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Dual Exceptionality (ASD and High Abilities/Giftedness) and Invisibility: A Socioepistemological and Legal Analysis in Light of Neuroscience

Twice-Exceptionality (ASD and Giftedness) and Invisibility: A Socio-Epistemological and Legal Analysis in the Light of Neuroscience

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Summary

This paper analyzes the concept of dual exceptionality (2e), which is the intersection of Autism Spectrum Disorder (ASD) with High Abilities and/or Giftedness (HA/G). This condition requires extensive discussion and analysis, as well as the characterization of its diagnostic criteria and specific challenges, in order to promote greater visibility and social understanding. The invisibility resulting from this coexistence of neurodivergences reflects not only scientific and educational gaps, but also the absence of a broader and more balanced legal perspective, due to the lack of adequate multidisciplinary diagnostic information. In this context, this article aims to analyze, from a neuroscience perspective, the triad of dual exceptionality, invisibility, and legislation, through an objective and well-founded theoretical review. It is concluded that, from a socio-epistemological perspective, interdisciplinary awareness constitutes an essential element for the construction of more legitimate processes of recognition and inclusion, capable of considering flaws, arguments, and realities that permeate neurodiversity, such as (2e, ASD, and AH/SD) and the right to difference.

Keywords: dual exceptionality, autism, giftedness.

Abstract

The present study consists of an analysis of twice exceptionality (2e), constituted by the intersection of Autism Spectrum Disorder (ASD) and High Abilities and/or Giftedness (AH/SD). This condition requires broad discussion and analysis, as well as the characterization of its diagnostic criteria and specific challenges, in order to promote greater visibility and social understanding. The invisibility resulting from this coexistence of neurodivergences reflects not only scientific and educational gaps, but also the absence of a broader and more balanced legal perspective, due to the lack of adequate and multidisciplinary diagnostic information. In this context, this article aims to analyze, in light of neuroscience, the triad of twice exceptionality, invisibility, and legislation, through an objective and well-grounded theoretical review. It is concluded that, from a socio-epistemological perspective, interdisciplinary awareness constitutes an essential element for the construction of more legitimate processes of recognition and inclusion, capable of weighing flaws, arguments, and realities that permeate neurodiversity, as is the case of (2e) and the right to difference.

Keywords: twice exceptionality, Autism Giftedness.

1. Introduction

The construction of myths largely defines the socio-epistemological condition of a society, erecting beliefs that limit and sometimes stifle progress. In an era characterized Through the widespread dissemination of information and unprecedented scientific advances, the unknown Paradoxically, it maintains a central role, with society often preferring to source its supplies from there. of simplified narratives instead of confronting complexity. In no field is this paradox present. This is more evident than in the understanding of neurodiversity, specifically with regard to

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Intersection of Autism Spectrum Disorder (ASD) and High Abilities/Giftedness (HA/G).

This condition, known as dual-exceptionality (2e), describes the coexistence of a exceptional cognitive profile in one or more domains with developmental challenges Neurological characteristics of ASD. Dual exceptionality represents one of the greatest challenges. current diagnoses, primarily due to the "masking effect": the condition of Giftedness can mask or minimize the impairments of autism, and the difficulties of autism can... to prevent the full expression of an individual's potential. This phenomenon, previously a clinical hypothesis, is now empirically consolidated by recent systematic reviews as a "diagnostic challenge" central".

This article understands that the widespread invisibility of individuals is doubly... Exceptional abilities (ASD + AH/SD) may not be evidenced by accidental cultural remnants, but a Triple structural failure. Firstly, the *socio-epistemological failure,* perpetuated by neuromyths that... They directly contradict neuroscientific evidence. Secondly, *inclusive pedagogical practice,* manifested through a profound "know-how gap" in educational institutions. Finally, the This is a legal issue , characterized by a silence in the courts that renders this population invisible. before the justice system.

The socio-epistemological approach has its roots in reflection on being and non-being, as well as... as in the principle of knowing in order to understand, which underlies the construction of human knowledge. Neglecting information is a central element from a scientific point of view. because it contributes to maintaining ignorance and perpetuating cognitive gaps and social.

In contexts where information becomes widely available, it is observed that Paradoxically, the obsolescence of knowledge is not due to its scientific advancement, but to the passage of time. spent on the selective valuation of information by individuals or groups who resist expansion. from a critical understanding of reality. This phenomenon contributes to the formation of social structures. marked by the reproduction of ignorance, even when situated in high-traffic environments informational.

