

10 Most Fascinating Savants in the World

Alex Santoso • Friday, September 5, 2008 at 2:50 AM • 8

Sometimes the most amazing abilities of the human brain are revealed exactly when things go wrong with it. Take, for example, savants - people who have mental abilities that could only be characterized as superhuman (like having photographic memory, playing music perfectly after hearing it just once, or doing complex mathematical calculations in one's head) but otherwise severely disabled in every day cognitive functions and social interaction.

Does the human brain have latent savant-like abilities? Does our higher cognitive functions somehow block these abilities, and why? And can we have savant-like abilities without the accompanying autism and/or developmental disabilities? [One intriguing study](#) by Dr. Allan Snyder of the Centre for the Mind suggested that temporarily impairing the left fronto-temporal lobe in healthy subjects by low-frequency magnetic pulses could result in savant-like mental abilities (see, for example: article in New York Times "[Savant for a Day](#)")

Most savants are born with their abilities (and unfortunately, their developmental disorders), but not all: severe brain injuries can, in very rare instances, cause savant-like abilities to surface (see, for example: [The Case of the "Sudden" Savant](#)). One noted savant (Daniel Tammet, see below) is a highly functioning autistic savant who can perform amazing mental feats but does not have significant developmental disabilities.

There are a few savants in the world (called "prodigious savants") whose abilities are so exceptional that they would've been classified as phenomenal with or without cognitive disabilities. Let's take a look at 10 savants with superhuman mental skills:

1. Kim Peek, the Real *Rain Man*



Even though you've never heard of Kim Peek, chances are you've heard the movie *Rain Man*. Kim was the inspiration for the character played by Dustin Hoffman in the movie.

Kim Peek was born with severe brain damage. His childhood doctor told Kim's father to put him in an institution and forget about the boy. Kim's severe developmental disabilities, according to the doctor, would not let him walk let alone learn. Kim's father disregarded the doctor's advice.

Till this day, Kim struggles with ordinary motor skills and has difficulty walking. He is severely disabled, cannot button his shirt and tests well below average on a general IQ test.

But what Kim can do is astounding: he has read some 12,000 books and remembers everything about them. "Kimputer," as he is lovingly known to many, reads two pages at once - his left eye reads the left page, and his right eye reads the right page. It takes him about 3 seconds to read through two pages - and he remember everything on 'em. Kim can recall facts and trivia from 15

subject areas from history to geography to sports. Tell him a date, and Kim can tell you what day of the week it is. He also remembers every music he has ever heard.

Since the movie *Rain Man* came out, Kim and his father have been traveling across the country for appearances. The interaction turns out to be beneficial for him, as he becomes less shy and more confident.

Further reading about Kim Peek:

- [Kim Peek](#) [wikipedia]
- [Kim Peek - The Real Rain Man](#)
- On YouTube: [Kim Peek - The Real Rain Man](#) (a series of 5 clips)

(Photo: Kim Peek courtesy of Darold A. Treffert / Wisconsin Medical Society)

2. Leslie Lemke

[\[YouTube clip\]](#)

Leslie Lemke didn't have a great start in life. He was born with severe birth defects that required doctors to remove his eyes. His own mother gave him up for adoption, and a nurse named May Lemke (who at the time was 52 and was raising 5 children of her own) adopted him when he was six months old.

As a young child, Leslie had to be force-fed to teach him how to swallow. He could not stand until he was 12. At 15, Leslie finally learned how to walk (May had to strap his fragile body to hers to teach him, step by step, how to walk).

At 16 years of age, Leslie Lemke bloomed. In the middle of one night, May woke up to find Leslie playing Tchaikovsky's Piano Concerto No. 1. Leslie, who has no classical music training, was playing the piece flawlessly after hearing it just once earlier on the television.

From then on, Leslie began playing all styles of music from ragtime to classical. Like the Tchaikovsky piece, he only has to hear the music once in order to play it again perfectly. He became famous after being portrayed in national television shows. Before his health started to deteriorate, Leslie gave many concerts around the world.

