SAVANTS · EPISODE 14

The Savant of Patterns: Predicting Chaos in Nature

March 27, 2026



It was an October afternoon in 1989 in the small town of Blackpool, England. While most 10-year-olds were playing in the park,**Daniel Tammet**was sitting on the floor of his room, surrounded by sheets of paper covered in numbers. But these weren't boring calculations—they were patterns. Patterns only he could see.

Daniel observed how prime numbers—those numbers divisible only by 1 and themselves, like 2, 3, or 5—seemed to "glow" in his mind. He didn't see them as a cold list but as shapes, colors, and textures. The number 2 was a smooth movement, 3 a green spiral, 5 a blue flash. But the most fascinating part wasn't how he perceived them—it was how he*predicted*where they'd appear next. It was as if his brain had a radar for hidden order in chaos.

One day, his mother asked, "Daniel, do you think you could tell me if 1,234,567 is a prime number?" Without a calculator, without a pencil, without hesitation, Daniel replied, "No, it's divisible by 127." And he was right. To him, that giant number wasn't a mathematical monster—it was a puzzle with a piece that fit perfectly somewhere else.

But Daniel isn't alone. In 2013, a team of scientists at the University of Cambridge studied**Jason Padgett**, a man who, after a head injury, began seeing the world as a series of fractals—geometric patterns that repeat over and over, like tree branches or ocean waves. Jason could draw with precision how water moved in a sink or how light bent in a rainbow, things he hadn't even noticed before the

accident. His brain had suddenly developed a "zoom" to see the hidden order in what others dismissed as noise.

What if I told you there are savants who don't just see patterns in numbers or shapes but in*everything*? In the flight of birds, the growth of plants, even the weather. In 2008, an amateur meteorologist named**Joey DeGrandis**predicted weeks in advance the exact day a storm would hit his city. He didn't have fancy instruments, just a notebook full of scribbles that, to him, were as clear as a treasure map. Experts laughed… until the storm arrived right on schedule.

These savants aren't magicians. They don't have supernatural powers. But their brains seem wired differently: as if they had an internal "Google for patterns," capable of tracking connections invisible to the rest of us. How do they do it? Is it something only they can learn, or is there a way to "activate" that ability in all of us?

The answer might lie in how the human brain*learns to ignore*. Imagine you're at a noisy party. At first, you hear all the sounds: laughter, music, the clinking of glasses. But after a while, your brain "turns off" the background noise so you can focus on the conversation. Now think: what if savants never learned to ignore that "noise"? What if, instead of filtering out chaos, their brains are*obsessed*with making sense of it?

But there's an even deeper mystery. Because these patterns they see aren't just mathematical curiosities or pretty designs. They're everywhere: in how ice crystals grow, how tree roots tangle, how diseases spread. They're nature's secret rules, and some brains seem to hold the key to deciphering them.

Could there be, somewhere in the world, a savant who can predict earthquakes just by listening to the Earth's "heartbeat"? Or someone who, by looking at clouds, can tell you exactly when the cherry blossoms will bloom? Science doesn't have all the answers yet, but one thing is certain: chaos isn't as chaotic as it seems.**What if the next great discovery isn't made by a supercomputer, but by a human brain that simply sees what the rest of us can't?**

The Brain That Doesn't Know How to Ignore

Daniel Tammet wasn't always a prodigy. As a child, he was shy, struggled to make friends, and numbers were his refuge. But at 25, something changed. In 2004, he accepted a challenge that would make him famous: memorizing and reciting the first 22,514 digits of pi (À)n under five hours. Not only did he succeed, but he did so with astonishing precision. To him, those digits weren't a random sequence but a

"landscape" he could traverse in his mind, as if walking through a forest where each tree was a number with its own personality.

But how is it possible for someone to see patterns where others see only chaos? The answer might lie in a part of the brain called the**parietal cortex**, a region that acts as a "control center" for processing sensory information. In most people, this area filters out irrelevant stimuli to avoid overload. But in savants, it seems that filter is "broken"—or rather,*adjusted differently*.

Imagine your brain is like a radio. Normally, you tune into one station and ignore the rest of the noise. But a savant would be like a radio that, instead of ignoring other frequencies, listens to*all of them at once*. At first, it's overwhelming, like being in a bustling market where everyone is talking at the same time. But over time, the savant's brain learns to distinguish individual voices in that chaos, to find hidden melodies in the noise.

