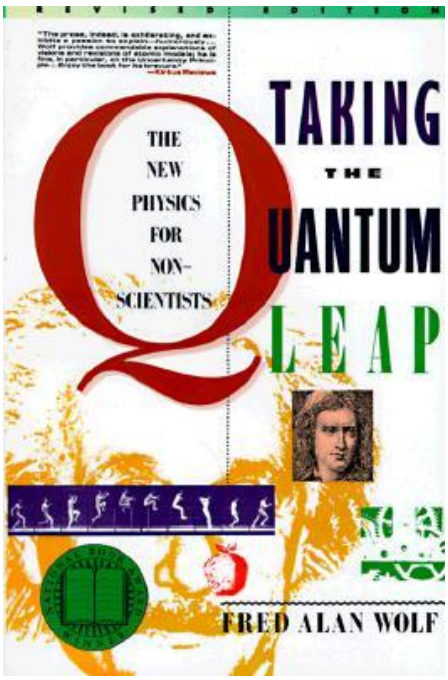

Taking the Quantum Leap: The New Physics for Nonscientists

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This book entertainingly traces the history of physics from the observations of the earlyGreeks through the discoveries of Galileo and Newton to the dazzling theories of such scientists as Planck, Einstein, Bohr, and Bohm. This humanized view of science opens up the mind-stretching visions of how quantum mechanics, God, human thought, and will are related, and provides profound implications for our understanding of the nature of reality and our relationship to the cosmos.

Taking the Quantum Leap: The New Physics for Nonscientists Details

Date	:	Published January 25th 1989 by Harper Perennial (first published 1981)
ISBN	:	9780060963101
Author	:	Fred Alan Wolf
Format	:	Paperback 304 pages
Genre	:	Science, Physics, Nonfiction, Philosophy, Quantum Mechanics, Spirituality, History

From Reader Review Taking the Quantum Leap: The New Physics for Nonscientists for online ebook

Pop Bop says

What A Pernicious Little Book

I had just finished looking through a half dozen current books about quantum physics that were clear, engaging, and remarkably accessible, when I came upon this chestnut from 1981. I thought it would be interesting to review what was being written as popular quantum physics science almost forty years ago.

I had not expected a New Age interpretation of "I think; therefore, it is", which is what you get here. I should have expected something funky from the chapter heading quotes from Pink Floyd and the Moody Blues, but, hey, lots of physicists have their whimsical side. I did not expect Wolf to take the idea that observation affects the observed and turn it into his central point - observation creates the observed.

Here is a central quote from the book's introduction - "Perhaps much of what is taken to be real is mainly determined by thought. Perhaps the appearance of the physical world is magical because the orderly processes of science fail to take the observer into account. The order of the universe may be the order of our own minds." If this line excites you, well by all means track down a copy of this book. Wolf can really rhapsodize along the lines of "consciousness is as consciousness does", and pretty much does for the entire book. For me, what consciousness did was look for my bong. On the other hand, if what you want is to understand why the Higgs Boson is such a big deal, try a different book.

Brent says

Summer 2007. Science. This book was over my head most of the time. I really liked Stephen W. Hawking's "A Brief History of Time: From the Big Bang to Black Holes." I had been looking for another science book to read and Dr. Wolf's book was recommended to me. I did enjoy the examples he uses to explain theories but most of the stuff in between was hard to grasp. Quiffs and Pops? I just popped some quiffs.

Jay says

Theoretical physics and quantum mechanics for Joe Blow.

This is the easiest book I've read on these subjects, simply because Wolf didn't mince around with fancy words and you need a mathematical degree for. There were a few parts, particularly to the end, when my eyes started to glass over, but that could be due to tiredness more than anything else.

What I found so amusing was this was written over twenty years ago. Some of things Wolf was talking about have since been proved, and somethings are still a mystery. Reading outdated science books are always amusing to me.

But I really liked the simple language and the fact Wolf didn't presume the reader had a degree in advanced physics and mathematics. The history leading to quantum mechanics was also appreciated, but that's my history major talking.

