Is a high IQ a burden as much as a blessing?

By Sam Knight

Published: April 10 2009 14:36 | Last updated: April 10 2009 14:36

The Metropolitan Club, on Fifth Avenue at 60th street, is a palazzo in the mighty Manhattan style. Damn the expense. That's what J.P. Morgan is supposed to have said when he commissioned Stanford White, the city's most flamboyant architect, to build him a private gentleman's club in 1894. Inside, on a Monday evening in late January, only a few members drifted over the red, monogrammed carpets, but it was still early, only a little after seven. This, however, is when Marilyn vos Savant likes to show up.

Savant, who has the world's highest recorded IQ, is fond of dancing. She took it up seriously a few years ago with her husband, Robert Jarvik, the inventor of the Jarvik artificial heart, and they get to the club about once a month. If they arrive early enough, they can have the dance floor to themselves. And so it proved that Monday. The room was largely empty, the band were playing "Anything Goes" and once a happy, though quivering, old man was led from the floor by his



Marilyn vos Savant with husband Robert Jarvik outside New York's Metropolitan Club

partner, Savant and Jarvik could foxtrot wherever they pleased. A slim, prosperous couple in their sixties, they moved easily: she with a simple precision, he with the odd heel-tap, a bit of dash. After a time, though, as the floor filled up and became a carousel of perfectly tailored, carefully moving couples, they came back to their table. "It's a social scene," said Savant, who is 62, with a smile. "But it's not our social scene. Let me just say that." A few minutes later, when a serious-looking man happened to make a goofy swish right in front of them, Savant and Jarvik caught each other's eye and couldn't help laughing. Not long afterwards, they took a taxi home, to their midtown penthouse. "We usually dance more, a lot more," said Savant as they are leaving. It is only 8.30pm. "And then we go back to the office."

Savant – the surname is real, it was her mother's maiden name – has had a unique claim to fame since the mid-1980s. It was then, almost 30 years after she took a test as a schoolgirl in downtown St Louis, Missouri, that her IQ came to light. In 1985, Guinness World Records accepted that she had answered every question correctly on an adult Stanford-Binet IQ test at the age of just 10, a result that gave her a corresponding mental age of 22 years and 11 months, and an unearthly IQ of 228.

The resulting publicity changed Savant's life. She appeared on television and in the

press, including on the cover of an in-flight magazine that Jarvik chanced to pick up. He decided to track her down and ask her out. It also led to the role for which she remains best known in America, writing a question-and-answer column, "Ask Marilyn", for Parade, a Sunday magazine syndicated to more than 400 regional newspapers. For the past 22 years, Savant has tended their ceaseless queries – "How happy are larks, really?" "My wife blow-dries her hair every day. Can the noise damage her hearing?" – and in the process achieved a status that is Delphic yet tabloid. To her fans and other members of the world of high IQ, Savant is a prodigious, unusual talent who delights in solving problems. To her detractors, she is either trivial, someone who has squandered her gift, or proof, if they needed it, that IQ scores don't add up to anything. In whatever form, she lodges in people's minds. As evidence of her imprint on the national consciousness, Savant featured in an episode of *The Simpsons* in 1999. She was a member of the Springfield Mensa society, along with Geena Davis, the Hollywood actress and one-time star of *Earth Girls are Easy*.

In conversation, Savant steers clear of fancy remarks. She is overtly normal. "People expect me to be a walking encyclopaedia or a human calculator," she says, or to "have very unusual, very esoteric, very arcane gifts and I'm really not that way at all." Instead, she talks with the practised clarity of her columns, the pedantry of someone wary of misinterpretation. At one point, for example, Savant was describing a house where she lived in St Louis. "You could actually see stars," she said, "unlike here in New York, where you can only see Venus," then she halted. "I'm sorry, Venus is not a star." When Savant, who is the author of several plays and half-a-dozen self-help books, does makes a cultural reference, she is careful not to sound too snooty. She prefers Proust to Joyce, she told me, although, she concedes, "Joyce does some nice bits in Ulysses."



