

## Case report

# The Brilliant Diva: clues of autism spectrum and mental disorder in the life of Hedy Lamarr

Liliana Dell'Osso, Barbara Carpita, Primo Lorenzi, Daniela Toschi,  
Giulia Amatori

Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy

## SUMMARY

### Objective

Autism spectrum disorder (ASD) is a neurodevelopmental condition characterized by difficulties in communication, social interactions and a pattern of restricted, repetitive, and intense interests and behaviors. Sub-threshold autistic traits (ATs) are continuously distributed in the general population and often associated with vulnerability to psychological trauma and other mental disorders such as bipolar disorder (BD). The autistic spectrum can give rise to exceptional abilities and, at the same time, represent a factor of psychological vulnerability due to the adaptation difficulties of a neuroatypical mind. This article explores the potential presence of ATs and related psychiatric conditions in the life of Hedy Lamarr, a renowned actress and inventor.

### Methods

The analysis is based on the review of the actress's biography written by R. Barton, and on the writings of G. Sanders.

### Results

Hedy Lamarr, born Hedwig Kiesler in 1914, exhibited repetitive and intense behaviors and interests from an early age that align with characteristics of ASD. Her fascination with mechanical objects and her repetitive behaviors, such as disassembling and reassembling toys, persisted throughout her life. Lamarr's exceptional abilities in systematization and technology, evidenced by her invention of the frequency-hopping spread spectrum, also suggest the presence of ATs. Despite her success, Lamarr faced significant interpersonal trauma, including childhood sexual abuse and troubled relationship. Her struggles with identity and social camouflaging further complicated her life, leading to periods of severe psychological distress, including postpartum depression.

### Conclusion

The life of Hedy Lamarr illustrates how ATs can manifest in highly successful individuals and contribute to both exceptional abilities and significant psychopathological vulnerabilities. Her intense focus on specific interests, combined with difficulties in social interaction and identity, aligns with contemporary understandings of ASD, particularly in women. Lamarr's psychiatric trajectory, marked by psychological trauma and mood alterations, underscores the complex interplay between neurodevelopmental conditions and mental disorders.

**Key words:** Hedy Lamarr, autism spectrum, autistic traits, post-traumatic stress disorder, bipolar disorder

Giulia Amatori  
E-mail: g.amatori1992@gmail.com

**How to cite this article:** Dell'Osso L, Carpita B, Lorenzi P, et al. The Brilliant Diva: clues of autism spectrum and mental disorder in the life of Hedy Lamarr. Journal of Psychopathology 2025;31:11-17. <https://doi.org/10.36148/2284-0249-N643>

© Copyright by Pacini Editore Srl



OPEN ACCESS

This is an open access article distributed in accordance with the CC-BY-NC-ND (Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International) license. The article can be used by giving appropriate credit and mentioning the license, but only for non-commercial purposes and only in the original version. For further information: <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>

## Objective

Autism spectrum is a neurodevelopmental condition characterized by difficulties in verbal and non-verbal communication, restricted and repetitive interests and behaviors and alterations of social-emotional reciprocity, distributed in the clinical and general population according to a continuum of severity ranging from subthreshold conditions up to a full-blown mental disorder, autism spectrum disorder (ASD)<sup>1,2</sup>. Sub-threshold autistic traits (ATs), which are less severe but share the same characteristics as the clinical symptoms of ASD, were initially identified in studies conducted

among unaffected first-degree relatives of individuals with ASD<sup>3</sup> and subsequently found to varying degrees in the general population, reaching the highest levels in subjects affected by other mental disorders<sup>4</sup>. ASD and ATs represent a vulnerability factor for the development of post-traumatic stress disorder (PTSD), even in the case of persistent mild traumas, both due to the greater facility of exposure to the event and the reduced ability to internalize and express traumatic experiences<sup>5</sup>. Furthermore, among the different types of mental disorder, literature has shown a high comorbidity between ASD and BD. Based on the available literature, estimated prevalence of BD affects around 7% of ASD patients and, considering that that number of people with diagnosis of ASD is steadily growing, comorbidity of ASD with bipolar disorder is going to be a more common issue in psychiatric practice<sup>6</sup>. Furthermore, the diagnosis of bipolar disorder may be difficult in patients with ASD due to difficulties in communicating emotions, impaired insight into one's emotional, atypical clinical symptoms in case of comorbidity, and absence of tools adjusted typically for this group of people.

