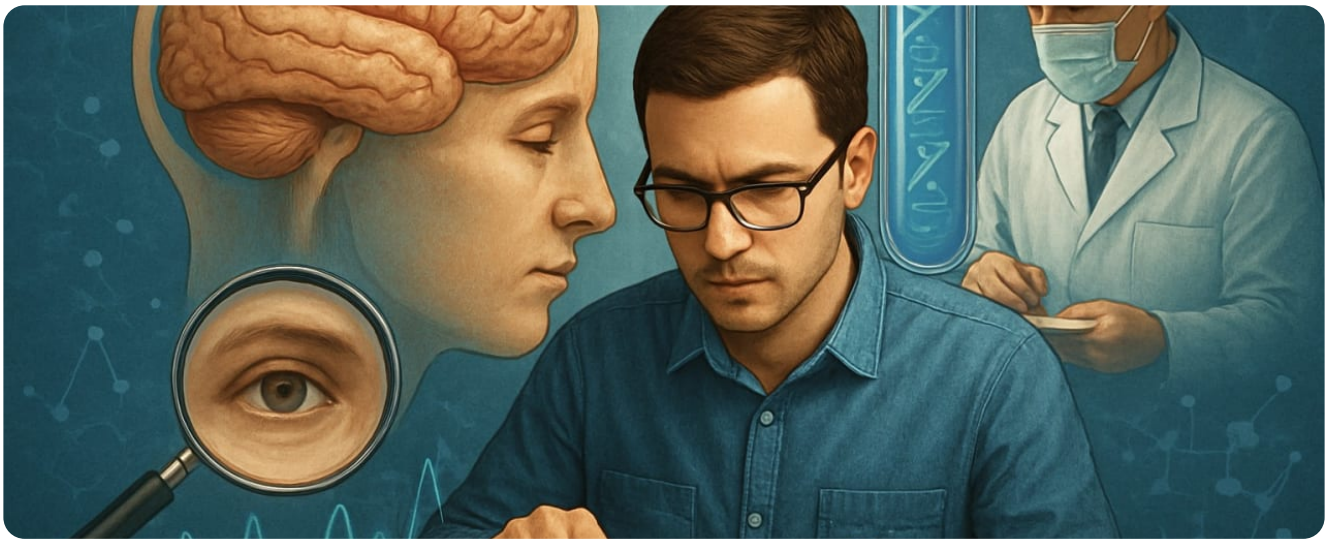
SAVANTS · EPISODE 3

The Science of the Invisible: How do we know about savants we have never seen?

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Have you ever wondered how scientists can be so sure that something exists even before they find it? To understand this, we must travel back in time to 1869, to the desk of a man named Dmitri Mendeleev. He was designing what we now know as the Periodic Table. But there was a problem: his table had gaps, like a puzzle missing pieces. Instead of ignoring them, Mendeleev did something bold: he predicted that those gaps would be filled by elements we didn't know yet. And he was right. Years later, gallium and germanium appeared exactly where he said they would be.

In the fascinating world of Savant Syndrome, we find ourselves in a very similar situation. Sometimes we don't need to see a calculation genius to know that such a capacity is possible within the human architecture. We know it because our brain is like a map with unexplored territories. By observing how the wires of our mind connect, scientists have begun to notice 'gaps' that suggest we all might have a little hidden genius inside us, waiting for the right conditions to come out. This idea completely changes how we view human intelligence, moving from seeing it as something we must learn to something we might just need to release.

- Imagine a person who, after a blow to the head, can suddenly tell you what day of the week March 14th of the year 4500 will fall on.

- Think of someone who has never studied music but, after an accident, can play a complex symphony by ear.

- Consider those who, without being mathematicians, see numbers as shapes and colors instead of simple symbols.

These are not just movie scripts; they are real cases of what we call 'acquired savants.' But the most amazing thing is not that these abilities appear out of nowhere, but the idea that perhaps they were already there, buried under layers of everyday thoughts. If a savant's brain is a map, what if I told you that you also have that map, but some of your routes are blocked by an incessant traffic of useless information? Is it possible that genius is not something that is built, but something that is released from a biological prison? This leads us to a question that challenges everything we think we know about our own intelligence: How is it possible that we know about the existence of capabilities that we have not yet seen in ourselves?