In this sense, the socio-epistemological condition constitutes the central axis of this work, focusing in the production, mediation, and dissemination of knowledge related to neuroscience. The study This study aims to address neurochemical aspects involved in Autism Spectrum Disorder (ASD). as well as the conceptual and scientific discussion of neurodiversity, as a paradigm that It recognizes the plurality of human neurocognitive functions.

Still referring to a socio-epistemological perspective, this study falls within the analysis about the invisibility of certain neurodivergent conditions, whose neurobiological aspects They are not immediately observable and interact with challenges in the legal field. In this context, the

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Neuroscience constitutes a relevant theoretical contribution to the understanding of these conditions, without to presuppose conclusions, but to delimit the investigative scope of the work.

1.1 OBJECTIVES OF THIS WORK

1.1.1 GENERAL OBJECTIVES

Analyzing dual exceptionality (ASD and AH/SD) from an approach socio-epistemological, inclusive pedagogical, and legal, in light of contributions from neuroscience.

1.1.2 SPECIFIC OBJECTIVES

To raise awareness of scientific production related to dual exceptionality, paying attention to Discussions about diagnosis.

To present contributions from neuroscience regarding the neurobiological aspects associated with the dual exceptionality (ASD and AH/SD).

Identify legal and institutional approaches related to the recognition of these conditions.

Analyze inclusive strategies aimed at people with dual exceptionality (ASD and AH/SD), according to the specialized literature, considering its application in different contexts, beyond school environments.

2. Theoretical Framework / Results

2.1 Dual-Exceptionality (2e, ASD and AH/SD): Concepts, Diagnoses and CHALLENGES

Dual exceptionality (2e) describes the complex interaction between cognitive potential significantly above average (High Abilities/Giftedness, HA/G) and one or more Neurodevelopmental disabilities or disorders, including Autism Spectrum Disorder (ASD) (AGOSTINI et al., 2025). The main theoretical and practical challenge of this condition lies in its diagnostic difficulty, driven by the "masking effect" (MARTINS; CARDOSO; MEIRELLES, 2024).

This effect works in two ways: high abilities can mask social and behavioral deficits. Communication of ASD, allowing the individual to compensate (at great cost) for their difficulties; Conversely, the challenges posed by ASD (cognitive rigidity, difficulties in executive function) They can suppress the expression of high abilities, making the individual's potential invisible. (AGOSTINI et al., 2025).

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In Brazil, the diagnosis of Autism Spectrum Disorder (ASD) is generally based on...
in accordance with the criteria of the DSM-5-TR (2022) (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition)
edition – revised text, AMERICAN PSYCHIATRIC ASSOCIATION). According to this
Manually, the diagnosis requires:

- **A.** Persistent deficits in social communication and social interaction, present in multiple contexts, including: impairments in socio-emotional reciprocity; difficulties in non-communication Verbal impairments used for social interaction; impairments in the development, maintenance, and Understanding interpersonal relationships.
- **B.** Restricted and repetitive patterns of behavior, interests, or activities, manifested by at least At least two of the following aspects: stereotyped motor behaviors, use of objects, or speech. or repetitive; insistence on routines, behavioral inflexibility, or ritualized patterns; Highly restricted and fixed interests, with atypical intensity or focus; hyper- or hypo-reactivity sensory stimuli or unusual interest in sensory aspects of the environment.
- **C.** Onset of symptoms during the early developmental period, which may become more evident when social demands exceed individual capabilities.
- **D.** Clinically significant impairment in social, occupational, or other areas of functioning. important things in life.
- **E.** The manifestations are not adequately explained by isolated intellectual disability. or global developmental delay, although these conditions can coexist.

In short, the DSM-5-TR requires the presence of all sub-items of Criterion A.
relating to persistent deficits in communication and social interaction, as well as at least two
sub-items of Criterion B, related to restricted and repetitive patterns of behavior, in addition to the onset
symptoms in the early developmental period, the existence of clinically diagnosed functional impairment
significant and the exclusion of more suitable alternative explanations.

With regard to high abilities and giftedness, Brevário (2025), a Brazilian researcher
which has this theme as the central focus of its scientific production, describes a growing global scenario.
through inclusive approaches for high abilities. The central problem lies in the absence of
Validated instruments for measuring this complexity in the Brazilian educational context.