The aim of this paper is to describe the psychopathological trajectory of the icon Hedy Lamarr, specifically investigating the presence of autistic traits and their role in the famous actress' life.

## Methods

The information regarding Hedy Lamarr's life was drawn from the writings of R. Barton<sup>7</sup> and G. Sanders<sup>8</sup>.

## Results

### Selective interests and exceptional skills since childhood and adolescence

Hedy Lamarr (1914-2000), the stage name of Hedwig Kiesler, was born in Vienna to a wealthy and influential Jewish family. Although the childhood of the young Hedy seems to have unfolded without excessive difficulties, we may well hypothesize that the effects of the Great War on the Jewish community, which saw them deprived of their wealth and prestige, was quite disruptive to the serenity of the Kiesler family.

From her very early years, Hedy was given to finding enjoyment in activities oriented towards the comprehension of mechanisms and gadgets: she would disassemble and reassemble her toys for hours on end, in a repetitive manner. As her son tells us, the actress jealously guarded, right up until her death, a much beloved music box from her childhood: an object of her early interest in technology, she brought it with her wherever she went, constantly taking it apart and putting it back together. As a child she showed great curiosity in how

objects worked, and her father was always ready to try to answer her questions, as he also had a passion for technology.

And yet, attracted by the wonders of the theater, which, from her earliest experience of it, had left her totally enthralled, and captivated by the magic of cinema, the young Hedy developed a passion that was so intense and all-absorbing towards the world of entertainment that she felt pushed, during her early adolescence, to compete in beauty contests (sometimes without her parents' knowledge), learn other European languages, attend acting classes, and to make her way, whatever the cost, into the environment frequented by Austrian cinematographers. Her stubborn insistence, supported by a passion so intense as to even distract her away from her studies, is what ultimately allowed her, starting in 1930, to land small parts in various films. In 1931, the famous Viennese director Max Reinhardt, working predominantly in Berlin, gave Hedy a small, but not insubstantial, role in his theatrical production of *The Weaker Sex*, for which she won praise from the critics. This allowed the actress, then just seventeen years old, and described by another member of the cast, the journalist and writer George Weller, as "the most beautiful girl in the world", to make the move to Berlin that same year. She would never return to her native country, and the trauma of leaving her homeland, as well as the Jewish community there that she had always been a part of, and in which she had friends and neighbors who would later be subjected to the worst imaginable of fates, would constitute an underlying level of uncertainty and vulnerability which was to accompany her throughout the rest of her life. It's possible to imagine that these feelings, re-experienced every time that sense of not belonging would resurface in the life of the actress – who would conceal, until her death, her Jewish origins, and who was often, because of her "immigrant status", assigned the roles of foreign women or, even, of spies –, were dealt with by employing avoidance strategies, thereby continuing to feed into a PTSD, whether full-blown or subthreshold, which Hedy only seems to have openly confronted at a later point in her life, when she turned to the help of the psychiatrist and psychoanalyst Philip Solomon.

### Interpersonal trauma and the mask of beauty

As stated above, the physical beauty of Hedy Lamarr was apparent from the time of her childhood. Trude, mother of the future diva, recounted that an infatuated teacher, instructed not to concede any special favors to the girl, confessed that "when she walks towards me, and looks at me, I am helpless"<sup>7</sup>. Everyone in Vienna seems to have been infatuated with Hedy, whose childhood was, however, not without trauma of a sexual nature: in her autobiography, *Ecstasy and Me*, the diva

openly writes about having been sexually abused by a man, and of having been, when still a child, the object of sexual attention on the part of a female cook working for her family, as well as by a female family friend.

Given the aesthetic perfection of Lamarr's looks, the products of her intelligence, seen to be of an extraordinarily high order from her very early years, were obscured, blocked out by the sidereal luster of those iconic blue eyes.

Hedy's six husbands followed one another in rapid succession, and with each one there came a change in lifestyle: she would go from being a non-working wife at the luxurious Mandl mansion in Vienna, from which she would make a daring escape, to becoming the owner of the La Perla nightclub in Acapulco, a locale managed by her fourth husband, Teddy Stauffer. The relationship with Fritz Mandl, her first husband, was particularly troubled. Owner of an armaments manufacturer, which he inherited together with an enormous fortune from his father, Mandl was strong-willed and intellectually brilliant, but also unscrupulous and domineering. A man on whom a woman could easily become dependent, to the point of losing her own identity. Hedy, aware that this was a real risk, decided that it was best to flee this gilded cage of a marriage. Following this experience, she would only engage in relationships that were diametrically opposed in nature, and demonstrate an openness to entering into new romantic flings that was to represent a constant for the rest of her life.

