

## Neurodiversity and Mental Disorders

**Bogdana MICLEA**<sup>1</sup>

<sup>1</sup> MD, PhD, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj Napoca, Mental Health Center for Children and Adolescents, Cluj Napoca County Emergency Clinical Hospital for Children. bogdanamilea@yahoo.ro

**Abstract:** *In recent years, the concept of neurodiversity has grown in popularity among the scientific and non-scientific communities dealing with autism and related conditions, included in neurodevelopmental disorders. According to this paradigm, identity becomes a neuroidentity, subjectivity is determined by cerebral functioning and cultural, social, spiritual expression is the result of this pattern of biological functioning. Most often, opinions focus on the immediate benefits of liberalizing thinking that allows for the reconfiguration of rigid psychopathological medical models in current diagnostic systems and favors the humanization of medicine. In this construct, reasonable and integrative at first glance, there are some persistent limitations, internal contradictions and shortcomings that lead to criticism and controversy. In conclusion, widespread expansion of the movement of neurodiversity risks generating, maintaining and amplifying social fracturing and individual alienation.*

**Keywords:** *neurodiversity; mental disorders; subjectivity; social rights; alienation.*

**How to cite:** Miclea, B. (2024). Neurodiversity and mental disorders. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 15(2), 225-233. <https://doi.org/10.18662/brain/15.2/574>

## Introduction

In psychiatry, the categorical delimitations proposed by the World Health Organization and the American Psychiatric Association are useful but often insufficient for a good theoretical and practical conceptualization of a clinical case. This applies especially to neurodevelopmental disorders, a group of conditions that was included in ICD-11 (the eleventh revision of International Classification of Diseases) and DSM 5 (Diagnostic and Statistical Manual of Mental Disorders. Fifth Edition) precisely because of the difficulty of clearly delimiting some sets of manifestations (Morris-Rosendahl & Crocq, 2020). Significant inter categorical overlaps are often observed, the empirical findings being consistent with numerous etiopathogenic researches. These revealed common elements, the various peripheral manifestations being, upon more careful research, interconnected and interdependent (Rees et al., 2021).

On the other hand, in recent years, the concept of *neurodiversity*, or *neurodivergence*, has grown in importance among the scientific and non-scientific communities dealing with autism and related conditions included in neurodevelopmental disorders.

## History of the concept

The term neurodiversity was launched in 1997 by the sociologist Judy Singer (Craft, n.d) and implies the acceptance of a varied range of patterns of neurological functioning, with the depathologization of some manifestations that are classified as disorders by the current psychiatric diagnosis systems. Judy Singer describes herself as having some atypical elements, along with her mother and daughter who exhibit behavioral characteristics of autism spectrum disorder. Singer presents autism as a neurological minority and claims recognition and special social rights, reacting to the discrimination maintained by normal majority.

It is claimed that there is an overlap between the person and autism, the identity becomes a neuroidentity and autism passes from the status of a disease to that of a natural and cultural category. Subjectivity is determined by cerebral functioning and cultural, social, spiritual expression are the result of this pattern of functioning (Ortega, 2009).

The concept was strategically chosen due to the historical-social context of the 90s, as Judy Singer declared in an interview taken in 2023, at the age of 72, and published in *The Guardian* newspaper (Harris, 2023, July 5).

Two key terms are combined here: *neuro* referring to the neuroscientific trend that was gaining importance in medicine and psychology and *diversity*, a term with clear political references by the enrollment in the movement that promotes freedom of choice and civil rights for previously marginalized population categories (such as homosexuals or the feminist movement). Assuming this umbrella term, Singer wanted to promote a vast movement of identity politics, accelerating a process that was already present in public opinion.

### **Rethinking the human subject - neurodiversity as an alternative model.**

In this conceptualization, later taken over by numerous other authors, the separation between normality and abnormality, fundamental in medicine by delimiting health from disease, is no longer used. Nervous functioning is central, hence the biological dimension, but with a neutral value, not generating positive or negative qualitative conclusions per se that would justify a categorical split. The difference is not seen as a possible pathological deviation from the norm but as a natural variant that requires an alternative understanding and not necessarily correction according to what is typical. Therapeutic addressing of disabilities is not excluded if they negatively affect the person's life, but attention is requested as some of them can be understood as particular characteristics that are part of one's own identity (Sonuga-Barke & Thapar, 2021; Fung, 2021)

