



A life that is beginning to add up

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Autistic savant Daniel Tammet's brilliance with numbers is well known. But, he tells Cassandra Jardine, he's now managing to solve other conundrums

Daniel Tammet locks his eyes on to mine just a shade too long as he opens the door to his home in Herne Bay in Kent. His manner is a trifle stiff.

"Would you like a drink?" he asks, in a voice that lacks expression. But he goes through the social motions with competence, if not ease.

This comes as a relief, for Tammet, now 26, is an autistic savant with prodigious abilities similar to those that Dustin Hoffman portrayed in the film *Rain Man*. There are only about 50 savants in the world (all men), but Tammet is unique in being able to describe how his mind works.

"I'm lucky," he says, "because most others who have rare abilities are also seriously disabled."

Two years ago, Tammet became famous for reciting pi to 22,514 decimal places with the same ease that the rest of us can reel off 3.142. Even more remarkably, he says he could still do it: his memory is not only extraordinarily capacious, it also retains everything.



Daniel Tammet:
'numbers were my toys'

In a documentary last year, he again demonstrated his numerical powers, this time by breaking the bank in Las Vegas, never having played blackjack before. And now he has done something that, for a man who describes words as "his second language", is even more remarkable: he has written a book.

In *Born on a Blue Day*, Tammet describes growing up with numbers as his only friends. He writes so elegantly that the book's oddness only slowly dawns: there is no dialogue, no humour, none of the "silly-me" stuff that you might expect. Instead, he tells his story dead straight, with an eager desire to explain himself.

At times, he goes into excessive detail about his enthusiasms, one of which is the structure of language. He is able to pick up, almost osmotically, those things with which most people struggle - maths and syntax (he mastered Icelandic in a week). His struggle has been to acquire the skills that others take for granted: communication, empathy and the ability to see the big picture, not the detail.

In the illustration below, you will probably see the large letters and only later notice the small ones that comprise them; for Tammet and other autists it is the other way round. "My brain breaks everything down into concretes and tangibles," he says. "I find intangibles hard to understand."

Tammet has Asperger's syndrome, a form of autism that was evident from birth. As a baby, he cried nonstop and only repetitive motion soothed him. He never played with other children or toys. "Numbers were my toys," he says.

"The only way I can connect with others is if I recognise them as unique, and that happened only when I saw myself as a unique person. The change came with puberty. I wanted to be liked, even loved. I felt a little more human"

To him, numbers have colours, shapes, textures, personalities. This cross-connection between unrelated senses is known as synaesthesia, and he does not know whether it predated - or resulted from - the epileptic seizures he suffered at four, but the tangibility of numbers makes it possible for him to travel in his mind through the undulating landscape that makes up pi. "To me it is as beautiful as the Mona Lisa."

That doesn't explain why the answers to complex calculations just pop up in his head - is he computing or remembering? Nor why he was more successful at blackjack when he abandoned method and relied on intuition. "Part of what I had to grapple with as a child was the limitations of logic," is all he offers as an explanation.

Tammet is doing well at answering my questions, even the indirect ones. As he explains in his book, he often appears rude because he doesn't respond if a question is not direct and explicit. "I am answering because I know from the context that you must be asking questions and that I must talk," he explains.

His reply is a reminder that he is more unusual than he appears. He has many gifts often associated with autism: he can copy a picture so accurately that it could have been traced, and planned his book without jotting down a single note. But he is more aware of the many things he can't do: "Raising a family, cooking or teaching are all amazing abilities; maths is not the only kind of genius."

Savant abilities are highly specific, so he can raise a number to any power but he is no good with square roots, or algebra, which substitutes letters for unknowns and therefore makes no sense to him. He also has difficulty putting on a DVD and calling a taxi.

Like most autists, he is hyper-sensitive to noise, touch and visual stimuli, so he found brushing his teeth impossible until he discovered the more rhythmic electric toothbrush. He will never pass his driving test because he is distracted by everything around him.

But the most distressing aspect of his condition has been his difficulty in understanding emotions. "I have to pretend to show emotions, such as triumph when I beat the house in Las Vegas. I don't enjoy films because the characters' expressions make no sense and I don't find verbal humour funny, though I do like slapstick.

"I always knew I was different from other children, but it was not until I was eight or nine that I was aware of being lonely. I used to long to be normal but, because I tend to break things down, my sense of self was thousands of fragments of memories that I was trying to piece together.



Tammet and other autists look at numbers differently: 'intangibles are hard to understand'

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Luck and willpower have both played a part in his emergence from autism-imposed solitude. "I was lucky in being part of a large family, the eldest of nine children. I had to interact with others, I couldn't just retreat into numbers.

My mother worked with me constantly, reminding me to look ahead as I walked and to make eye contact, even though I found it painful."

Although he had known he was homosexual since the age of 11, Tammet took a risk in agreeing to meet Neil, a software programmer, with whom he had corresponded on the internet. "When I fell in love, I realised for the first time that I was lovable. I had no idea."

Slowly he is extending his emotional range. Not long ago, when his cat died, he cried and understood grief for the first time, but he knows he is difficult to live with because he cannot grasp what others are feeling.

Writing the book helped him to see his parents as personalities for the first time, but he is constantly learning how different he is from others. "Recently, I was telling Neil about something that happened when we were on holiday. I hadn't realised that he would remember because he was there, too."

He recently met Kim Peek, the savant on whom Rain Man was based, which proved to be a watershed. Peek cannot negotiate daily life independently, but he can read two pages of a book at once, one with each eye, and retain every word. "We swapped facts and figures like others swap gossip," says Tammet. "He travels America giving out the message that difference is not necessarily a bad thing."

He was able to identify his elation on meeting Peek as happiness; for the first time he had not felt ashamed of himself. Like Peek, he would like to use his gifts. He could harness his numerical wizardry to make money, but he would rather help scientists understand how the brain works.

"I used to long to be like other people," he says. "But they tell me that I have the same effect on them as Professor Stephen Hawking. That in the contradiction between ability and disability, they see humanity."

- Born on a Blue Day (Hodder) is available for £14.99 plus £1.25 p&p. To order, call Telegraph Books on 0870 428 4112.

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