After her flight from the Mandl mansion, Hedy's life would never again find a stable center of gravity, if not for only brief periods, leading to that ontological insecurity which would always characterize her, recognizable in her many vicissitudes, adventures, and psychopathological declinations. This is especially true regarding her continuous legal litigation, which would become a constant during her final years.

### Camouflaging

Relationships and lifestyles interpreted as roles, and soon abandoned as such when, perhaps, alongside the inevitable fading of infatuation would appear the incapacity to hide that inherent taint of inauthenticity. Hedy accused many of her former spouses of having exhibited aggressive behavior towards her, maintaining that she had been subjected to violence, both psychological and physical, with this latter accusation being confirmed in some situations by eyewitnesses.

The tendency to don masks, typically associated with an increase over time in a dissonance between the perceived self and the manifested self, was, for Hedy, a strategy that she had learned very early on. Trude Kiesler claimed that her daughter, despite having a determined nature, was also chameleonic, adapting her character to the people she was around. She observed

how Hedy would temporarily and with facility change her behavior, as happened when she was about twelve years old and her first admirer, a highly educated and intellectual young man, visited their home in Vienna. On that occasion, Hedy, while never a mediocre student, though certainly not one of the best, suddenly rose to the top of her class, spending all her time studying. Engaging with another would-be suitor, a young idealist from Russia, she seemed to adopt his values.

In all of this, her physical beauty, a magnet for (sometimes unwanted) attention, and an element which most people seemed to consider sufficient for knowing the person "Hedy Lamarr", may have been instrumentalized by her as a reliable ally in a strategy of camouflaging employed from the time of her early childhood, when elements of social phobia and bizarreness, stereotypical behavior and interests, could pass unnoticed, concealed by an angelic appearance and an upper class social environment, though a persistent suffering was always present below the surface.

### Genius, intuition, and systematization

During the Second World War, Hedy contacted the pianist George Antheil, proposing a collaboration to devise a control system using radio frequency guidance for torpedoes, an apparatus which, for more than ten years, the German navy had been attempting, without much success, to develop.

Arriving at the diva's home for the first time, Antheil was surprised by the number of technical manuals and drafting tables she had in her study, objects that looked as if they were routinely used.

To Hedy's "variable frequency" concept, Antheil contributed the idea that rapid changes of radio frequency could be coordinated in a manner similar to the piano and the other musical instruments which he employed in his *Ballet Mécanique* project. The two worked intensely on the conceptualization of a system which would utilize eighty-eight frequencies, the same as the number of keys on a piano. In 1940, they sent their project to Washington, where the head of the National Inventors Council, Charles F. Kettering, initially enthusiastic, encouraged them to finish the project and to apply for a patent. They continued to work on the system throughout 1941; in that same year, Colonel Lent of the Inventors Council revealed to the media news of the invention, which was greeted enthusiastically by the public, and considered an essential breakthrough for national defense. The patent, following a final contribution by the mechanical engineer Samuel Mackeown, working at the California Institute of Technology, was finally approved in August 1942. Besides the Secret Communication System (Code Division Multiple Access, or CDMA), the name given to their variable frequency invention, Hedy and George also collaborated on other projects, like an

antiaircraft missile system associated with a mechanism which would enable activation of the projectile only at a certain altitude (thereby avoiding damage to friendly aircraft once the debris from the missile had started precipitating towards the ground), exploding automatically near the enemy target. This was another potentially important invention that was ignored by the Inventors Council. Only in the 1950s, while their patent was still valid, and without the names of Lamarr and Antheil being cited, was the CDMA system employed, in devices designed for communication between an airplane and a sonobuoy, an instrument allowing the detection of enemy submarines. In 1957, the Lamarr-Antheil system was again utilized in the field of electronics, this time by the Sylvania Electronics Systems Division of Buffalo, to ensure maximum security for military communications. In 1962, three years before the expiration of their patent, the CDMA was adopted for devices being used by ships sent to Cuba during the Cuban Missile Crisis.

