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A collection of 31 essays by the Harvard University paleontologist Stephen Jay Gould.

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From Reader Review The Panda's Thumb: More Reflections in Natural History for online ebook

Aerann says

I'll read anything & everything I can find that Stephen Jay Gould wrote.

Cassandra Kay Silva says

Having recently settled in Australia I found the information on Marsupials in South America highly interesting. I also enjoyed his somewhat internal debates about dinosaurs. I still haven't latched on to his writing as much as I would have liked. The content is really good and he has a great sum up near the end about a lot of "points" other science writers have made that really comes through with some fervor about the way that bats and bees see and what the world is to us. The sexual and racial issues surrounding Evolution in scientific history is a subject I detest but he still was able to keep me interested during that portion as well. Its not a book I would re read but it was a good once over.

Jason Adams says

Stephen Gould has a remarkable ability to cover scientific concepts in an accessible manor without dumbing things down. The format of his "Reflections..." produces bite-sized meditations on evolution and natural history topics. My only concern is with the constant movement of science, that insights of the seventies may be stale in the current thinking. I wonder at times if I am reading a time capsule of a particular mode of thought, or the dawn of the accepted way of thinking.

Things I thought were interesting:

- 1) The terms Idiot, Moron, and Mongoloid once had Scientific Relevance. Gould had to write an essay advocating the use of Downs' Syndrome over the still accepted Mongoloid Idiot.
 - 2) The idea that Birds should be reclassified under a Family of Dinosaurs captures my imagination. Since it's been forty years, I wonder where that ended up.
 - 3) Finally, the way Gould captures the impact of size as an environment for adaptation breaks up most of the science fiction tropes of big vs. little ("The Fly," "The Fantastic Voyage") while opening whole new doors in understanding of nature.
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Jim says

This wonderful book is a collection of 31 short articles that appeared in the magazine "Natural History" in the late 1970's ('77-'79)...each 'chapter' is an independent read (for the most part) that, if you are a patient pooper, can be finished in a single seating.

The topics range from discussions about Darwin's "Origin of Species" to Agassiz unenlightened racism to the length of a year 500 million years ago to Mickey Mouse's head size. Gould is a great writer with full command of natural history and a knack in making a difficult subject both informative and entertaining. The only reason that I 'dinged' the rating is that some of the articles...those involving paleontology and

general geology...are very much dated and out of step with the current thinking of earth's history. I know that that is somewhat unfair, but, hey, this review is intended for those potential readers who might assume that the science presented represents the cutting edge some aspects of the earth sciences. It does not. There have been huge advances in both discoveries (e.g. feathered dinosaurs) and evolutionary philosophy...there is no way SJG could have predicted all of that.

The book is highly entertaining...I recommend it!

Michael says

This is a book of essays originally published by Gould in *Natural History* magazine, during the time that he was its editor (one of several such books, in fact). As such, it is an effort on his part to appeal to an educated popular audience with snippets of information about current research, particularly into paleontology and evolutionary science (his specialties), but also into other areas of biology and even geology and related sciences. Often, he is responding to then-current media fads, by trying to provide corrective information to misrepresentations of science in the popular press. This may partially explain the odd choice of title – the panda's "thumb" doesn't seem as sensational a topic to me as dinosaurs' relationship to birds or the comparative measurements of male and female (human) brains, but perhaps it was the headline-grabber in 1980, for whatever reason.

The essays are grouped into eight categories, explained nicely in a very well-written introduction, but without a final conclusion to tie them all together into any kind of grand theory. This leaves the book feeling a bit disjointed, and uncertain of purpose – Gould seems to have a point in each essay and even each section, but not really a "big idea" for putting them together in one volume. It is therefore best approached as a kind of exercise for the brain, and not a serious undertaking to comprehend evolutionary science. It is well-written and easy enough to follow that science teachers might be able to select single essays to demonstrate points to students, and Gould is amusing enough that students would find him readable.

I'm a pretty good audience for this sort of book, because I don't know that much about the specialized area Gould works in, but I'm smart enough to keep up with him and nerdy enough to be entertained by stories about science. I was especially interested in some of his historical essays, especially those that demonstrate that discarded theories were not results of irrationality or bad procedure on the part of their originators, but rather changes in overall paradigm. Gould is very good at demonstrating the social and cultural biases that have stunted scientific inquiry, and draws lessons from past mistakes that can be applied to more recent science.

