# Lies, Damned Lies, and Science: How to Sort through the Noise Around Global Warming, the Latest Health Claims, and Other Scientific Controversies

*Sherry Seethaler*
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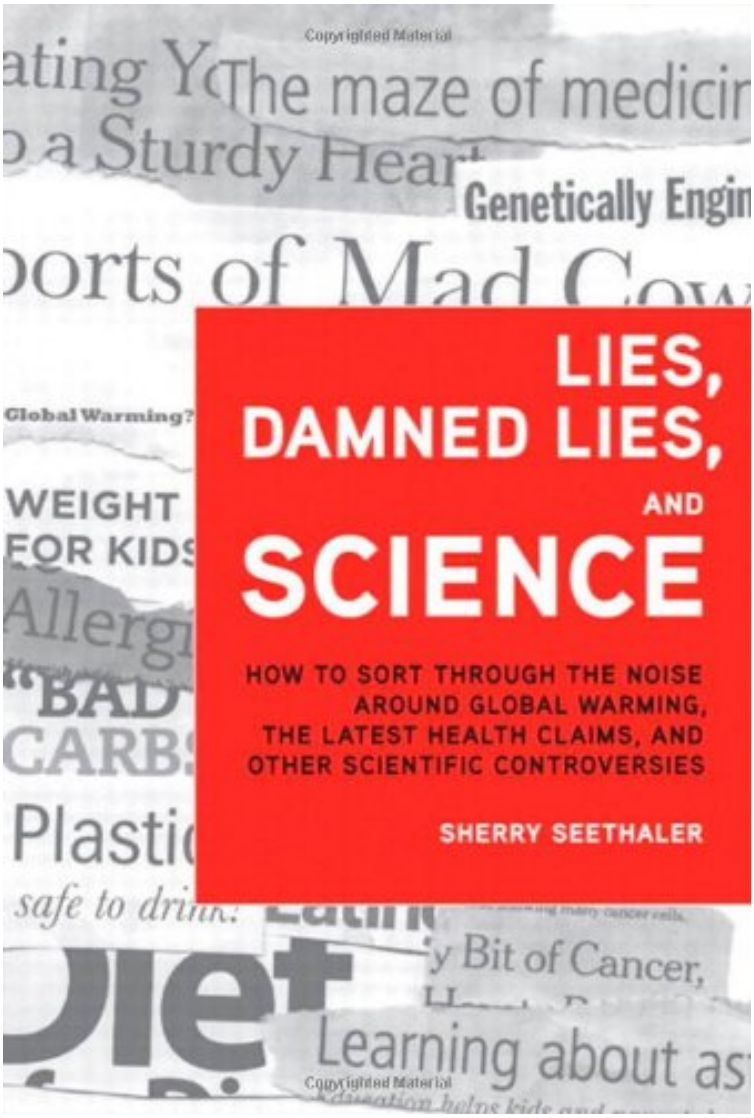




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**Sherry Seethaler : Lies, Damned Lies, and Science: How to Sort through the Noise Around Global Warming, the Latest Health Claims, and Other Scientific Controversies** before purchasing it in order to gage whether or not it would be worth my time, and all praised Lies, Damned Lies, and Science: How to Sort through the Noise Around Global Warming, the Latest Health Claims, and Other Scientific Controversies:

