alternatives was making you to know about other expertise and of course you can take more information. It is extremely advantages for you. The guide Causal Models: How People Think About the World and Its Alternatives is not only giving you more new information but also being your friend when you feel bored. You can spend your spend time to read your reserve. Try to make relationship together with the book Causal Models: How People Think About the World and Its Alternatives. You never really feel lose out for everything in the event you read some books.

Shelia Coggins:

In this 21st hundred years, people become competitive in most way. By being competitive at this point, people have do something to make these survives, being in the middle of the crowded place and notice by surrounding. One thing that often many people have underestimated it for a while is reading. Yeah, by reading a guide your ability to survive enhance then having chance to stand up than other is high. To suit your needs who want to start reading a new book, we give you this particular Causal Models: How People Think About the World and Its Alternatives book as basic and daily reading guide. Why, because this book is greater than just a book.

Michael Decker:

Reading a book to get new life style in this 12 months; every people loves to examine a book. When you examine a book you can get a lot of benefit. When you read ebooks, you can improve your knowledge, simply because book has a lot of information into it. The information that you will get depend on what kinds of book that you have read. If you wish to get information about your study, you can read education books, but if you act like you want to entertain yourself you can read a fiction books, these kinds of us novel, comics, in addition to soon. The Causal Models: How People Think About the World and Its Alternatives provide you with new experience in studying a book.

Myrtle McDonald:

What is your hobby? Have you heard this question when you got students? We believe that that question was given by teacher for their students. Many kinds of hobby, Every individual has different hobby. And you also know that little person like reading or as reading become their hobby. You need to understand that reading is very important along with book as to be the matter. Book is important thing to increase you knowledge, except your current teacher or lecturer. You will find good news or update with regards to something by book. Amount types of books that can you choose to use be your object. One of them are these claims Causal Models: How People Think About the World and Its Alternatives.

**Download and Read Online Causal Models: How People Think
About the World and Its Alternatives Steven Sloman
#MY5BU80IV4T**

Read Causal Models: How People Think About the World and Its Alternatives by Steven Sloman for online ebook

Causal Models: How People Think About the World and Its Alternatives by Steven Sloman 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 Causal Models: How People Think About the World and Its Alternatives by Steven Sloman books to read online.

Online Causal Models: How People Think About the World and Its Alternatives by Steven Sloman ebook PDF download

Causal Models: How People Think About the World and Its Alternatives by Steven Sloman Doc

Causal Models: How People Think About the World and Its Alternatives by Steven Sloman Mobipocket

Causal Models: How People Think About the World and Its Alternatives by Steven Sloman EPub