The adoption of the neurodiversity model presents some immediate and obvious benefits. It not only addresses limitations and difficulties, but also leverages and develops personal skills and resources, reduces stigma, promotes social inclusion, implements the necessary contextual adaptations thus supporting performance in specific areas. Ecological systems are proposed in which neurodiversity can prove beneficial in groups where non-conformism leads to divergent and creative solutions and in adapting to future challenges of a society that, presumably, will no longer be structured by neurotypicals (Stenning & Bertilsdotter-Rosqvist, 2021). It is argued that some of the difficulties, although apparent under circumstances that favor the typical, can disappear or turn into advantages in the case of optimal environmental adaptations. For example, reduced central coherence correlated with enhanced attention to details or algorithmic thinking, may prove useful in information technology or in engineering (Chapman, 2021). An additional advantage is emphasized - that the formulation of neurodiversity was proposed by someone who is part of this population and not imposed or proposed by neurotypicals (The Donaldson Trust (n.d).

It describes itself as an inclusive vision, respecting the individual and his uniqueness, challenging the authority of the self-titled normal to classify, describe and prescribe norms and recommendations to those who are different. Life experience is expressed and made known from the inside and the directly involved minorities come up with proposals for their own good life that they define themselves. Therefore, it promotes autonomy and co-participation in the regulations that concern them directly.

The construct of neurodiversity is generally accepted by the professional community. Most often the opinions focus on the immediate benefits of the liberalization of thinking that allows the reconfiguration of the rigid psychopathological medical models in the current diagnostic systems and favors the humanization of medicine.

Psychiatrists are gradually familiarizing themselves with this perspective, and some of the supporters challenge the existence of a fundamental contradiction between the concept of neurodiversity and that of mental health. We should focus on the individual with his particular neurological and social functioning and not on the dichotomous medical perspective considering that this is, to some extent, a mental construct with an implicit dose of arbitrariness. The reconciliation between the medical conceptualization and that of neurodiversity is understood as necessary and beneficial.

*"Above all, it's time to stop thinking of neurodiversity and mental health as separate constructs and focus more on individuals and their individual brains."* (Kirby, 2021, August 26)

The trend follows very well the contemporary cognitive paradigm, which explains the human psychic by appealing to complex brain functioning mechanisms, consciousness and identity being a result of their integration into a unitary whole.

There are associations of autistic doctors, journalists, sociologists, psychologists, with expositions of the opinions and experiences of those who define themselves as neurologically divergent (Shaw et al., 2021).

The neurodiversity model is growing in popularity, involving more and more areas, but there is a nuanced and varied recognition and interpretation at the level of general society and professionals. Some authors, although they agree with the neurodiversity view, maintain the validity of specific pathologies. They admit the risk of depression and psychosis, substance abuse and personality disorders, but reject psycho-pathological categories such as autism, attention deficit hyperactivity disorder or learning disorders. Those who subscribe to this way of understanding, support the need to address the individual without completely renouncing to the categorical perspective which is only attenuated and made more flexible.

According to other opinions, more radical in the formulation of neurodivergence, many more current disorders can be subsumed to this concept, thus proposing the abandonment of the traditional, categorical medical classification. Various symptom patterns found in autism, Down syndrome, epilepsy, language disorders, mental retardation, obsessive-compulsive disorder, tics, depression, social anxiety, oppositional-defiant disorder, bipolar affective disorder, reaction to trauma, but also people with special talents are seen as neurological minorities alongside neurotypicals. It is considered harmful and unfair to interpret differences as anomalies. Neurodiversity becomes a fundamental and implicit human characteristic since each individual has a unique structural and functional brain.

According to some opinions, the concept of neurodiversity can also be extended to the way of thinking and relating to the world of people diagnosed with psychosis (Gerlach, 2023). The proposal appears in a context of scientific knowledge demonstrating that there are significant overlaps at multiple levels (genetic, neurobiological, phenotypic, social cognition, relation to the world, global psychic integration) between schizophrenia and autism (Chien et al., 2022; Chisholm et al., 2015; Couture et al., 2010). In addition, it is necessary to avoid the stigmatization and marginalization of those with psychosis because people with this diagnosis may display talents and abilities that risk going unnoticed due to the general biased opinion associated with this pathology (Acar et al., 2018).

