

"A unique, important, and wonderful book...you'll never look at your own doctor in the same way again."
—Steven D. Levitt and Stephen J. Dubner, authors of *Freakonomics*

How Doctors Think



JEROME GROOPMAN, M.D.
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On average, a physician will interrupt a patient describing her symptoms within eighteen seconds. In that short time, many doctors decide on the likely diagnosis and best treatment. Often, decisions made this way are correct, but at crucial moments they can also be wrong -- with catastrophic consequences. In this myth-shattering book, Jerome Groopman pinpoints the forces and thought processes behind the decisions doctors make. Groopman explores why doctors err and shows when and how they can -- with our help -- avoid snap judgments, embrace uncertainty, communicate effectively, and deploy other skills that can profoundly impact our health. This book is the first to describe in detail the warning signs of erroneous medical thinking and reveal how new technologies may actually hinder accurate diagnoses. *How Doctors Think* offers direct, intelligent questions patients can ask their doctors to help them get back on track.

Groopman draws on a wealth of research, extensive interviews with some of the country's best doctors, and his own experiences as a doctor and as a patient. He has learned many of the lessons in this book the hard way, from his own mistakes and from errors his doctors made in treating his own debilitating medical problems.

How Doctors Think reveals a profound new view of twenty-first-century medical practice, giving doctors and patients the vital information they need to make better judgments together.

How Doctors Think Details

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From Reader Review How Doctors Think for online ebook

Ashleigh says

This is an excellent read, both for physicians and those in medicine, and for patients. Groopman discusses errors in thinking physicians make, and offers suggestions to work around them. Specific chapters deal with errors in primary care, where you are looking for the one sick patient in the sea of healthy ones every day, to errors in very specific subspecialties such as pediatric cardiology, where we must not forget we are making some of this up as we go along, as each patient is unique and requires a specialized treatment plan. The chapter on radiology and diagnostic imaging was eye opening; a good reminder that even thorough radiologists can miss non-subtle findings on films, and the clinician will get more information if she provides a more detailed patient history.

Read the epilogue if you want a great summary--it reviews how to help your physician come to the best diagnosis. Key questions to ask: 1. Can I tell you the story again from the beginning? Perhaps there's something I forgot to mention. (Sometimes listening afresh provides more insight). 2. What else could it be, or what is the worst thing this could be? 3. Do we need to repeat tests or blood work? (Sometimes a radiologic study can be re-examined, or repeated for better clarity). 4. Could it be more than one problem? (Occom's razor, the idea that the simplest solution is best, or that all symptoms need to lead to one unifying diagnosis, is not always true). 5. Is there another physician or center that would have more insight into my problem? (Sometimes a change in physician can help all).

A note for the author: Half of all medical students are now female. Your wife is a physician and female. Many female physicians are reading your book. It is jarring to read "he" every time we discuss the generic doctor and her thought processes.

Ali says

How Doctors Think by Jerome Groopman, is a book that explores the topic of the manner by which physicians are taught to think, how they arrive at correct and incorrect diagnoses and how the personality of the physician, the patient and the interaction between the two can affect the diagnosis and treatment. The book is loosely laid out in the same manner that a physician works through a problem with a patient – the history, the physical exam, the lab tests, the differential diagnosis (which is also spread throughout the book), treatment and other factors that may influence a physician with respect to a patient.

I've read this book twice now and have gotten different things from it each time. The first time was during my second year of medical school and I re-read my review of it, remembering how confusing just the process of arriving at a differential diagnosis can be. Last year when I read the book, I read it almost as a patient more than a physician. Now, in the middle of my third year of medical school, I understand more about the process of arriving at a differential diagnosis and the book had significance to me in a way it did not before.

The main lessons that I gleaned from the book:

- 1) Listen carefully to the patients, the diagnosis is in the history
- 2) Don't get caught up in what the patient has been diagnosed with, listen to the story yourself
- 3) Be conscientious – have a method and stick to it, even in the face of an obvious diagnosis
- 4) Ask the patient what they're most worried about and address it

- 5) Consider your feelings towards the patient – are they affecting the diagnosis/treatment?
- 6) If a diagnosis is wrong, have the patient tell you the story again, from the beginning
- 7) Consider that there may be more than one problem
- 8) Ask yourself what doesn't fit with the picture.
- 9) Don't take gifts from drug companies.

