



Sur le

Number 19
Spring 2025

spectre

Magazine of the Centre for Research, Evaluation and Intervention in Autism of Montreal

06



Improving
the Diagnostic
Journey:
Toward More
Accessible and
Higher-Quality
Services

09



Do Autism and Anxiety
Go Hand in Hand?

11



Release of
Dr. Laurent Mottron's
New Book: "If Autism
Is Not a Disease,
Then What Is It?"

02

Building oneself with a
unique double background:
autism and a foster child journey





page **02**
Building oneself
with a unique
double background:
autism and a foster
child journey



CHAIRE DE RECHERCHE MARCEL ET ROLANDE GOSSELIN
EN NEUROSCIENCES COGNITIVES FONDAMENTALES
ET APPLIQUÉES DU SPECTRE AUTISTIQUE



 **06**

Improving
the Diagnostic Journey:
Toward More Accessible
and Higher-Quality Services



 **09**

Do Autism and
Anxiety Go Hand
in Hand?



 **11**

Release of Dr. Laurent
Motttron's New Book:
"If Autism Is Not a
Disease, Then What Is It?"



Official Magazine of the Montreal Center for Research, Evaluation and Intervention in Autism (CRÉIA).

CRÉIA is a center of expertise in autism, located at Rivière-des-Prairies Hospital in Montreal. In addition to providing autism assessment and intervention services, CRÉIA unites 6 university researchers, professors in 4 Quebec universities. The research conducted at CRÉIA ranges from understanding brain function and autistic perception, to mental health and intervention, to the strengths and interests of people with autism.

The graphic design was made possible thanks to the financial support of the Sacré-Coeur Foundation. The translation was graciously provided by the Marcel and Rolande Gosselin Research Chair in Fundamental and Applied Cognitive Neuroscience of the Autism Spectrum.

The writing and editing of the texts were done on a volunteer basis by researchers, clinicians, and students from CRÉIA and their collaborators.

Editorial Committee

Editor-in-Chief
Valérie Courchesne

Associate Editor
Daphné Silvestre

Translation and copy editing
Daphné Silvestre
Claudine Jacques
Valérie Courchesne

Editorial Committee
Jane Gonçalves
Mégane Plourde
Rosalie Villeneuve
Laurent Mottron

Graphism/design
Alibi Acapella Inc.

Sur le spectre:

A new Associate Editor

It is with great pleasure that I present to you this new issue of *Sur le spectre*, in which I am newly appointed as Associate Editor. This 19th issue features the testimony of Jane Gonçalves, who at the age of 39 finally puts a name to a lifelong feeling of being out of sync: she is autistic, just like her son. We invite you to discover her unique life journey and the role autism has played in it. She is also the creator of an informative website about ASD that we encourage you to visit: abcduspectre.ca. Her story reminds us that difference can become a true strength. In this issue, you will also find an article by Mégane Plourde, recently accepted into the PhD program in Clinical Psychology (research and intervention) at the University of Montreal, discussing a report produced for the Ministry of Health aimed at improving the diagnostic journey in Quebec. Dr. Claudine Jacques, a researcher at CRÉIA, is one of the co-authors of this report. Next, Rosalie Villeneuve, a student in Dr. Isabelle Soulières's lab and co-supervised by Dr. Valérie Courchesne, presents an article on the current state of knowledge regarding anxiety in autistic children. In the final article, Dr. Laurent Mottron introduces his latest book and invites us to rethink autism. In *If Autism Is Not a Disease, Then What Is It?*, he offers an innovative perspective: autism may not be a pathology, but rather a natural variation of human development—a developmental divergence. Through this article, we invite you to discover a summary of the ground-breaking model he proposes.

Finally, you will find calls for participation in various research projects.

A heartfelt thank you to all our contributors, as well as our loyal financial partner: the Marcel and Rolande Gosselin Research Chair in Fundamental and Applied Cognitive Neuroscience of the Autism Spectrum at the University of Montreal. We would also like to thank the Foundation of the Sacré-Coeur Hospital of Montreal, which has taken over from the Petits Trésors Foundation and continues to support *Sur le spectre* through its financial backing.

Enjoy your reading!

Daphné Silvestre, Associate Editor.



Daphné Silvestre

Associate Editor.

Many thanks
once again
to all our
collaborators
as well as
to our
financial
partners.

