

## Autism Between the Disorder -Based Approach and the Difference-Based Approach -Implications for Management Strategies-

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Received: 23/07/2025; Accepted: 23/02/2026; Published: 13/05/2026

### Abstract:

Research and studies on autism spectrum disorder have witnessed rapid growth and interest, reflected in the fifth edition of the Diagnostic and Statistical Manual, which resulted in new criteria, most importantly the merging of previous disorders into one category called 'autism spectrum disorder'.

-Focus on two main dimensions instead of three:

- Communication and social interaction
- Stereotyped behaviors and restricted interests

-Including sensory aspects within stereotyped behavioral symptoms

Care programs have been influenced by the concept of the autism spectrum and the idea of severity levels, thus becoming more individualized and detailed according to the needs of each child instead of relying on standardized programs for all cases.

These research studies, including studies by Laurent Mottron, who criticized the perspective of considering autism merely as a deficit or disorder and views autism as a different way of thinking.

This study addressed the topic of the disorder-based approach, which considers that the autistic child needs corrective therapeutic programs, meaning reshaping behavior. In contrast, the difference-based approach assumes that autism is not a disorder leading to disability but rather a different pattern of cognitive organization that results in different information processing, and it treats autism as a pattern.

**Keywords:** Autism, Disorder, Difference, Care Strategies.

### Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that has sparked extensive scientific and philosophical debate regarding its nature, classification, and appropriate intervention

methods. Initially classified strictly as a "disorder" requiring corrective and remedial treatments, contemporary trends—particularly those championed by researchers like Laurent Mottron—have begun promoting an alternative perspective known as the "difference-based approach" or "neurodiversity" (*Neurodiversité*).

The vast majority of scientific studies and international diagnostic manuals to date, including the ICD-10, DSM-IV, and DSM-5, view autism as a pervasive developmental disorder. According to the American Psychiatric Association (APA, 2013), a disorder is defined as a syndrome characterized by a clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning, leading to significant distress or disability in social, occupational, or other important activities (American Psychiatric Association, 2013, p. 20).

Furthermore, it is defined as a neurodevelopmental disorder—a specific category of conditions that manifest during early developmental stages and impair one or more fundamental domains of development, such as linguistic, cognitive, motor, social, or emotional development. It is characteristically chronic, significantly

impacting the child's ability to adapt to the demands of educational and social environments. This category encompasses Autism Spectrum Disorder, learning disabilities, and Attention-Deficit/Hyperactivity Disorder (ADHD) (World Health Organization, 2019).

Conversely, the pioneering French-Canadian autism researcher Laurent Mottron published a landmark article in *Nature* (2011) titled "*The Power of Autism*," calling for an end to viewing autism strictly as a deficit, and advocating instead for recognizing it as a difference that confers unique capabilities. Mottron posits that autism is not a disease in the traditional medical sense, but rather a variation in how the brain functions. The brains of autistic individuals do not suffer from a "defect" so much as they possess distinct information-processing mechanisms compared to neurotypical brains. This perspective directly challenges the traditional medical model, which views autism as a "deficit" or "disorder" that must be repaired (Mottron, 2011, pp. 33-35).

## **I. Autism as a Disorder Concept**

### **1. Defining Autism as a Disorder**

The DSM-5 defines Autism Spectrum Disorder as a neurodevelopmental condition characterized by persistent deficits in social communication and social

interaction across multiple contexts, alongside restricted, repetitive patterns of behavior, interests, or activities (APA, 2013). This perspective serves as the baseline for diagnosis and provides the rationale for intensive, early therapeutic interventions.

However, medicine itself struggles to establish a universally coherent, operational definition of a "disorder." The fourth edition of the American diagnostic manual (DSM-IV) defined a mental disorder as a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and is associated with present distress or disability.

Similarly, the World Health Organization defines the concept of a disorder as a recognizable set of symptoms or behaviors associated, in most cases, with distress and interference with personal functions (Abdelaziz Alioui, 2015, pp. 15-18). From these definitions, specific criteria defining a disorder can be deduced:

- A behavioral syndrome or a distinct set of symptoms/behaviors.
- Clinically significant manifestations.
- Association with disability or impairment.

- Association with distress, suffering, or hardship.

Autism clearly presents as a disorder that encompasses all the elements outlined by international diagnostic frameworks (the WHO International Classification, the American DSM, and French classifications). Furthermore, from the perspective of developmental disorders, specific qualitative indicators during childhood can be added, including excess, deficit, suffering, developmental disruption, and friction with environmental expectations:

❖ **Excess or Deficit:** Excess is observed in heightened behavioral responses, such as tantrums or aggressive outbursts triggered by physical touch. Deficit manifests as extreme unresponsiveness to certain auditory or tactile stimuli, or a profound lack of engagement in social relationships.