There is one thing that I disagree with in this book – that a patient's problems should be considered psychological once all other "physical" problems have been ruled out. I think that this discounts the importance of psychological problems – seeing them as a catch-all for things that the physician cannot explain – and creates a rift between the patient and physician where the physician, failing to diagnose the patient, turns to psychiatry.

I also think that he did not take into account one major thing – disbelief of the patient. It is rampant. So often a patient will come in and the physician rolls his/her eyes and easily discounts the patient's symptoms. It's possible that this comes with time and practice and that maybe I haven't made it there yet. Not always, though. I saw an intern groan and moan about this patient who had a number of complaints and appeared to be annoying her – the patient turned out to have metastatic colon cancer. I think that this plays a large role in the patient – physician interaction and should be studied more closely. "Should I believe you?" appears to be a question on many physicians' minds during their interactions with patients and I'm sure that patients can sense it.

I loved this book, I hope he writes more. I plan to read it again in a few years.

Imene Gouichiche says

A must reading book for both patients and doctors !

-For patients, in order for them to be more "proactive", because a patient insights into his own thinking and emotional state can be enormously helpful to a physician, it may seem odd for some people, but here where lies the genius of this book !

-For doctors now (where I felt more concerned): reading about the best and the most renowned physicians in the USA having the same struggle that I have brought me confidence ! I also realized that we must always questioned ourselves even if we have achieve a great deal of knowledge , there will be always something to learn !

Very pleasing book, I will certainly read it again in few years after having had more experiences with patients, I am sure I will learn more.

Greg says

This book helped me make decisions that gave me the patience to weather many tests and consultations that led to the discover of my coronary artery disease before I got a heart attack. Doctors are people too. They are trying to make a living and doing the best they can. Don't hate them because they prescribe expensive drugs or inconclusive tests. You need to work with them and force them to communicate their thinking. Always ask why a test is being administered. When a diagnosis is made, always ask:

- 1) What else could be the problem? What other body parts are near the region where I am experiencing

symptoms?

2) Is there anything that doesn't fit?

3) Could I have more than one ailment?

When looking for a thinking doctor, look for

1) Communication

2) Critical reasoning: the doctor should explain the thought processes that generated the diagnosis

3) Compassion: respect for the patient's values and spiritual needs.

When diagnosing, (not only doctors do this!), avoid the pitfalls of

1) Availability: the tendency to judge the likelihood of an event by the ease with which relevant examples come to mind.

2) Confirmation Bias: confirming what you expect to find by selectively accepting or ignoring information.

3) Anchoring: a shortcut in thinking where a person firmly latches on to a single possibility without considering multiple possibilities. This may be driven by a wish for a certain outcome.

4) Affectation error: selectively surveying the data driven by the expectation that your original diagnosis is correct.

5) Attribution: be wary of "going with your gut" when you have strong emotions about a person, either positive or negative.

Sue says

A must read for every doctor who practices medicine and for those patients who forget that doctors are practicing medicine and make errors in judgment (and he explains why these mistakes are made in a very very entertaining way). The book served as a reminder that a patient needs to be the captain of their own ship, challenging the inflated notion of even the most respected doctor... The chapter "A New Mother's Challenge" was probably one of the best examples of how and why doctors err and how the caregiver is oftentimes in the best position to solve the mystery. However, I couldn't help thinking about the patients who lack the resources and/or the intelligence to communicate effectively with ones doctor or to conduct research necessary in finding the correct diagnosis and/or doctor. A sad truth. Who will be their advocate? Nevertheless, intellectually pleasing.

Emma says

Can Jerome Groopman be my doctor? Mentor? Inspiration? He is so thoughtful and humble and insightful! I am glad that as I go into medical school, I have read this book, and I think I may need to read it again to refresh my memory. Anyone can learn something from this book about how doctors think and how you as a patient can help them. (We have all had our frustrating moments with the medical system.) And I think all doctors (and aspiring doctors) should read this book.

Katie Bananas says

This book was so good. It illustrates the importance of the patient-doctor relationship in the aspects of psychological well being, diagnosis, and treatment of patients. I found that the audiobook was so effective in its delivery and reading of the book. I was very engaged with a constant eagerness to learn.

