**Stephen Hawking – ALS and ASD**

**First Draft**

Michael Fitzgerald,

Former Professor of Child & Adolescent Psychiatry

Trinity College, Dublin 2,

Ireland.

[www.professormichaelfitzgerald.eu](http://www.professormichaelfitzgerald.eu)

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Stephen Hawking was the most famous scientist of the past one hundred years. He had amyotrophic lateral sclerosis (ALS) and autism spectrum disorder, (ASD). There appears to be three generations of the Hawking family with ASD. It would appear to start with Stephen’s father, who had what’s called Aspergers Syndrome, now ASD, and this interfered with his professional progress as a medical doctor. The effects of ASD on Stephen’s career were precisely the opposite as in his autistic withdrawal he was able to work out brilliant scientific theories in his head.

**Childhood and family:**

His father was described as ´cold, harsh and distant´, (Hawking, 2017). He had huge difficulties dealing with feelings. Stephen, (2018) described his father as solitary. His father hyper focused on research on tropical disease. His father was also a beekeeper and used to ski in St. Albans in winter. He was an unusual character. A professional, Frank, (Stephen’s father), showed ´blunt, abrasive behaviour to his staff´, (Hawking, 2017). His father also showed a lack of empathy which interfered with his career. His father said that his own ´social ineptitude´ had damaged his career, ´depriving him of recognition for his work in tropical medicine´, (Hawking, 2017). This is a common outcome in persons with autism. His father was a ´remote figure´, who often disappeared overseas doing research (White & Gribbin, 1992). His father also made a ´meticulous account of everything he did in a collection of diaries to the day he died´, (White & Gribbin, 1992).

White & Gribbin, (1992) noted that ´Hawking’s home was an eccentric place´, very, ´bookish´. As a teenager, White & Gribbin (1992) described his room as ´the mad professor’s laboratory´. With peers, Stephen was ´detached´ and had ´to learn a number of social skills´, (White & Gribbin, 1992). This is typical of persons with ASD and high IQ. He had no interest in sports, long before ALS. He would not ´allow his emotions to compromise his intellect´, (White & Gribbin, 1992). There was a long, massive battle with his father to be allowed to do what he wanted to do at university. His first year at university was massively stressful as it is with people with autism, and he suffered depression.

He was a slow reader and didn’t read until the age of eight. There was a history of reading problems in his family. He was obsessed with model trains and airplanes. As a teen, he was obsessed with developing complex games (Hawking, 2018). He always wanted to know ´how systems work and how to control them´, (Hawking, 2018). White & Gribbin (1992) described him as a child as ´eccentric and awkward´, and he was clearly clumsy as a child. He had unusual language as a child and ´jabbered rather than talked clearly´, (White & Gribbin, 1992). This was autistic language. His peers called it ´Hawkinese´ (White & Gribbin 1992). This was years before ALS.

In school, he was a ´figure of classroom fun; teased … bullied … avoided by most´ (White & Gribbin, 1992). This is a common experience of autistic children in school. A peer in school bet another student that Stephen ´would never come to anything´, (White & Gribbin, 1992).

He was unsuccessful at coxing a boat, but it did allow him to make some contacts at university. He was a ´misfit during his first year (at university), lonely´, (White & Gribbin, 1992). He had tricks played on him by peers because he was naïve. He still had a ´speech impediment´, (White & Gribbin, 1992). Nevertheless, he showed, ´intellectual arrogance´ at university (White & Gribbin, 1992). Then, he was diagnosed with ALS. He began his stellar scientific career. Jane Wilde, who knew about his ALS, married him, nevertheless Jane (White & Gribbin, 1992) said Hawking, ´was the toughest man she ever met´. He was stubborn, obstinate and singular. He had a successful professional collaboration with Roger Penrose, whom I met. White & Gribbin (1992) stated that ´Hawking’s behaviour is more to do with his own character´. By character here I would mean autism. Most people confuse this with ALS. He had a savant type memory, often seen in persons with ASD. Despite his social skills deficits, he had a massive professional interaction with people of genius. This was essential to his academic progress. He loved to discuss physics with other scientists and did so all the time. At the same time, he showed a great deal of lack of emotional empathy to his wife and family. He did relate to other people with autism, including Feynman and Gellmann. Another person he related to was Dirac (Fitzgerald, 2022), who also had autism.

There was a reckless side to Stephen. He was a ritualized worker and a massive self-publicist.

As a child, Stephen (2018), said he had a ´lack of social graces´. This is typical of ASD. He was in the middle of the class academically. As a child, his peers called him ´Einstein´, (Hawking, 2018). Stephen said his ´practical abilities never matched up to my theoretical competence´, (Hawking, 2018). Stephen was fascinated by fundamental questions that could be answered by physics and astronomy. In Oxford University he said he felt ´lonely´, (Hawking, 2018). He said he did one hour of work per day during his first three years at Oxford, (Hawking, 2018). He had a viva voce at the end to see if he should get a first or a second. Arrogantly and tactlessly, he said to the examiners that if he got a first, he would go to Cambridge and do research and if he got a second, he would stay in Oxford.