❖ **Suffering:** The absence or impairment of language often prevents us from fully comprehending the autistic individual's internal reality. They frequently suffer in silence, and severe tantrums are often merely expressions of this underlying distress and a manifestation of depression in some individuals.

❖ **Developmental Disruption:** Autism severely disrupts almost all developmental trajectories, including emotional, linguistic, social, cognitive, sensorimotor, and psychosexual development.

❖ **Friction with Environmental Expectations:** This refers to the child breaking the anticipated norms and developmental milestones expected by the family and the broader social environment through a series of atypical behaviors and symptoms (Abdelaziz Alioui, 2015, p. 16). Consequently, autism can be thoroughly understood as a pervasive developmental disorder that fundamentally alters the core of a child's growth across all sensory, motor, emotional, cognitive, linguistic, and social levels.

It is crucial here to examine the evolution of autism diagnostic criteria between the DSM-IV and the DSM-5.

## **2. Autism in the DSM-IV (1994) vs. the DSM-5 (2013)**

### **A. Autism in the DSM-IV (1994)**

The *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV), published by the American Psychiatric Association (APA) in 1994, categorized these conditions under

the umbrella term: **Pervasive Developmental Disorders (PDD)**. This category included five distinct sub-classifications:

1. Autistic Disorder (Classic Autism)
2. Asperger's Disorder
3. Pervasive Developmental Disorder - Not Otherwise Specified (PDD-NOS)
4. Childhood Disintegrative Disorder
5. Rett's Disorder

The diagnostic criteria for Classic Autism in the DSM-IV required:

- Qualitative impairment in social interaction.
- Qualitative impairment in verbal and non-verbal communication.
- Restricted, repetitive, and stereotyped patterns of behavior.
- Onset of symptoms prior to the age of 3 years.

### **B. Autism Spectrum Disorder in the DSM-5 (2013)**

The fifth edition of the DSM introduced a radical paradigm shift in the classification of autism. The distinct

categories mentioned above were dismantled and consolidated into a single, unified continuum: **Autism Spectrum Disorder (ASD)**.

The core criteria in the DSM-5 were streamlined into exactly two foundational domains:

1. Persistent deficits in social communication and social interaction across multiple contexts.
2. Restricted, repetitive patterns of behavior, interests, or activities.

Additionally, clinicians are required to specify:

- **Severity levels:** Divided into three distinct levels of required support.
- Presence or absence of accompanying intellectual impairment.
- Presence or absence of accompanying language impairment.
- Age of onset (recognizing that symptoms may not fully manifest until social demands exceed limited capacities).

Distinctions between "Asperger's" and "Classic Autism" were entirely eliminated; all individuals are now recognized as existing along a unified spectrum with varying degrees of severity.

### Comparison Between DSM-IV and DSM-5

Element	DSM-IV	DSM-5
<b>Broad Classification</b>	Pervasive Developmental Disorders (PDD)	Autism Spectrum Disorder (ASD)
<b>Number of Subtypes</b>	5 distinct categories	1 unified category with severity specifiers
<b>Symptom Domains</b>	3 domains (Interaction, Communication, Behavior)	2 domains (Merged Social Communication/Interaction + Repetitive Behaviors)
<b>Diagnostic Approach</b>	Categorical model (multiple separate entities)	Dimensional spectrum model (continuous)
<b>Asperger's Diagnosis</b>	Present as an independent disorder	Eliminated and subsumed into the broader spectrum

<b>Rett Syndrome</b>	Included under PDD	Removed from the spectrum; classified separately as a distinct genetic condition
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From this analysis, the primary evolutions can be summarized as follows:

- The DSM-IV relied on a traditional, multi-categorical classification model.
- The DSM-5 transitioned to a dimensional spectrum model graded by severity, reflecting researchers' evolving comprehension of autism as a vast neurological continuum rather than rigid, compartmentalized categories.
- This systemic modification necessitated the re-evaluation of numerous previously diagnosed cases and the complete restructuring of early intervention and management methodologies.

It is highly pertinent to recall the diverse theoretical frameworks explaining autism. Some approach it strictly as a pathology, as articulated by Nicolas Georgieff (2008), who defines the pathological phenomenon as a fundamental divergence in the structures, mechanisms, and processes of psychological functioning. Pathological states are highly complex psychological and behavioral structures compared to typical ones, moving beyond the simple descriptors of a disorder, disability, or syndrome.

Both the World Health Organization and the DSM frameworks view autism

primarily as a developmental disorder. Within these models, a disorder is defined by the quantitative and numerical accumulation of dysfunctions—what we term symptoms. Consequently, viewing autism strictly through the lens of deficits and shortcomings strips away deeper psychopathological considerations.