Being unfamiliar with the field and with Gould in particular, I was a bit surprised at how "traditionally" Darwinian he appears to be in these essays. My impression (possibly false) is that over the time since Darwin there have been many newer concepts added to the mix of random mutation and natural selection to explain how life forms develop and change, but Gould seems to be more interested in presenting an unsullied version of Darwin than in complicating that picture. This could have resulted from his concern over the vocal arguments of Creationists (as bad now as they were then), and a desire to keep things simple in a public forum. Or, it may be that evolutionary science was exactly as he presents it in 1980, which is now some time ago. I was also interested to learn that he strongly disagrees with Richard Dawkins' argument from *The Selfish Gene*, also on my reading list, and I will have to remember to come back and check his points when I get around to reading that book. Until I do, I cannot comment on the debate.

Overall, this is a very good book of scientific essays for anyone interested in the subject, and may open up new lines of inquiry to the attentive reader.

Valerie says

This man's wit and intelligence and his interest in everything were much to be admired.

Sara ? says

Con una prosa estremamente brillante Gould ci accompagna attraverso i grandi temi dell'evoluzione e ci dimostra come la natura, secondo le parole del biologo Francois Jacob, "*non è un divino artefice ma un eccellente bricoleur*". Dal pollice del panda appunto, ai dinosauri, e passando anche attraverso le evoluzioni fumettistiche di Topolino, Gould ci spiega in modo chiaro e coinvolgente perché sono le più curiose imperfezioni della natura a fornire la prova del carattere casuale dell'evoluzione. Una lettura appassionante anche per chi come me non è affatto un esperto in biologia o paleontologia.

Sabrina Spiher says

"An early collection of Stephen Jay Gould's essays from his column in Natural History magazine, *The Panda's Thumb* was an enjoyable read, assuming you like natural history. It's the third of Gould's collections I've read, and the earliest I've read as well, but it held up well over time. Composed in the late '70s -- '78 and '79, I believe -- the essays in *The Panda's Thumb* bear the mark of Gould's charming, articulate style ..."

Read the rest of my review at [<http://www.sabrinaspriher.com/forums/v...>]

Pablo says

Uno de los mejores libros de Jay Gould , en este libro arremete contra Dawkins y su famoso libro el gen egoísta , describe grandes errores de la ciencia como el Hombre de Piltdown o explica el retraso mínimo de la velocidad de traslación de la tierra , entre otros relatos sobre evolución , muy ameno y entretenido

Adrian Colesberry says

The greatest modern voice for the neo-Darwinian synthesis. He and a colleague, whose name I forget, repurposed Kipling's term "just-so stories" to describe evolutionarily plausible but unprovable explanations for things. An amazing critical thinker, Gould realized that if you didn't establish some way of critiquing evolutionary explanations, they would become the equivalent of folk explanations, overpredicting to the point that they could never be disproven. Once evolutionary explanations became non-disprovable, it stops being a science and starts being a belief, like believing in god. So he spent a lifetime not just doing his own research but in popularizing disciplined neo-Darwinian critical thinking in this series of essays in Natural History magazine or Nature magazine, I forget. Most of my understanding of the neo-Darwinian synthesis comes from reading Gould.

Glen Engel-Cox says

The second collection of Gould's articles from *Natural History* continues to explore Charles Darwin's themes and the resultant ideas since. There's several interesting essays here, including my favorite one in which the evolution of Mickey Mouse is discussed.

One of the essays here dealt with Richard Dawkins' controversial stand (in *The Selfish Gene*) on genes in which he states that a person is just a gene's way to make another gene. (This is different from normal evolutionary thought in that genes there are the subject of random variation which then is subject to the environment and tested.) Gould is not convinced by Dawkins' theory, mainly because, he says, there is no evidence that genes can be linked to specific attributes, i.e., there isn't an "eye" gene. Gould wrote this some years back, so it will be interesting to see if he revisits this subject now that researchers have indeed discovered the "eye" gene (through testing on flies).