The characteristics of individuals with high abilities/giftedness (AH/SD) include
wide heterogeneity, varying according to the area in which the potential is most developed.
In general, research in this area highlights characteristics such as divergent thinking, high
sensitivity, ease in perceiving situations, ability to transform ideas and objects,
simultaneous performance of multiple tasks, ability to adapt to the environment, and efficiency in
Problem-solving skills are also evident. Advanced cognitive abilities and curiosity are also demonstrated.
intense, creative, highly motivated, adept at expressing emotions, quick in

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information processing and independent thinking (Fusaro, 2024).

The process of diagnosing gifted individuals with ASD has proven difficult, highlighting Particularities and peculiarities in the process can be linked to the fact that some characteristics Signs of giftedness are present in Asperger's syndrome (currently included in ASD). Experts Those in the field are seeking to implement strategies for accurate and early assessment of this condition, to ensure the inclusion of individuals with this Dual Exceptionality. (MENDES, et al., 2025)

When ASD occurs in association with AH/SD, the symptoms present are: difficulties in Changes in routine, hyperfocus, presence of asynchronicities, and difficulties in motor skills. fines, problems related to social areas and communication, as shown in Table 1.

Table 1. Characteristics and behavioral aspects in 2e (ASD and AH/SD).

Features	**Behavioral Aspects Associated with High Abilities/Giftedness and Autism Spectrum Disorder**
Behavior	Difficulties adapting to changes in routine; socio-emotional difficulties; impairments in socialization and social interaction with peers; low empathy; deficits in social skills; difficulty in demonstrating affection; asynchrony in social and emotional development.
Cognition	Hyperfocus; presence of asynchronies; difficulties in fine motor skills; impairments in social areas and communication; impulsivity; disorganization; significant difficulties in selective attention; tendency to intense fixation on objects or topics of interest; communication difficulties; hypersensitivity to sensory stimuli; asynchrony in cognitive development.
Creativity	High imaginative potential; creative expression through visual arts, music, poetry, and theater; use of figurative language as a strategy for emotional expression.

Source: FUSARO, 2024.

2.1.1 NEUROMYTHS, SOCIAL REPRESENTATIONS AND THE MYTH OF THE “GENIUS” "SELF-SUFFICIENT"

The gap between scientific knowledge about 2e (ASD and AH/SD) and public perception is filled with "social representations"—socially shared, common-sense knowledge that guides behaviors and shapes identities (DOI, POLLI; AZEVÊDO, 2018). In the context of Despite the dual exceptionality, these representations are deeply distorted.

Studies demonstrate the prevalence of myths about giftedness, such as the idea of the "genius." "Self-sufficient" individuals who perform superiorly in all areas and do not need support (DOI, POLLI; AZEVÊDO, 2018). This belief clashes head-on with the reality of ASD, generating a Central neuromyth: the inability to conceive that an individual can be simultaneously Gifted and autistic. For institutional common sense, a binary logic operates: either the individual They either have a "deficit" (and need support) or they are a "genius" (and don't need anything).

2.1.2 Social Camouflage, Psychological Suffering, and the Gender Dimension

In this scenario of social cognitive dissonance, individuals 2e (ASD and AH/SD)., Women, in particular, develop complex adaptive strategies. "Social camouflage"

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— the conscious or unconscious suppression of autistic behaviors and the calculated imitation of Neurotypical behaviors emerge as a survival mechanism. Research Recent integrative studies show that this is a practice "more commonly performed by autistic women." The cause of this gender disparity is not primarily biological, but social: it is a response. adaptive to the "greater social demands imposed by inherent gender stereotyping" (MIRANDA; CHAGAS, 2024).

However, this adaptation comes at a profound and paradoxical cost. Camouflage, although short-term functional impairment "directly contributes to underdiagnosis, late diagnoses, and severe cases." mental health consequences, such as exhaustion and anxiety" (MIRANDA; CHAGAS, 2024). This This phenomenon creates a perverse socio-legal mechanism: successful camouflage, especially in women 2e who maintain academic performance despite exhaustion, it provides living "proof" which reinforces the neuromyth of the "self-sufficient genius".

2.2 The Neuroscience Perspective Versus Double Exceptionality (ASD and High Abilities/Giftedness): Determinants of Invisibility

The persistence of neuromyths that underpin the invisibility of dual exceptionality. It is based on a binary epistemology that opposes genius and deficiency. This view is, however, directly refuted by advances in cognitive and affective neuroscience, which reveal an architecture neural complexity of non-linearity.