Abdelaziz Alioui, in his 2015 book *The World of Autism*, elaborates that treating autism strictly as a disability inherently points to an underlying neurological deficit that halts a specific ability or function, thereby necessitating rehabilitative intervention without a curative goal. Educational or rehabilitative efforts within this framework aim solely to provide the disabled individual with compensatory strategies (*stratégies compensatoires*). However, this framework fails to fully capture the reality of autism—particularly autism accompanied by intellectual impairment—because autism does not merely affect a singular isolated function. Instead, it permeates cognitive, emotional, affective, social, psychosexual, and sensorimotor life. This presents us with a highly distinct psychological structure (*organisation psychologique particulière*) that demands a multidimensional approach

combining pathological, therapeutic, educational, and rehabilitative dimensions.

## **II. Management Approaches Stemming from the Disorder Perspective**

Autism Spectrum Disorder remains one of the most intricate and multifaceted subjects within special education and speech-language pathology (*orthophony*), given the vast heterogeneity of its clinical presentations and the sheer impossibility of establishing a standardized intervention model suitable for all individuals. Over the decades, numerous therapeutic and educational programs have emerged, aiming to bolster the capabilities of autistic children and guide them toward optimal social integration.

However, these established programs—such as ABA, PECS, TEACCH, and MAKATON—operate predominantly on a logic of "correction," "remediation," or "normalization." This underlying philosophy has drawn sharp criticism from contemporary specialists and advocates for the rights of neurodivergent individuals. Operating strictly within this deficit-based framework, these programs are architected to modify behavior and suppress clinical symptoms. The most prominent early intervention models include:

• **Applied Behavior Analysis (ABA):** Pioneered by Ivar Lovaas, this remains one of the most widely

implemented methodologies. It revolves around reinforcing desired behaviors while systematically extinguishing undesirable ones (Leaf et al., 2016).

❖ Focuses heavily on behavior modification via strict positive reinforcement.

❖ Deconstructs complex skills into highly repetitive, discrete training trials.

❖ Serves as a behavioral remediation strategy explicitly aimed at normalization.

• **TEACCH Program:** Developed by Eric Schopler, this framework focuses on highly structured, intensive early intervention designed to redirect developmental trajectories.

❖ Relies heavily on visual organization and physical environment structuring.

❖ Offers relative environmental adaptation but does not fundamentally reject the ultimate goal of normalization.

❖ Operates as a semi-constructivist remediation approach.

• **Picture Exchange Communication System (PECS):** A communication training system utilizing picture exchange, originally engineered by psychologist Andy Bondy and speech-language pathologist Lori Frost in 1985. The system centers around a portable

communication binder containing icons and written words organized by the autistic individual's immediate needs and interests (clothing, food, hygiene, hobbies, and emotions).

- ❖ Aims to compensate for verbal deficits through structured visual communication.

- ❖ Highly functional, yet prioritizes immediate utility over the individual's intrinsic identity.

- ❖ Operates as a system of functional remediation (*la remédiation est fonctionnelle*).

- **MAKATON:** A multimodal communication program designed to support spoken language, initially created by British speech-language pathologist Margaret Walker in 1974 to serve children and adults with severe communication and learning difficulties, later expanding to pervasive developmental disorders.

- ❖ Employs manual signs and visual symbols concurrently with spoken words.

- ❖ Facilitates communication but remains fundamentally technical and procedural in its execution.

- ❖ Acts as a multimodal remediation system.

Numerous psychologists and speech-language pathologists have successfully leveraged these frameworks to build communication programs that equip autistic

individuals and their immediate circles with functional interaction tools, achieving highly documented empirical success (Abdelaziz Alioui, 2015).

### **Criticisms of the Disorder-Based Approach**

Despite their widespread implementation, these methodologies face profound structural criticisms:

- They are built entirely upon the premise of "correcting" an individual who deviates from the norm.

- They frequently overlook intrinsic strengths, unique cognitive processing styles, and exceptional talents inherent to autistic individuals.

- The intensity of these interventions can induce profound psychological exhaustion, anxiety, and distress for both the child and their family (Milton, 2012).

### **III. Autism as a Manifestation of Neural Difference**

#### **1. The Neurodiversity Perspective**

Transitioning from a disorder-centric approach to a difference-centric paradigm represents a foundational revolution in how autistic individuals are perceived—shifting from a population requiring "repair" to individuals possessing distinct cognitive architectures that must be respected and nurtured. While deficit-based models offer undeniable functional utility in specific contexts, the difference-based paradigm

actively champions genuine social inclusion and upholds fundamental human dignity.

In his seminal text *Autism: Another Intelligence*, Laurent Mottron adamantly champions viewing autism as a structural difference rather than a pathology (particularly regarding autism without accompanying intellectual disability, traditionally termed Asperger's Syndrome or high-functioning autism). He constructs his theoretical framework by directly comparing autistic and neurotypical cognitive processing, examining the neuroanatomical variations between the autistic and neurotypical brain.