0 of 0 people found the following review helpful. Five starsBy Judith MartinezIf you've ever wondered why seemingly contradictory recommendations pop up in the media every day this book will help you understand why. It will also give you a set of tools you can use to dig up the real results so that you can apply them to your own decision making. A worthwhile read directly written to those of us that have only a basic science education.11 of 12 people found the following review helpful. A definite "should read"!By William MeadLies, Damned Lies, and Science: How to Sort through the Noise around Global Warming, the Latest Health Claims, and Other Scientific Controversies discusses the workings and failings of the societal systems that fund, pursue, report, and use results of scientific research. Dr. Seethaler discusses broadly some typical methodologies of medical, biological, and physical research and the ways in which research results can be applied properly (and improperly) to making science- and technology-related policy decisions. She presents, in a clear and accessible way, a toolkit that can help the reader to better monitor and guide such decisions. She illustrates the tools' use in the context of a number of recent and current examples.I consider this a very good book on an important subject. I would say, "You (with a few exceptions noted below) should read this book!" I'd go even farther here, and suggest that this book (or material of similar scope and quality) should serve as a source for a required (high-school or college) course in "Science and Society, 101". The only people who should not read this book are those who 1) have firmly decided that science is irrelevant to life in this world; 2) do not or will not have any role in setting science- and tech-related policies; 3) do not care what kind of life they and their offspring will have in the future; or 4) are already thoroughly familiar with the subject.As a physicist with 30+ years' experience in research, I (naturally) find a few ways in which the book might be improved. For example, I think the book falls a little short on discussing how theory, numerical modeling, and experiment fit together in physical science research. Also, a somewhat more extensive and deeper discussion of "Global Warming" or one other substantial (but slightly less heated?) case could be helpful.Did I mention that I found the book an enjoyable read?The Kindle edition was well done, though I consider the nominal $10 price of eBooks to be too high.10 of 11 people found the following review helpful. Critical Thinking is a NecessityBy SingleEyePhotosI've read a few of the author's other books on science, and enjoyed them. I thought she had a good knack for explaining difficult concepts clearly and concisely so that a layman could understand them. I was hoping that this book would be more of the same, but it wasn't. Instead of basically debunking incorrect information about popular 'hot-button' scientific issues, she tries to show how the layperson needs to use critical thinking to determine how credible the information in popular media is. This is definitely a useful book and gives great insight into what goes on 'behind the scenes' in preparing to announce scientific discoveries, but it still leaves the reader needing to do the thinking themselves. Is that a good thing or a bad thing?This book was 'dryer' than the others I read, and seemed to drag occasionally, but generally it was well-written and informative, but not a 'light reading' book as were her 'Curious Folks Ask..." books.Note on Kindle formatting: Very good. No obvious issues were noted.

ldquo;Comprehensive, readable, and replete with current, useful examples, this book provides a much-needed explanation of how to be a critical consumer of the scientific claims we encounter in our everyday lives.rdquo; ndash;April Cordero Maskiewicz, Department of Biology, Point Loma Nazarene University ldquo;Seethalerrsquo;s book helps the reader look inside the workings of science and gain a deeper understanding of the pathway that is followed by a scientific findingndash;from its beginnings in a research lab to its appearance on the nightly news.rdquo; ndash;Jim Slotta, Ontario Institute for Studies in Education, University of Toronto ldquo;How I wish science was taught this way! Seethaler builds skills for critical thinking and evaluation. The book is rich with examples that not only illustrate her points beautifully, they also make it very interesting and fun to read.rdquo; ndash;Julia R. Brown, Director, Targacept, Inc. Donrsquo;t Get Hoodwinked! Make Sense of Health and Science News...and Make Smarter Decisions! Every day, therersquo;s a new scientific or health controversy. And every day, it seems as if therersquo;s a new study that contradicts what you heard yesterday. Whatrsquo;s really going on? Whorsquo;s telling the truth? Whorsquo;s faking it? What do scientists actually knowmdash;and what donrsquo;t they know? This book will help you cut through the confusion and make sense of it allmdash;even if yoursquo;ve never taken a science class! Leading science educator and journalist Dr. Sherry Seethaler reveals how science and health research really work...how to put scientific claims in context and understand the real tradeoffs involved...tell quality research from junk science...discover when someonersquo;s deliberately trying to fool you...and find more information you can trust! Nobody knows what new controversy will erupt tomorrow. But one thingrsquo;s for certain: With this book, yoursquo;ll know how to figure out the real dealmdash;and make smarter decisions for yourself and your family! Watch the news, and yoursquo;ll be overwhelmed by snippets of badly presented science: information thatrsquo;s incomplete, confusing, contradictory, out-of-context, wrong, or flat-out dishonest. Defend yourself! Dr. Sherry Seethaler gives you a powerful arsenal of tools for making sense of science. Yoursquo;ll learn how to think more sensibly about everything from mad cow disease to global warmingndash;and how to make better science-related decisions in both your personal life and as a citizen. Yoursquo;ll begin by understanding how science really works and progresses, and why scientists sometimes disagree. Seethaler helps you assess the possible biases of those who make scientific claims in the media, and place scientific issues in appropriate context, so you can intelligently assess

tradeoffs. Yoursquo;ll learn how to determine whether a new study is really meaningful; uncover the difference between cause and coincidence; figure out which statistics mean something, and which donrsquo;t. Seethaler reveals the tricks self-interested players use to mislead and confuse you, and points you to sources of information you can actually rely upon. Her many examples range from genetic engineering of crops to drug treatments for depression...but the techniques she teaches you will be invaluable in understanding any scientific controversy, in any area of science or health. ^ Potions, plots, and personalities: How science progresses, and why scientists sometimes disagree ^ Is it ldquo;causerdquo; or merely coincidence? How to tell compelling evidence from a ldquo;good storyrdquo; ^ There are always tradeoffs: How to put science and health claims in context, and understand their real implications ^ All the tricks experts use to fool you, exposed! How to recognize lies, ldquo;truthiness,rdquo; or pseudo-expertise