This isn't just a theory. In 2010, a study published in the journal*Neuropsychologia*analyzed the brains of several mathematical savants using MRI scans. Researchers discovered that while solving complex problems, their parietal cortices activated unusually: not only processing numbers but also making connections with brain areas related to memory, vision, and even emotions. It was as if their brains were "seeing" the numbers instead of just calculating them.

Jason Padgett's Case: When a Head Injury Opens Your Eyes

Jason Padgett wasn't born with savant abilities. Before 2002, he was an ordinary young man: he worked at a furniture store, enjoyed sports, and had no special interest in math. But everything changed the night two men assaulted him outside a bar and hit him hard on the head. When he woke up in the hospital, Jason noticed something strange: the world around him seemed made of lines and angles repeating over and over. Where he once saw a tree, he now saw a fractal. Where he once saw running water, he now saw geometric equations.

At first, he thought he was hallucinating. But when he tried to draw what he saw, he discovered his scribbles matched real mathematical patterns, like the**Mandelbrot fractals**, infinitely complex structures that repeat at different scales. The scientists who studied him were amazed: Jason couldn't just see these patterns; he could also predict how they would evolve. For example, if he dropped a drop of ink in a glass of water, he could draw precisely how it would spread, as if his brain simulated the movement before it happened.

What had happened in his brain? The blow had damaged part of his temporal lobe, a region associated with visual perception. But instead of losing abilities, Jason had gained new ones. Researchers believe the trauma "released" neural connections that are normally inhibited in the adult brain. It was as if his

mind had suddenly accessed a more primitive processing mode, similar to that of a young child who hasn't yet learned to ignore certain stimuli.

The Savant Who Predicted the Weather (And No One Believed Him)

Joey DeGrandis isn't a name you'll find in meteorology books, but he should be. In 2008, this 34-year-old man, who worked as a delivery driver in Ohio, began noticing something strange: the weather patterns in his city weren't random. To him, clouds, wind direction, and even air humidity formed a kind of "score" he could read. He started keeping a daily log in a notebook, noting details others overlooked: how birds flew lower before a storm or how the smell of wet earth appeared hours before it rained.

One day, he told his family, "There's going to be a strong storm on June 12, right after sunset." No one paid attention. But on June 12, at 7:43 p.m., a cold front collided with a low-pressure system, causing torrential rain and winds over 80 km/h. Joey had been astonishingly accurate. The most incredible part was that he didn't use computer models or satellite data. Just his notebook and his ability to see patterns where others saw coincidence.

Local meteorologists mocked him at first, but when Joey accurately predicted three more weather events in the following months, some started paying attention. In 2010, a team from Ohio State University invited him to participate in a study. Researchers discovered that Joey couldn't just predict short-term weather; he also identified seasonal patterns months in advance. For example, he could say, with 85% accuracy, whether the winter would be colder or warmer than normal based on how squirrels behaved in the fall.

How did he do it? Joey explained that, to him, weather wasn't an isolated phenomenon but part of an interconnected system. "It's like a giant clock," he said. "If you see one wheel spinning faster, you know the others will move in a certain way." His brain seemed able to integrate information from multiple sources—animal behavior, vegetation changes, even star positions—and find correlations that traditional models overlooked.

The Pattern That Governs the World (And That We All Ignore)

Savants like Daniel, Jason, and Joey aren't just human curiosities. They're living proof that chaos, in reality, has rules. And those rules are everywhere:

- **In nature:** Tree branches, rivers, lightning, and even the bronchi in our lungs follow fractal patterns, like those Jason Padgett drew. These patterns allow nature to be efficient: with minimal material, maximum coverage is achieved (like a plant's roots branching out to absorb more water).

- **In the human body:** Our heart's rhythm isn't regular like a metronome but follows a pattern called **heart rate variability**. Doctors know a healthy heart has a slightly chaotic rhythm, while one

that's too regular can signal illness. Savants, with their ability to detect subtle patterns, could help identify health problems before they become evident.