Gould also covers Robert Bakker's theories about warm-blooded dinosaurs (later written up in Bakker's *The Dinosaur Heresies*) and the link to birds, a good essay for people to review prior to the hullabaloo that will follow *Jurassic Park 2* (it's always fun to check up on an author's source material).

Jessica Blevins says

This book, read as prep for AP biology before my senior year in high school, brought me into the world of biology in high school, and inspired me to major in biology in college. It also inspired me to read more nonfiction, particularly science nonfiction. It's been one of my favorite types of writing ever since. Steven Gould is amazing at bringing technical concepts into layman's terms.

RC says

Lucid, welcoming, erudite, and eminently readable. Gould had a genius for conveying biological and geological concepts in crystal English prose, always making sure to bring his reader along with him on his Darwinian journeys.

Jimbot says

This is the book you want to have just read when you are faced with having to argue with an idiot. Unfortunately, you can never win an argument with an idiot, but at least there is a chapter describing the differences between idiot, moron, and imbecile. When it comes time to explain to your argument-partner what all that fuss regarding Darwin was all about, the topics in this book will handily give you something to knowingly speak about.

Tony says

Each chapter was about a different interesting subject, but I'm afraid it was a bit dense for me, and I tended to go off into auto-pilot whilst I was reading it. But I blame me, not the author, because his style was chatty enough.

Angus Mcfarlane says

I bought this second hand over 13 years ago and, after reading it, should not have put it off for so long. The topic of evolution has interest for me for two reasons, the first being that biology is the one core area of science I've not studied formally and the second that it (evolution) has become such a flash-point issue in disputes between science and religion. Written as a series of vignettes about various topics, each was an entertaining and enlightening read, although I'm not sure if I'm any better off in terms of my knowledge about how evolution works. The opening essay concerns the Panda's Thumb, and Gould suggests that in evolution, exceptions rather than norms often prove the rule. However, with each essay comprising an 'exception' (of sorts), I'm not sure that a cohesive picture is drawn as a result. Indeed, I can see how some might take snippets of various essays and use them 'against' evolution. This would be unfortunate, as I think instead we are presented with an area of science that was, and presumably still is, undergoing healthy critical thinking and application.

Many topics are discussed that would have popular appeal. Gould's issue with Dawkin's selfish gene idea is outlined. The evolution of humans, both biological and cultural is considered, with the latter an example of 'Lamarckism' and operating much faster than genetic based changes. Catastrophism and punctuated equilibrium are explored, the latter not suggesting change takes place more or less gradually, but the evidence we have for it in fossils does occur 'rapidly' due to a previously isolated group becoming the dominant and more fossilised species. Dinosaurs, mickey mouse and the inferiority (or otherwise) of marsupials are also covered.

Since Gould was overt in separating the domains of science and religion as mutually exclusive (as I found out recently when reading Sam Harris), the weaving of the Arts, including religious arts infuses his writing, adding to the readability, but offering little in terms of the 'debate' between the two. It certainly makes the read a less confrontational one and those with a religious bent, like myself, will probably find themselves adopting a less defensive stance as they explore what can be a threatening area of science. As far as furthering the discussion between science and religion, I will need to go elsewhere.

Lupo says

La prima parte del libro mi è piaciuta molto. E quella che riguarda più specificatamente l'evoluzione. La parte che racconta specifiche storie relative a particolari specie mi ha interessato poco.

Molto chiara la parte dell'evoluzione, contiene anche note sul dibattito tra Gould e Dawkins, che ha influenzato la storia delle teorie evoluzionistiche degli ultimi quarant'anni, e ancora continua (anche se Gould non c'è più). I saggi sono stati scritti nel '78 e '79 e in alcuni si vedono le rughe, ma la testimonianza intellettuale è di primissimo livello.

Joni Baboci says

The Panda's Thumb is an overall interesting book dealing with the curiosities of evolution through a compendium of articles written by Gould mostly in the 70s for Nature magazine. The 1992 edition even goes over some clarifications which have come into light in the two decades since the articles have been published.

