

## The Brain - The Story of You

Author	Goodreads Link	Rating
David Eagleman	<a href="https://www.goodreads.com/book/show/25776132-the-brain?ac=1&amp;from_search=true&amp;qid=8kODjw7tmz&amp;rank=1">https://www.goodreads.com/book/show/25776132-the-brain?ac=1&amp;from_search=true&amp;qid=8kODjw7tmz&amp;rank=1</a>	****

### Favorite Quotes

One of neuroscience's unsolved puzzles is known as the "binding problem": how is the brain able to produce a single, unified picture of the world, given that vision is processed in one region, hearing in another, touch in another, and so on?

### Overview

Locked in the silence and darkness of your skull, your brain fashions the rich narratives of your reality and your identity. Join renowned neuroscientist David Eagleman for a journey into the questions at the mysterious heart of our existence. What is reality? Who are "you"? How do you make decisions? Why does your brain need other people? How is technology poised to change what it means to be human? In the course of his investigations, Eagleman guides us through the world of extreme sports, criminal justice, facial expressions, genocide, brain surgery, gut feelings, robotics, and the search for immortality. Strap in for a whistle-stop tour into the inner cosmos. In the infinitely dense tangle of billions of brain cells and their trillions of connections, something emerges that you might not have expected to see in there: you

### Notes

1. Who am I?

By age two, a child has over one hundred trillion synapses, double the number an adult has.

The neurons that are active at the same time will establish stronger connections between them: cells that fire together, wire together.

### **1. What is reality?**

If you could perceive reality as it really is, you would be shocked by its colorless, odorless, tasteless silence. Outside your brain, there is just energy and matter. Over millions of years of evolution the human brain has become adept at turning this energy and matter into a rich sensory experience of being in the world.

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When babies hit the bars of their cribs and chew their toes and play with their blocks, they're not simply exploring—they're training up their visual systems. Entombed in darkness, their brains are learning how the actions sent out into the world (turn the head, push this, let go of that) change the sensory input that returns. As a result of extensive experimentation, vision becomes trained up.

Sprinters can break off the blocks more quickly to a bang (bottom panel) than to a flash (top panel).

### **1. How do I decide?**

Ulysses knew that his future self would be in no position to make good decisions. So the Ulysses of sound mind arranged things so that he couldn't do the wrong thing. This sort of deal between your present and future self is known as a Ulysses contract.

The key to the Ulysses contract is recognizing that we are different people in different contexts. To make better decisions, it's important not only to know yourself but all of your selves.

The dorsolateral prefrontal cortex becomes active when dieters choose the healthier food options in front of them, or when people choose to forego a small reward now for a better outcome later.

Why do we have chemicals like oxytocin steering us toward bonding? After all, from an evolutionary perspective, we might expect that a male shouldn't want monogamy if his biological mandate is to spread his genes as widely as possible. But for the survival of the children, having two parents around is better than one. This simple fact is so important that the brain possesses hidden ways to influence your decision making on this front.

### 1. Do I need you?

On average, you'll fare better than other people who aren't very cooperative with their neighbors. Together, the members of a group can help each other to survive. They're safer, more productive, and better able to overcome challenges. This drive to bond with others is called eusociality (eu is Greek for good), and it provides a glue, irrespective of kinship, that allows the building of tribes, groups, and nations.

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