Groopman emphasizes prime mistakes seen in medical practices of doctors in different specialties. At some point in the last chapter, he states: "Without risking failure, there was zero chance of success". This is such a true statement when it comes to medical practice and building relationships with patients. It's crucial to listen to the patient without interruptions to record their stated symptoms accurately to avoid making rushed decisions to arrive at an unnecessary diagnosis that could be very well avoided.

Kirsti says

Things that you should find worrisome if a doctor says them to you or a loved one:

- * "We see this sometimes" when said about a case that has some atypical features. The doctor is basically telling you that s/he has stopped thinking.
- * "There's nothing wrong with you." Even if your problems are psychogenic, they're still problems, and you are still suffering.

Things you can say to your doctor to help him/her with your case:

- "What's the worst this could be?"
- "Is it possible that I have more than one problem?"
- "Let me tell you what is really frightening me."
- "Can I tell you the story again as if you'd never heard it? Is it possible that I left out something important that I don't realize is important?"
- "When you say 'improvement,' do you mean 'cure'?"
- "How likely is this test to have a false positive rating? What about a false negative rating?"
- "Are you doing this procedure because you are confident it will work, or are you doing it because you don't know what else to do?"
- "Do you need more time to think about this? Do you want to call or e-mail me, or should I schedule another appointment?"

Other interesting information from this book:

- Studies show that the sicker you are, the more likely your doctor is to dislike you. Sad but true.
- Patients seen as "noncompliant" are also generally disliked. Doctors notice an apparent refusal to follow diet, exercise, and medication regimes but do not always realize that other factors (such as illiteracy) may be the reason for noncompliance.
- Other studies show that a doctor will interrupt a patient describing symptoms within 18 seconds.

- People tend to think that ER doctors can give a complete physical exam and tell them that they're completely healthy, but ER doctors are more focused on making sure that whatever may be wrong with you does not kill you in the next three days.

Excellent and thoughtful book, but I subtracted one star for a minor problem: Dr. Groopman always uses "he" when referring to doctors in general. This made me crazy because he's trying to note differences in older and younger doctors, and I think a rather substantial difference is that about half of younger doctors are female. Also, many of the most successful and thoughtful doctors he interviews are female. Also, HE IS MARRIED TO A FEMALE DOCTOR. Arrgh. (He refers to patients in general as "they.") This kind of sexism is so easy to edit out, but nobody bothered, and it rankles that nobody at the publishing company advised him that well over half the book-buying audience is female.

Christine says

The Science of Doctor Misdiagnosis -- Jerome Groopman is the chief of experimental medicine at Beth Israel Deaconess Medical Center in Boston, teaches at Harvard Medical School and is a writer for the New Yorker. Groopman is a doctor who realizes he needs a doctor as the result of an experience in which he found himself plagued by a wrist injury that resulted in multiple diagnoses and treatments from four different doctors with no clear and rationale diagnosis. As a result, he decides to embark on a journey to understand How Doctors Think.

His results are simultaneously illuminating and confirmatory of our own questions, doubts and frustrations when talking with doctors or confronted with difficult diagnoses. Through multiple interviews with doctors and patients in Boston and San Francisco hospitals, Groopman discusses why and how doctors make errors of misdiagnosis and along the way he provides some very useful tips for how to: talk to your doctor, question your doctor, help your doctor, and in some cases, when you should learn for a new doctor. He also confirms and explains the necessity of seeking second opinions (or for very difficult diagnoses, two, three or four doctors!). The multiple patient stories that he recounts in this book keeps the pace of the book moving and also provides readers with real life stories of people who have confronted challenging medical problems and how they ultimately were able to obtain the needed medical assistance. Lastly, Groopman also touches upon how the current health care system can in some cases create and foster doctor misdiagnoses. A good recommendation for anybody who interacts with doctors, or who may be faced with a difficult medical diagnosis.

Andrew Griffith says

Some of my comments and lessons from the book.

Doctors, like all of us, are subject to many of the 'fast thinking' pattern recognition (System 1), to use Kahneman's phrase as all of us. According to one study cited by Groopman, some 80 percent of misdiagnoses could be attributed to a cascade of cognitive errors, not lack of medical knowledge.