2.2.1 Neuroscientific 2E: Reward, Stress, and the Inverse-U Model

The neurobiology of ASD is a vast field, encompassing everything from atypical characteristics in neuroplasticity and neuroinflammatory processes to differences in neural connectivity (MENEZES, 2025). Epigenetics, which acts as a bridge between genetic predisposition and environmental exposures, demonstrates anomalous DNA methylation patterns in genes crucial for development. neuronal, such as $OXTR$ and $SHANK3$ (MENEZES, 2025). This biological complexity is the raw material that social representations (DOI, POLLI; AZEVÊDO, 2018) distort in dangerous simplifications.

The neuromyth of "restricted interest" (seen as a deficit) as opposed to "exceptional ability" (viewed as a gift) (UDDIN, 2022) is deconstructed by functional neuroimaging (fMRI) research. A quantitative meta-analysis of fMRI on reward processing in ASD offers a unifying neural mechanism (JANOUSCHEK et al., 2021). The analysis identified a "hypoactivation consistent in the striatum" (specifically in the right nucleus accumbens and right putamen) during Reward tasks, encompassing both social and non-social rewards.

This discovery is crucial. It suggests that the difficulty in processing the value of

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reward from social stimuli (the "social deficit") and intense engagement in restricted interests.
(The systemic "gift") are not opposing phenomena. Instead, the "gift" can be a "quest
adaptive by a clear and controllable reward signal (systems) in a brain with
"Atypical striatal processing." What the neuromyth sees as a pathological "escape" from the social is,
Neurobiologically, it's a rational search for a reward signal that the brain can process.
efficiently.

The most direct refutation of the binary epistemology of neuromyth (genius *or* deficit) is the "model
"Threshold" (or "inverse-U") model proposed by Sharkey and Nickl-Jockschat (2023). This model,
developed to inform research on dual exceptionality using the literature on
Neuroimaging of ASD hypothesizes that the *same* expression of a neurobiological trait—such as a
Atypical connectivity or a specific neurochemical profile may *enhance* cognitive ability.
up to a certain "threshold." However, past that inflection point, that same architecture becomes
pathological or symptomatic.

According to this model, doubly exceptional individuals (2e, ASD and AH/SD) would be
located "exactly at the inflection point," being "highly gifted, but also
symptomatic at the same time" (SHARKEY; NICKL-JOCKSCHAT, 2023). This perspective negates
The dichotomy. There is no such thing as "genius *despite* a deficit" or "deficit *masked* by genius." Neuroscience
It points to a complex *continuum* where gift and deficit are, potentially, the *same architecture.*
neural network operating at its critical inflection point.

2.2.2 Dopaminergic Circuit and Social Cognition

In a typically developing brain, the dopaminergic circuit, originating in the area
Originating in the ventral tegmental area and the substantia nigra, it projects to the striatum, the prefrontal cortex, and structures
limbic systems, playing a central role in the regulation of social motivation, the processing of
reward and the modulation of sociocognitive processes, including theory of mind (ToM). However,
According to Souza (2025), after years of research, it was possible to describe through evidence.
derived from magnetic resonance spectroscopy (NMR) that individuals with disorder
Individuals with autism spectrum disorder (ASD) exhibit quantitative alterations in dopaminergic metabolites, with
Elevated levels of homovanillic acid in the ventral striatum, suggesting increased turnover of
Dopamine in these regions (Dopamine turnover is the rate at which dopamine is produced,
(released into the synaptic cleft, reabsorbed and metabolized). This metabolic hyperactivity has been
associated with impairments in tasks involving inference of mental states, possibly as a result of
Saturation of social reward circuits.

In contrast, fMRI (functional magnetic resonance imaging) and PET (computerized tomography) studies
Positron emission tomography (PET) studies demonstrate dopaminergic hypoactivity in the dorsolateral prefrontal cortex.

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A critical region for cognitive flexibility and for distinguishing between one's own and others' perspectives. Meanwhile, fMRI research shows that intranasal administration of oxytocin may to modulate dopaminergic release in the nucleus accumbens and temporarily normalize the Functional connectivity between the ventral tegmental area, the striatum, and the prefrontal cortex during tasks social effects, corroborated by changes in metabolites detectable by NMR.

These findings broaden our understanding of the role of dopamine in social cognition and They support the development of pharmacological interventions, such as dopaminergic agonists of type D2, and therapies based on reward systems tailored to rebalance the circuits Dopaminergic effects. Future studies should integrate multimodal approaches, combining... Neuroimaging, genetics, and behavioral analysis are used to clarify how these changes occur. Neurochemical and functional factors interact with neural development throughout childhood and influence the trajectories of social cognition in ASD. (SOUZA, ANTÔNIO, 2025).