Despite all these instabilities, apart from the crisis moments, there was an unshakeable academic perseverance.

Building oneself with a unique double background:

autism and a foster child journey

By JANE GONÇALVES

In the early hours of a gloomy Saturday morning in the fall of 2022, at the age of 39, I stand in front of my bathroom mirror, washing my face, when suddenly, a revelation hits me: "But I'm autistic too." "Too" because three days earlier, I had just realized that my 11-year-old son was autistic. For a fraction of a second, I detach from my body. Standing there, staring into space, I observe myself from the outside, motionless. My breath stops. So that was what explained my persistent feeling of being different, far beyond my past as a foster child,

which I had been working on in therapy. Eureka, everything finally made sense.

A Different Childhood

From the age of 6 months, I was placed in the care of child protection services in France. Coming from a "family known to the authorities," my mother, a single parent, faced insurmountable challenges in her role. Just before my Eureka moment, I told my therapist: "My mother was strange, but I still can't pinpoint her

condition." In hindsight, I'm convinced she was also autistic.

I grew up in the same foster family for fourteen years. Far from being a model child, I had few friends and a fiery temperament. I nurtured "strange" interests, like memorizing all 100 French departments (administrative regions), even though it wasn't part of the school curriculum. I would transcribe dialogues from my favorite TV shows to decode how social interactions functioned. At school, although generally bright, I struggled to interpret authors' intentions in French literature lessons – a complete mystery to me.

Then, at 14, I was removed overnight from my foster home following a judicial report filed against the family. It was a relief, as it allowed me to escape the abuse and alcoholism of my foster father. What followed were nearly 4 years of navigating psychiatric hospitals, group homes, and rehabilitation centers (for physical health issues). It may not sound like it, but I did have some good moments! Yet psychological instability loomed relentlessly: untreated depression (my first, at 13), suicide attempts, self-harm, crises (hysteria: as noted in one of my medical records I secretly read), and post-traumatic stress disorder. Despite early psychiatric care, no one identified the root of my struggles. At no point was autism considered. Probably, among other things, because I was a girl. It's well known: "girls aren't autistic." The fact that I carried the weight of multiple traumas further complicated the picture. A part of me thought, from the age of 13, that I wouldn't make it to adulthood, so much did life seem to reject me.

Perseverance as a Lifeline

Despite all these instabilities, apart from the crisis moments, there was an unshakeable academic perseverance. School was my sanctuary; I loved learning. I had been told when I was younger: "If you want to succeed in life, you need to go to school." I took it literally and rigidly: no school = life on the street. The fear of not surviving on the streets pushed me to complete a Ph.D. in social psychology. It's funny when you think about it. Another "rigidity" in my thinking was considering that "I had no choice." I didn't take any pride in my academic perseverance because I wasn't doing it for myself: I had no other choice. I would later understand in therapy that I had made the choice to have no choice. Phrased that way, it reclaims some power over your story.

My perseverance was put to the test – between financial struggles, a lack of social support, housing challenges, and health issues – it wasn't easy. I could clearly see that I was struggling more than others. Unfortunately, school didn't always help. Studying *L'Assommoir* by Émile Zola for the French Baccalaureate particularly shook me. I, who had invested everything in school, was now being taught social determinism – the idea that our destiny is determined by our social background. According to the lessons, I was destined to become an alcoholic and possibly homeless. If the school said so, it must be true! I felt rejected by my lifeline, my only secure attachment. This stayed with me for years, looping endlessly in my mind. I don't blame the learning itself, but the lack of hopeful messages that accompanied the statements.

A New Life in Quebec

With my Ph.D. in hand, I moved to Quebec with my partner and baby. My status as an immigrant brought me temporary peace. My eccentricities seemed to be excused as cultural quirks. What Quebecers didn't know was that these same traits – like my frankness or naivety – had been criticized in France. Driven by the desire to finally thrive, I began therapy, not just for myself but for my young son, who displayed very challenging behaviors: meltdowns, anger, school exclusions, relationship struggles. The list was long. One question haunted me: how could my past still be so present today, even affecting my son? Something wasn't working!

