



Broca's Brain: Reflections on the Romance of Science

Carl Sagan

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Carl Sagan, writer & scientist, returns from the frontier to tell us about how the world works. In his delightfully down-to-earth style, he explores & explains a mind-boggling future of intelligent robots, extraterrestrial life & its consequences, & other provocative, fascinating quandries of the future we want to see today.

Broca's Brain: Reflections on the Romance of Science Details

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From Reader Review Broca's Brain: Reflections on the Romance of Science for online ebook

Jake says

Museums have an inner world that the public never sees. In one of these hideaways, Carl Sagan was permitted to view the brain of Paul Broca, a surgeon who died in 1880. As Dr. Sagan looked at the cerebral remains of one of his heroes, he had this thought: "It was difficult to hold Broca's brain without wondering whether in some sense Broca was still *in* there."

Sagan wondered at a possible future where technology would allow us to download Broca's memories. And then he wrote something that struck me. In considering the opportunity to literally read a mind, Sagan posited, "It would be the ultimate breach of privacy."

I was a bit awed at Sagan's willingness to troubleshoot the ethics of his own pipedream. After all, what if we could tap the intelligence of brilliant men and women, now deceased? It's a fascinating thought, but also a troubling one. I admired Sagan for volunteering the questionable nature of his own desire for access.

The above is just one of many intriguing reflections offered by Carl Sagan in *Broca's Brain: Reflections on the Romance of Science*. This book is a collection of essays, many previously published in magazines. With a firm command of both science and humanity, Sagan explores a range of issues related to our existence. Especially engrossing, even haunting, are his ruminations on the process of dying. Sagan writes with candor about the issues facing our species. He does not patronize readers with comfort for comfort's sake, but neither does he gravitate toward sensationalism.

Sagan's dialogue style is thoughtful and dignified, but with splashes of humor. He also throws some pointed jabs at absurd notions that regrettably retain traction in modern society. As our world becomes almost wholly dependent on scientific technology, works like this will be an essential frame of reference for laypersons. The more I read Sagan and others, the more I am convinced that being conversant in science is a matter of civic responsibility.

With some technical exceptions, the content of this book is very accessible. For those who have already read other works by Carl Sagan, I highly recommend it. If you have not yet tried Sagan, I suggest starting with the novel *Contact*, or getting a hold of his groundbreaking work *Cosmos*. The latter is available on DVD and in book form.

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Ana says

i'm amazed that i was able to understand three quarters of this book with little or no help at all from any outside source. there were times when i had to use the dictionary or find someone on the internet who can explain physics to a near idiot in the domain; even so, i can give myself a pat on the back for this one.

of course, sagan writes for the masses, and this here is not real science, but more like an introduction to it, a taste.. even if it's a really small one for an expert, for someone like me, who struggles to understand the terms and imagine the actions, it's a step forward.

but i am so passionate about this subject! i love learning about the outer space and if physics is a part of it, then so be it! there are few things out there that i consider to be more worthy of attention than the mechanics of our universe and i'm sure that, throughout the years, i'll be able to understand even more!

Alex says

It's very hard to give a review and rating for the entirety of this book. From chapter to chapter it feels disjointed and varies quite a bit in both content and quality. I seem forced to review the different parts and chapters individually.

The first "part" of the book, titled "Science and Human Concern" and encompassing the first four chapters, showcases Sagan's eloquent and brilliant writing especially well. In these chapters I learned new things and gained a new appreciation for Einstein's incredible mind; One would be hard-pressed to argue the book doesn't start off strong.

The next part, called "The Paradoxers", starts off well enough, explaining and refuting various

pseudoscientific and paranormal beliefs. But in chapter 7 Sagan spends over 50 pages refuting the claims made in a specific book called "Worlds in Collision" written by a specific author named Velikovsky. This would be fine if I were reading Broca's brain 30 years ago when it was published, but as it is I have never heard anyone repeating the ridiculous claims spouted by Velikovsky so I wasn't very interested in their refutations. I ended up skimming through most of the chapter. This is just one of the ways the book suffers from how dated it is. After this, part two continues with a couple good chapters, the first on theological arguments and second on science fiction.

The next two parts of Broca's Brain are both mostly concerned with astronomy, space exploration, and humanity's future. They continue to vary in quality from a great chapter on Robert H. Goddard's tireless work towards space exploration to a terribly boring chapter on choosing namesakes for features of other planets.

The final part skeptically examines religion and does a pretty good job until it ends with a chapter concerning hypothesis that explains religious stories and experiences in terms of subconscious memories of birth that's almost Freudian in its level of wild speculation.

Broca's Brain is magnificent at times, but at times it's dense enough to make up for it, and overall it just felt too muddled for me to give it a very good rating.

Khaled. says

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?Ahmed Saber says

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Rita says

It took me a lot more time than I expected, mainly because I kept checking for update information about most of the interesting topics. I still love Carl Sagan's writing though.