Cerebral tissue in autistic individuals—specifically grey and white matter—differs in volume and distribution across various brain regions, fundamentally altering functional connectivity. Crucially, the density of miniature neural clusters in specific regions is up to 60% higher than in neurotypical brains. Research indicates that minicolumns (*minicolonnes*)—the smallest functional units of grey matter processing—are significantly more compact and composed of highly dense, localized neural assemblies compared to non-autistic brains (Abdelaziz Alioui, 2015).

This distinct neuroanatomical architecture directly explains their highly specific information-processing style, which heavily prioritizes extreme precision, localized detail, and pattern recognition,

diverging naturally from broad generalization and abstract processing due to how data is stored within these compacted minicolumns.

Mottron (2004, p. 7) further observes that autistic individuals frequently demonstrate remarkable visual processing capabilities, excelling significantly in visuospatial tasks such as mental rotation, block design, and the exact reproduction of complex visual figures. He attributes this to an atypical functional allocation across brain regions, evidenced by heightened neural activation within the visual processing cortices, particularly those dedicated to object and pattern recognition.

Consequently, Mottron argues that autism must never be reduced to a "deficit" or a "disruption" of cognitive functions. Rather, it represents a highly sophisticated, alternative neural organization (*organisation neuronale différente*) driving a distinct form of intelligence that frequently outperforms neurotypical cognition in dedicated domains—most notably visual processing, memory retention, and systematic pattern recognition (Laurent Mottron, 2004).

## **2. Intervention and Management Based on the Difference Approach**

This conceptual shift demands a fundamentally distinct operational approach to intervention and management, anchored in:

- Actively modifying and adapting the physical and social environment to accommodate the autistic individual's sensory and cognitive profile, rather than forcing the individual to endure painful adaptation.

- Capitalizing on intrinsic strengths and actively guiding autistic individuals

toward fields where their cognitive architecture provides a distinct advantage (e.g., software engineering, visual arts, complex systemic analysis).

- Championing unconditional social integration without demanding adherence to standard "neurotypical" behavioral norms.

#### IV. Comprehensive Comparison Between the Two Approaches

Element	The Disorder-Based Approach	The Difference-Based Approach
<b>Primary Goal of Intervention</b>	Behavior modification, symptom reduction, and normalization	Individual empowerment, self-advocacy, and environmental adaptation
<b>Societal Perception</b>	Autism is a pathology requiring corrective treatment	Autism is a natural human variation requiring respect and accommodation
<b>Integration Methodology</b>	Highly conditional upon achieving neurotypical behavioral standards	Unconditional integration supported by proactive environmental adjustments
<b>Typical Intervention Models</b>	ABA, Lovaas Method, intensive behavioral modification	Capability reinforcement, specialized interest development, environmental accommodations

(Sources: DSM-5, 2013; Lord & Volkmar, 1999; Mottron, 2004)

#### Radical Critique of the Traditional Clinical Approach

- Mottron thoroughly dismantles the medicalized narrative that reduces autism to a collection of "pathological symptoms."

- He fundamentally rejects deficit narratives that define autistic individuals by what they "lack" (e.g., deficits in language, empathy, or social interaction).

- He advocates for an uncompromising transition from a model of

deficit (*déficit*) to a model of difference (*différence*).

### **Intelligence in Autistic Individuals: A Qualitative Paradigm**

Extensive empirical testing demonstrates that standard intelligence assessments fail to capture autistic capabilities accurately, as they are calibrated entirely against neurotypical cognitive processing styles. Mottron cites robust research illustrating that autistic individuals consistently demonstrate marked superiority in:

- Visuospatial processing tasks (e.g., complex figure reconstruction).
- Rapid and highly accurate localized detail detection.
- Deep mastery of computational systems, coding architectures, and musical theory.

He argues that what clinical literature labels as "poor generalization" or "cognitive rigidity" is, in reality, a highly specialized, focused form of cognitive processing.

1. **The Concept of "Special Interests":** Mottron argues that "special" or "highly restricted" interests are not pathological symptoms to be extinguished. Rather, they represent a highly potent, intrinsic learning mechanism. He insists that these focused fascinations must be actively leveraged within educational curricula to drive learning and genuine inclusion, rather than suppressed.

2. **The Role of the Environment:** He asserts that the surrounding environment is the primary determinant of whether an autistic individual experiences profound suffering or remarkable success. Instead of coercing the autistic individual to conform to an abrasive environment, the environment must be systematically adapted to support their sensory and cognitive realities.