From his earliest years, I raised concerns during pediatric visits. "He's different." The doctor asked if he played with toy cars. "He doesn't play with cars," I replied. "Does he respond to his name?" "Generally." I sensed she suspected autism, but she quickly dismissed the idea. The years went by, and my son remained isolated at school, yet no one was really concerned, neither at the CLSC nor at school, especially since he wasn't violent anymore. The diagnosis came recently, after a chain of events: autism level 2 for him, level 1 for me, confirmed separately on the same day at different clinics, shortly after my Eureka! It was a way of telling him: "We're both autistic. We are in this together." Sharing this news with those around me hasn't always been easy. Autism is still poorly understood and known. That's why I recently launched an awareness page: abcduspectre.ca.



Autism is not just a series of deficits. It also brings unique strengths: a way of thinking "outside the box," the ability to categorize quickly, a sharp eye for detail, and specific interests that can sometimes be exhausting but also bring unexpected miracles.



Today, our
respective
autism
diagnoses
allow me
to support
my son
with more
serenity
and empathy

Strengths and Challenges

Autism is not just a series of deficits. It also brings unique strengths: a way of thinking "outside the box," the ability to categorize quickly, a sharp eye for detail, and specific interests that can sometimes be exhausting but also bring unexpected miracles. For three years, I managed to work full-time at the university while also running a communications company I had founded. On top of that, for 8 months, I was writing a manuscript about my journey and the lessons life had taught me (to be published in 2025 by Performance Édition). All of this while raising an autistic preteen.

I also see strengths in having been placed in foster care. A sharp sense of resourcefulness, an unusually high tolerance for hardship, great independence, and special empathy for those facing life's difficulties are among the takeaways from this journey. Also, a greater appreciation for life and its small joys. So, every night or almost every night, I take a moment to thank life and my lucky star.

It's sometimes difficult to distinguish between the challenges related to autism and those stemming from being a foster child, especially when the placement occurred under difficult circumstances. The consequences of both sometimes intertwine. For example, I have a great ease in detaching myself from people. This can be explained both by the attachment issues inherent in my development and by the strong dichotomous thinking in autism: I'm usually invested at 100% or 0%, rarely in between.

These two particularities of my journey will likely affect my life expectancy, according to data in the literature. I believe it. When I was 20, I felt like I had lived as

much as someone aged 50. I often feel exhausted by social situations despite my hyperactivity. That's why I try to take care of myself. I have exciting professional activities, a valuable social network, a good lifestyle, and a stable romantic relationship. I also continue my therapeutic work to resolve past traumas and learn to better understand the world around me and better equip myself – for example, by exploring the famous gray areas or learning to lie to avoid hurting others. I feel incredibly lucky to be able to afford this private therapy work, as I am fully aware that it's not within everyone's reach.

A Liberating Acceptance

Today, our respective autism diagnoses allow me to support my son with more serenity and empathy. I no longer desperately chase normality. I've finally understood that this wasn't the right battle. I'm learning to judge my needs less (like listening to a song on repeat for hours) and to avoid unnecessarily exposure to draining situations (like overly noisy environments). I'm also trying to abandon social camouflage... though reluctantly. Indeed, since uncovering the unconscious strategies I'd developed to meet social expectations, I struggle to apply them as effectively as before. So, I sometimes seem more autistic than I did before! My son has also made enormous progress, I am very impressed.

I can't change my past or my condition, but I can choose to accept them with kindness. I can also choose to do something useful with them – this is exactly what motivated the writing of my book. My goal: to light the path for others dealing with difficult life journeys and to give them hope that one day, a better life is possible. 🌸



WHO?

6-17 years old with or without autism spectrum disorder

WHAT?

Look at pictures on computer screen, brain recording, eye tracking

WHEN?

At your convenience! (weekday / week-night / weekend)

PARTICIPATE in a study at McGill!

The Perceptual Neuroscience Laboratory (PNLab) at McGill University is studying how children and teenagers with and without autism perceive different types of stimuli.

Participants receive a \$50 gift card of their choice!

Interested parents/individuals,
please email

pnlab.recruitment@gmail.com



Improving the Diagnostic Journey:

Toward More Accessible and Higher-Quality Services

By MÉGANE PLOURDE

What is a logical model?

It is a tool that clearly represents the key elements of a program, such as the objectives to be achieved, the necessary resources, and the activities to be implemented to address a given issue.