Marilyn vos Savant in her office

This blandness masks the rarity of her brain. Because whatever else Savant is, she is not a fraud. Her IQ has been tested and tested and tested again. When I asked her to describe how her mind approaches a problem, she said: "My first thought, maybe not thought, it's almost like a feeling, is overview ... It's like, almost, a wartime decision. I keep thinking about all of the fronts, what's supplying what, where are the most important points ... " Jarvik, her husband for the past 21 years, says Savant's gift is to be able to approach questions dispassionately, without our usual fears of or hopes for a particular answer. Walter

Anderson, the chief executive of Parade, who has been friends with Savant since he hired her in 1986, believes she is a genius and, as with other geniuses, her ability is inexplicable to him. "Marilyn just does it," he said. "Her answer is so quick. If light or electricity travels at 186,000 miles per second, do you realise how quick those synapses are? She knows the answer to your question. She knows the answer before you've finished the question."

All of which only makes people wonder why Savant has found no higher purpose. In 1995, the issue became so bothersome to Herb Weiner, a software engineer in Portland, Oregon, that he set up a website called Marilyn is Wrong! Weiner says that he aims to redress errors in her column and ensure that Savant's daunting IQ does not mean that she goes unquestioned. But what really seems to nag him is that she writes the column at all. "Look at Barack Obama, look at how he is applying his intelligence," he told me. "It just sort of seems strange to me that instead of dealing with more complex problems, a lot of what she does is just answer riddles or simple research things, things that anybody could go to a library and look up the answer to."

Weiner's complaint is oddly deferential. As his website notes: "Marilyn is more intelligent than I am, as measured by standard intelligence tests." But for many people, the story of Savant and "Ask Marilyn" are just two more pieces of evidence in a larger, decades-long argument about the accuracy and objectivity of intelligence testing. Even Guinness has succumbed. In 1990, two years after inducting Savant into its Hall of Fame, the publisher, in its parlance, "rested" its high IQ category altogether, saying it was no longer satisfied that intelligence tests were either uniform or reliable enough to produce a single record holder. Depending on how you look at it, Savant will either never be beaten, or was not worth beating in the first place.

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Humans have been measuring each other's intelligence for a long time. In China during the Xi Zhou dynasty (1046 to 771BC), candidates for official positions were formally tested on a range of criteria including the "six skills": arithmetic, archery, horsemanship, music, writing and the performance of rituals and ceremonies. The notion of a universal, objective scale of intelligence, however, did not take shape until the 19th century and the arrival of Darwinism. If Charles Darwin is the father of modern biology, then the father of modern intelligence testing is his cousin, Francis Galton – statistician, polymath and founder of eugenics. In 1884, he set up an "anthropometric laboratory" at the International Health Exhibition in London, and measured, among other things, the reaction times, eyesight, colour sensitivity and steadiness of hand of more than 9,000 men and women as he looked for links between their physical and mental characteristics.

Searching for genius, Galton failed to develop a working intelligence test. That was left to a French psychologist, Alfred Binet, and his student, Victor Henri. Binet was commissioned to study the large numbers of poor children in the city's asylums and to find out whether they were mentally incapacitated or simply untaught. His resulting 1904 test of 30 indicators – from the eye being able to follow a lit match, to memory and vocabulary questions – provided the basis of modern intelligence testing. In 1916, Lewis Terman, a professor of psychology at Stanford University, revised and expanded the test, creating the Stanford-Binet IQ test, which is still used today. Although more moderate than many of his contemporaries, Terman adhered to the social Darwinism of his time – in 1930, 24 US states had sterilisation laws – and he had hopes for the social potential of his work. "This," he wrote in 1919, "will ultimately result in the curtailing of the reproduction of feeble-mindedness."

Intelligence testing has proved contentious ever since. In the US, where more than

nine million men underwent various forms of IQ and ability tests during the second world war, the enthusiasm for testing has been matched only by the ferocity of arguments over what exactly it proves. IQ tests for children, the SAT Reasoning Test for college applicants and psychometric testing by companies may have been designed with the goal of identifying individual talent, but often their larger consequence has been to highlight differences already inherent in society. Variations between the sexes and ethnic groups have led to toxic arguments about bias and inequality and power: who gets to define intelligence? Who designs the tests? In its various iterations, the debate about IQ testing in the US normally returns to the persistent, albeit shrinking, lag between results for white and black populations.

The last time the debate flowered in full was in 1994, on the publication of *The Bell Curve* by the psychologist Richard Herrnstein and the conservative political scientist, Charles Murray. They argued that intelligence test scores were both a good indicator of social success and strongly determined by our genes. The implication, that an unequal society was inevitable and fair, and that a black, inner city "cognitive underclass" was having too many children, made it seem as though eugenics had never gone away. "Mr Murray can protest all he wants," wrote Bob Herbert, a columnist for The New York Times, "his book is just a genteel way of calling somebody a nigger."

