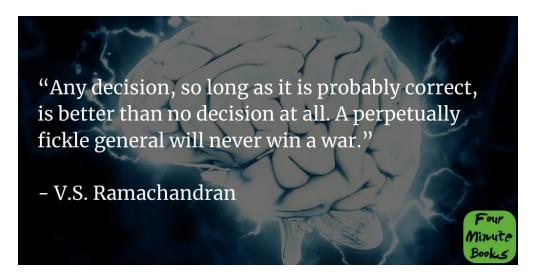
## **Phantoms In The Brain Summary**

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**1-Sentence-Summary:** *Phantoms In The Brain* will make you smarter about your own mind by sharing what scientists have learned from some of the most interesting experiences of patients with neurological disorders.

Read in: 4 minutes

#### Favorite quote from the author:



What would you think of a librarian that laughs for hours straight, a woman who can't control one of her hands so bad that tries to strangle her, and a nurse who believes that cartoon people are real? You'd consider these people crazy, right?

But what if I told you that these individuals are completely sane? So much that you could sit down and have a normal conversation with them? Although that might sound like a wild idea, it's true.

The real issue here isn't a psychological one, it's neurological. Each of these individuals has damage to parts of their brain that makes them do wacky things. And there are others like them, too.

While these cases are unfortunate, they teach us a lot about how our brains work. They show us what happens when brain damage gets in the way of normal functions. These lessons are the topic of <u>V.S. Ramachandran</u>'s fascinating book <u>Phantoms in the Brain: Probing the Mysteries of the Human Mind</u>.

Here are just 3 of the many interesting ideas I got from this book:

- 1. Perception isn't always a conscious process and things get weird when the parts of the brain that contribute to it don't work.
- 2. Psychology isn't to blame for all delusions, some are neurological.
- 3. Even the simple action of laughing comes from complex networks in your head.

Are you ready for some crazy neurology lessons? Let's begin!

## Lesson 1: Things get strange when the subconscious mechanisms that affect your perception of reality are broken.

Imagine your sister just returned home from the hospital. You're excited to see how she's doing. But when you visit her, you discover something strange. Her hair and makeup are only done on one side. The other is a ratty mess.

This happened to a woman named Ellen, who has a condition known as hemineglect. Patients with this problem are not only blind to everything on one side, it's as if that side doesn't exist at all.

We don't know a lot about what's happening in the brains of people like Ellen. But cases like hers always happen after a stroke in the right parietal lobe, which is an area of the brain that helps with perception.

Unfortunately, there are over 30 areas of the brain that deal with perception, so it's difficult to tell exactly what's going on. But the benefit of when things go wrong, like in Ellen's case, is that we can learn more about how the brain works.

For those with hemineglect, what's most likely happening is that the normal "searchlight" brain function that tells us what's happening around us on each side is damaged.

Because some other processes still work, however, it's more likely that the brain does know what's around us but it just can't let us know for some reason.

### Lesson 2: Neurological problems can cause delusions sometimes.

Denial is a purely psychological issue, right? There's no damage to the brain there, it's just all in people's thinking patterns, right? Actually, for some extreme cases, damage to the brain is the main reason for denial, not a psychological disorder.

Take Mrs. Dodd for example. She began to get frustrated with her doctors for telling her that her left arm was paralyzed. But she believed it worked just fine, even though she'd had a stroke in her right hemisphere that paralyzed her entire left side.

To her, everything worked just fine. It baffled her, when the doctor asked her to touch his nose with her left hand, why he insisted that her arm wasn't moving. She just knew she was touching him, even though in reality she wasn't.

Severe cases of denial like this are called anosognosia, which almost always happens when patients have had a stroke to their right hemisphere. Curiously, the opposite problem of obsessing over <u>sickness</u> occurs in those who've had a stroke in the left hemisphere.

While some disorders like this one may have some grounding in psychology, the truth is we just don't know enough about neurology to know for sure. Who knows, maybe in the future we'll discover that brain damage is the main cause of psychological issues!

# Lesson 3: Complicated networks in your brain contribute to actions as simple as laughter.

Funerals don't usually involve much laughter. If you saw an adult child of the deceased rolling on the floor, for instance, you'd probably think they were insane, right?

Although it sounds crazy, this happened once to a man named Willy. His laughter got so uncontrollable at his mother's funeral that he had to stagger away from the graveside service.

This neurological problem is known as compulsive laughter. Although it's rare, we do know that it has something to do with the limbic system, which contributes to the formation of emotions.

So what happened to Willy? To understand this, we need to take a look into our species' history, at the possible reason we laugh in the first place.

**Evolutionary psychologists think that <u>our ancient ancestors</u> may have developed this mechanism as a form of communication.** The theory is that early homo sapiens used laughter as a way to let everyone know that a perceived threat was just a false alarm.

One problem with this idea though is that it fails to account for all the ways we use laughter today. But a possible explanation is that what began as a use for helping people relax in the face of unwarranted danger evolved for other uses as well.

Birds evolved feathers, for instance, as a way to keep warm, then later used them for flight. So laughter may have developed according to a similar pattern.

So for Willy, his brain may have just gone a little overboard trying to help him cope with the "false alarm" signal of laughter.

#### **Phantoms In The Brain Review**

Whoa, what a crazy, interesting book! <u>Phantoms In The Brain</u> taught me a ton about the mind and helped me see its interconnectedness with everything we do. I especially loved learning from the experiences of the people the book talked about!

### Who would I recommend the Phantoms In The Brain summary to?

The 36-year-old mom who loves interesting stories, the 49-year-old that loves to learn and is looking for an introduction to the science of the mind, and anyone that wants to know how that organ in between their ears works.