In 1985, the status of military secret was removed from the variable frequency system, and the system was then adopted by the nascent mobile phone industry as its standard operating system, and can therefore be said to be the basis of all modern telephone technology (Barton, 2010). The reputation of "Hedy Lamarr, the inventor" wouldn't clearly emerge until the 1990s, when awards started to be conferred on the actress by various scientific organizations, as recognition of her important contributions. Today, in Germany, Austria, and Switzerland, Inventor's Day is celebrated on the 9th of November, Hedy Lamarr's birthday.

As much as this represented an ardent passion, intensely pursued – as the myriad of books and manuals routinely utilized and the incredible results achieved attest –, and which she never ceased to actively involve herself in throughout the course of her life, it's somewhat odd that Hedy hardly makes mention of this aspect in her autobiography, nor would she speak about it in any other context. It might be that, precisely because of her high degree of intelligence, she understood early on that it would be more opportune for her to conceal this side of herself.

### The psychopathological drifting of a divergent mind

The first evident cracks in Hedy's psychophysical equilibrium became perceptible following her two pregnancies, occurring during her third marriage, with John Loder, a mild-mannered Englishman and former military officer who, after entering civilian life, had first been a businessman before becoming an actor. They were married in 1943, and their union, at least initially, seemed a happy one.

However, after the birth of their daughter Denise, in May 1945, Hedy developed postpartum depression. This is not surprising given that the perinatal period (preg-

nancy, childbirth, puerperium) represents the moment of highest psychopathological risk in a woman's life, particularly when psychopathological vulnerability is already present.

It was during this time that her body began to send troubling signals, which was to dominate her attention to the point of becoming an obsession. It was then suggested that she start therapy with the psychiatrist and psychoanalyst Philip Salomon, in whose care she would remain for many years. During analysis, a chain of traumas relating to her childhood emerged: her being the object of attention of a sexual exhibitionist during her school years, the already-mentioned sexual abuse she suffered when she was fourteen, a physical trauma that left an ugly scar running from her rib cage down to her hip, and an episode of physical aggression on the part of her father that would forever remain vivid in her mind. After deciding to divorce from Loder (not before, however, becoming pregnant for a second time), Hedy returned, though in a state of constant inner turmoil, to her cinematic career. She achieved her greatest success as an actress in films like *The Strange Woman* (1946), *Dishonored Lady* (1947), and *Samson and Delilah* (1949), in which she would find herself taking on, for the first time, the role of a conflicted and tormented woman.

Her psychic distress translates, in this period, into accelerated thinking with "novelty seeking": she breaks off her relationship with the Metro Goldwyn Mayer studio and starts her own production company, Mars Production Inc., and she uses her entrepreneurial talents to become a successful restaurateur. This convulsed and unbridled passion for initiating new ventures in various arenas would also give rise to a querulous tendency which, over the following years, and until her death, would lead her to bring a series of lawsuits. The last of these was in 1998, the year in which Hedy, now eighty-four years old, sued the Corel Software Company for having used her image in their advertising without her authorization.

After her divorce from John Loder, her love life would proceed disastrously, with further marriages, ending in quick divorces, and numerous romantic trysts, among them those with the Italian businessman Gianni Agnelli and with John F. Kennedy. She would continue her psychiatric therapy, and always maintain her lifestyle habits, which, other than the stress stemming from a protracted mixed bipolar state, would remain healthy: she seems never to have smoked or abused alcohol or other substances.

### Towards decline

Hedy's last film role, sadly autobiographical, was that of the former Hollywood diva Vanessa Windsor, in the thriller *The Female Animal* (1958), directed by Harry Keller. Her subsequent appearances would be limited



to television. In 1960, she divorced her fifth husband, W. Howard Lee, and her final marriage, in 1963, with the attorney Lewis J. Boies, would last just two years. Racing thoughts of a bipolar nature, which had characterized her until that moment, would now give rise to always more frequent episodes of confusion, disorientation, and bewilderment, sometimes reaching the threshold of stupor.