Jay says

This should be a school textbook. The world would be a better place.

David (???) says

A re-read after 13 years certainly was worth the effort for at least a few chapters. Although a lot of information must be now updated considering this being a 1979 (updated) edition, this book must have been intense at that time. An entire section is dedicated to debunking "Paradoxers" which occupies more than a quarter of the book, especially on Immanuel Velikovsky's theories.

Certain introductory chapters dealing with "Why Science?", "Albert Einstein" and "about the lack of public education in science" were very nice to read.

Other chapters that were interesting to read were related to The Solar System and the usage of Nomenclature

within it; on life in our Solar System based on their atmospheres; a chapter based on the Surface and Atmosphere of Titan, the moon of Saturn; Climates of Earth and Mars; Asteroids and Meteorites; Planetary Exploration; Communication and Transportation Speeds; In defense of Robots and AI; the quest for Extraterrestrial Life; Views on God and Religion, our Galaxy and the Universe; and finally a chapter on the usage of psychedelic drugs and its usage to induce Perinatal Memories while relating it to understand the Origins and Nature of Religion and to Cosmology.

If only Mr. Sagan have had lived today, I would have loved to read a revised edition of this book now after nearly four decades of its first publication in 1974.

Hadeer Khaled says

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Arun Divakar says

The science and mathematics text books that were used at my school time all started off with a little pledge that set out to instill in the young minds a scientific spirit. It spoke of endless curiosity, an investigative spirit and the willingness to observe and rework. I don't remember the words nor the structure but I can remember looking at those pages in something like fondness for they were the only islands of difference in an otherwise droll sea of studies. The essays in Sagan's book are a toast to this scientific mindset for he is an outspoken advocate of believing only after something is being proved beyond reasonable doubt. His writings in this book are reflections on varied topics including the lives of scientific greats, planetary wonders, the dangers of pseudo-science et al.

Sagan as a writer does not disappoint with his style. He is never a high-brow scientist writer who mumbles away just for the benefit of his computer and to no one else. It would not be an exaggeration to say that I did

begin to feel a lot more affinity to Science as a discipline after reading him and Feynman. That's right folks ! School was the best way to discard Science in the badlands of my mind. He does cover a wide variety of topics in his writing and this did arouse curiosity in my mind. Sadly, this strength of Sagan is also the biggest undoing of this little book.

The book suffers a serious problem in terms of its content (both in terms of being logically connected and also in terms of quality). After a couple of chapters I was left to wonder if Sagan ever meant this to be a book or whether the publishers cashed in on his popularity and swept in quite a few of his writings and hammered it into a shape that resembled a book. Earlier works of his that I have been acquainted with (read *Cosmos*, *Dragons Of Eden*) have been logical and lucid in terms of their approach to the subjects. In here however, Sagan wanders all over the place. We jump right from Albert Einstein to circus freak-shows from one essay to the next. From the number of reviews in the site, it appears that there are quite a few folks who had no issues with such a style but for me it was a jumbled mass. Attention wanders as a result of this and I left the book much disappointed.

Not one of his best !

Mohamed El-Shawaf says

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Rab Araujo says

Lectura interesante donde Sagan toca temas que normalmente pasa por alto sin ponerles tanta importancia. desde cuestiones de las antiguas civilizaciones experimentando encuentros con seres de otros planetas hasta controversias como los poderes mentales.

Sin embargo todo el libro es de buscarle 3 pies al gato hacinedolo cansado en ocasiones. Y sin bien es cierto que en la ciencia siempre debe ser cuestionado todo, su necesidad llama mucho la atención. por otro lado, es lo mas cercano que estaré de platicar de algo así con él, cuestion que habría disfrutado de sobremanera. Si se quiere leer algo un tanto distinto y más personal sobre el señor Sagan, este es un buen libro para pasar el rato.

William says

I've been on a Sagan kick, but this was a tough read to get through. The book is a little technical, but even more tedious in sections, discussing in depth discoveries of the 1950s and 1960s. The best parts of the book require a grasping understand of the nature of present day astronomy to compare and contrast with what

Sagan thinks will occur. Ever the optimist, it is a little disappointing to realize that we have not come close to the explorations that Sagan envisioned in the late 1970s. Some of his hopes have been achieved, and he would have been awed by the discoveries made by the Cassini and Huygens probes, making this book bittersweet knowing that he will never have the opportunity to comment on today's discovery. A suggestion for future readers would be just to skip the vivisection of Dr. Velikovsky, unless you want an example of what would happen to the likes of homeopathy or astrology if scientists truly decided to turn their attention to those false disciplines.

Ayman Zaaqoq says

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Nandakishore Varma says

Miscellaneous writings by Carl Sagan. I read it immediately after "Cosmos" was aired on Doordarshan (the national TV channel of India). Sagan is a great explainer - reading him will automatically engender a love for science!

Mohamed El Toukhy says

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