A Crucial Step in Accessing Support

The diagnostic evaluation of children with neurodevelopmental conditions is a crucial step, as it determines access to support and intervention services. However, in Quebec, many challenges remain in terms of accessibility, quality, and efficiency of the services offered. Faced with fragmented services and long wait times, the Ministry of Health and Social Services (MSSS) tasked researchers Dr. Claudine Jacques and Dr. Méline Rivard with designing a logical model for a service trajectory aimed at optimizing the diagnostic journey for children aged 0 to 7.

A More Structured Diagnostic Pathway

Lead researchers Dr. Claudine Jacques and Dr. Méline Rivard, in collaboration with Ms. Élodie Héroult,

Dr. Nadia Abouzeid, and Ms. Geneviève Saulnier, worked alongside a project manager from the MSSS and an advisory committee composed of professionals and physicians (including a speech-language pathologist, pediatrician, psychiatrist, psychoeducator, and psychologist) to develop a reference logical model guiding the delivery of services. The model was initially built using existing research to address gaps in the current system and ensure it is grounded in evidence-based practices. It also integrated the experiences of parents, health professionals, and researchers to ensure that interventions and resources are tailored to the real-life contexts of families and professionals.

The primary goal of the **logical model** is to provide a seamless, accessible, and high-quality service trajectory that facilitates the care of young children with neurodevelopmental conditions in Quebec.

The model is based on several key recommendations, including:

- **Service Integration:** Rather than treating diagnostic evaluation as a standalone step, it should be part of a continuum—from screening to intervention—to



ensure timely follow-up for children in need of support.

- **Improved Professional Support:** Ongoing training and support for teams are essential to ensure accurate diagnoses and appropriate care.
- **Equitable Access to Services:** It is critical to reduce disparities in access and to offer diagnostic services tailored to each child, regardless of their profile or age.

The Essential Role of Families

The logical model also highlights the importance of family involvement, recognizing that families play a crucial role in the diagnostic process for neurodevelopmental conditions. Parents are viewed as full partners in the process. Their active participation helps refine the diagnosis and adapt recommendations to the child's specific needs.

That said, the diagnostic process can be complex and emotionally taxing for parents. In this context, the proposed model recommends the presence of a *key support worker* to guide families throughout the process. This person would be available to answer questions, provide support, and help families navigate the service system. Improved access to clear and relevant information would also help parents better understand the diagnosis and take the necessary steps to support their child. This would address a major issue: the lack of accessible, easy-to-understand information for parents.

Ongoing Evaluation for Continuous Improvement

Given the goal of the logical model—to improve the diagnostic journey for children with neurodevelop-

mental conditions—it is vital to assess the model's reach and impact to adequately address the issue. The model therefore includes mechanisms for continuous evaluation, allowing practices to be adjusted according to the real needs of families and professionals. This approach would help optimize service effectiveness and ensure the model remains flexible and responsive over time.

Additionally, the model emphasizes the need to implement measures to evaluate the quality of its implementation across different institutions, as well as the impact of its application (e.g., reduction in wait times and improved follow-up quality after diagnosis). These regular evaluations would ensure ongoing improvement of the process and allow for adaptation to observed realities.

Toward Higher-Quality Diagnostic Services

By integrating these recommendations, the diagnostic process could become more efficient, reducing wait times and improving the experience for families. This logical model represents a key resource that will be used by the MSSS to develop a province-wide framework, ensuring every child has access to high-quality services at the right time and tailored to their specific needs.

Ultimately, implementing this model would not only better meet the needs of children and their families but also support a more structured and supportive work environment for health professionals. By focusing on better organization and more streamlined services, Quebec could build a more effective and inclusive diagnostic system. 🌱

Ultimately, implementing this model would not only better meet the needs of children and their families but also support a more structured and supportive work environment for health professionals.

Original reference:

Hérault, E., Rivard, M., Jacques, C., Abouzeid, N. et Saulnier, G. (2022). *Développement d'un modèle logique de trajectoire de services en évaluation diagnostique pour les enfants âgés de 0 à 7 ans chez qui l'on soupçonne un trouble neurodéveloppemental*. Laboratoire sur l'unicité et la diversité des intérêts et des comportements en autisme (LUDICA). <https://numerique.banq.qc.ca/patrimoine/details/52327/4631951>

UQÀM UQAR



UNIVERSITÉ DE
SHERBROOKE

UQTR



Université du Québec
à Trois-Rivières

STUDY: YOUR FAVORITE INTEREST

Autistic participants needed

AGED 14 TO 30 YEARS OLD

TO PARTICIPATE CONTACT :
moses.lisane@courrier.uqam.ca

A 30-minute online study is looking for
participants on the autism spectrum.

