In Search Of Time: The Science Of A Curious Dimension

Synopsis

Time surrounds us. It defines our experience of the world; it echoes through our every waking hour. Time is the very foundation of conscious experience.Ã Â Yet as familiar as it is, time is also deeply mysterious. We cannot see, hear, smell, taste, or touch it. Yet we do feel itÃ¢â ¬â •or at least we think we feel it. No wonder poets, writers, philosophers, and scientists have grappled with time for centuries.Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â In his latest book, award-winning science writer Dan Falk chronicles the story of how humans have come to understand time over the millennia, and by drawing from the latest research in physics, psychology, and other fields, Falk shows how that understanding continues to evolve. In Search of Time begins with our earliest ancestorsÃ¢â ¬â„¢ perception of time and the discoveries that ledÃ¢â ¬â •with much effortÃ¢â ¬â •to the Gregorian calendar, atomic clocks, and Ã¢â ¬Å“leap seconds.Ã¢â ¬Â• Falk examines the workings of memory, the brainÃ¢â ¬â„¢s remarkable Ã¢â ¬Å“bridge across time,Ã¢â ¬Â• and asks whether humans are unique in their ability to recall the past and imagine the future. He explores the possibility of time travel, and the paradoxes it seems to entail. Falk looks at the quest to comprehend the beginning of time and how timeÃ¢â ¬â •and the universeÃ¢â ¬â •may end. Finally, he examines the puzzle of timeÃ¢â ¬â„¢s Ã¢â ¬Å“flow,Ã¢â ¬Â• and the remarkable possibility that the passage of time may be an illusion.Entertaining, illuminating, and ultimately thought provoking, In Search of Time reveals what some of our most insightful thinkers have had to say about time, from Aristotle to Kant, from Newton to Einstein, and continuing with the brightest minds of today.

Book Information

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Customer Reviews

Starred Review. Beginning with a 5000-year-old tomb in Drogheda, Ireland, illuminated only at the winter solstice, science writer Falk asks the question,"What is time?... the stuff that flows... or a dimension, like space?" Falk (Universe on a T-Shirt) explores the origins of calendar time, from primitive astronomical observatories to the precision clocks of today. Though the movement of the heavens provided the basis for years, months, days and even the seven-day week, it wasn't until the Catholic Church needed to date important events like Easter that reconciling the lunar and solar calendars became a major concern; as such, the Church became "one of the strongest supporters of precision astronomy and timekeeping." Falk seamlessly combines science with literary and philosophical observations ("Chaucer had no notion of the length of a minute; Shakespeare did but nowhere does he mention the second") and digresses to fascinating topics like root notions of past and future, the vagaries of memory and the behavior of birds at breakfast time. Rounding out his multi-course feast, Falk contrasts Newton's notion of "absolute, true, and mathematical" time with Einstein's final words in 1955, "the distinction of past, present and future is only a stubbornly persistent illusion," to present modern speculations on black holes and the universe's future.

Ã¢â ¬Å“Falk displays a deft touch with both temporal history and experimentation.Ã¢â ¬Â• Ã¢â ¬â œToronto StarÃ¢â ¬Å“In this thoroughly readable, broad-sweeping and thought-provoking book, Falk surveys humanityÃ¢â ¬â„¢s attempts to record and understand time, and poses some fascinating questions.Ã¢â ¬Â• Ã¢â ¬â œNew Scientist magazineÃ¢â ¬Å“An engaging writer who fearlessly tackles potentially brain-freezing topics.Ã¢â ¬Â• Ã¢â ¬â œSan Francisco Chronicle"Falk's book is what Hawking's Brief History should have been."Ã¢â ¬â •Ottawa CitizenÃ¢â ¬Å“Dan Falk is a riveting writer: his latest book is almost unputdownable. He covers an eclectic range of fascinating topicsÃ¢â ¬â •from prehistory to the far future. Time is a mysterious commodity: we gain, spend, save, and lose it. But everyone should make enough time to read In Search of Time.Ã¢â ¬Â•Ã¢â ¬â •Martin J. Rees, author of Just Six Numbers and Our Final HourÃ¢â ¬Å“Falk seamlessly combines science with literary and philosophical observations ('Chaucer had no notion of the length of a minute; Shakespeare did but nowhere does he mention the second') and digresses to fascinating topics like root notions of past and future, the vagaries of memory and the behavior of birds at breakfast time.Ã¢â ¬Â• Ã¢â ¬â œPublishers Weekly (starred review)PRAISE FOR UNIVERSE ON A T-SHIRT:Ã¢â ¬Å“Mixing simple explanation and personal profiles with touches of philosophy and whimsy, T-Shirt gives a highly accessible introduction to