Steven Peterson says

I get headaches reading even accessible introductions to quantum theory. This book does a better-than-average job of keeping those headaches to a minimum. It is written pretty well and gives the reader a good chance of "getting it." Ths standard issues are addressed: particles versus waves, uncertainty, the role of the observer, and so on.

The copyright is 1981; I acquired this quite a while ago and--as noted--found it one of the better works on the subject for the layperson.

Christophe Meyer says

Accessible reading about quiff (quantum wave function) with lots of metaphors.
Pushes all the way through to explain consciousness and mind :-)

G0ldil0x says

The first part of the book "Welcome to the Machine" provides an excellent review of early scientific concepts and I enjoyed the comparisons between the shift in observance from passive to active as scientists were evolving their understanding of the universe within and without.

I am now entering part II - so I will have to get back to you on that.

I will say that I am relatively glad that I have an extensive background in science. While not in this particular content area, it certainly makes the reading and comprehension less complicated and my passion for science makes the reading exciting as well.

crappity crap - that sounds awful geeky. just pick it up. it provides an excellent journey through science.

Read It says

ONE OF BEST BOOK OUT THERE THAT DEALS WITH OBSERVATION AND THE COLLAPSE OF THE QUATUMN WAVE FUNCTION DUE TO THE CONSCIOUSNESS! Not hating at all with the 3 Star rating but I will need to read the book at least 5 times to fully understand it and I have a good knowledge about the consciousness and wave function before even reading this book. Fred Alan Wolf tried his best to make this book easy to read on the first attempt but failed to do so but after reading it over and over, you will be baffled and profound. You will need your consciousness and mind adapt to profound and overwhelming information explained in this book and will need to read it at least 3-5 time to fully get a grip. However

inside the book is a welcome goldmine of valuable information that is explained into detail. Explains Zeno's Arrow of life being continuous frames of stops, also explains Early Planck, Bohm, Einstein and etc in timeline fashion. Even if the book is from 1981, this book is still loaded with valuable insights. He gave a specific reason why Schroedinger cat could be possible in two locations at once before being observed. Gives good insight on Atoms, Molecules, Foces that deal with NH2 Molecule and why h-2 gives away ghost energy and why the conclusions exist for the alternative realities and parallel universes. .

Gave excellent stories on the Passive Observer, Active Disturber and the disturbing Observer and how it affect the atoms, the wave function, and observation and reality.

One of my favorite quote in the book was

"WE ARE ALL VICTIMS OF A DESTINY OF A DETERIMINED MANNER"

David Bonesteel says

Fred Alan Wolf does a good job of explaining the latest thinking in quantum physics, which he himself concedes to be impossible for us to visualize in many respects, for readers without scientific training. He does this by adopting a historical approach, following the evolution of man's understanding of the nature of motion from the speculations of early Greek philosophers such as Zeno and Aristotle through the work of ground-breaking physicists such as Einstein and Bohr up to the most current knowledge about the crucial importance of the observer in determining reality. Wolf includes some mind-blowing speculations about the nature of human consciousness in the quantum universe which should fascinate you even if you find them difficult to accept.

White says

Wolf is the master at turning a difficult concept of understanding and puttting it in layman's terms. Without understanding math to the extent of physicists, Wolf can still put you part way there with this book. I read Taking the Quantum Leap before the string theory was part of the scientific inquision. Though fascinating and shivering in its realization, using only language is limited in giving a full understanding of quantum theory.

I loved this book. I found with every read, I get that much closer to understanding this concept, yet there is more I don't understand. Wolf takes me as quickly as Paul Davis, if not faster. That's why I love this book. It gave me a quantum leap toward understanding quantum theory.

John Rasmussen says

I have read this several times. Every time I want to refresh my thoughts about Quantum Mechanics, I just start it again. Love the non-technical way that the science is explained. Although, some of the mathematics would be good also.