Groopman walks through a large number of examples from a range of medical fields to illustrate some of the

more common cognitive errors:

- Attribution errors, particularly when patients fit negative stereotypes;
- Affective errors, when we follow our wishes, or treat someone we like;
- Availability, based upon the ease which relevant examples come to mind, e.g., 'When you hear hoofbeats, think about horses, not zebras';
- Confirmation bias and anchoring, where we latch on to a single cause;
- Diagnosis momentum, as doctors build upon the earlier diagnosis and don't easily go back to first principles (decision-tree effect);
- Commission bias, or tendency towards action rather than inaction;
- Satisfaction of search, or stop when you have found something that fits, rather than finding everything; and,
- Influence of emotion on cognition and that first impressions are more influential than one might think.

Good practices and questions for doctors, to check their first impressions from 'fast thinking' and move to 'slow thinking':

- Step back from first impressions and be aware of emotional reactions (positive or negative);
- Appropriate use of checklists and/or thoroughness to make sure that one is not missing something (but with the risk that in some cases, checklists will also miss things), to avoid the risk of search satisfaction;
- Be aware of the risks of electronic templates and health records for what might be missed;

Ask:

- 'What might I be missing in this case?'
- 'And what would be the worst thing that could be missed?'
- 'What else could this be?'
- 'Tell me the story again as if I'd never heard it - what you felt, how it happened, when it happened;'
- Recognize that 'there are aspects to human biology and human physiology that you just can't predict;'
- Recognize uncertainty, not disregard it, and the natural tendency to be over-confident and focus more on positive than negative data;
- 'Don't just do something, stand there,' to address commission bias;
- Send the patient to another doctor for a fresh perspective in one doesn't know what the problem is or what to do.

Some good questions patients can use to slow down the thinking of doctors:

Questions:

- What's the worst thing this can be?';
- 'What body parts are near where I am having my symptom?'
- 'What else could it be?'
- 'Is there anything that doesn't fit?'
- 'Is it possible I have more than one problem?'
- 'I am worried about x being something more serious?'

Should doctors recommend a procedure or treatment, ask:

- 'What are the potential complications and their frequency?'
- 'What will be the pain level compared to having a tooth pulled under Novocaine?'
- 'Why, what might be found, with what probability, and how much difference it will make to further treatment decisions?'
- 'Why, if this particular treatment is not working, should we continue with this treatment?'

As well as some approaches and things to keep in mind:

- Acknowledge positive bias (e.g., if one has a close relation with one's doctor) and negative bias (e.g., if one's appearance or behaviour may suggest a certain diagnosis);
- Use humour to suggest why other doctors may not have taken complaints seriously (one patient said 'I may be perceived as kooky but');
- If unclear, ask for the explanation in non-technical language;
- Recognize that the perfect is the enemy of the good, miracles without side effects are unlikely, and that many treatments may not completely return one to the pre-disease or operation state; and
- Focus on the long (or medium) term goal with respect to the disease, not the short-term fear of treatment.

The book also has some good insights into some of the perverse incentives, either from drug companies or from fee-for-service that may cloud physician judgement. Overall, a good, interesting and helpful read.

Favourite quote and advice:

"Informed choice means, in part, learning how different doctors think about a particular medical problem and how science, tradition, financial incentives and personal bias mold that thinking. There is no single source for all of this information, so a patient and family should ask the doctor whether a proposed treatment is standard or whether different specialists recommend different approaches, and why. Laypeople also should inquire about how time-tested a new treatment is."

Martina says

- one star because not every physician is male.

Clif Hostetler says

Everyone needs to be their own advocate for their health care. A good first step is to understand how doctors think, and that's what this book attempts to do. The book generally focuses on the problem of incorrect diagnoses. Following each example of incorrect diagnosis there is an analysis of the reasons why the errors were made. Then the authors suggest ways doctors and patients can avoid similar problems in the future. There are numerous ideas and suggestions for patients to use in improving their chances of being correctly diagnosed.

