Great scientists and philosophers like René Descartes, Ludwig Wittgenstein, Immanuel Kant, Thorstein Veblen, Isaac Newton and Albert Einstein all had bizarre and isolated personalities.

However, John Nash's personality, the Nobel Prize winner mathematician, shaped his career more than anyone else. In fact, his mathematics love is impossible to distinguish by subsequent obsession that contributes to the diagnosis of paranoid schizophrenia.

Today, the public has some knowledge of Nash's life thanks to the 2001 film based on this book. This book is also called Beautiful Mind and the movie adaption won four Oscars and four more nominations.

Even as a kid, John Forbes Nash Jr. looked like a mathematician-to-be

Being one of the greatest mathematical minds of the twentieth century, John Nash's origins were modest enough. He was born on June 13, 1928 in Bluefield, West Virginia. His father, John Sr. an electrical engineer and his mother, Margaret, was a schoolteacher.

We don't know much about his infancy, but he seemed to come from a loving family and lived comfortable life.

But Nash's distinctive character showed up. In elementary school, he was exceedingly socially strange, always turned to books rather than people.

In fact, their parents were very worried about the lack of social skills that they enrolled him in socializing activities like Sunday school and Boy Scouts. This was also no use for him.

At the age of thirteen or fourteen, he began to show early signs of his future mathematical genius. Nash's passion for mathematics seems to have been coming from a book E. T. Bell's *Men of Mathematic, this book was narrating* the lives of great mathematicians.

Early signs of genius were not what you predict. For example, John got a B minus in fourth grade mathematics. But he was not in the habit of showing his work so he received a low mark. This habit continued in high school. He used new and bizarre methods in his head to solve math questions.

It wasn't until university that he decided to be a mathematician.

At the beginning, Nash wanted to become an engineer like his father. He won a full scholarship to study engineering at the Carnegie Institute of Technology (CIT) in Pittsburgh, now known as Carnegie Mellon.

But lab experiments and mechanical drawing was not interesting for him. What he really loved was math classes.

The mathematics professors were very impressed by Nash's methods of solving difficult mathematical puzzles were extremely original. So they persuaded him to change his major in his second year.

Nash's fate now determined.

As an undergraduate student at Princeton, Nash's true genius was revealed.

Nash found out that he could make his academicals choice in grad school. Princeton, Harvard, Chicago and Michigan all offered him scholarship. At the beginning Harvard's was his first choice. But Princeton offered better scholarship. Nash agreed and his association with Princeton thus began which was going to last almost 60 years.

Princeton was special in a sense that mathematics students were provided with plenty of academic freedom to develop intellectually. It was impeccable for Nash.

Since World War II, Princeton's reputation as a mathematical hive continued to keep growing. Significant names such as Einstein adorned its conference halls, but more importantly student were provided with extraordinary freedom.

On the first day of the class, new graduate students were told that grades and participation in class were insignificant. All they had to do was to come to school to have a tea with professors while discussing research and share their ideas.

Nash took advantage of this freedom: he did not attend to any of mathematics class.

Instead, he walked through the corridors, which revived mathematical problems. He would write down some notes. He would whistle Bach's fugues while doing this. This habit drove his colleagues crazy.

As expected, Nash wasn't particularly liked at Princeton. At least not in the beginning.

At Princeton, young men normally came as weird algebra graduates, but in a short period of time they often went out and formed cliques under the supervision of different professors.

But Nash was always alone. He was never invited. In fact, it was his style - he didn't like to get too close to any professor, so as to avoid any negative impact on his ideas.

For most people, this was like antisocial behavior. Not many people wanted to spend a little time with him.

His fate has changed when he invented a strategic board game. His popularity sprang. In fact, the game was known as Nash in many university common rooms.

The invention was not accidental. This game –which will be popularly marketed as Hex - coincided with the start of Nash's interest in mathematics: game theory.

Nash's doctoral thesis on game theory later established him in the mathematic.

At Princeton, Nash studied under John von Neumann who is the father of modern game theory.

Basically, the task of game theory is to produce mathematical models of rational human decision making. In particular, these decisions take place in games involving conflict or cooperation, such as poker or chess.

Von Neumann's research identified the basics, but was extremely limited in practice. Nash was dedicated to take the game theory further.