The literature indicates that the intricate interaction between the dopamine and serotonin systems plays a key role in modulating behavior, including the expression of Aggressiveness. Understanding the balance between dopamine acting as an "accelerator" and the Serotonin, acting as a "brake," can provide important insights into neurobiological mechanisms. of aggression in children with autism spectrum disorder (ASD). Although there is still much to be done... To be elucidated, new research perspectives promise to reduce the gap between studies in humans. and in animal models, allowing for more precise identification of circuits and processes. neurobiological factors underlying aggression in ASD (NURAINI, 2025).

2.3 Gap Between Knowing and Doing: Pedagogical Inclusion in Understanding the Individual

The "knowledge" exists: systematic reviews clearly identify effective practices for students. 2e, such as "explicit teaching," "curriculum enrichment," and "visual approaches." However, the The implementation fails catastrophically.

According to the scientific literature, specific teacher training in the area of dual- Exceptionality is "practically nonexistent" in Brazil, forcing teachers into an "individual search" for knowledge (MEDEIROS; PAVÃO; NEGRINI, 2025). Second, even when Teachers know the concepts, but their practice fails. A qualitative study from 2025 on practices. Instructional materials for students with special needs (ASD+AH/SD) revealed that, although teachers verbally *support* They are "generally unable to offer" "individualized instruction based on strengths." specific examples of how it is implemented (AUSTERMANN; REIS; DELGADO, 2025). The The study concludes in a devastating way that teachers "rarely focus on strengths." and talents" of this population.

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The following summary is observed: educators, without adequate training (MEDEIROS; PAVÃO; NEGRINI, 2025) and immersed in the social representations of the neuromyth of dichotomy (DOI; POLLI; AZEVÊDO, 2018), are epistemologically incapable of seeing the 2e student. They cannot apply strengths-based practices (AUSTERMANN; REIS; DELGADO, 2025) because They were trained to see only the "genius" (deeming support unnecessary) or only the "deficit." (ignoring the potential), being unable to identify and nurture the "tipping point" (SHARKEY; (NICKL-JOCKSCHAT, 2023).

2.4 The Legal Protection of Dual Exceptionality (ASD and High Abilities/Giftedness) in Brazilian Public Policies.

2.4.1 Brazilian Legal Framework Regarding Autism Spectrum Disorder, High Abilities, and Inclusive Education

This study is based on a set of legal provisions of the legal system. Brazilian legal frameworks that deal directly or indirectly with Autism Spectrum Disorder (ASD), high abilities/giftedness and inclusive education, as well as rights associated with health, diagnosis and specialized follow-up. For theoretical reference purposes, the following stand out. the following normative instruments, Table 1:

Table 1. Legislation and evidence

Law (number – year)	*Title - main*	*Practical summary*
Constitution - 1988	Federative Republic of Brazil	Education as a right for all and a duty of State and family
Law No. 9.394/1996	Guidelines and Foundations of Education National (LDB)	Special education as a cross-curricular modality
Law No. 12.764/2012	Rights of Persons with Disorders Autism Spectrum	ASD (as a disability)
Law No. 13.146/2015	Statute of Persons with Disabilities	Equal conditions with other people, ensuring, for example: accessibility, assistive technology or technical assistance, and school support professionals.
Law No. 15.256/2025	Amends Law 12.764/2012	It encourages the diagnosis of ASD in adults and the elderly.
Law No. 15.131/2025	Amends Law 12.764/2012	Proper nutrition and nutritional therapy for people with disabilities (specifically ASD)

According to Table 1, the 2025 regulations represent a milestone for people with Autism Spectrum Disorder, by broadening the recognition of their needs throughout the life. Such advances have repercussions in the educational context, requiring greater attention from the school to specific needs of these students in the planning of inclusive practices.

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2.4.2 Provisions of Federal Decrees on ASD and High Abilities/Giftedness

The National Policy on Special Education from the Perspective of Inclusive Education guides the education systems regarding the organization of specialized educational services, including students with disabilities, autism spectrum disorders, and high abilities/giftedness, in context of inclusive education.