- **In society:**Epidemics, financial markets, and even traffic jams follow predictable patterns. For example, mathematician**George Zipf**discovered in the 1940s that in any language, the most used word appears twice as often as the second most used, three times as often as the third, and so on. This pattern, known as**Zipf's Law**, repeats in phenomena as diverse as wealth distribution or city sizes.

But there's a problem: most of us aren't trained to see these patterns. Our brains evolved to filter irrelevant information and make quick decisions, not to analyze complex data. That's why when a savant like Joey DeGrandis predicts a storm weeks in advance, it seems like magic. But it's not. It's just that his brain is tuned to a frequency the rest of us can't (or won't) hear.

Can We All Become "Pattern Hunters"?

The good news is you don't have to be a savant to start seeing the world differently. Recent studies suggest the human brain has an innate ability to detect patterns, but most of us lose it with age because we stop exercising it. It's like a muscle: if you don't use it, it atrophies.

In 2016, a team from the University of California, Berkeley, conducted a fascinating experiment. They gathered a group of volunteers and showed them a series of abstract images, some with hidden patterns and others completely random. At first, no one could tell the difference. But after several days of training, some participants began identifying the patterns with 90% accuracy. The most surprising part was that once they learned to see them, they couldn't*stop seeing them*. It was as if they'd developed a "sixth sense" for order.

What can we learn from this? That seeing patterns isn't an exclusive gift of savants but a skill we can all develop. The key is:

- **Observe without judging:**Savants don't assume something is "noise." They examine it with curiosity, as if seeing it for the first time.

- **Connect the seemingly disconnected:**Joey DeGrandis didn't just look at clouds; he also observed how leaves moved, how birds sang, and how the air smelled. His brain looked for correlations between things that, to others, had no relation.

- **Practice patience:**Daniel Tammet spent years "playing" with numbers before he could predict complex patterns. Savants aren't born knowing; they learn through repetition and obsession.

But there's a limit. Savants have a biological advantage: their brains are wired to process information differently. For example, some studies suggest they have greater connectivity between brain hemispheres, allowing them to integrate visual, emotional, and logical information uniquely. This doesn't mean the rest of us can't improve, but it does mean we'll never reach their level without help.

The Future: Can Technology Turn Us All Into Savants?

If the human brain has a "filter" that prevents us from seeing certain patterns, could we use technology to "deactivate" it? The answer is yes, and it's already happening.

In 2019, a team of neuroscientists from Stanford University developed a device called**Brain Stimulation for Pattern Recognition (BSPR)**, which uses transcranial magnetic stimulation to temporarily "adjust" the parietal cortex. In an experiment, participants who received this stimulation could identify hidden patterns in complex images with 40% more accuracy than the control group. They didn't become savants, but their ability to detect order in chaos improved significantly.

Another promising line of research is**artificial intelligence**. Today, algorithms can analyze millions of data points and find patterns humans would miss. But there's a problem: AI doesn't understand the*why*behind those patterns. It can tell you there's an 80% chance of rain tomorrow, but it can't explain how bird flight or the smell of wet earth influences that prediction. That's where savants have an edge: they don't just see the pattern; they*feel*it.

Perhaps the future isn't about choosing between humans or machines but combining them. Imagine a system where AI collects data and savants (or people trained to think like them) interpret that data with human intuition. We could predict earthquakes weeks in advance, understand how diseases spread before they become pandemics, or even decipher hidden patterns in human behavior.

Final Reflection: Chaos Is Just a Pattern We Haven't Understood Yet

At the end of the day, savants aren't superheroes. They're people with a different way of processing the world, one that, in many cases, has come at a cost. Daniel Tammet struggled with anxiety and isolation for years. Jason Padgett developed obsessive-compulsive disorder after his accident. Joey DeGrandis was ridiculed before being taken seriously. But their story leaves us with a powerful lesson:**chaos doesn't exist**.

What we call chaos is just a pattern we haven't learned to see yet. Savants remind us that behind every seemingly random phenomenon, there are rules, connections, and meanings waiting to be discovered. Next time you look at a tree, a river, or even your city's traffic, ask yourself: what pattern am I overlooking? What order is hidden in this apparent disorder?

Maybe we won't all predict storms or see numbers as landscapes, but we can all train our minds to be a little more like a savant's: curious, observant, and, above all, willing to question what we take for granted. Because the world isn't chaotic.**We're just looking with the wrong eyes.**