some tough and important physics.Ã¢â ¬Â• Ã¢â ¬â •American ScientistÃ¢â ¬Å“Crisply written, well researched.Ã¢â ¬Â• Ã¢â ¬â •Sky & TelescopeÃ¢â ¬Å“[Falk] has a wonderful gift for finding helpful analogies and for writing about science in a way that is accessible without sounding dumbed down.Ã¢â ¬Â• Ã¢â ¬â •BooklistÃ¢â ¬Å“Falk endorses the idea that the best hope for a so-called theory of everything is in string theory, a difficult area of science that Falk nevertheless deftly unravels for the uninitiated.Ã¢â ¬Â• Ã¢â ¬â •Science NewsÃ¢â ¬Å“Falk delivers a readable, entertaining, and fresh take on the subject.Ã Â Most significant, he has achieved something original: more cleverly and cleanly than anything I can recall reading, the book itself unifies the story of the search for unifying principles in science.Ã¢â ¬Â• Ã¢â ¬â •The Globe and Mail*starred review* Beginning with a 5000-year-old tomb in Drogheda, Ireland, illuminated only at the winter solstice, science writer Falk asks the question,"What is time?... the stuff that flowsÃ¢â ¬Â¦ [or] a dimension, like space?" Falk (Universe on a T-Shirt) explores the origins of calendar time, from primitive astronomical observatories to the precision clocks of today. Though the movement of the heavens provided the basis for years, months, days and even the seven-day week, it wasn't until the Catholic Church needed to date important events like Easter that reconciling the lunar and solar calendars became a major concern; as such, the Church became "one of the strongest supporters of precision astronomy and timekeeping." Falk seamlessly combines science with literary and philosophical observations ("Chaucer had no notion of the length of a minute; Shakespeare did but nowhere does he mention the second") and digresses to fascinating topics like root notions of past and future, the vagaries (Publishers Weekly)

Way back in 1995 I read a fascinating book by Paul Davies called `About Time'. What makes the topic of time so interesting is that most people believe that they intuitively understand time and yet our perception and reality can be at odds. Unlike most things in nature science cannot stand outside of time and study it. We also have a very limited understanding of time based on that fact that we have no personal experiences with the very fast, the very distant and the very massive. This is why from our perspective Newtonian physics, which fundamentally misinterprets time, works perfectly fine in everyday life. My expectation for the book was to read more about the science of time possibly updated with research done within the past decade and a half. I don't think my expectation was unreasonable given the subtitle of the book, `The SCIENCE of a curious DIMENSION'. Note the prominence of the word `science'. To say I was disappointed would be a great understatement.The first half of the book is about the history of timekeeping going back thousands of years. It's mildly interesting but certainly not why I purchased the book. About halfway through we

finally get to Einstein's Theory of Relativity and the book briefly became intriguing although it never expands on ideas I've already read in many other books. In fact the second half of the book was sort of a primer on modern physics in general with the author touching on the big bang, black holes, dark matter, the smoothness of background radiation, grand unified theory, string theory (including m-branes), paradoxes of time travel and so on and so forth. What he doesn't do is ever delve into any one topic long enough to do anything more than scratch the surface. Quite frankly this book could have been written by a layman like me and why would I want to read a book I could have written. You can argue that the aforementioned topics are all related to time but you can also argue that paint drying is related to time but I don't want to read a book about drying paint.In the end this book appears to be little more than a beginner's physics book along with some history of keeping time. For me it ended up being a waste of time (how ironic) and quite frankly was a chore to get through. Paul Davies' book delved far far deeper into the physics of time and was much more fascinating and better written. The author even refers back to Paul Davies book several times and inspired me to reread it. After just a few pages I could immediately recognize it as a far superior book. `In Search of Time' might be interesting to someone who hasn't spent much or any time reading popular science books but if you really want to get into the subject go with Davies.

This is an excellent book for regular people that have some interest in the subject of Time. The author covers several aspects involving Time, from historical evidence of when civilizations first started understanding and taking advantage of time, to the philosophical Time, to the latest scientific concepts and theories around Time.The book is excellently written. The first part of the book takes us through the evolution of time in history and in different cultures/civilizations and is written in such a way that the reader is always excited to find out what the next page will tell us about Time. The second part of the book, more focused in the scientific aspect of Time, explains how Time has been dealt with in the major breakthroughs of science, from Newton to Einsten and Hawking. Having tried to read other science books and gotten lost along the technical concepts, the author did a very good job in shielding the reader from the deepness of such concepts and theories and explained them in a very accessible manner.

What is time? That is the central question of this book. The author goes after this question from several different angles.Historical and modern, scientific and philosophical. Actually the book goes after a number of closely related questions. Not onlyWhat is time, but how does it work, why do we preceive it the way we do, does it exist in reality or is it an invention of thehuman mind, ect. If you

are looking for definitive anwsers, as you probably expect, there are none as yet. But this book willgive you insights and much food for thought on these subjects.The book is well written, interesting, and easy to understand.

This book presents a "history" of time, with a heavy focus on physics and how physicists throughout history have approached and tried to conceptualize and explain time. The author does an excellent job of presenting a wide variety of both contemporary and historical perceptions of time. I enjoyed reading this book because it provided some food for thought on how I understand and conceptualize time. I recommend it to anyone who finds the concept of time fascinating and wants to learn what others have to say about it.

Through Parallel Universes, Time Warps, and the 10th Dimension The Time Dimension: An Interdisciplinary Guide The Story of Science: Einstein Adds a New Dimension King Arthur in Search of His Dog and Other Curious Puzzles (Dover Books on Mathematics)