Underlying the heated politics – making the arguments even harder to resolve – is an incomplete science. After *The Bell Curve* controversy, the American Psychological



Marilyn vos Savant with husband Robert on the cover of New York

Association convened a task force, which concluded_{magazine}, 1989 that children's IQ scores could predict about 25 per

cent of the variation in future academic performance. They were, in other words, on the cusp of being statistically reliable, better than nothing.

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There is an almighty gap between what IQ tests can measure and what we want to them to show. "If you tell anyone their IQ at any age they will remember it for the rest of their life," says Professor John Rust, the director of the Psychometrics Centre at the University of Cambridge. "It's like an astrological chart." Rust reminded me of the contrast between the quasi-spiritual idea of intelligence rooted in western language and culture – the notion of a single, overarching quality comparable to, say, a saint's halo – and what we can learn from our response to a series of logical problems. Yet in the absence of anything better than IQ tests, whose questions still underpin many modern "ability" tests, people continue to see something in these IQ scores that, while not meaningless, do not hold "the answer".

The fault, in the end, lies on both sides: in us, the credulous patients, who see too

much in our results, and the doctors, who have also been furiously theorising and extrapolating. "Tests of IQ have never simply been about our ability to solve problems," said Rust. "There has always been the idea that people with high IQs are actually more advanced, more evolved, closer to the human destiny, if you believe that sort of thing, closer to God. But in fact all you have really got is answers to questions."

The world of high IQ societies certainly does not suggest the existence of a higher evolutionary plane. Although the best known. Mensa, was set up in the UK in 1946 with utopian goals - it was envisioned by its founder, Roland Berrill, as a panel of brilliant minds that would improve society - such groups are often a refuge for people who have trouble fitting in elsewhere. "High cognitive ability is very often a mixed blessing." Patrick O'Shea, the president of one such society, the International Society for Philosophical Enquiry (ISPE), told me. Too wide a deviation from the mean IQ of 100 brings with it an inherent isolation. "If you have an IQ of 160 or higher," O'Shea explained, "you're probably able to connect well with less than 1 per cent of the population." Among the 600 or so members of the ISPE, whose IQs are all around 150 or higher, O'Shea described a "common experience of being socially marginalised" and the challenge of finding suitable outlets for their gifts. "It's good to be smart, it's good to get ahead, but past a certain threshold, you can't be trusted: you're a nerd, you're a geek," he said. "You have somehow a tremendous social deficit."

In between conversations with Marilyn vos Savant, I also spent time in New York with a man called Ron Hoeflin. Hoeflin is two years older than Savant, also from St Louis, and also has a remarkable IQ score - 190 - yet has frustratingly little to show for it. He lives only a few blocks from Savant's penthouse, above a café/Laundromat, and describes himself as self-employed. I met Hoeflin in the local Wendy's, a hamburger place where he spends every afternoon working on the final volume of a self-published philosophical treatise called *The Encyclopaedia of Categories:* A *Theory* of Categories and Unifying Paradigm for Philosophy With Over 1,000 Examples.

We slowly went back to Hoeflin's apartment - he is almost blind due to repeatedly detached retinas and I asked him what his IQ and intelligence testing had done for him. Hoeflin, who devised a

Paceal Parioh Ron Hoeflin, who says that his IQ of 190 has given him the confidence and recognition that he was denied by mainstream

education, in which he struggled

series of well-respected tests in the 1980s, said that it has provided him with a degree of confidence and recognition that he had been denied by mainstream education, in which he struggled. Hoeflin believes the objectivity of IQ tests makes them more reliable than the subjective evaluations of teachers and professors. "I don't want to have some ruthless creep mess me up," he said.



A fan of psychometric testing in general, Hoeflin also showed me the results of a personality test he once took. Lines of Xs march across the page, showing the extent of his various personality traits, from the "vigilant" to the "leisurely". In one column, for the "dramatic", there were no Xs at all. "Zero," said Hoeflin, evenly. "This is why I don't write novels because on the dramatic level I'm zero." When I objected, saying that surely our personalities are too complex, too cosmic, to be captured in a questionnaire, Hoeflin suggested politely that maybe I was incurious, or afraid, or both. "Why do you think a personality can't be measured?" He asked me. "Just because it's complicated doesn't mean we shouldn't try and figure it out. It's patterns. Even our personalities are just patterns, right? Like waves on the ocean. You can do a study in hydrodynamics and figure out how waves rise and collapse. It's the same for human beings." In an e-mail a few days later, Hoeflin explained his interest in psychometrics another way: "Being this shy makes one wonder what is going on."