One major problem with Von Neumann's theory was that his mathematical proof was limited to two-player, zero-sum games. The zero-sum means that the amount earned by one player is

equal to that lost by the other. Moreover, in zero-sum games, there is no benefit to cooperation. It's all about conflict. Poker is a good example to zero-sum game.

Von Neumann was unable to provide mathematical evidence for non-zero-sum games involving two or more players.

Nash saw this gap as a challenge and rose to him in his doctoral dissertation. Nash's 27-page thesis contained mathematical evidence covering the results of non-zero games.

This was a crucial step in making game theory more applicable to real-world practices in areas such as economics that were more interested in co-operation rather than conflict.

Despite Neumann's work, two-person zero-sum games are not so common in the real world. For example, even in war, cooperation can sometimes benefit.

Nash's breakthrough was to differentiate between collaborative and non-cooperative games. This meant that it was possible to determine rational human behavior mathematically based on the possibility of mutual gain.

That is to say, if each player independently decides the most advantageous response to his opponent's most advantageous strategy, a non-zero game can be concluded.

This equation, known as the Nash equilibrium, allowed Nash to win the Nobel Prize after half a century.

Nash quit Princeton and took his ideas on mathematics to MIT.

Nash's thesis was surprising enough to gain wide recognition. However, his dream was not enough to do the job: a professorship at Princeton. However, this was quite understandable - Nash's inaccuracy and eccentricity did not make him the ideal candidate for his teaching position.

But Nash has secured a paper at the Massachusetts Institute of Technology (MIT). So, in June 1951, he went to Boston to take up position as a trainer in a hopeless manner during his tenure.

However, once again, Nash's bizarrenes marked him and he wasn't exactly loved for it. It was not only difficult to follow his meander lessons; At the same time, he gave tough tests, challenging tests. One day, some students at the university have exclaimed"THIS IS HATE JOHN NASH DAY!"

However, Nash finally managed to form the beginning of social life in Boston. For the first time, Nash regularly met people in cafes, restaurants and pubs. His main companion was Donald Newman, a Harvard graduate and mathematician. Critically, Nash saw him as an intellectual equal.

Boston also pointed to Nash's first encounter with the opposite sex.

Nash, while staying in the hospital for a minor surgery, met Eleanor Stier. There he was a nurse and they began to build a secret relationship that resulted in Nash having his first child. However, despite Nash's first love, he surprised the day's expectations, and did not want him to marry Stier when he learned about the pregnancy. Probably, Nash's high opinion of his own mind, and Stier's sub-idea, made him think the match was inappropriate.

The stier was weak and Nash had done nothing to support the little boy. And so John David Stier spent his early years in foster care.

Nash, however, visited Stier and his child, and Stier hoped that this love would lead to the proposal of marriage one day.

Nash's flirt cost almost his career, but eventually got married.

Nash had hoped to have relationship with Eleanor Stier and his son over and over. The crush of John Nash on a professor of young physics student Alicia Larde, was far less ambiguous.

At that time, there were a few female physics students enrolled at MIT, and it was not unusual for a young and glamorous mathematical genius who idolized like Nash. Nash finally came out to Larde in the spring of 1955 and began to date intermittently.

For Nash, Larde had two advantages over Stier. She was upper-class. Secondly, and as a critic, he was academically gifted.

However, Nash had not dealt with Stier in relation to his new relations. In the spring of 1956, about a year after Larde and Nash began dating, Stier made an unannounced visit to Nash's home in Boston. She found Nash and Larde in bed together.

That was the last straw. Stier has collected himself and did not dare to do it before. He said he carried a grandchild to Nash's family, and hired a lawyer to sue him for child support. He also threatened to tell MIT that Nash had a relationship with Larde, something that could ruin his career.

Nash was trying to make separate lives, but they were all destroyed. He finally had to make a decision. The child would start to pay help; But marriage was not only included in the paper.

At the moment, Nash went to vacation in New York. Larde, now looking for a job, was on the road there.

We don't know before Nash moved into Larde before or after. However, the engagement was open to the public until October 1956 - as Nash's fiance went to Thanksgiving for dinner.

In February 1957, they married and married in Manhattan's Upper East Side.

Just as Nash's career was advancing, he was diagnosed with schizophrenia.

Nash's sudden timing of mental degeneration could not have been worse.

He served at MIT and offered a prestigious professorship at the University of Chicago.

However, he politely refused Chicago's offer. He was appointed as Emperor of Antarctica because he explained in a letter that he could not get the position.