### 3. **Personal and Scientific Journey:**

❖ Throughout his academic writings, Mottron heavily integrates his decades-long clinical and research experience working directly alongside autistic individuals.

❖ He highlights his collaborative scientific and personal partnership with exceptional autistic researchers, most notably Michelle Dawson, who transitioned from a research subject to his esteemed co-researcher and academic colleague.

### 4. **Implications of Mottron's Philosophy on Management:**

❖ Demands the complete abandonment of highly rigid, corrective interventions (such as strict ABA) when they serve no fundamental adaptive necessity.

❖ Encourages the design of highly individualized educational frameworks built entirely around intrinsic strengths and deep personal affinities.

❖ Bolsters the empirical reality that autistic individuals can achieve remarkable academic and professional excellence when placed within supportive, non-abrasive environments.

❖ Establishes that what is traditionally labeled a "deficit" is merely an operational difference.

❖ Upholds that the autistic individual is not an incomplete neurotypical person, but a whole, complete human being operating on a distinct functional paradigm.

Consequently, Mottron's *Autism: Another Intelligence* serves not merely as a call to shift our clinical gaze, but as an intellectual revolution in our understanding of human cognition. Rather than viewing autism as an error requiring correction, Mottron elevates it as a unique expression of human intelligence worthy of profound understanding, respect, and appreciation.

## **V. Educational Applications: Between Remediation and Neurodiversity**

Among the most significant operational evolutions in modern special education is the transition from "remediation" (*la remédiation*)—which treats autism as an error requiring repair—to the "difference" paradigm, which

celebrates neurological divergence as a natural manifestation of human biodiversity.

Within this progressive context, the highly influential text "*Give Him the Whale!*" (*Give Him the Whale! 20 Practical Strategies for Using Obsessions, Fascinations, and Special Interests to Help Students with Autism Learn*), authored by Paula Kluth and Patrick Schwarz (2014), offers a highly practical pedagogical framework built entirely upon incorporating the deep affinities of autistic children directly into standard classroom instruction.

By analyzing the core content, methodology, advantages, and limitations of this program, we can establish its precise theoretical placement: does it operate as a traditional remedial framework, or does it embody the neurodiversity paradigm articulated by Laurent Mottron?

### **Brief Overview of the Program**

"*Give Him the Whale!*" is an applied educational framework providing 20 highly functional strategies designed to weave autistic students' specialized interests (e.g., trains, marine biology, dinosaurs, astronomy) directly into daily academic tasks. It operates on the foundational axiom that these intense fascinations are not behavioral barriers, but immensely powerful educational engines if harnessed correctly. It actively guides educators to leverage these unique passions as

instructional conduits rather than ignoring, suppressing, or punishing them.

### **Program Advantages**

#### **• Honors Individual Identity:**

Fosters profound self-worth by validating the child's intrinsic passions, directly reinforcing their confidence and psychological safety.

#### **• Ignites Intrinsic Motivation:**

Transforms abstract academic concepts into highly meaningful, engaging materials anchored directly to the child's internal world.

**• Ease of Implementation:** Requires highly accessible, low-cost instructional adaptations rather than complex, expensive clinical tools.

**• Promotes Genuine Inclusion:** Actively constructs a highly flexible, supportive classroom environment capable of absorbing diverse learning styles.

**• Broad Applicability:** Can be highly effective across a wide spectrum of learning variations and developmental profiles, extending far beyond autism alone.

### **Structural Criticisms**

Despite its progressive pedagogical posture, the framework faces critical operational reviews from established clinical scholars. Catherine Lord (2018) notes that entirely abandoning structured diagnostic and clinical intervention models risks neglecting severe underlying deficits that absolutely require targeted therapeutic

support, particularly across varying levels of spectrum severity. Additional operational challenges include:

#### **• Demands Substantial Educator**

**Ingenuity:** Continuously translating complex academic standards into specialized interest conduits requires immense creative labor and planning time from the teacher.

#### **• Classroom Balancing Challenges:**

It is extraordinarily difficult for a single educator to simultaneously cater to highly divergent, highly specialized interests across a crowded classroom.

#### **• Deficit in Professional Training:**

Standard teacher education programs rarely equip educators with the specialized pedagogical methodologies required to execute interest-based instruction effectively.

#### **• Hyper-Individualized Execution:**

The program relies on an extraordinarily deep, granular understanding of each individual child, presenting severe burnout risks for educators managing overcrowded, under-resourced classrooms. Furthermore, Franck Ramus (2014) focuses his critiques on systemic generalizability and the inherent danger of neglecting evidence-based clinical interventions in favor of purely interest-based adaptations.