More info about Leslie Lemke:

- [Leslie Lemke - An Inspirational Performance](#)
- [Leslie Lemke in concert](#) (April 29, 1986) [YouTube]
- A DVD of Leslie Lemke performing live at the Performing Art Center in Pittsville, Wisconsin can be ordered from:

Miracle of Love Ministries
8099 Grant Road
Arpin, WI 54410
Cost: \$20.00

3. Alonzo Clemons

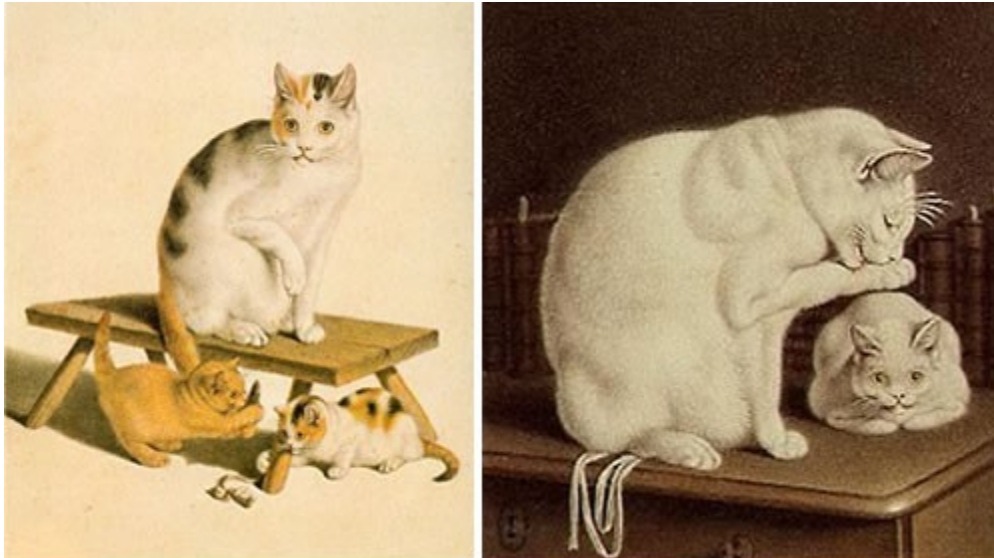


As a toddler, Alonzo suffered a head injury in an accident that changed his life. He can't feed himself or tie his shoelaces, but he can sculpt.

And boy, can he sculpt: after seeing only a fleeting image of an animal on a TV screen, Alonzo could sculpt a perfect 3D figure of it, correct in each and every detail right down to the muscle fibers.

Check out Alonzo's official website, where you can purchase his sculptures: [Link](#)

4. Gottfried Mind: Cat's Raphael



Gottfried Mind's cats (For more, check out [Art Prints on Demand](#))

Gottfried Mind was one of the earliest savants in history. In 1776, the eight-year-old Gottfried was placed in an art academy, where his teachers noted that he was "very weak, incapable of hard work, full of talent for drawing, a strange creature, full of artist-caprices, along with a certain roguishness."

One day, Gottfried's mentor, a painter named Sigmund Hendenberger, was drawing a cat when Gottfried exclaimed "That is no cat!" The teacher asked whether he could do better and sent the child to a corner to draw. The cat that Gottfried drew was so lifelike that since then he became known as the Cat's Raphael:

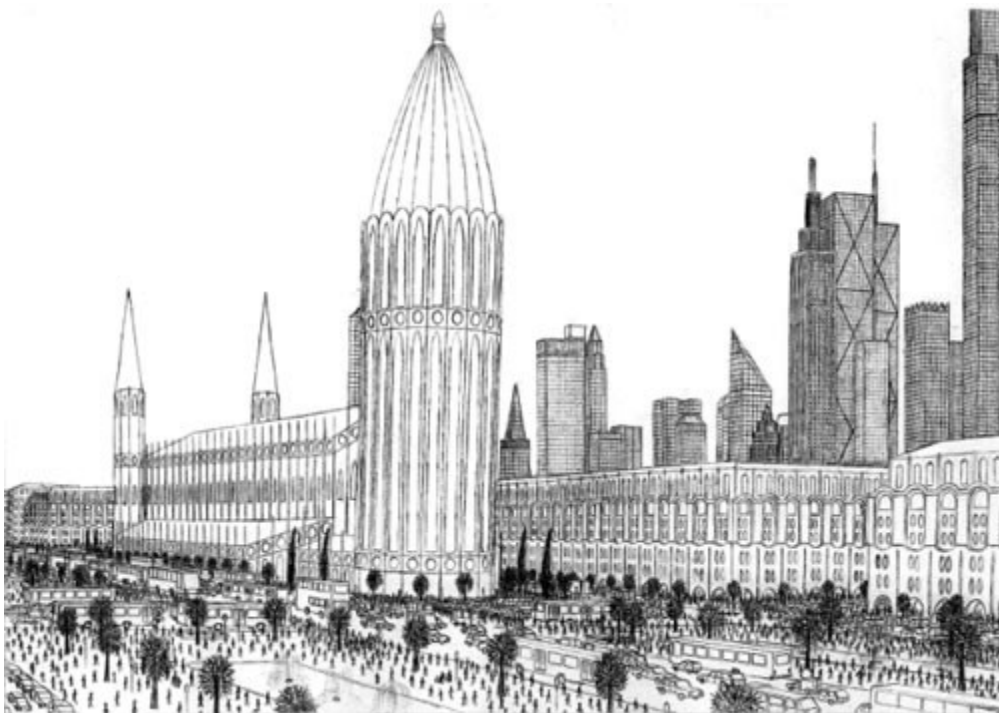
In the course of his narrow, indoors life, he had worked himself into an almost paternal relation with domestic animals, especially with cats. While he sat painting, a cat might generally be seen sitting on his back or on his shoulder; many times he kept, for hours, the most awkward postures, that he might not disturb it. Frequently there was a second cat sitting by him on the table, watching how the work went on; sometimes a kitten or two lay in his lap under the table. Frogs

(in bottle) floated beside his easel; and with all these creatures he kept up a most playful, loving style of conversation; though, often enough, any human beings about him, or such even as came to see him, were growled or grunted at in no social fashion. ([Source](#))

5. Gilles Tréhin

[YouTube Link: [Art Savant: The City Inside My Head](#)]

Gilles Tréhin lives part-time in the city of Urville, in an island off the Côte d'Azur, between Cannes and St. Tropez. Never heard of it? That's because Urville exists only in his mind. Since he was 5, Gilles taught himself to draw three dimensional objects. By 12, he started building a city he called "Urville" (after Dumont d'Urville, a French scientific base in the Antarctic). At first he used LEGO, but shortly thereafter, he realized that he could expand his imaginary city much easier with drawings.



Abbaye Sainte Marguerite des Tégartines, in Urville

Urville isn't just an idle idea - Gilles has 250 detailed drawings, complete "history" of the founding the the city, and has even published [a book detailing it](#) (Sneak peak at [Google Books](#)) Visit Urville at Gilles' official website here: [Link](#)

6. Jedediah Buxton



[Jedediah Buxton](#), born in Derbyshire, England, in 1707, couldn't write. By all accounts, he has no knowledge of science or history or anything else for that matter except for numbers. Jedediah, as it turned out, was one of the world's earliest mental calculators and savants.

Everything was numbers to Jedediah - in fact, he associated everything he saw or experienced with numbers. He measured the area of the village he was born in simply by walking around it. When he saw a dance, his whole attention was to count the number of steps of the dancers. At a play, Jedediah was consumed with counting the number of words uttered by the actors.

The mental feat of Jedediah Buxton was tested by the Royal Society in 1754 - his mathematical brain was able to calculate numbers up to 39 figures.

7. Orlando Serrell



Orlando Serrell wasn't born autistic - indeed, his savant skills only came about after a brain injury. In 1979, then ten-year-old Orlando was playing baseball when the ball struck him hard on the left side of his head. He fell to the ground but eventually got up to continue playing.

For a while, Orlando had headaches. When they went away, he realized he had new abilities: he could perform complex calendar calculations and remember the weather every day from the day of the accident.

From [Orlando's official website](#):

What makes Orlando Serrell so unique is that he may indeed hold the key that unlocks the genius in us all. Orlando Serrell did not possess any special skills until he was struck in the head by a baseball when he was 10. And his extraordinary gifts seem to be his only side effect. Could this mean once a key hemisphere in the brain is stimulated, we can all attain the level of genius Orlando possesses and beyond? Only time and research will tell. Until then we will do well to keep our eyes on Orlando and learn what we can from his experience.