In 1966, stopped by security guards while exiting a shop, she was found to be in possession of stolen items (a sweater, some intimate wear, a second-rate makeup kit, and eight greeting cards). She was immediately sent to the Sybil Brand Institute for Women, a jail for female offenders, only to be released after 2 o'clock in the morning when a bail of five hundred fifty dollars was paid by Marvin Paige, a kind-hearted television director who was working with her at that time. It seems that, before going to the shop where the theft occurred, Hedy had called her doctor, complaining of feeling ill and being dizzy, symptoms which she had developed the previous evening after watching a drama about the Holocaust, *The Pawnbroker*, which had deeply upset her and, in our opinion, may have elicited neurovegetative symptoms of post-traumatic re-experiencing. In court, where she was found not guilty, Hedy stated that she had never had a similar experience previously, that she had always been forgetful (evidence of catatonic spectrum), and that she had been even more so during that period due to too many (and too rapid) thoughts, in the grip of extreme mental rumination. The physician who examined Lamarr the morning of the theft testified that she was in a confused state, such as to not be fully aware of her actions in the moment of taking those items – she was most likely in a stuporous state. Moreover, Hedy's extraordinary life, burdened by intense suffering, is comparable to a subject that, starting from a neuroatypical substrate, predisposed as much to exceptional abilities as to psychopathological vulnerabilities, has developed a trajectory of mental illness fueled by trauma, progressing into a severe bipolar disorder, which then gives rise to catatonic manifestations. Fortunately, her excellent cognitive resources and healthy lifestyle, as well as the availability of psychiatric assistance with Dr. Salomon, allowed her to reach an advanced age in a state of relative psychic balance.

## Discussion

Hedy Lamarr's life provides a compelling case study of how certain characteristics associated with autism spectrum disorder (ASD) can manifest in highly successful and creative individuals. Despite her fame as a Hollywood actress, Lamarr exhibited traits that align with what we now understand as the autism spectrum, particularly in the areas of restricted and repetitive in-

terests, a strong inclination towards systematization, and difficulties in social interaction and identity. From a young age, Lamarr exhibited behaviors and interests that are often associated with ASD<sup>1</sup>. Her early fascination with mechanical objects and her repetitive behavior of disassembling and reassembling toys are classic examples of restricted and repetitive interests. These activities were not merely pastimes but intense, focused interests that she pursued with great dedication. Even as she grew older, this passion for understanding how things worked remained strong, as evidenced by her lifelong attachment to a music box, which she repeatedly took apart and reassembled.

Lamarr's intense interest in the world of entertainment also fits into this pattern. Her fixation on theater and cinema, to the extent that she entered beauty contests without her parents' knowledge and pursued acting classes with single-minded determination, demonstrates the kind of focused passion often seen in individuals on the autism spectrum. This intensity of interest, while it led to great success in her career, also seems to have been a source of distraction from her academic studies, another characteristic commonly observed in ASD<sup>9-11</sup>. Lamarr's exceptional ability to systematize, a trait often associated with ASD<sup>12</sup>, is evident in her contributions to technology, particularly in her invention of the frequency-hopping spread spectrum. Systematization refers to the ability to identify patterns, rules, and structures within a system, allowing for the prediction of behaviors within that system. In Lamarr's case, her systematizing abilities were not limited to one field but spanned across various domains, including music, mathematics, and engineering. In this regard, a recent study showed that the type and intensity, though not the number, of interests distinguish high-functioning children with ASD from neurotypical children<sup>9</sup>.

For example, her collaboration with the pianist George Antheil on the frequency-hopping invention was based on a deep understanding of the relationship between music and technology. The concept of using 88 frequencies, corresponding to the keys on a piano, to create a secure communication system is a clear demonstration of her ability to identify and manipulate patterns within a system—a hallmark of high-functioning autism<sup>12-14</sup>. Her understanding of technological systems was so advanced that she was able to contribute meaningfully to a project that had stumped the German navy for years. Another aspect of Lamarr's life that aligns with ASD is her tendency to wear social masks and her struggles with identity. Social camouflaging refers to the strategies used by individuals with ASD to blend into social environments, often by mimicking others or suppressing autistic traits<sup>15-20</sup>. Lamarr's mother described her as chameleonic, able to adapt her behavior to those around

her, a trait that likely helped her navigate the highly social world of Hollywood but one which also contributed to a deep sense of inauthenticity.