Generally speaking my reaction to most of the examples in the book was that the doctors are human, and they can slip up occasionally. The book suggests that doctors are correct about 85% of the time. (Incidentally, that's about the same rate of accuracy as modern weather forecasting.) What I was most alarmed to learn about was how inaccurate radiologists and pathologists were. After hearing the accuracy rates for those professions, I think it to be unwise to allow a serious operation be performed based upon the test results reported by a single radiologist or pathologists.

The author is a doctor himself. One of the most interesting examples in the book was his own personal story of finding a solution for pain in his right hand. I lost count, but I think he visited about six different specialists trying to find a solution to the problem. I noticed that his wife, who's also a doctor, insisted on coming along to some of the visits with doctors to make sure her husband would ask the correct questions.

He used his medical connections to get in to see what are considered to be the top experts in the nation, and even he was unhappy with the way he was treated. If he wasn't happy, imagine what happens to the rest of us. In the end he had a surgery done that gave him 80% full use of his hand, a bit short of perfection. However, if he had gone forward with about 4 of the 6 proposed operations, the result would have either been no improvement or maybe ending up in a worse condition.

The following is the review from my PageADay Book Lover's calendar:

Nobody's perfect, not even your doctor. But most doctors get most diagnoses right most of the time. Jerome Groopman, Harvard Professor of Medicine and essayist for The New Yorker, examines those times when things go wrong. The questions Groopman asks are crucial: What assumptions do doctors make about patients that lead to misdiagnoses? And what can you, the patient, do to help your doctor think clearly and avoid fatal jumps to conclusions? This is one book that can definitely improve your health.

Inês Gueifão says

Review to come!

Musab Abed says

A book that helps clinicians to assess the way they think, and to try eliminating the diagnostic errors by diagnosing the doctors' thinking pitfalls (anchoring, attribution and availability types of errors) ..
In my opinion; stereotyping is the most common cause of diagnostic errors .The more expert clinician would be better in diagnosis , but - unfortunately- due to the more 'stereotypes' they had ! so it's a 'double edged sword' ! ,every clinician should relay on his experience but not bypassing the ABCs ..

Sarah says

My book club read this book last month. We found it interesting, but repetitive. Basically, Dr. Groopman discusses many ways in which doctors are, gasp, not omniscient and in fact are susceptible to the same errors/ruts/gaps in thinking that plague any of us when trying to solve problems. Recognizing these fallibilities--understanding how a doctor is trained to think-- enables patients to be more proactive, to ask better questions, and thus help themselves by helping the doctor find the correct diagnosis or best treatment.

Groopman organizes his points around lots of interesting anecdotes, so I didn't find this book dry at all, just somewhat repetitive. If you're interested in the medical field at all (or perhaps have had an illness that resisted easy diagnosis), I definitely recommend it. You don't have to read the whole thing unless you really get into it. The intro/first chapter and the one about his hand are especially intriguing.

I read this book after having a fascinating experience this spring with traditional Chinese medicine (TCM), in which my acupuncturist solved a medical mystery for which Western medicine had 0 answers. The problem was basically an imbalance of the sort that isn't even in the Western lexicon. TCM views the body in a totally different way. But for me this made "how doctors think" (the subject, not the book) seem frustratingly constrained, with very limited training in or willingness to explore truly holistic health.

P Chulhi says

Groopman's free-flowing anecdotal style is his strength, and his unique perspective and journalistic skill are highlighted in the chapter entitled, "Marketing, Money, and Medical Decisions." Here he offers a nuanced perspective and a reasonable, if mundane solution. Medical decisions are indeed influenced by money, Groopman argues, but not in the way most of us might think with the bad guys dressed in black on one side and the good guys adorned in white on the other. Instead, medical decisions are influenced by a messy intersection of money, ego, and faith/hope. He guides the reader to this conclusion by recounting his interviews with many different specialists and even a pharmaceutical company executive. The solution is "informed choice," a comprehensive understanding of the risks and benefits of all available treatments, which also encompasses an understanding of how different doctors think and how factors like money, personal bias, and tradition influence that thinking. This chapter is worth a read, and it's unfortunate that it appears near the end of the book.