Bob says

This is a really good book for anyone who wants to understand something about the world of quantum physics, but doesn't know the math, or has been out of school as long as I have. I've always had an interest in physics and when I read some of the reviews on this book, I put it on my list. It's time came this week.

If you read anything on quantum physics before, this is a quick read. And, if you have not, it won't take too much longer. The world of quantum mechanics is very, very strange. Things don't work the way you would expect, so I'll admit there were some topics I could not grasp.

The author does a great job going over the background and history of the scientific method and the development of physics. This helps in your understanding. As the scientific method moves to the 19th and 20th centuries, the picture begins to come together.

Moving from a world of absolutes - mechanics, to one of probabilities is the essence of quantum physics/quantum mechanics. Mr Wolf uses analogies and diagrams to replace complex mathematics brought much into light.

Many of the theories presented are very controversial. For example, one theory tries to connect the probability wave of electrons with the mechanical presence of the electron itself using multiverses. The actual location of the electron cannot be observed, but can be inferred by the frequency of the wave, or the frequency can be inferred by locating the electron.

I would say the most difficult concept to understand remains the probability functions. The idea that the act of observing the electron itself causes a fundamental change. When observed, the wave collapses into a particle. So, how does that happen? And, Mr Wolf goes further to show how this can be applied to not just particles but to atoms, molecules and even to people. There final chapter uses this theory to explain how a human makes choices and presents philosophical arguments about whether the act of a lower animal observing has the same effects.

Although some of this went over my head, I thoroughly enjoyed the writer's style. The information presented was done in a logical sequence and in terms that most can understand. I would say I have a much better understanding of the current state of quantum physics and the various arguments for and against these theories than I had last week.

Garrett Cash says

Our world is indeed a most peculiar place. Any curious person who wishes to be bathed in strangeness need look no further than quantum physics. Beings that are both dead and alive, things not existing until you observe them, multiple worlds, and more paradoxes than you can shake a paradoxical cube at. If you wish to read this in an attempt to understanding something you do not expect to understand at all (like me), then you'll find this book quite useful in doing so. You could also easily become by far the most fascinating conversationalist at the next party you attend (Why yes, your drink didn't even exist until you looked at it, and your cat is dead. Well, he's alive too. Just depends which world we're in. What are you doing next

Saturday?).

You might be wondering to yourself, "Alright Garrett, sure you'll become the biggest freak at a party. But is it a good book?"

No, it's a sufficient condition for reality!

PS: Yes, it is actually an excellent book. I wish there were an updated version. I've started seeing ideas related to quantum physics all over popular culture lately, so it's been interesting to try to really understand some of these concepts. I'd like to buy the book for reference, and I think I'll have to re-read it a few times as time goes by.

Don Stratton says

Mr. Wolf again delivers an easy to read book explaining the mysteries of quantum physics. I especially appreciated the explanation of the collapse of the wave function through his text and accompanying diagrams. The book sits on the intersection of philosophy, theology, and quantum physics so don't be surprised if you put the book down and stare off into space thinking about the concepts that he presents. There is no need to be put off by the thought of reading text relating to quantum mechanics - Mr. Wolf treats the reader kindly but not stupidly. A worthwhile addition to the bookshelf.

Jana says

Probably the first and only book I'll read on physics! This book is for those of us who are in the 6th grade level of science. Ha! I chose to read this book because I had come across some interesting statements and ideas about quantum physics from other sources. I wanted to see if they were finally approaching a "scientific confirmation" that yes, you can control your universe and that there is more beyond the physical body and the atomic, electron, proton, to 'ether' level. The book gets a bit jumbled in the middle but I kept going to get to the punch line. I agree that it gets confusing as to whether qwiffs are popping or pops are qwiffing. What I gained from this book is knowledge for a new way to meditate (though meditation is not mentioned in the book), a new way to think, and confirmation that free will works wonders. A good source of basic information if you can wade through it.

Bambi says

Not too technical. An eye opening read, but some chapters are a little too broad. He definately has an optimistic look on the possibilities of Quantum reality and the relationship with the body. However, it was not concrete enough for me to believe one hundred percent.