Her beauty, which drew constant attention and overshadowed her intellectual abilities, can be seen as a mask that concealed her true self. This dissonance between her perceived and manifested self likely may have contributed to lifelong feelings of insecurity and vulnerability. These struggles with identity and the need to camouflage are common in women with ASD, who often go undiagnosed because they are able to hide their difficulties more effectively than men<sup>12</sup>. Lamarr's life also highlights the psychopathological risks that can accompany ASD, particularly when it intersects with other life stressors, such as trauma and societal expectations. Her experiences of sexual abuse in childhood, coupled with the pressures of being a public figure, likely exacerbated her vulnerabilities<sup>21-23</sup>.

Her tendency towards obsessive thinking, as seen in her relentless pursuit of various ventures, and her frequent legal battles in later life, could be viewed as manifestations of the mental rumination and difficulty with change that are often associated with ASD<sup>24,25</sup>.

As noted in the scientific literature, autistic traits, particularly in high-functioning individuals, represent a risk factor for the development of mental disorders, including bipolar disorder<sup>26-34</sup>. Bipolar disorder is one of the most severe mental disorders that occur in comorbidity with autism<sup>31</sup> and, intriguingly, the presence of mood disorders in young adults with ASD was found to be mediated by emotional deregulation<sup>35</sup>. Against the backdrop of probable borderline personality traits, including unstable relationships, identity struggles, rapid lifestyle changes, and intense emotional responses<sup>36,37</sup>, Lamarr's

clinical history –highlighted by a post-partum depressive episode and periods characterized by heightened work activity, ideational acceleration, confusion, disorientation, and behavioral disturbances – appears to delineate a bipolar disorder. This condition seems to have ultimately evolved, further complicated by catatonic symptoms, which are common in individuals with ASD and significant autistic traits<sup>38,39</sup>.

## Conclusion

Hedy Lamarr's life story is a powerful example of how the traits associated with autism spectrum disorder can manifest in both positive and challenging ways. Her restricted, repetitive interests and exceptional systematizing abilities led to groundbreaking technological innovations, while her struggles with social camouflaging and identity reveal the difficulties faced by individuals with ASD in a world that often fails to recognize their unique strengths. Her story underscores the importance of understanding and supporting neurodiversity, recognizing that the same traits that contribute to exceptional achievements can also be sources of significant psychological distress.

## Conflict of interest statement

The authors declare no conflict of interest.

## Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Ethical consideration

Not applicable

## References

- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. DSM-5-TR. American Psychiatric Association Publishing; 2022. <https://doi.org/10.1176/appi.books.9780890425787>
- Dell'Osso L, Dalle Luche R, Maj M. Adult autism spectrum as a transnosographic dimension. *CNS Spectr*. 2016;21(2):131-133. <https://doi.org/10.1017/S1092852915000450>
- Billeci L, Calderoni S, Conti E, et al. The Broad Autism (Endo)Phenotype: Neurostructural and Neurofunctional Correlates in Parents of Individuals with Autism Spectrum Disorders. *Front Neurosci*. 2016;10. <https://doi.org/10.3389/fnins.2016.00346>
- Dell'Osso L, Lorenzi P, Carpita B. Autistic Traits and Illness Trajectories. *CPEMH*. 2019;15(1):94-98. <https://doi.org/10.2174/1745017901915010094>
- Cattane N, Rossi R, Lanfredi M, Cattaneo A. Borderline personality disorder and childhood trauma: exploring the affected biological systems and mechanisms. *BMC Psychiatry*. 2017;17(1):221. <https://doi.org/10.1186/s12888-017-1383-2>
- Dunalska A, Rzesutek M, Dębowska Z, et al. Comorbidity of bipolar disorder and autism spectrum disorder – review paper. *Psychiatr Pol*. 2021;55(6):1421-1431. <https://doi.org/10.12740/PP/Online-First/122350>
- Barton R. Hedy Lamarr: The Most Beautiful Woman in Film. University Press of Kentucky; Illustrated edition; 2010.
- Sanders G. *Memoirs of a Professional Cad*. Scarecrow Press; 1992.
- Anthony LG, Kenworthy L, Yerys BE, et al. Interests in high-functioning autism are more intense, interfering, and idiosyncratic than those in neurotypical development. *Dev Psychopathol*. 2013;25(3):643-652. <https://doi.org/10.1017/S0954579413000072>
- Jasim S, Perry A. Repetitive and restricted behaviors and interests in autism spectrum disorder: relation to individual characteristics and mental health problems. *BMC Psychiatry*. 2023;23(1):356. <https://doi.org/10.1186/s12888-023-04766-0>
- Lefebvre A, Traut N, Pedoux A, et al. Exploring the multidimensional nature of repetitive and restricted behaviors and interests (RRBI) in autism: neuroanatomical correlates and clinical implications. *Molecular Autism*. 2023;14(1):45. <https://doi.org/10.1186/s13229-023-00576-z>
- Baron-Cohen S, Lombardo MV. Autism and talent: the cognitive and neural basis of systemizing. *Dialogues in Clinical Neuroscience*. 2017;19(4):345-353. <https://doi.org/10.31887/DCNS.2017.19.4/sbaroncohen>

