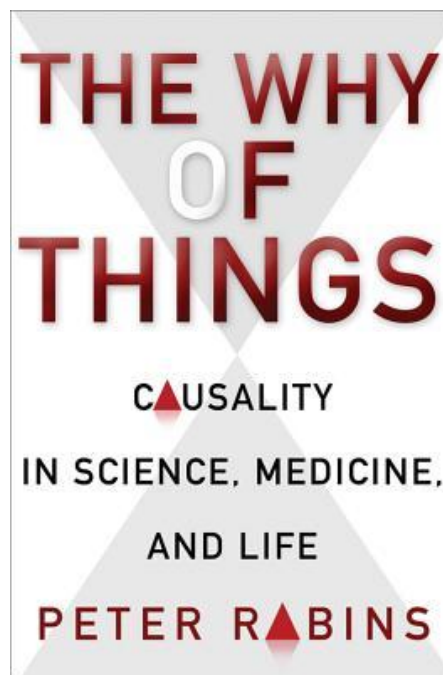




The Why of Things: Causality in Science, Medicine, and Life

Peter V. Rabins

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Why was there a meltdown at the Fukushima power plant? Why do some people get cancer and not others? Why is global warming happening? Why does one person get depressed in the face of life's vicissitudes while another finds resilience?

Questions like these--questions of causality--form the basis of modern scientific inquiry, posing profound intellectual and methodological challenges for researchers in the physical, natural, biomedical, and social sciences. In this groundbreaking book, noted psychiatrist and author Peter Rabins offers a conceptual framework for analyzing daunting questions of causality. Navigating a lively intellectual voyage between the shoals of strict reductionism and relativism, Rabins maps a three-facet model of causality and applies it to a variety of questions in science, medicine, economics, and more.

Throughout this book, Rabins situates his argument within relevant scientific contexts, such as quantum mechanics, cybernetics, chaos theory, and epigenetics. A renowned communicator of complex concepts and scientific ideas, Rabins helps readers stretch their minds beyond the realm of popular literary tipping points, blinks, and freakonomic explanations of the world.

The Why of Things: Causality in Science, Medicine, and Life Details

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From Reader Review The Why of Things: Causality in Science, Medicine, and Life for online ebook

Amanda says

This book was interesting, but read a bit like a textbook. In fact, it might have been more enjoyable if I'd treated it as such. I found it went into depths and details I did not care about, and I found myself continually looking to the book's summary to remember what I was supposed to be getting out of it. Again, it was not a waste of my time and had a lot of intriguing ideas and propositions, but I would say it's not a book just anyone would or should read.

Skjam! says

Disclaimer: I received this book as a Goodreads giveaway on the premise that I would review it.

The author of this book is a professor of Geriatric Psychiatry at Johns Hopkins University, and it started as a clinical teaching presentation. Patients often ask "why did this happen to me?" In attempting to answer that question, and so many more, the overall concept of causality becomes a subject.

The book makes two presumptions for the sake of discussing the subject, first, that causality exists, and second, that time moves in only one direction. The latter may be disprovable should the speed of light ever be broken, but at the moment, it's a reasonable assumption.

The model of causality presented in this book has three facets: causal models, levels and logics. In order to correctly use this model, one must decide which part of each facet to apply to the problem at hand. Empirical logic, for example (aka the scientific method) is often the best choice of method for looking at causality in the physical sciences, while empathic logic (a coherent narrative) might serve better to examine historical causation.

After examining each facet in detail, Mr. Rabins then demonstrates how this model can be used to examine such topics as Alzheimer's and the problem of violence.

There are extensive references, and an index. The only illustrations are the facets, repeated through the book with different emphases.

This is graduate-level material, and pretty thick going. It would be useful to students in scientific, medical or history majors, as well as relevant to classes in logic or statistics. Fiction writers, especially in the field of science fiction, may also find it useful when writing the thought processes of scientist characters.

Paulette says

I received this book through Goodreads First Reads Giveaways. From what I read of the book, I found it to be a well written book, however, I found it to be over my head a little. I was expecting a more relaxed-reading book and found this one to be more of a teaching/text book. I can see why it has such high ratings as it would be a great, informative read for somebody who works or is learning in this field. It just wasn't for

me. I will be passing it along to a friend of mine who can and will appreciate it more than I can.

Graham says

I received this book through a goodreads giveaway.

The book is very interesting analysis of causality of things. That said the book is written like a text book and is very dry. I often could only read a few pages at a time without my mind wondering off and having to reread the previous paragraph.

Each part of the three levels of causality has its own chapter and is explained in detail with examples. Although these are well thought out, explained and demonstrated with examples from several fields and time period, the dryness of the writing style makes this book hard to read more than one chapter at a time.

Jennifer Ricks says

Wow. I was expecting a pop book (based on the cover alone). I was a little more encouraged when I realized it came from Columbia University, but reading that Rabins is a psychiatrist made me further think of pop self-help. But from the introduction I'm now certain that this is going to be fascinating. His writing is highly educated, quite academic, but also accessible. I feel like I'm sitting in on a graduate school course. It's going to take some attention to read it, but I'm really excited to learn a lot.