The rest of the book, however, feels incomplete. Groopman often fails to consider the epidemiological "big picture" in certain key moments. For example, he criticizes the use of patient templates versus traditional open-ended questioning in reaching a diagnosis because the former tends to restrict a doctor's ability to reason (Ch. 4, "Gatekeepers"). He implicates the financial pressures that lead insurance companies to increase the number of patients a primary care physician sees on a given day and therefore necessitate the development of templates. This sounds reasonable on its surface but the question at the crux of the matter goes unasked; namely, does open-ended questioning lead to different outcomes versus patient templates at the population level? (After all, checklists developed at Cook County hospital improved the overall accuracy of diagnosis of chest pain there.)

Groopman also introduces many unresolved contradictions throughout the book. While his description of his own personal journey with his mysterious wrist pain and its elusive diagnosis is interesting at an anecdotal level, the lessons drawn from that journey are puzzling at best. Groopman praises the young doctor for ignoring data from the all-mighty MRI scan and paying heed to pertinent data in reaching the correct diagnosis (Ch. 7, "Surgery and Satisfaction"). This contradicts one of the major running themes in this book: Doctors are often lead astray by confirmation bias, i.e., the tendency of doctors to ignore data that contradicts their impressions while favoring data that agrees with them. What I'm left to wonder is what distinguishes this young doctor's "insight" from the myriad of doctors who employ seemingly similar thought processes but arrive at wrong diagnoses. In other words, Groopman seems to praise and reject the exact same thought process based on the success or failure of the outcome. As a future doctor myself, this doesn't really help me understand how to avoid cognitive errors. In Chapter 8, "The Eye of the Beholder," Groopman seems to support giving radiologists a complete patient history to aid in the interpretation and diagnosis of medical imaging, but he fails to explain how this would avoid the error of "availability/diagnosis momentum" (a shortcut in thinking that causes people to assign the likelihood of an event based on the relative ease with which examples come to mind).

This book is not without its occasional gems - I like the idea that "the perfect is the enemy of the good" in reference to managing patient outcomes pre- and post-surgery (Ch. 7), and, as I mentioned in the first paragraph of this review, I found Groopman's analysis of marketing and motivation in medical decisions to be nuanced, insightful, and well-articulated. That said, however, Groopman leaves too many unresolved questions for me to consider this a persuasive work as a whole.

charlie says

I really should not have read this book! It confirmed all of my worst assumptions about doctors - how little they know, how so many factors can influence their diagnoses and approaches, how visiting 5 different doctors may yield 5 different perspectives.

All that being said, I am glad I read this book since the author, to some extent, gives you strategies on how to manage or select doctors to improve care. In the end, I am not sure I am that much wiser, but I appreciated that one doctor (the author) is being honest about what to expect from this very inexact science.

Pris robichaud says

The Patient: Leader of the Healthcare Team, 1 April 2007

"Patients and their loved ones swim together with physicians in a sea of feelings. Each needs to keep an eye on a neutral shore where flags are planted to warn of perilous emotional currents". Jerome Groopman

The Patient: as a student nurse I was educated to understand that I always needed to listen to my patient, really listen. That philosophy has always served me well. Health care providers tend to be controlling, and when we are given a diagnosis that shakes us to our core we need some control. We need a physician and health care team that has the patient as the leader of the team. We listen to all of the recommendations and weigh the evidence as best we can. In the end we need to be able to trust our physicians and have a relationship that allows humor and sadness, questions and answers and honest give and take. It is a relationship like no other- it is sometimes life and death.

Jerome Groopman has written a book for everyone. Everyone needs to be their own advocate for their healthcare. His ideas that the way physicians think result in the treatment and care for each and every one of us. "Every doctor makes mistakes in diagnosis and treatment," he writes. "But the frequency of those mistakes, and their severity, can be reduced by understanding how a doctor thinks and how he or she can think better."

He helps the layperson understand doctors' thinking with simple and accessible terms that suggest why it sometimes leads to undesired outcomes. As David Kessler in his reviews states "He introduces us to terms such as "diagnosis momentum" -- when a diagnosis becomes fixed in the mind of the physician despite incomplete evidence. Or "availability," which means the tendency to judge the likelihood of a medical event by the ease with which relevant examples come to mind. He takes phrases patients often hear, such as "we see this sometimes" and puts forth the idea that such generic comments deserve further questioning from the patients."