- <sup>13</sup> Baron-Cohen S, Ashwin E, Ashwin C, Tavassoli T, Chakrabarti B. Talent in autism: hyper-systemizing, hyper-attention to detail and sensory hypersensitivity. *Phil Trans R Soc B*. 2009;364(1522):1377-1383. <https://doi.org/10.1098/rstb.2008.0337>
- <sup>14</sup> Van Der Zee E, Derksen JJJ. The Power of Systemizing in Autism. *Child Psychiatry Hum Dev*. 2021;52(2):321-331. <https://doi.org/10.1007/s10578-020-01014-4>
- <sup>15</sup> Hull L, Petrides KV, Allison C, et al. "Putting on My Best Normal": Social Camouflaging in Adults with Autism Spectrum Conditions. *J Autism Dev Disord*. 2017;47(8):2519-2534. <https://doi.org/10.1007/s10803-017-3166-5>
- <sup>16</sup> Dell'Osso L, Cremone IM, Chiarantini I, et al. Autistic traits and camouflaging behaviors: a cross-sectional investigation in a University student population. *CNS Spectr*. 2022;27(6):740-746. <https://doi.org/10.1017/S1092852921000808>
- <sup>17</sup> Cook J, Hull L, Crane L, Mandy W. Camouflaging in autism: A systematic review. *Clinical Psychology Review*. 2021;89:102080. <https://doi.org/10.1016/j.cpr.2021.102080>
- <sup>18</sup> Perry E, Mandy W, Hull L, Cage E. Understanding Camouflaging as a Response to Autism-Related Stigma: A Social Identity Theory Approach. *J Autism Dev Disord*. 2022;52(2):800-810. <https://doi.org/10.1007/s10803-021-04987-w>
- <sup>19</sup> Alagband-rad J, Hajikarim-Hamedani A, Motamed M. Camouflage and masking behavior in adult autism. *Front Psychiatry*. 2023;14:1108110. <https://doi.org/10.3389/fpsy.2023.1108110>
- <sup>20</sup> Cage E, Troxell-Whitman Z. Understanding the Reasons, Contexts and Costs of Camouflaging for Autistic Adults. *J Autism Dev Disord*. 2019;49(5):1899-1911. <https://doi.org/10.1007/s10803-018-03878-x>
- <sup>21</sup> Fukui N, Watanabe Y, Motegi T, et al. Relationships among autistic traits, depression, anxiety, and maternal-infant bonding in postpartum women. *BMC Psychiatry*. 2023;23(1):463. <https://doi.org/10.1186/s12888-023-04970-y>
- <sup>22</sup> Quidé Y, Tozzi L, Corcoran M, Cannon DM, Dauvermann MR. The Impact of Childhood Trauma on Developing Bipolar Disorder: Current Understanding and Ensuring Continued Progress. *NDT*. 2020;16:3095-3115. <https://doi.org/10.2147/NDT.S285540>
- <sup>23</sup> Aas M, Henry C, Andreassen OA, Bellivier F, Melle I, Etain B. The role of childhood trauma in bipolar disorders. *Int J Bipolar Disord*. 2016;4(1):2. <https://doi.org/10.1186/s40345-015-0042-0>
- <sup>24</sup> Williams ZJ, McKenney EE, Gotham KO. Investigating the structure of trait rumination in autistic adults: A network analysis. *Autism*. 2021;25(7):2048-2063. <https://doi.org/10.1177/13623613211012855>
- <sup>25</sup> Patel S, Day TN, Jones N, Mazefsky CA. Association between anger rumination and autism symptom severity, depression symptoms, aggression, and general dysregulation in adolescents with autism spectrum disorder. *Autism*. 2017;21(2):181-189. <https://doi.org/10.1177/1362361316633566>
- <sup>26</sup> Dell'Osso L, Amatori G, Carpita B, et al. The mediating effect of mood spectrum on the relationship between autistic traits and catatonia spectrum. *Front Psychiatry*. 2023;14:1092193. <https://doi.org/10.3389/fpsy.2023.1092193>
