

SAVANT SYNDROME

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## Savant Syndrome

Savant syndrome is the condition under which a person with mental disabilities shows extraordinary abilities in some area. Those profound and prodigious skills are called the “islands of genius.” Savant syndrome occurs in cases of neurodevelopmental disorders such as autism spectrum disorder, brain injuries or mental retardation. However, not all autistic people are savants, and not all savants have autism. Savant syndrome is interesting for scientific research. Although the first cases were observed more than two hundred years ago, there are still gaps in knowledge. Researchers cannot explain many issues related to savant syndrome. This piece of writing will highlight the most fascinating facts related to the savant syndrome, specifically the history of the condition and the most notable cases.

The mechanisms of savant syndrome are still not fully studied. The psychological theory gives numerous hypotheses regarding the issue. Some researchers suggest that savants are the examples of over-systemization that could be explained in terms of empathizing-systemizing theory framework. The cognitive psychology cannot state the exact reason for such a combination of talent and deficit in one person. Neurological explanation of the syndrome concentrates on the physical damage of the left anterior temporal lobe. This brain area is responsible for processing the sensory inputs. The damages of this block may cause the abnormal brain functioning.

The first case of savant syndrome was described in German scientific journal 200 years ago, but it was not defined as a separate disease. However, 125 years ago, Dr. J. Langdon Down called the savant syndrome to be a new condition and named it “idiot savant.” He presented ten cases of people having it. One of them was a boy who memorized *The Rise and Fall of the Roman Empire* word for word and could repeat it forwards and backwards (Treffert 2013). The disorders and savant syndrome of all savants had were congenital. Nevertheless, in 1923, Minogue described a case when a 3-year-old boy became a

musical genius after he recovered from meningitis. It is the first known instance of the acquired condition (Minogue 1923). Another early case of the acquired syndrome was that of an 8-years-old boy who displayed the exceptional calendar calculating skills after he was diagnosed with the left hemispherectomy (Dorman 1991). Since 1991, scientists recorded many cases of the acquired savant syndrome.

There is no single representation of savant syndrome that includes all types of abilities significantly exceeding what is considered to be normal. Still, the examples of savant syndrome include the spectrum of extraordinary skills. The most frequent are the splinter skill savants, who have the exceptional memory for texts, dates, musical or sports events, historical data, the location of objects, maps, route numbers, and schedules of transportation. There is also a group of talented savants. These people have extraordinary capabilities in various types of arts and crafts. Their abilities are unique not only comparing to the mentally disordered people but also in contrast to the healthy members of society. There are prodigious savants as well. Their skills are outstanding and, thus, they truly deserve to be called genius.

The epidemiology of the savant syndrome is not fully recorded. Some studies suggest that savant syndrome occurs in one out of ten autistic people. A 2009 British research project concluded that 28% of the respondents, namely parents of autistic children, believed that their children had savant skills (Howlin et al. 2009). Usually, savant syndrome is represented by one exceptional skill. However, there are cases when people possess the combination of several extraordinary abilities. The syndrome is more frequent among males than females. The ratio is approximately 4-6 male to 1 female cases.

In conclusion, savant syndrome is a condition when people with neuromental disorders display some extraordinary abilities in calculations, memorizing, music, art or other spheres. The first cases of the syndrome were described 200 years ago. Later on, scientists noticed that the syndrome might be congenital or acquired. Most savant cases develop among

autistic people. However, not all autistic people are savants. Moreover, savants may suffer from another than autistic disorder. The epidemiology of the syndrome lacks credible data. Nevertheless, it is obvious that males have the savant syndrome more often than females do. Savant syndrome is a controversial issue that poses many challenges for scientists.

## Reference list

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