Dr Groopman has written of fascinating case studies and the physicians who were part of them. The errors and the acute diagnoses are compiled in story after story. Physicians are open about the way and the

analytical methods they use in delimiting the final diagnosis. It is difficult to forget the misfortunes of some patients. We understand a little more completely the real-life drama that physicians face in their mistakes and when their diagnosis is right on.

We learn about Bayesian Perspective thinking. "We all like to know how reliable and how risky certain situations are, and our increasing reliance on technology has led to the need for more precise assessments than ever before. Such precision has resulted in efforts both to sharpen the notions of risk and reliability, and to quantify them. Quantification is required for normative decision-making, especially decisions pertaining to our safety and well being. Increasingly in recent years Bayesian methods have become key to such quantifications." says Dr Groopman. The thought processes of physicians is an insight few of us have had to encounter. We should all be prepared for our next encounter.

It was refreshing to learn of Dr Groopman's frustrations with his medical care, and the four different opinions he received about his right hand. He carefully delineates how each physician came to their conclusion and this is the type of thinking we need to engage in. We all have our stories of healthcare, and this book will give us more insight into the 'whys and wherefores' of our physicians' thought processes.

"Dr. Groopman gives a brief mention of how modern evidence-based medicine competes with the art of using your intuition. He touches on how drug and insurance companies pressure doctors as he explores their influence via big drug company sales representatives. I would have liked him to have written more about the influence of insurance companies, an area barely touched on, and about finances. This might have given readers a more complete picture of the intersection of medicine and finances." David Kessler

Most of us will be left with more respect for the art of medicine, and the careful consideration Groopman's doctors give to their patients. "How Doctors Think" is a book every patient needs to read. We, the patients have much more power than we know, and we can change the shape of the physician/patient relationship. We need to come to the doctor's office prepared to ask the right questions so that our physician's thought processes will be beneficial to both of us.

Highly Recommended. prisrob 4-01-07

Assia Mohdeb says

" This book is about what goes on in a doctor's mind as he or she treats a patient. You 'd be able , at the end of it, to answer some of the main Questions that Dr Jerome Groopman had first asked such as ; How should a doctor think? Do different doctors think differently? Are different forms of thinking more or less prevalent among the different specialties? In other words, do surgeons think differently from internists, who think differently from pediatricians? Is there one "best" way to think, or are there multiple, alternative styles that can reach a correct diagnosis and choose the most effective treatment? How does a doctor think when he is forced to improvise, when confronted with a problem for which there is little or no precedent? How does a doctor's thinking differ during routine visits versus times of clinical crisis? Do a doctor's emotions—his like or dislike of a particular patient, his attitudes about the social and psychological makeup of his patient's life—color his thinking? Why do even the most accomplished physicians miss a key clue about a person's true diagnosis, or detour far afield from the right remedy? In sum, when and why does thinking go right or go wrong in medicine? And how could laypeople help improve a doctor's thinking to prevent him from the cascade of cognitive pitfalls that cause misguided care ?? ... "

Jack says

First of all, I should say that I'm a doc.

This book was strongly recommended to me by several colleagues who I deeply respect. It makes for a reasonable read, and I see why they enjoy it.

It's pretty typical doctor-authored literature. It takes a half decent idea from the social sciences (in this case, that heuristic reasoning is essential for managing very complex environment, but that heuristics have predictable failings). It then illustrates this with a bunch of stories of touching stories of human tragedy and triumph. It has some reasonable suggestions for being aware of one's limitations and trying to compensate for predictable lapses.

The heuristics stuff is not terribly novel -- it seems to derive from a very minimal reading of Kahneman and Tversky. If you want to read the underlying social science, and can stomach more academese, you can get a lot deeper than this in Judgment under Uncertainty.

I found most frustrating the medical stories. Frankly, they seemed a little trite. Regrettably, Groopman's good, but the bar has gotten set pretty damn high in the last few years. (see: Atul Gawande)

Finally, Dr. Groopman is a professor of experimental medicine. He wants to argue that doing lots of extra tests, moving beyond accepted knowledge is essential. Sometimes it is. But his discussion of trying fourth or fifth line chemo agents on the off-chance one unexpectedly works seems to me to be underestimate the real human suffering eternally searching for miracles induces. I would have like a book about the limits of doctor's thinking to be more thoughtful about that blindspot.