**Pedagogical Placement:  
Remediation vs. Difference**

• **Remediation Programs**

**(Remédiation):** Methodologies such as Applied Behavior Analysis (ABA) explicitly seek to modify behaviors, extinguish restricted interests, and build skills deemed "deficient" in the autistic child, with the ultimate goal of coercing adaptation into the neurotypical developmental trajectory. Conversely, the difference approach, as articulated by Laurent Mottron, asserts that autism is not a defect but an alternative cognitive style that must be validated and reinforced rather than dismantled.

• **Neurodiversity (Neurodiversité):**

The "Give Him the Whale!" program (Kluth & Schwarz, 2014) completely rejects behavior modification and uniform instruction. Instead, it respects the child's natural developmental rhythm and capitalizes on their unique fascinations. This aligns it perfectly as an applied pedagogical manifestation of the difference approach. It is a framework that honors neurodiversity, establishing a highly inclusive educational foundation built entirely upon flexibility and individualized instruction.

**Comparison Between Behavioral and Interest-Based Programs**

Criterion	Traditional Behavioral Program (ABA)	"Give Him the Whale!" Program
<b>Primary Goal</b>	Systematic repair, symptom reduction, and behavior modification	Empowering academic learning through deep personal fascinations
<b>Perception of the Child</b>	A disordered individual requiring behavioral adjustment	A unique, highly capable individual operating on a distinct cognitive style
<b>Theoretical Foundation</b>	Developmental deficit model	Neurodiversity paradigm ( <i>Neurodiversité</i> )
<b>Instructional Basis</b>	Experimental, highly structured behaviorism	Constructivist, fully aligned with Mottron's cognitive paradigm
<b>Role of Special Interests</b>	Viewed predominantly as rigid, stereotyped behaviors that must be extinguished	Utilized as the primary conduit for engagement, communication, and deep learning

(Sources: Kluth & Schwarz, 2014; Mottron, 2004; Sandoval-Norton, 2019)

The "Give Him the Whale!" program stands as a highly effective educational application of the difference approach theorized by Laurent Mottron. It fundamentally rejects the imposition of normative neurotypical models onto autistic children, offering an empathetic, flexible alternative that weaves daily learning directly into the student's internal intellectual life. Despite the structural challenges this paradigm faces within highly rigid, traditional educational environments, its deeply positive psychological and academic impact makes it an exceptionally promising framework that must be prioritized within comprehensive inclusion policies.

Mottron's philosophy departs radically from traditional foundations, demanding the construction of educational ecosystems adapted to the child, rather than coercing the child to conform to the dominant ecosystem. Traditional remediation models (*la remédiation*) prioritize corrective assimilation, which frequently fractures the child's neurological identity.

## **VI. Detailed Methodological Execution: Classical vs. Difference Programs**

### **1. Classical Remedial Applications**

#### **A. Applied Behavior Analysis (ABA)**

- **Objective:** Modifying undesirable behaviors and systematically building functional skills through strict environmental manipulation and positive reinforcement.

- **Application Model:** In discrete trial training (DTT) sessions within ABA, a highly specific target behavior is identified (e.g., using a spoon independently). The interventionist applies highly structured prompts, immediate positive reinforcement (tangible rewards, access to preferred items) upon successful execution, and systematic planned ignoring or redirection for non-compliance.

- **Practical Example:** An autistic child struggling with verbal requests is placed in a highly controlled environment where access to a desired object is blocked. The therapist prompts the child to verbalize the target word, providing immediate access to the object only when the word is successfully produced, systematically extinguishing reliance on non-verbal gesturing.

#### **B. TEACCH Program (Treatment and Education of Autistic and Related Communication-Handicapped Children)**

- **Objective:** Establishing highly structured, predictable physical and visual environments to foster independent functioning and task execution.

- **Application Model:** Classrooms are meticulously divided into distinct

physical zones dedicated to specific tasks (e.g., individual work, group play, transition). The child is guided through complex multi-step tasks using highly clear, top-to-bottom or left-to-right visual schedules indicating exactly what is expected, how much work remains, and what comes next.

- **Practical Example:** Teaching independent handwashing by mounting clear, sequenced visual icons directly above the sink: (1) Turn on water, (2) Apply soap, (3) Rub hands together, (4) Rinse, (5) Dry with towel.

### C. Picture Exchange Communication System (PECS)

- **Objective:** Building foundational functional communication by teaching the individual to exchange visual icons to initiate requests.

- **Application Model:** The child begins by physically picking up a picture icon of a highly desired item and placing it directly into the open hand of a communicative partner to receive the item immediately. The system systematically advances through discrimination training, sentence structure construction ("I want..."), and expanding vocabulary.

- **Practical Example:** A non-verbal child holding a communication binder detaches an icon depicting an apple and

hands it to the educator to request a snack. As communication solidifies, adjectives and complex descriptors are added to the visual repertoire.

### D. Makaton

- **Objective:** Reinforcing spoken language comprehension and production through a multimodal combination of speech, manual signs, and graphic symbols.