Table 2. Decrees and evidence in the area of Special Education

Decree (number – year)	*Title - main*	*Practical summary*
Decree No. 6.571/2008 *(revoked)*	It provides for Customer Service. Specialized Education	Recognizes Special Education as a cross-cutting modality. It establishes Special Education Services (AEE) as complementary or supplementary to regular education. Initial milestone in the organization of inclusive policy.
Decree No. 7,611/2011	It provides for special education, specialized educational services, and other related measures.	It guarantees an inclusive education system at all levels. It regulates the AEE (Special Electricity Supply), preferably within the regular network. Replaces Decree No. 6,571/2008
Decree No. 12,686/2025	Establishes the National Policy of Inclusive Special Education and the National Education Network Special Inclusive	Reaffirms Special Education as a cross-cutting modality. It explicitly includes people with disabilities, *ASD, and giftedness/high abilities.* It strengthens inclusion in mainstream classes with necessary support.
Decree No. 12,773/2025	Amends Decree No. 12,686/2025	Improves guidelines for the National Policy on Inclusive Special Education. It adjusts implementation mechanisms and intersectoral coordination, for example, through a case study. It consolidates the existing inclusive regulatory framework.

As shown in Table 2, the decrees published at the end of 2025 — Decree No. Law No. 12,686 of October 20 and Decree No. 12,773 of December 8 represent regulatory advancements. by outlining guidelines related to neurodivergence, with the recognition of the Disorder of Autism Spectrum and high abilities/giftedness. However, the absence of specific mention of Dual exceptionality may contribute to the persistence of their invisibility within the context of public policies, since the literature indicates that the non-naming of intersectional groups This tends to create gaps in the formulation of guidelines and in the implementation of inclusive educational practices. (BAUM et al., 2014; FOLEY-NICPON et al., 2020).

3. Materials and Methods

3.1 TYPE OF STUDY: CRITICAL NARRATIVE REVIEW OF THEORETICAL AND CONCEPTUAL ANALYSIS

This study is structured as a critical narrative review of a theoretical nature. conceptual. Its nature is not merely the collection of primary data, but also the analysis and synthesis of... existing literature and legal documents to construct a new theoretical argument: the analysis of "Triple institutional failure" as a mechanism for producing the invisibility of double exceptionality.

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(ASD and AH/SD).

3.2 SOURCES AND SEARCH STRATEGIES (DATABASES, DOCUMENTS, LEGISLATION, CASE LAW)

To support the present work, the study "triangulates evidence" from different sources. Scientific articles, books, and Brazilian legislation, as outlined in the introduction. The sources and Search strategies encompassed three main domains: Neuroscientific Foundations, Pedagogical Foundations Psychological and Legal Sources (Documentary).

3.3 GENERAL SELECTION AND INCLUSION CRITERIA

The criteria for selecting and including sources were not primarily quantitative (as in an exhaustive systematic review), but guided by conceptual relevance for the construction of analysis. Works were selected that, in their respective fields, best (a) elucidate the direct antagonism between neuromyths and neuroscientific evidence in 2e; (b) empirically analyze the "know-how gap" in inclusive education; (c) they document the legal status and (in)visibility of the 2nd in the Brazilian legal system; and (d) connect the gender dimension to social camouflage (MIRANDA; CHAGAS, 2024).

4. Results and Discussion

The results of this study highlight the diagnosis of dual exceptionality (2e), characterized by the coexistence of autism spectrum disorder (ASD) and high levels of autism spectrum disorder (ASD) Abilities/giftedness, a condition that is part of a broader context of social invisibility.

Although contemporary scientific literature consistently addresses 2e, the question persists, In the Brazilian context, there is a significant lack of awareness about this condition, which contributes directly to their invisibility in the social, institutional, legal and clinical spheres, in addition to educational. This is a concrete invisibility that affects the individual with 2e through frustration, stress, anxiety, and compromised self-esteem, negatively impacting the effective access to rights in society.

This reality can be understood through an analysis of the theoretical framework that underpins it. This work, which highlights a condition of a socio-epistemological nature, is marked by a A persistent gap between the scientific knowledge produced and its effective application. This gap This manifests itself both in inclusive educational practices and in the recognition of the individual with 2e as a subject of rights, often being affected by processes of underdiagnosis, fragmented diagnoses or diagnoses made late.

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In the clinical field, especially with regard to the performance of the medical profession at the level... Nationally, there is a lack of integrated diagnostic guidelines that consider, in a comprehensive way... Simultaneously, autism spectrum disorder (ASD) and high abilities/giftedness. This gap favors the masking of symptoms. characteristic of dual exceptionality, since characteristics of one condition tend to to conceal the other, making it difficult to fully recognize profile 2e.