Jacqueline Patricks says

I received this copy from NetGalley for an honest review. I had meant to add this review earlier, but life has a way of derailing sometimes.

Well-researched and well-written, *The Why of Things* explains the history of the scientific method--inductive thinking to deductive thinking--critical thinking. Being in the medical field, I found it especially interesting to learn the origin of medical diagnostic thinking--Dr. Thomas Sydenham in the 1600s, and discuss the limitations of such thinking since each infection event and each patient has unique variables that will influence the end result.

Part of the importance of causality is in identifying any unique limitations. This is a large part of what the book teaches, talking about causality versus probability and the various methods in which to reach conclusions.

I really enjoyed how the author mixed science, the history of said science, and how to think/use science appropriately to determine outcomes as accurately as possible. It's written in a style that's not too thick in terminology for those familiar with scientific journals. It's smoothly written and very readable. However, an average layperson, unfamiliar with advanced concepts of science, medical, and certain maths, may find it 'heavy' reading and prefer to digest in a small sections.

Rena says

I won this book from First Reads Giveaway. Waiting to read it when I receive it. Thanks.

Rhonda says

There aren't many bigger questions in life than Why, so anything that tries to address the topic thoughtfully is worth reading. But I don't think this author has the best background. He is trying to explain his own path to understanding why, based on his medical background, but other thinkers and writers have presented the material better.

David says

Despite the title and the cover, this book is not for a general audience. It seems to be intended for practicing philosophers, scientists, pathologists, and researchers in the pharmaceutical industry. The book is technical, theoretical -- and academic in style. This is perhaps the driest book I've read in a long time. Although the subject is quite interesting, Peter Rabins seems to try his best to hide the interesting stuff behind turgid prose. Just as an example, there are plenty of sentences like this: *"The existence of expected patterns within a culture but wide variation between cultures supports the notion that the essential nature is inherent or built in and therefore categorically unique but that rituals emerge to support those experiencing it."*

But, on the bright side, Rabins presents a useful three-facet approach to causality. Each facet has three or four models, that is to say, ways of thinking about causality. The *Causal Model* facet includes Categorical, Probabilistic, and Emergent models. The *Logic* facet includes Empirical, Empathic, and Ecclesiastic models. The *Levels* facet includes Predisposing, Precipitating, Programmatic, and Purposive models. A chapter is devoted to each model, with lots of good examples.

For example, Rabins shows that biologists frequently attribute "purposes" to traits and behaviors. However, scientists in the physical sciences rarely attribute a purpose to forces, behaviors, or characteristics. As another example, Rabins shows that some medical treatments for diseases are found to be useful, long before the causal agents for the diseases have been identified. Sometimes a *categorical* model for causation is useful--if A occurs, then B is the cause. If A does not occur, then B is not present. At other times, a *probabilistic* model is useful--if A occurs, then there is an X percent probability that B is the cause.

I found that the last chapter is the most interesting, as this is where Rabins applies the theoretical models to practical problems. He applies them to HIV/AIDS, the law, heredity and evolution, Alzheimer disease, human conflict, and to depression. My only quibble with this chapter, is that Rabins does not include the most talked-about causality problem of our age--the cause of climate change: Are humans responsible, or is climate change a naturally-occurring fluctuation?

Bert Edens says

From my book review blog at:

<http://kickinbooks.wordpress.com/2013...>

Columbia University Press was nice enough to provide, through NetGalley, a copy of this eGalley for me to read and review. Although it was provided at no cost, I am under no obligation to give a positive review.

First, a note that this book is not the answer to any burning “Why?” questions. Rather the author gives you tools you can use to increase your critical thinking processes when determining causality in your life. And in that he does a marvelous job.

There are several points the author returns to time and again, using them as a basis for each section before delving in with more depth:

Causal Models: Categorical, Probabilistic and Emergent

Levels: Predisposing, Precipitating, Programmatic and Purposive

Logics: Empirical, Empathic and Ecclesiastic

I won't go into detailed descriptions of each because, well, that's what the book is for. :)

The primary point to get from the book, besides developing the critical thinking skills I mentioned earlier, is there is rarely a single path of causality in any event. Even if it's very clear a single person is responsible for a particular act, there are threads of causality that lead to the wherefore and why of the action.

Rabins doesn't just stick with current events and other hard fact analyses in his book. He also tackles philosophical and even religious topics, showing how the guidelines I noted above can be applied to your analysis. Again, he doesn't specifically answer questions in detail, but rather gives you different ways to look at and think about things.

Overall, I really enjoyed this book. I have long believed that no event happens in a vacuum and all people are inter-dependent, so I already had the necessary mental framework around which to develop my thinking processes even further. Without a doubt, I will probably need to re-read it a couple times and make notes before I fully grasp all the concepts, but it will definitely be time well-spent.

Rating: 5 stars (out of 5)

AH says

I won this book in a GoodReads FirstReads giveaway. I will read and review the book when I receive it.