Knowing all this makes high IQs and the story of Marilyn vos Savant seem rather different. Has her IQ been a burden as much as a blessing? According to John Rust, at Cambridge, to produce an extraordinary IQ score a mind must have two unusual qualities. The first is "mechanical facility" – useful but sometimes harmful in extreme cases, hence the preponderance of people with Asperger's syndrome who have high IQs. And you must also excel at a wide variety of tasks. Intelligence tests measure a range of mental abilities, whereas most people naturally, and happily, concentrate on just a few. Abnormally high IQ scores, by their nature, often speak of a brain too general to be of much use. "Effectively," said Rust, "you are mastering far too many things."

Broadness, though, is what Savant craves. "Reading all about these subjects," she says of her work, "I am becoming amazingly informed to a superficial extent." One afternoon we met in her office, 50 floors up among the foggy, snowbound towers of Manhattan, and she showed me her desk. Three computer screens and an old word processor looked out, north-west, over a thousand roofs towards the Hudson River. It is from this vantage point that she answers the 200 or 300 e-mails a day that come in for her column in Parade magazine: questions on every subject, from the personal to the algebraic, that are bothering those down below. "I'm hearing from everyone, I told you, this vast range," she said. "And I really enjoy that view. It's hard to express. It's like being at a scenic outlook point. I feel like I am gaining so much insight about people, and there is a particular joy in that."

It has taken her a long time to get there. Savant was born Marilyn Mach in south central St Louis in 1946. Her parents, Joseph Mach and Marina vos Savant, were immigrants, German and Italian respectively, and ran a bar and grill in a blue-collar part of town. Savant describes her childhood, the first half of her life in fact, at a kind of ironic distance. She laughed when she told me about how her parents tried to raise her and her two older brothers as Americans. "All I heard around the house was this fractured, lame, ungrammatical



English for I don't know how long. It was really very funny. You know, this was their best effort." And she gently warned me off reading too much into her past. "It's funny how these background things mean so much to people," said Savant. "It feels strange, a bit, to me because it seems like the dark ages or another time, or another persona, which I guess I was."



Marilyn vos Savant in 1950 with her parents Joseph and Marina and brothers (from left) Bob and Joe

In school she was quickly identified as gifted, getting maximum scores on IQ tests at the ages of seven, eight and nine. And when Savant got full marks on the adult Stanford-Binet at the age of 10, a psychologist from the local school board said he had never seen anything like it. Savant, however, recalls no surprise. "That didn't seem like news," she said. "It just seemed perfectly normal." Her principal, however, was sufficiently impressed to pull Savant out of several classes and put her to work in his office, so beginning an odd phase in her life in which she was one of the only people in the school with access to the other pupils' IQ scores. Her hobby became matching her fellow students to their results. "I would make my best guess after talking to them for a while and then I would go and see how accurate my guess was," she recalled. "I got to be very good at it."



By the age of 16, however, Savant's precocious schoolgirl was no more. She married, as her mother had done at her age, and was drawn into the family business, which by this time was a chain of dry cleaners. "It was a long time. It was a long time," she said when I asked her when she realised that this life was not for her. "You have to understand the level of control. I was not aware of things outside." Apart from a few audited classes at the city's Washington University, Savant's formal education ended in her late teens when she had her two children. She divorced in her twenties and married again, all the while working with her

Marilyn vos Savant with with her mother in 1953

brothers and father to expand the business to about 40 dry cleaners and a firm that sold dry

cleaning equipment. She joined Mensa, she says, to help her educate her children, but most of the time Savant was busy keeping the family accounts. "I was the trustworthy one," she said. "I was the one that everyone could turn to for an unbiased decision."

It was only after her second marriage ended, when she was 35, that Savant began to think about leaving St Louis. She decided to become a playwright. She saved some money and started spending time in New York, even renting an apartment in Manhattan. When her father died, she permanently moved away.