The masking of an individual with 2e produces effects that extend beyond the educational field and These implications extend to the legal field. The lack of awareness of the 2e in this context reinforces its invisibility. institutional harm to these individuals, compromising their access to legal guarantees, public policies, and social protection mechanisms. Thus, the socio-epistemological condition of the duality is reiterated. exceptionality, in which the individual remains invisible in society, beyond a Understanding restricted to the context of children's or youth schooling.

This phenomenon can be analyzed in light of the concept of the "U-universe," in which the point of The inflection point between autism spectrum disorder and high abilities/giftedness lies precisely in the second stage. This model It explains the masking mechanisms that hinder clinical, social, and legal recognition. of these individuals, highlighting the complexity inherent in dual exceptionality.

For further analytical understanding, these issues are illustrated through a discussion of... neuromyths and the gap between knowing and doing, as systematized in Table 1 and Table 2. In this way, it is possible to see that the *root failure is socio-epistemological:* institutions operate on the basis of in an obsolete "knowledge". Table 1 elucidates the direct antagonism between the prevalent neuromyths (a socio-epistemological belief) and neurobiological evidence (scientific reality).

Table 1. Neuromyths versus Scientific Evidence

Neuromyth (The Socio-epistemological Belief)	**Corrective Scientific Evidence (The Reality) Neurobiological**
Myth of the Dichotomy: An individual cannot be both "genius" and "disabled" at the same time. High intelligence excludes autism (or vice versa).	**Reality of the *Continuum* (Inverse U Model):** Gift and deficit are a *continuum* of the *same* neural architecture. The 2e individual is located "exactly at the inflection point" where the trait is simultaneously an advantage and a symptom (SHARKEY; NICKL-JOCKSCHAT, 2023).
The "Narrow Interest" Myth: Obsession with systems (e.g., mathematics, trains) is a pathological social deficit, an escape from interaction.	**Reality of Adaptive Reward (Striatal Hypoactivation):** It is an adaptive search for a clear reward signal (systems) in a brain with atypical processing (hypoactivation) for social *and* non-social rewards (JANOUSCHEK et al., 2021).
The "Self-Sufficient Genius" Myth: Individuals with high academic and/or professional performance do not need social or organizational support.	**The Reality of the Cost of Camouflage:** "Self-sufficiency" is often "social camouflage," an adaptive response (especially in women) that leads to exhaustion, anxiety, and a measurable negative self-perception (MIRANDA;

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	CHAGAS, 2024; KÜRY; FISCHER, 2025).

The discussion of this failure lies in the *antagonism* visualized in Table 1. The institutions (Schools and courts) judge the individual based on the left column (Myths), while the The neurobiological reality of the individual operates based on the right-hand column (Evidence). "Suffering" and "denial of rights" emerge precisely from this epistemological gap.

In the field of education, institutional failure does not lie in a lack of knowledge about the what to do, but the systemic inability to implement what is known—a profound "knowledge gap"— " *knowing-doing gap.* " Table 2 maps how this failure fits into the causal cycle of invisibility.

Table 2. Causes of invisibility

Cycle Stage	**Phenomenon**	**Verified Source of Evidence**
1. The Cause (Socio-epistemological)	Neuromyths (e.g., "Self-sufficient genius")	(POLLI; AZEVÊDO, 2018)
2. Adaptation (Genre)	"Social Camouflage" (in response to stereotypes)	(MIRANDA; CHAGAS, 2024)
3. The (Psychological) Consequence	Low self-esteem and negative self-concept (caused by lack of understanding)	(KÜRY; FISCHER, 2025)
4. The (Pedagogical) Consequence	"Know-Do Gap" (inability to apply strengths-based practices)	(AUSTERMANN; REIS; DELGADO, 2025)
5. The (Legal) Consequence	"Jurisprudential Silence" (absence of 2e in the STJ's theses)	(BRAZIL, 2025)
6. Closing the Cycle	The apparent "self-sufficiency" (of camouflage) and the "under-identification" (permitted by the Legislature) justify the inaction.	(BRAZIL, 2024)

The findings discussed throughout this work show that double exceptionality (2e), resulting from the intersection between Autism Spectrum Disorder (ASD) and high levels of autism spectrum disorder (ASD). Abilities/giftedness cannot be understood solely from a clinical perspective. traditional diagnosis. It is a complex condition, influenced by neurobiological factors, Social, institutional, legal, and generational factors contribute to their recurring invisibility.