For Alicia, the tipping point came in the middle of the night on her way to Washington, DC to deliver letters to the nearby world government notifying a number of embassies.

Alicia realized that medical assistance was urgently needed, so she told them that she was inadvertently attached to a psychiatric hospital for observation.

In April 1959, after three weeks of observation, doctors at Harvard's McLean Hospital identified Nash with paranoid schizophrenia.

Sometimes known as cancer of the mind, this disease requires hallucinations, delusional thought, and disorganization of thoughts and emotions.

For Nash, a new belief in extraterrestrial beings was subject to suspicious and extreme separation. After diagnosis, Nash was involuntarily placed in a treatment program at McLean for treatment and antipsychotic medication.

His response to the drug was evident. Within 50 days of commencement, she was given a clear release for her release. However, it was a fake. Nash had recovered to recover from his recovered imprisonment.

Nash then decided it was necessary to leave for Europe. However, Alicia decided that Nash's recovery was a misleading and to follow up on Nash to take her newborn son to follow the situation.

Her suspicions turned out to be well established. Nash apparently visited American embassies and embassies, all of them failed to hand over an American passport and was elected a world citizen, wich he believed would lead.

In the 1960s, Nash had entered a dangerous cycle, followed by an uncertainty of twenty years.

It took almost a year of travel between the American embassies in Europe, but finally Nash was sent back to the United States.

But Nash's condition hasn't improved. In most of the 1960s, it existed in its vicious cycle. It seems to be institutionalized, to be medicated and heal, only to relapse and once again to Europe.

After a few rounds of this, Alicia could not stand any longer; He filed for divorce in early 1963 and ended in late May.

Nevertheless, they continued to see each other in the coming years. It was hard; Nash fluctuated wildly. Sometimes, she hoped to compromise with Alicia, but then she would inflate because she believed she was detaining her oaths against her will.

Although Alicia was now gone, Nash no longer earned any income and was forced to trust his friends and family to survive. In 1967, he moved to West Virginia to live with his mother and sister. But Nash's mental state was too much for her commitment.

Nash was released in February 1970. He claimed there was a place where Nash could find some time alone: he walked through the corridors of Princeton, where he walked the corridors of the 1970s and 1980s.

There, in the math department, he left strange messages on blackboards. They were amazed until the new students were produced by this silent man who shielded the corridors. There is even a nickname for this behavior: "Phantom of Fine Hall."

As you can see, perhaps rumors began to circulate. He was kept as a stimulating figure - an example of what could happen to a mathematician who was flying very close to the sun, trying to solve a deadlock.

Nash's seemingly incredible recovery came with even more awards.

Everything was lost. But miraculously, Nash began to heal from the disease.

It was in the stages and it is impossible to point out precisely when paranoid schizophrenia begins to descend. It took a couple of years before the others realized that Nash was developing.

First, by the end of the 1980s, mathematicians at Princeton began to realize that Nash's research was no longer eccentric or obscure numerology; It was real math now.

Then, in 1992, a friend from Princeton graduation realized that the real, lucid speech was not beyond Nash.

Later, Nash explained the elimination of his disease. Although he still tormented him, he realized that the paranoid thoughts could recognize and reject them.

Better news accompanied his development. This period of remission from schizophrenia was the first time Nash became known for his earlier seminal work on game theory. Only quoted in reputable economics magazines; He was even mentioned as a possible Nobel Prize recipient.

Later, in 1994, Nash's best friend in college, Harold Kuhn, suggested hiking in the forest. He practically rehearsed. She left it there with Nash. You should then wait for a call from the Swedish Academy of Sciences. Nash was awarded the Nobel Prize in Economics.

Surprisingly, he pointed to a new phase in Nash's career. About 30 years after the academy, Nash with rehabilitation was accepted as a professor at Princeton. In addition, Nash was able to reconnect with friends and family members during which he had left the remaining years during his illness.

The cherry on the cake came in 2001. About 40 years after their divorce, Nash and Alicia remarried. Princeton was their home, and they lived the rest of their lives there.

Book review

John Forbes Nash Jr.'s story is about a genius, schizophrenia and healing. After preparing a unique postgraduate dissertation thesis that gave the game theory a wide recognition, Nash was diagnosed with paranoid schizophrenia and lived for 30 years. After an apparently miraculous recovery, he was awarded the Nobel Prize in Economics for his previous work.

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