- **Application Model:** Educators consistently pair clear spoken words with highly intuitive manual signs and graphic symbols during everyday interactions, providing a redundant, highly accessible communicative input.

- **Practical Example:** An educator simultaneously articulates the word "Drink," executes the standardized manual sign for drinking, and points to a visual icon of a cup, providing the child with multiple processing pathways to grasp the concept and eventually replicate the communication.

### 2. Applied Difference-Based Programs: "Give Him the Whale!"

The "Give Him the Whale" program is engineered to radically enhance social engagement, emotional regulation, and academic literacy by embedding highly motivating fascinations directly into instructional design. Rather than viewing intense affinities as disruptive fixations, educators utilize them to build rapport,

expand communication, alleviate anxiety, and drive curriculum mastery.

As strongly documented by educators and autistic advocates alike, including Jasmine Lee O'Neill, individuals on the autism spectrum frequently harbor profound, deeply specialized fascinations ranging across aviation, internal medicine, electrical engineering, geography, horology, astronomy, chemistry, mechanical systems, classical music, feline breeds, meteorology, cetology (marine biology), vulcanology, and computer architecture. While remedial behavioral teams frequently expend immense clinical energy attempting to suppress, extinguish, or withhold these deep affinities, Jackson and Willy emphasize that when educators pivot to utilizing these special interests (الحوز) as foundational instructional tools, classrooms are immediately flooded with focus, calm, and profound academic success.

- **Objective:** Bolstering academic proficiency, social interaction, and language production through deeply validating, interest-based instructional loops.

- **Application Model:** Instructional tasks are creatively wrapped entirely inside the child's specialized fascination. The student is invited to execute standards-based tasks (e.g., counting, reading comprehension, expressive communication) through the

direct manipulation or discussion of their preferred subject.

- **Practical Example:** In a foundational literacy and communication task, the educator utilizes a large plush whale (the student's absolute fascination) as the central instructional conduit.

- ❖ **Phase 1 (Establishing Engagement):** The child is simply invited to place targeted instructional objects (e.g., letter blocks) directly onto the whale's fins, receiving immediate intrinsic validation through proximity to their interest.

- ❖ **Phase 2 (Expanding Communication):** Once psychological safety is established, the educator introduces verbal challenges, requiring the student to verbally instruct the whale on where to navigate, or read short descriptive sentences aloud to feed the whale a token.

- ❖ **Advanced Narrative Integration:** The educator constructs a multi-stage reading comprehension scenario where the student must read short passages about marine ecosystems and answer comprehension questions correctly to help the whale successfully migrate across a classroom map.

### **Key Outcomes of Interest-Based Frameworks**

- **Fostering Social Communication:** Naturally driving peer engagement by positioning the autistic student as the

resident "expert" on their specialized topic during collaborative group projects.

• **Enhancing Multimodal Communication:** Accelerating verbal and written output by anchoring expressive tasks directly to highly motivating, deeply understood subject matter.

• **Accelerating Literacy Acquisition:** Bypassing standard, uninspiring reading curricula by curating complex texts, technical manuals, and fictional narratives centered entirely around the student's affinities. Chandler documents remarkable success using specialized interests to teach emotional regulation, guiding a student fixated entirely on meteorology to map his internal emotional states to weather patterns (e.g., "internal severe thunderstorms"), successfully utilizing his existing affinity to master complex self-soothing and self-monitoring strategies.

### **3. Theoretical Contributions of Autistic Pioneers**

#### **A. Temple Grandin (1986)**

An internationally acclaimed autistic animal scientist, Temple Grandin revolutionized the livestock industry by engineering highly humane livestock handling facilities. Drawing directly from her profound personal sensory realities—specifically severe tactile defensiveness paired with a deep biological need for deep pressure regulation—she famously

invented the "squeezebox" or "hug machine," a mechanical device providing uniform, deep tactile pressure to rapidly soothe an overstimulated central nervous system.

Grandin's theoretical philosophy centers entirely around leveraging visual processing strengths and highly focused special interests while advocating fiercely for universal visual thinking adaptations. She posits that autism is fundamentally a structural neurological variation in brain connectivity rather than a pathology requiring repair, aligning seamlessly with the neurodiversity paradigm.

Grandin emphasizes that a vast segment of the autistic population processes information entirely through highly detailed, associative visual images rather than abstract verbal language. This visual processing architecture provides immense advantages in technical, applied, and engineering disciplines. She severely criticizes highly rigid, remedial behavioral interventions that focus exclusively on forcing outward behavioral compliance while entirely ignoring the underlying sensory, neuroanatomical, and visual processing realities driving the behavior. Grandin advocates for highly flexible, integrative educational pathways built explicitly upon authentic functional capabilities, early environmental

adaptations, and deep sensory regulation (Grandin, 2006; Grandin & Panek, 2013).