I think the book is a fairly readable popular natural sciences book, although the fragmentation that comes from it being an anthology of articles does make it seem aimless at times. I think the genre has advanced in terms of content and readability by leaps and bounds in the last two decades and while Gould is still a good read, I do believe there are lots of equally good books available which have a bit more structure than the Panda's Thumb. As for anthologies I am a big fan of The Best American Science and Nature Writing yearly series.

Maitrey says

This was a hugely enjoyable book by an extremely talented writer. The thought most running across my mind when I was reading this book was: "Where can I get more Stephen Jay Gould books?!"

Since it is a collection of essays, I don't really want to review any of them personally. Sure, some of the science here is 30 years old (Gould was always sharp on the uptake though), some of it is out of favour (say Gould's ideas on the gene-centric view of evolution), but you'll still enjoy reading every bit of it. There are ideas about the evolution of dinosaurs, magnetic bacteria, South American marsupials and even Mickey Mouse. Themes such as racism and sexism, as ever, continue to play a major role in his examination of the past.

What was most enjoyable was the fact that Gould is such a sympathetic writer, yet his work is full of wit and consideration. The Panda's Thumb made for an excellent book to pick up, regardless of what I was doing or what my mood was and immediately get lost in whatever world Stephen Jay Gould transported you to.

Jorge says

Podría ser, fácilmente, la mejor lectura "por casualidad" con la que me haya topado en años. Y de lejos.

No venía de recomendaciones previas de amigos, colegas comunicadores o críticas del libro. Andaba, de hecho, buscando otro de Stephen Jay Gould, de quien he oído mucho pero a quien no había leído antes (concretamente "Wonderful Life: The Burgess Shale and the Nature of History"), y al no encontrarlo, este se cruzó en mi camino en la biblioteca. Divulgación, biología, artículos breves, en español y un autor que me despertaba curiosidad. Buen cambio respecto de otras lecturas de divulgación recientes y prometedor. Y vaya si cumple.

La prosa de Gould es amena y didáctica, no toca temas excesivamente complicados de comprender en ningún momento, y sabe hacer muy asequibles todos los detalles incluso para quien sepa cero y menos de la disciplina de la que habla. El estilo periodístico, no académico, hace mucho en su favor, pero el hecho de que sea una colección de artículos de columnas que publicaba desde los años 70 no perjudica a la cohesión del libro. La edición divide las 350 páginas de artículos (las 30 últimas son bibliografía e índice de conceptos:

algo que no siempre incluyen los libros de divulgación, pero que siempre deberían incluir) en ocho secciones temáticas, la mayoría de cuatro artículos, alguna de tres o cinco, que le dan un nexo de unidad a todo. Y, de paso, aunque a mí no me haya sucedido, facilitan la lectura a quien se le pueda atragantar alguno de los temas, al durar pocas páginas y cambiar a otros. Además, vemos en sus páginas un reconocimiento cultural amplio de su público, tanto el que siente curiosidad por la evolución de Mickey Mouse, como el que va a apreciar referencias a Toscanini, lo que hace que sientas mucho más cercana la voz que habla.

Sin embargo, la amenidad de la divulgación no me parece el mayor valor de "El pulgar del panda", sino la enorme conciencia social que demuestra Gould. Constantemente entra a debatir y condenar cuestiones de racismo científico o de machismo en el mundo académico e investigador, y no tiene reparos, si lo cree conveniente, en hacer ver su rechazo del liberalismo económico o en citar un par de veces a Marx (a uno le gusta lo que le gusta, qué se le va a hacer). Y, al mismo tiempo, urge al lector a no olvidar el contexto del que vienen las cosas y la necesidad de analizar todo objetivamente: sí, el doctor Down era un racista empedernido que relacionaba la raza mongola con baja inteligencia, pero solo era una voz más de una época en que eso se consideraba buena praxis; y sí, Lysenko cometió muchísimas barbaridades para imponer su visión, pero no era esta algo absurdo que iba contra un consenso darwinista, sino una teoría alternativa de enorme aceptación y perfecta plausibilidad en la época en que se plantea.

Todo el conjunto de detalles hacen que sea esta una deliciosa obra de divulgación. La recomendaría a cualquiera, lea o no habitualmente literatura científica. Es de esas lecturas que ayudan a recordar y demostrar a la gente que la ciencia es bella, divertida y, al cabo, fascinante.