Predicting Genius: The Empty Map

When Dmitri Mendeleev looked at his incomplete periodic table, he didn't just see emptiness; he saw a logical necessity. In neuroscience, we are doing the same. By studying savants, we have realized that their abilities are not 'superpowers' added to them, but rather the result of a brain functioning without certain filters. This leads us to an astounding conclusion: the puzzle pieces to be a genius are present in almost all of us, but in most, the 'glue' of everyday life keeps them hidden. Just as Mendeleev predicted gallium, scientists today predict the 'Inner Savant.'

Allan Snyder's Inner Savant Theory

Dr. Allan Snyder, a visionary from the University of Sydney, has proposed an idea that sounds like science fiction: we all carry a savant inside us. Snyder argues that the human brain processes a monumental amount of 'raw' or basic information. For example, when you look at a tree, your brain processes every leaf, every shadow, and every speck of light. However, so that you can survive and not go crazy with so many details, your brain has a very efficient 'editor.' This editor takes all those thousands of data points and summarizes them into a single conceptual label: 'Tree.'

In an average person, this editor is so good that we never get to see the raw information. But in savants, this editor seems to be absent or distracted. They don't see the general concept; they see the pure details. Snyder believes that savant skills, such as hyper-realistic drawing or instant mathematical calculation, come from direct access to that low-level information that we all process but that our editor hides from us to save energy and time.

The Cerebral 'Editor': The Left Anterior Temporal Lobe

To test this theory, Snyder used a tool called Transcranial Magnetic Stimulation (TMS). Imagine a small, very powerful magnet that can, temporarily and safely, 'turn off' or silence a specific part of the brain. Snyder applied this magnet to the left anterior temporal lobe of ordinary people. Why there? Because that is the area where our 'editor' of concepts and language resides.

The results were electrifying. Under the effect of the magnet, people who had no artistic talent began to draw with a level of detail and perspective they had never shown before. Others were able to count large numbers of dots on a screen with almost magical precision. When the magnet was turned off, the 'editor' returned to work, and the talent disappeared. This proves that the capacity was there; it was just being suppressed by the rational and conceptual part of the mind.

Lessons from Acquired Savants: The Case of Orlando Serrell

If Snyder's theory is correct, a change in brain structure could release this inner savant permanently. This is exactly what happens in 'acquired savants.' Take the case of Orlando Serrell. At ten years old, Orlando was hit by a baseball on the left side of his head. He didn't lose consciousness, but after the pain faded, he realized something had changed. He could remember the weather for every day since the accident and calculate calendars with astonishing speed.

The hit from the ball acted like Snyder's magnet, but permanently. By damaging the area that manages logical and conceptual thinking (the editor), Orlando's brain compensated by allowing him access to data that is normally discarded. It's as if traffic on a main highway stopped and, suddenly, drivers discovered beautiful secondary landscapes that were always there but no one noticed in the rush to reach the destination.

Why aren't we all savants?

At this point, you might wonder: Why did evolution give us an 'editor' if it takes away these incredible abilities? The answer is survival. Being a savant comes at a cost. If every time you see a forest you get stuck counting the 45,782 needles of a pine tree, a predator would likely eat you before you finish. Our brain prioritizes meaning over detail. We need to know that a tiger is a 'danger' instantly; we don't need to appreciate the perfect geometry of its stripes.

However, the existence of savants shows us that the human brain has a much larger reserve of capacity than we use. Just as the gaps in Mendeleev's periodic table told us that the universe was richer than what we saw, savants tell us that our mind is a deep ocean where we only navigate the surface. We are learning that intelligence is not a cup to be filled, but a lamp that is sometimes covered by a blanket. The study of Savant Syndrome is, in essence, the search for how to lift that blanket without losing our ability to function in the real world.

In conclusion, we know that there are savants we have not seen because the laws of neuroscience and experiments with modern technology show us the empty spaces where hidden potential resides. It's not that savants are different from us; it's that they have access to a part of the human experience that we, for biological efficiency, have learned to ignore. By understanding this 'map of the invisible,' we not only learn about them, but we discover the immense and silent genius that lives, perhaps dormant, within each of us.