While Grandin did not package her philosophies into a trademarked, commercial intervention program, her theoretical insights have fundamentally shaped modern educational and occupational therapy practices. These applied methodologies rely heavily on visual supports, structural sensory accommodations (such as weighted vests and deep pressure integration), and the direct translation of technical affinities into viable, highly successful career trajectories.

### **B. Kenneth Hall (2001)**

In his highly celebrated autobiographical work *Asperger Syndrome, the Universe and Everything*, written at the age of ten, Kenneth Hall provides an extraordinary first-person account of navigating the educational system as an autistic child. Balancing brilliant humor with deep psychological insight, Hall offers educators highly functional guidance on instructionally supporting neurodivergent learners.

Hall eloquently describes his internal cognitive landscape, conceptualizing his highly distinct thinking style not as a defect, but as an exceptional processing variation. He details his intense, highly specialized fascination with astrophysics and the cosmos, positioning it as an immense cognitive engine driving his intellectual

growth. He emphasizes his highly literal cognitive processing and deep internal need for systemic routine, illustrating how these mechanisms confer profound feelings of safety, while sudden environmental disruptions trigger severe internal distress.

Crucially, while Hall's narrative aligns beautifully with the neurodiversity paradigm by celebrating his distinct intellect, it simultaneously highlights the profound realities of the disorder-based model. He candidly documents his severe, agonizing struggles with social communication, detailing his complete inability to decipher subtle non-verbal cues, unwritten social subtext, sarcasm, and complex peer dynamics. Furthermore, he describes experiencing agonizing sensory hyper-reactivity to environmental sounds, rendering standard classroom environments deeply hostile and exhausting. Hall's work masterfully encapsulates the duality of autism: possessing a highly advanced, specialized intellect while concurrently requiring profound structural support to navigate a neurotypically designed world.

## **VII. The Algerian Context**

Within the Algerian clinical and educational landscape, the management of children with Autism Spectrum Disorder remains overwhelmingly dominated by traditional behavioral methodologies, most notably Applied Behavior Analysis (ABA).

This framework maintains a dominant presence across specialized psycho-educational centers (*centres médico-psychopédagogiques*) and dedicated associations, primarily due to its highly structured, procedural nature, which offers easily quantifiable metrics for behavior modification and basic skill acquisition. However, the execution of these behavioral methodologies frequently remains highly localized, procedural, and technical, hampered by a pronounced deficit in advanced, specialized clinical training and the absence of standardized pedagogical frameworks.

Concurrently, the highly traditional medical-diagnostic model continues to dictate a substantial portion of official institutional practices. Within these frameworks, autism is viewed almost exclusively through the lens of pathology, deficit, and disability, resulting in highly limited focus on comprehensive educational inclusion and long-term autonomy.

In contrast, individualized educational and compensatory approaches—leveraging specialized speech-language pathology (*orthophonie*) and tailored psychological interventions—are beginning to emerge progressively within academic research and field practice. Nevertheless, these progressive methodologies rely heavily on isolated personal initiatives by dedicated

practitioners rather than an integrated, unified institutional policy.

Crucially, the difference-based approach anchored in the neurodiversity paradigm—which respects autism as an alternative cognitive architecture rather than a pathology requiring normalization—remains highly marginalized within standard Algerian practice, despite its recent emergence within progressive academic dissertations. This fragmentation exposes the stark absence of a clear, unified national framework, leaving field practice torn between rigid "technical behaviorism" and a "deficit-based medical model," alongside the slow, promising emergence of more humane, highly individualized management philosophies (Smith, 2010; Volkmar et al., 2014).

## CONCLUSION

From this comprehensive analysis, it becomes undeniably clear that whether autism is approached as a pervasive developmental disorder, a pathology, a disability, or a natural neurological difference, it presents a profound challenge to our comprehension of human consciousness and adaptability. The ultimate objective remains the implementation of highly effective, empathetic intervention strategies—whether preventive, therapeutic, or educational—that actively alleviate the immense pressures placed upon families

and society while radically enhancing the autistic child's quality of life. This requires securing equal opportunities, fostering deep environmental comprehension, and actively facilitating authentic inclusion within the family and broader society. Ultimately, our interventions must aim not to normalize, but to liberate the individual from abrasive environmental barriers while actively unlocking and celebrating their extraordinary intrinsic potential.

Consequently, regardless of whether an intervention adopts a disorder-based framework, a difference-based paradigm, or a highly pragmatic integration of both, its ultimate value must be measured entirely by its empirical efficacy in bolstering the autistic individual's functional autonomy, alleviating severe internal distress, and securing genuine, dignified integration across family, social, and professional life.

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