### **Critical view**

More than 25 years after its emergence, this movement that started as a voice of those who have a form of high-functioning autism, gained wide recognition and incorporated elements that were not initially targeted, including various medical and non-medical patterns. Cultural diversity is also placed alongside psycho-pathological categories in the spectrum of neurodiversity. It is argued that basically, neurodiversity refers to the differences among individuals and does not differentiate between the category of neurodivergents and that of the neurotypicals. The term gradually expanded its initial narrow semantic field (Dwyer, 2022). Once proposed, the concept attracted new interpretations and areas of application and the movement, with the initial aim of social justice, has echoes in other areas - education, politics, economy. For example, it is sometimes used in the corporate field to promote workforce diversification. This use is considered inappropriate by Judy Singer, because it contradicts or is beyond her ethical objectives.

*"I'm not here to make capitalism more efficient; I'm here to make it more humane"* (Harris, 2023, July 5).

Reasonable and integrative at first glance, the neurodiversity paradigm has persistent confusions, limitations and internal contradictions that lead to criticism and controversies.

A frequent criticism is that there is a tendency of oversimplifying the situational particularities and difficulties of neurodivergent people. Overgeneralization and depathologization applied indiscriminately could delay or deprive some people who need treatment. Diseases with severe symptoms such as depression, obsessive-compulsive disorder and psychosis are included, as we have seen, among the neurodivergent models, although they are potentially associated with decreased insight and risk of harm to both patients and the entourage.

A pragmatic limitation is related to the rapid evolution of the concept, which requires major institutional and environmental adaptations, which may conflict with current societal financial and organizational possibilities.

In addition to those immediately visible and admitted even by the promoters of the paradigm, there are some shortcomings which, although more discrete, may have an immediate major relevance or unfold over time.

Once one gives up the authorization of neurotypicals to decide on behalf of those who are different from them, it becomes difficult to appreciate who and on what criteria will determine which neurotype has the right to make laws for the benefit of their own community. What will happen if psychotic people claim their rights in self-definition of their identity and in the establishment of social and therapeutic regulations addressed to them? In addition, if fundamentally neurodiversity presupposes individual rights and responsibility, where do we stop? Who can decide for another since we are all different from each other, therefore divergent?

The paradigm of neurodiversity implies the revocation of medical pre-judgments with the aim of repositioning the way of reporting people to conventionally delimited categories and in a radicalized understanding, giving up categorization. Under these circumstances, medical semiology is deprived of its coherence because the signs no longer refer to a pathological condition that integrates them and the correlated etiological and therapeutic search is also devalued. Therefore, the adoption of the neurodiversity theory assumes a fixed perspective point that starts from a particular way of functioning, as a premise, and focuses on the consequences directly related to it. This is an action oriented view, but a restricted one. What matters is what defines someone and what can be done so that he has exclusive

decision-making power and the right to regulate his life according to his own judgment criteria. It is therefore a circular movement, in which the person uses himself as a reference point, simultaneously of departure and arrival, with inherently limited openness towards others. Otherness, although theoretically valued through the liberal and uncritical acceptance of the diversity of the psychic structure, is basically canceled. In other words, the other's perspective is denied by recognizing the equality of perspectives correlated with an egocentric reporting to the world.

## Conclusion

The theoretical construct appears to be rather transversal, fixed at face value, not integrated into the larger landscape of the human mind, whose understanding is not limited to an immediate and linear logic but takes place on multiple levels, impossible to be totally deciphered due to the irremediably internal position of the subject. Therefore, the pervasive expansion of the current of neurodiversity in which difference is seen as fundamentally natural and necessary in the stabilization and enrichment of the socio-cultural ensemble, the idea of community - be it majority or minority - loses its meaning and the partially legitimate claims of the neurodivergents risk to generate, maintain and amplify social fracturing and individual alienation.

---

## References

---

- Acar, S., Chen, X., Cayirdag, N. (2018). Schizophrenia and creativity: A meta-analytic review. *Schizophrenia research*, 195, 23-31.
- Chapman, R. (2021). Neurodiversity and the Social Ecology of Mental Functions. *Perspectives on Psychological Science*, 16(6), 1360-1372. <https://doi.org/10.1177/1745691620959833>
- Chien, Y. L., Lin, H. Y., Tung, Y. H., Hwang, T. J., Chen, C. L., Wu, C. S., Shang, C. Y., Hwu, H. G., Tseng, W. I., Liu, C. M., & Gau, S. S. (2022). Neurodevelopmental model of schizophrenia revisited: similarity in individual deviation and idiosyncrasy from the normative model of whole-brain white matter tracts and shared brain-cognition covariation with ADHD and ASD. *Molecular psychiatry*, 27(8), 3262–3271. <https://doi.org/10.1038/s41380-022-01636-1>
- Chisholm, K., Lin, A., Abu-Akel, A., & Wood, S. J. (2015). The association between autism and schizophrenia spectrum disorders: A review of eight alternate models of co-occurrence. *Neuroscience and biobehavioral reviews*, 55, 173–183. <https://doi.org/10.1016/j.neubiorev.2015.04.012>