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Savant is elliptical about her early years in New York - the crucial period from 1983

to 1985 in which she went from being a dry cleaner to the cleverest person in the world. "It was just a confluence of things," she says. But contemporaries, such as Ron Hoeflin, recall her as a member of the various high IQ societies in the city. "She wanted to be a writer, I know that," he said. Savant now distances herself from the world of high IQ, but at the time she was willing to see how it could help her prospects. She says she can no longer recall how her childhood scores were submitted to Guinness, but Andrew Egendorf, a lawyer from Boston, says the idea came up over a dinner in 1983. Egendorf, who wanted to write a book about high IQ societies, says he remembers proposing a couple of book ideas to Savant, and suggesting that they send her IQ results to Guinness as a way of making her famous. "She was just another person trying to make it in New York," he told me. "The fact that she had this credential just gave her something different and I remember thinking, 'How can we cash in on it?' It didn't matter what it was. She could have been green, the only green person in the world." Egendorf first wrote to Guinness on Savant's behalf on July 25 1983. In 1985, the IQ record was hers, 31 points higher than the two previous holders. The next year, she was writing for Parade.

And since then it has been questions, questions, questions. Walter Anderson, at Parade, remembers how at cocktail parties in the 1980s people would throw Savant riddles and mathematical puzzles. It was hard to persuade her not to reply. "From the time she was a little girl, she was asked questions all the time," he explained. Not that these logical problems seem to faze Savant. Rather, they have been the scene of her greatest triumphs [The "Monty Hall dilemma"], and Anderson still gets excited, after all these years, about what conundrum Savant will answer next. He is convinced, for instance, that she understands the financial crisis in ways that most of us do not. "You know for the last quarter of a century, people have written stone bullshit about Marilyn," he said at the end of our interview. "Writers want to come and show off how clever they are. But the real question is: what should we be asking her? We should take her seriously."

There is only one question that seems the wrong thing to ask Savant, and that is what else she is supposed to have done with her life, with her glimmering brain. To ask it is to miss the point. I told her when we met that I had always imagined intelligence to be nothing more than a tool. On that foggy afternoon, before we said goodbye, she wanted to correct me. "I suppose it could be and it should be," she said. "But it also seems to be an attribute or a quality or an aspect of one's humanity that one need not use to get something that you want ... It can just simply be part of you. And I think that's fine too."

Sam Knight is a regular contributor to FT Weekend Magazine.

Do you have a question for the world's cleverest person? E-mail your questions to <u>AskMarilyn@ft.com</u> – the pick of them will be put to Marilyn vos Savant and featured with her answers in a future issue.

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The "Monty Hall dilemma"

Marilyn vos Savant's column gained national notoriety in the early 1990s, thanks to her response to the "Monty Hall dilemma": the make-or-break decision facing contestants on the game show Let's Make a Deal that was then hosted by Hall. The question was posed by Craig Whitaker, of Columbia, Marinaland, on September 9 1990. "Dear Marilyn," wrote Whitaker. "Suppose you're on a game show, and you're given the choice of three doors. Behind one door is a car, behind the others, goats. You pick a door, say #1, and the host, who knows what's behind the doors, opens another door, say #3, which has a goat. He says to you: 'Do you want to pick door #2?' Is it to your advantage to switch your choice of doors?"

Savant's answer, that it was better to switch doors, provoked an extraordinary response: thousands of letters of complaint, many of them from science teachers and academics. "There is enough mathematical illiteracy in this country, and we don't need the world's highest IQ propagating more. Shame!" wrote one reader from the University of Florida. "You are the goat!" said another. "You made a mistake, but look at the positive side," wrote Everett Harman, of the US Army Research Institute. "If all those PhDs were wrong, the country would be in some very serious trouble."

But Savant had not made a mistake. In the end it took her four columns, hundreds of newspaper stories and a challenge to children to test the options in classroom experiments, to convince her readers that she was right. "Oh, that was so much fun. I just enjoyed these nasty letters I got," she said. "The audacity of people! I just loved them."

The key to the solution lies in the role of the host, who will always pick a door which does not have a prize behind it. Statistics from the game show, in which those who switched won about twice as often as those who did not, bear out Savant's explanation from her third column: "When you first choose door #1 from three, there's a 1/3 chance that the prize is behind that one and a 2/3 chance that it's behind one of the others. But then the host steps in and gives you a clue. If the prize is behind #2, the host shows you #3, and if the prize is behind #3, the host shows you #2. So when you switch, you win if the prize is behind #2 or #3. You win either way! But if you don't switch, you win only if the prize is behind door #1."

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