- <sup>27</sup> Dell'Osso L, Carpita B, Cremone IM, et al. The mediating effect of trauma and stressor related symptoms and ruminations on the relationship between autistic traits and mood spectrum. *Psychiatry Research*. 2019;279:123-129. <https://doi.org/10.1016/j.psychres.2018.10.040>
- <sup>28</sup> Kato K, Mikami K, Akama F, et al. Clinical features of suicide attempts in adults with autism spectrum disorders. *General Hospital Psychiatry*. 2013;35(1):50-53. <https://doi.org/10.1016/j.genhosppsych.2012.09.006>
- <sup>29</sup> Sterling L, Dawson G, Estes A, Greenson J. Characteristics Associated with Presence of Depressive Symptoms in Adults with Autism Spectrum Disorder. *J Autism Dev Disord*. 2008;38(6):1011-1018. <https://doi.org/10.1007/s10803-007-0477-y>
- <sup>30</sup> Hannon G, Taylor EP. Suicidal behaviour in adolescents and young adults with ASD: Findings from a systematic review. *Clinical Psychology Review*. 2013;33(8):1197-1204. <https://doi.org/10.1016/j.cpr.2013.10.003>
- <sup>31</sup> Ghaziuddin M, Ghaziuddin N. Bipolar Disorder and Psychosis in Autism. *Child and Adolescent Psychiatric Clinics of North America*. 2020;29(3):433-441. <https://doi.org/10.1016/j.chc.2020.02.004>
- <sup>32</sup> Ghaziuddin M, Weidmer-Mikhail E, Ghaziuddin N. Comorbidity of Asperger syndrome: a preliminary report. *J intellect Disabil Res*. 1998;42(4):279-283. <https://doi.org/10.1111/j.1365-2788.1998.tb01647.x>
- <sup>33</sup> Munesue T, Ono Y, Mutoh K, Shimoda K, Nakatani H, Kikuchi M. High prevalence of bipolar disorder comorbidity in adolescents and young adults with high-functioning autism spectrum disorder: A preliminary study of 44 outpatients. *Journal of Affective Disorders*. 2008;111(2-3):170-175. <https://doi.org/10.1016/j.jad.2008.02.015>
- <sup>34</sup> Axelson D, Birmaher B, Strober M, et al. Phenomenology of Children and Adolescents With Bipolar Spectrum Disorders. *Arch Gen Psychiatry*. 2006;63(10):1139. <https://doi.org/10.1001/archpsyc.63.10.1139>
- <sup>35</sup> Morie KP, Jackson S, Zhai ZW, Potenza MN, Drietschel B. Mood Disorders in High-Functioning Autism: The Importance of Alexithymia and Emotional Regulation. *J Autism Dev Disord*. 2019;49(7):2935-2945. <https://doi.org/10.1007/s10803-019-04020-1>
- <sup>36</sup> Dell'Osso L, Cremone IM, Nardi B, et al. Comorbidity and Overlaps between Autism Spectrum and Borderline Personality Disorder: State of the Art. *Brain Sciences*. 2023;13(6):862. <https://doi.org/10.3390/brainsci13060862>
- <sup>37</sup> Dell'Osso L, Amatori G, Cremone IM, et al. Autistic and Catatonic Spectrum Symptoms in Patients with Borderline Personality Disorder. *Brain Sciences*. 2023;13(8):1175. <https://doi.org/10.3390/brainsci13081175>
- <sup>38</sup> Francis A, Mormando C. Catatonia and its varieties: an update. *World Psychiatry*. 2023;22(3):476-477. <https://doi.org/10.1002/wps.21119>
- <sup>39</sup> Dell'Osso L, Amatori G, Massimetti G, et al. Investigating the relationship between autistic traits and symptoms and Catatonia Spectrum. *Eur Psychiatr*. 2022;65(1):e81. <https://doi.org/10.1192/j.eurpsy.2022.2334>