A relevant dimension of this invisibility relates to intrinsic neurobiological aspects. such as the dynamics of neurotransmitters in the central nervous system, with emphasis on dopamine and

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Serotonin, which is fundamental for modulating cognitive, emotional, and communicative processes. Because they are not directly observable markers in everyday clinical practice, such Variables increase the difficulty of understanding how the brain of individuals works. neurodivergent individuals, favoring reductionist interpretations and the perpetuation of neuromyths, especially with regard to cognition, language, and social communication.

However, this invisibility is not limited to the clinical field, also manifesting itself as A generational phenomenon. Contemporary changes in operating methods. Cognitive, communicational, and relational factors challenge traditional diagnostic models, which They often fail to keep up with ongoing social transformations. In this scenario, profiles 2e They tend to be underdiagnosed or diagnosed in a fragmented way, reinforcing processes of masking and social inadequacy.

From a socio-epistemological perspective, a persistent gap can be observed between knowledge The scientific output produced and its effective application in the educational, clinical, and legal fields. The absence Integrated diagnostic guidelines and an interdisciplinary approach contribute to the maintaining the institutional invisibility of these individuals, compromising the recognition of rights, access to public policies, and the construction of effective inclusive practices.

Thus, dual exceptionality emerges as a field that demands a broader interpretation. and transversal, capable of articulating neuroscience, education, law, and society. Recognizing the 2nd generation as A legitimate expression of neurodiversity implies overcoming restrictive approaches and moving forward in building... fairer processes of recognition and inclusion, based on the right to difference and on Appreciation of the complexity of human ways of existing.

In 2025, the field of legislation related to Autism Spectrum Disorder (ASD) and The study of giftedness has seen significant progress, from encouraging diagnosis to the enactment of... new decrees on inclusive education, published in the months of October and December, according to recorded in the theoretical framework of this scientific article. These normative devices They represent a legal and epistemological milestone, consolidating the recognition of the rights of neurodivergent people, including those with high abilities/giftedness, and reaffirming the right to citizenship.

However, despite these advances, the dual exceptionality (2e) is still not contemplated. An integrated approach. A fragmented reading predominates, in which ASD is recognized and regulated, While high abilities/giftedness, although contemplated in the decrees, often They remain treated in isolation, without connection to ASD. This fragmentation limits the recognition of the individual with 2e and restricts the effectiveness of public policies aimed at inclusion.

Given this, it becomes essential to adopt a unified perspective on the 2e, considering the

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The educational field should be seen as a starting point, not a limit. The school plays a central role.
as a formative space for citizenship, where the processes of recognition and belonging begin.
and the exercise of the right to be different. However, inclusive practices must extend beyond the school environment.
and to reach the legislative, institutional, clinical and professional spheres, ensuring continuity of
Recognition and inclusion throughout an individual's life.

Making this inclusion a reality requires the connection between knowledge and practices, strengthening a
a multidisciplinary operating system capable of integrating the legal, educational, health and fields
professional. This alignment allows not only access to rights, but also their full exercise.
of citizenship, promoting the appreciation of neurodiversity and overcoming invisibility.
institutional and social factors that still affect the dual exceptionality.

Final Considerations

The existence of exploratory gaps, as well as the limited dissemination and promotion of
Dual exceptionality, which simultaneously involves ASD and giftedness, still constitutes a
crucial lack of knowledge in the field of know-how. However, in scientific terms, knowledge
The section on the topic presents the fewest gaps, indicating that the greatest challenge lies in...
practical application and social awareness.

Therefore, it is proposed that exploratory and disseminating approaches be developed.
with the goal of providing more effective information in the legal, institutional, and medical fields,
through training and implementation of specialized inclusive practices, ensuring the
The necessary knowledge for better validation in these fields, as well as technical rigor.
necessary for assessment, diagnosis and intervention.

The marginalization of issues related to neurodiversity represents an obstacle.
This is significant for society, and it is regrettable that it still occurs. However, addressing this...
The issue is urgent and crucial. Effective, not merely symbolic, inclusion should guide the practices of
civil society, ensuring that equal opportunities translate into recognition and
real valuation of neurodivergent individuals.

In this context, the promotion of informative practices, such as lectures and courses on
Continuing education can help in the process of raising awareness and inclusion in different areas.
— health, education and the legal field —, combined with financial incentives and the implementation of frameworks.
Reliable and standardized diagnostic and study methods become essential to ensure the
The full exercise of citizenship, respect for the right to be different, and the proper validation of processes.
in these fields.

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