About the AuthorSherry Seethaler, a science writer and educator at the University of California, San Diego, works with scientists to explain their discoveries to the public. She also writes a column for the San Diego Union-Tribune answering readersrsquo; questions about science. Seethaler holds an M.S. and Master of Philosophy in biology from Yale, and a Ph.D. in science and math education from UC Berkeley. Excerpt. copy; Reprinted by permission. All rights reserved.Praise for Lies, Damned Lies, and Science: How to Sort through the Noise around Global Warming, the Latest Health Claims, and OPraise for Lies, Damned Lies, and Science ldquo;Comprehensive, readable, and replete with current, useful examples, this book provides a much-needed explanation of how to be a critical consumer of the scientific claims we encounter in our everyday lives.rdquo; mdash;April Cordero Maskiewicz, Department of Biology, Point Loma Nazarene University ldquo;Seethalerrsquo;s book helps the reader look inside the workings of science and gain a deeper understanding of the pathway that is followed by a scientific findingmdash;from its beginnings in a research lab to its appearance on the nightly news.rdquo;mdash;Jim Slotta, Ontario Institute for Studies in Education, University of Toronto ldquo;How I wish science was taught this way! Seethaler builds skills for critical thinking and evaluation. The book is rich with examples that not only illustrate her points beautifully, they also make it very interesting and fun to read.rdquo;mdash;Julia R. Brown, Director, Targacept, Inc.PrefaceBe very, very careful what you put into that head, because you will never, ever get it out.mdash;Thomas Cardinal Wolsey (1471-1530)My goal in writing this book is to help people make sense of the science-related issues that impact their daily lives. Lies, Damned Lies, and Science provides an enlightening approach for contemplating scientific issues, and brings these issues into focus the way new glasses sharpen onersquo;s vision. In other words, the book is a new lens through which to view the world. Each chapter reveals a unique set of elements that need to be taken into consideration when reasoning about a complex science-related issue. In addition to bringing these elements into focus, the book shows how they fit together into something greater than a sum of parts.Most of the messages that bombard us everyday are carefully selected to present just one of a kaleidoscope of possible perspectives on technological, environmental, economic, and health issues such as global warming, mad cow disease, nanotechnology, genetically engineered food, who should take cholesterol-lowering drugs, and what are the merits of banning plastic bags. Oversimplified black-and-white perspectives of issues come from those who have a vested interest in convincing others of their point of view, or who are simply relaying information without thinking critically about it. This book explores ways to achieve more nuanced and balanced perspectives on a wide range of issues.In a society in which science and technology drive the economy and infiltrate every aspect of daily life, it is dangerous for an elite few to make the decisions about how technology is used, who will be given access to it, and how money is spent to research scientific solutions to societal problems. Ironically, those with the power to make these decisions rarely have any background in science. Therefore, they are especially vulnerable to being hoodwinked by those who hold stake in an issue and have the money to get their voices heard. Yet, we too can make our voices heard through sound, evidence-based political, consumer, and medical decisions. To do this, we need to be armed with the knowledge that makes it difficult for clever stakeholders to deceive us.Too many people lost confidence in their ability to understand science because they did poorly in science class in high school. However, even folks who excelled in high school science classes and majored in a scientific discipline in college are rarely adequately prepared to think critically about the science they encounter in their daily lives. High school and even college science tends to be focused on facts, formulae, and experiments with known outcomes. In the real world, there is much more uncertainty and interpretation. Decisions about contemporary scientific issues often must be made on the basis of incomplete information, and conflicting viewpoints are the norm rather than the exception. This book unravels the complexity of such issues to help scientists and nonscientists alike identify hogwash and balance tradeoffs to make well- reasoned decisions about science in everyday life. 