Musically he was obsessed with Wagner’s music, and this continued throughout his life. Jane Wilde described him as ´a boy who used to sit by the wall´, (Hawking, 2007). Jane (Hawking, 2007) described Stephen’s sister as ´a distinctively eccentric figure … always disheveled, absent-minded, given to solitary pursuits´. Jane, (Hawking, 2018) said that the Hawking family used to ´bring their reading matter to the dinner table and ignored any non-bookworms present´.

Jane (Hawking, 2007) was told that she was ´marrying into a mad, mad family´. Jane (Hawking, 2007) described Stephen as a ´young man with an awkward gait, his head down, his face shielded from the world under an unruly mass of hair … immersed in his own thoughts. He looked neither to the right or left, unaware of a group of schoolgirls across the road (looking at him). He was an eccentric phenomenon´, in St. Albans. This was a considerable time before he was diagnosed with ALS. Jane (Hawking, 2017) was fascinated by his ´eccentricity´.

Jane (Hawking, 2017) described him as an ´unusual character … sense of humour … (and) independent personality´. Persons with ASD like to show humour (Lyons & Fitzgerald 2004). In early life, Jane (Hawking, 2007) described Stephen as eccentric. Then his ALS took centre stage. Jane was aware of ´non-communication´ when she interacted with him, (Hawking, 2007). Jane was aware of sacrificing her life for Stephen. Jane also noticed that Stephen was ´highly critical of people´, (Hawking, 2017). Indeed, he became critical of her later in life. Stephen liked to shock people, which is common in people with ASD. Jane (Hawking, 2017), noted that when she got to know him first, he would monopolize ´conversation´ and be controversial. Stephen, like many people with ASD, was not interested in small talk. Jane (Hawking, 2017) was upset by Stephen’s ´arrogance´, which was in ´poor taste´ and ´put her in danger of losing her friends´. Stephen was stubborn, controlling and dominating. At a meeting, he took on Fred Hoyle, (Fitzgerald, 2023) and Hoyle never forgave him. In Stephen’s marriage with Jane, he often showed a lack of empathy, was excessively controlling, very demanding, insisting on her constantly travelling and many other things.

Stephen had an ´intuitive approach to physics´ and ´carried all his theories in his head´ and was only interested in the ´crux of a problem´, (Hawking, 2017). His first wife described Stephen as spending many hours ´in evenings and weekends´ … transported to another dimension, lost to me and the children around him´ and she said ´I could not fathom such a depth of self-absorption´, (Hawking, 2017). He was in his autistic world or bubble and not ALS world, as people always said. His wife said that ´a couple of days later, Stephen would emerge from isolation with a triumphant smile. He would announce that he had solved yet another major problem in physics´. Jane said correctly, (Hawking, 2017), that he worshipped at ´the Godess of Physics, who deprived children of their fathers and wives of their husbands. After all, … Mrs Einstein had cited physics as the third party in her divorce proceedings´, (Fitzgerald & O’Brien, 2007). Stephen, in these autistic reverees on physics was ´sealed … off hermetically´, (Hawkings, 2017). His wife found these ´periods sheer torture´ and what it worse was playing ´Wagner’s Ring at full volume´, (Hawking, 2017). It was a massively stressful time for his wife as she did not have a ´single moment’s´ respite from the unending, demands for shopping, cooking and housework´.

Stephen also had ´horrendous choking fits´, that his wife had to deal with (Hawking, 2017). Stephen resisted outside nursing help for as long as possible, which put massive stress on Jane. He had an extremely rigid personality. Jane said (Hawking, 2017), that physicists ´mostly come from unusual backgrounds´. In Stephen’s case, it was his unusual father. Jane (Hawking, 2017) said that ´Stephen’s innate cussedness would bring (her) to the verge of collapse´. This was probably more to do with his ASD than his ALS. Stephen demanded that she went with him on his incessant travels. Stephen was almost an autistic wanderer, as people with ASD often are. Jane saved his life when she refused to switch off his life support, when he was in hospital in Switzerland. Stephen had some narcissistic contempt for outsiders. He later separated from Jane and married one of his outside helpers. He was novelty seeking and sensation seeking, (Fitzgerald, 2008). He was a visual thinker as many great thinkers are with autism (Lyons & Fitzgerald, 2005).

**Conclusion:**

Most discussions of Stephen Hawking focus on his ALS. This ability, as if this explained everything. It does not. ASD explains far more about Stephen than ALS. Of course, his cognitive genius is a separate matter.

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