- Couture, S. M., Penn, D. L., Losh, M., Adolphs, R., Hurley, R., & Piven, J. (2010). Comparison of social cognitive functioning in schizophrenia and high functioning autism: more convergence than divergence. *Psychological medicine*, 40(4), 569–579. <https://doi.org/10.1017/S003329170999078X>
- Craft, S. (n.d). Meet Judy Singer a NeuroDiversity Pioneer. An Interview with the Australian Sociologist who coined the term ‘Neurodiversity’  
<http://www.myspectrumsuite.com/meet-judy-singer/>
- Dwyer, P. (2022). The Neurodiversity Approach(es): What Are They and What Do They Mean for Researchers?. *Human development*, 66(2),73–92.  
<https://doi.org/10.1159/000523723>
- Fung, L. (2021, December 23). Neurodiversity and Opportunities in Psychiatry, *Psychiatric News*. American Psychiatric Association (APA)  
<https://doi.org/10.1176/appi.pn.2022.1.28>
- Gerlach, J. (2023). Is Schizophrenia a Type of Neurodivergence? An integrative perspective. *Psychology Today*.  
<https://www.psychologytoday.com/intl/blog/beyond-mental-health/202311/is-schizophrenia-a-type-of-neurodivergence>
- Harris, J. (2023, July 5). The mother of neurodiversity: how Judy Singer changed the world. *The Guardian*.  
<https://doi.org/10.1016/j.schres.2017.08.036>  
<https://www.theguardian.com/world/2023/jul/05/the-mother-of-neurodiversity-how-judy-singer-changed-the-world>
- Kirby, A. (2021, August 26). Is There a Link Between Neurodiversity and Mental Health? A better understanding of the brain can help to improve patient care. *Psychology Today*.  
<https://www.psychologytoday.com/gb/blog/pathways-progress/202108/is-there-link-between-neurodiversity-and-mental-health>
- Morris-Rosendahl, D. J., & Crocq, M. A. (2020). Neurodevelopmental disorders-the history and future of a diagnostic concept. *Dialogues in clinical neuroscience*, 22(1), 65–72.  
<https://doi.org/10.31887/DCNS.2020.22.1/macrocq>.
- Ortega, F. (2009). The cerebral subject and the challenge of neurodiversity. *BioSocieties*, 4(4), 425-445. <https://doi.org/10.1017/S1745855209990287>
- Rees, E., Creeth, H. D. J., Hwu, H. G., Chen, W. J., Tsuang, M., Glatt, S. J., Rey, R., Kirov, G., Walters, J. T. R., Holmans, P., Owen, M. J., & O'Donovan, M. C. (2021). Schizophrenia, autism spectrum disorders and developmental disorders share specific disruptive coding mutations. *Nature communications*, 12(1), 5353. <https://doi.org/10.1038/s41467-021-25532-4>
- Shaw, S. C. K., McCowan, S., Doherty, M., Grosjean, B., Kinnear, M. (2021) The neurodiversity concept viewed through an autistic lens, *The Lancet Psychiatry*, 8(8), 654-655. [https://doi.org/10.1016/S2215-0366\(21\)00247-9](https://doi.org/10.1016/S2215-0366(21)00247-9)



- Sonuga-Barke, E., & Thapar, A. (2021). The neurodiversity concept: is it helpful for clinicians and scientists?. *The lancet. Psychiatry*, 8(7), 559–561. [https://doi.org/10.1016/S2215-0366\(21\)00167-X](https://doi.org/10.1016/S2215-0366(21)00167-X)
- Stenning, A., & Bertilsdotter-Rosqvist, H. (2021). Neurodiversity studies: mapping out possibilities of a new critical paradigm. *Disability & society*, 36(9), 1532–1537. <https://doi.org/10.1080/09687599.2021.1919503>
- The Donaldson Trust (n.d). The language of neurodiversity? <https://www.donaldsons.org.uk/news/the-language-of-neurodiversity/>