8. Stephen Wiltshire, the Human Camera

As a young child, Stephen Wiltshire was a mute - he was diagnosed as autistic and was sent to a school for special needs children. There, he discovered a passion for drawing - first of animals, then London buses, then buildings and the city's landmarks. Throughout his childhood, Stephen communicated through his drawings. Slowly, aided by his teachers, he learned to speak by the age of nine (his first word was "paper.")

Stephen has a particularly striking talent: he can draw an accurate and detailed landscape of a city after seeing it just once! He drew a 10 meter (~33 ft) long panorama of Tokyo following a short helicopter ride.

[YouTube Link: [Stephen Wiltshire Draws Tokyo from Memory](#), fun starts at 3:20]

More info about Stephen Wiltshire:

- [Official Website](#)
- [Wikipedia Entry](#)

9. Ellen Boudreaux

Like Leslie Lemke, Ellen Boudreaux is a blind autistic savant with exceptional musical abilities. She can play music perfectly after hearing it just once, and has a such a huge repertoire of songs in her head that a newspaper reporter once tried to "stump Ellen" by requesting that she played some obscure songs - and failed. Ellen knew them all.

Ellen has two other savant skills that are unusual. First, despite her blindness, she is able to walk around without ever running into things. As she walks, Ellen makes little chirping sounds that seems to act like a human sonar (See also [our post](#) on Ben Underwood, a blind teen who uses echolocation to "see").

Second, Ellen has an extremely precise digital clock ticking in her mind. To help overcome her fear of the telephone, Ellen's mom coaxed her to listen to the automatic time recording (the "time lady") when she was 8. From then on, Ellen knows the exact hour and minute, any time of the day without ever having seen a clock nor have the concept of the passing of time explained to her.

For more info on Ellen, see:

- [Ellen - "With a Song in Her Heart"](#)

10. Daniel Tammet: Brainman

YouTube Clip: [Daniel Tammet - The Boy With the Incredible Brain](#) [1/5]

At first glance, you won't be able to tell that Daniel Tammet is anything but normal. Daniel, 29, is a highly functioning autistic savant with exceptional mathematical and language abilities.

Daniel first became famous when he recited from memory Pi to 22,514 decimal places (on 3/14, the International Pi Day, of course) to raise funds for the National Society for Epilepsy.

Numbers, according to Daniel, are special to him. He has a rare form of synesthesia and sees each integers up to 10,000 as having their own unique shapes, color, texture and feel. He can "see" the result of a math calculation, and he can "sense" whether a number is prime. Daniel has since drawn [what pi looks like](#): a rolling landscape full of different shapes and colors.

Daniel speaks 11 languages, one of which is Icelandic. In 2007, Channel Five documentary challenged him to learn the language in a week. Seven days later, Daniel was successfully interviewed on Icelandic television (in Icelandic, of course!).

When he was four years old, Daniel had bouts of epilepsy that, along with his autism, seemed to have brought about his savant abilities. Though he appears normal, Daniel contends that he actually had to will himself to learn how to talk to and behave around people:

As he describes in his newly published memoir, "Born on a Blue Day: Inside the Extraordinary Mind of an Autistic Savant" (Free Press), he has willed himself to learn what to do. Offer a visitor a drink; look her in the eye; don't stand in someone else's space. These are all conscious decisions.

Recently, some friends warned him that in his eagerness to make eye contact, he tended to stare too intently. "It's like being on a tightrope," he said. "If you try too hard, you'll come off. But you have to try." ([Source](#))

There is a big difference between Daniel Tammet and all the other prodigious savants in the world: Daniel can tell you how he does it and that makes him invaluable to scientists trying to understand the savant syndrome:

Professor Allan Snyder, from the Centre for the Mind at the Australian National University in Canberra, explains why Tammet is of particular, and international, scientific interest. "Savants can't usually tell us how they do what they do," says Snyder. "It just comes to them. Daniel can. He describes what he sees in his head. That's why he's exciting. He could be the Rosetta Stone." ([Source](#))