Financial compensation

**The participant's parent, romantic partner or
close friend will be contacted to participate !*



Do Autism and Anxiety

Go Hand in Hand?

By ROSALIE VILLENEUVE

What is anxiety?

Imagine being chased by a lion in the savannah. In that scenario, feeling fear is completely normal. Your body enters “survival mode” to face the dangerous situation. At that moment, the brain triggers a physiological stress response, causing your breathing and heart rate to speed up. You react with “fight or flight” behavior.

Anxiety, on the other hand, occurs when your little internal alarm system goes off too often in response to situations that aren't truly dangerous. Over time, the anticipation of danger or worry triggers a stress response that is no longer adaptive—this is anxiety.

Are autistic children more anxious?

Autistic children sometimes react to objects or situations that might seem harmless to neurotypical individuals. For example, the texture of food or even being sung “Happy Birthday” can trigger a powerful stress response. Just like neurotypical children, the anticipation of such situations and the overactivation of their “alarm system” can lead to anxiety.

Anxiety is one of the most common mental health challenges in autistic children. According to scientific literature, **20% to 35% of autistic children aged**

6 to 18 show signs of anxiety, compared to 10% to 20% of neurotypical children. Several studies indicate that anxiety symptoms tend to be more intense in autistic children than in neurotypical children or in those with other neurodevelopmental conditions such as ADHD.

Recent studies show that anxiety can emerge very early in development, even before the age of 6. If not addressed early on, it often leads to academic, social, and adaptive functioning difficulties in school-aged children and adolescents. That's why it's so important to act early on the risk factors contributing to anxiety.

How does anxiety manifest in autistic children?

Researchers have defined anxiety in school-aged autistic children in two main categories:

1. Common childhood anxiety
2. Autism-specific anxiety

Common childhood anxiety refers to anxiety symptoms as defined in the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, whereas autism-specific anxiety refers to anxiety symptoms that stem from autistic traits.

First, some anxiety symptoms reported by autistic children are very similar to those seen in neurotypical

Researchers have defined anxiety in school-aged autistic children in two main categories:

1. Common childhood anxiety
2. Autism-specific anxiety

Certain autism-specific traits, such as sensory hypersensitivity and difficulty adapting to change, can contribute to anxiety in autistic children.

Main References:

Lau, B. Y., Leong, R., Uljarevic, M., Lerh, J. W., Rodgers, J., Hollocks, M. J., South, M., McConachie, H., Ozsivadjian, A., Van Hecke, A., Libove, R., Hardan, A., Leekam, S., Simonoff, E. et Magiati, I. (2020). *Anxiety in young people with autism spectrum disorder: Common and autism-related anxiety experiences and their associations with individual characteristics*. *Autism: The International Journal of Research and Practice*, 24(5), 1111-1126. <https://doi.org/10.1177/1362361319886246>

Vasa, R. A., Keefer, A., McDonald, R. G., Hunsche, M. C. et Kerns, C. M. (2020). *A Scoping Review of Anxiety in Young Children with Autism Spectrum Disorder*. *Autism Research: Official Journal of the International Society for Autism Research*, 13(12), 2038-2057. <https://doi.org/10.1002/aur.2395>

children—such as separation anxiety, worry, physical symptoms of anxiety, and specific fears.

However, autistic children tend to show more intolerance to uncertainty, generalized anxiety, and social anxiety than their neurotypical peers.

Second, certain autism-specific traits, such as sensory hypersensitivity and difficulty adapting to change, can contribute to anxiety in autistic children. Anxiety often arises when the child faces situations involving sensory discomfort, social situations, or changes in routine. These anxiety symptoms are often easily confused with autistic traits.

Some Definitions...

- **Separation anxiety:** intense fear felt by children when separated from their parents
- **Physical symptoms of anxiety in children:** headaches, stomach aches, nausea, tension, difficulty concentrating, etc.
- **Specific fears:** fear or anxiety triggered by a specific object or situation (e.g., spiders, the dark)
- **Intolerance to uncertainty:** intense fear of unpredictable or uncertain future events
- **Generalized anxiety:** anxiety and excessive worry about everyday events or activities
- **Social anxiety:** intense fear linked to social situations or performance settings where the person might be observed by others

What are the risk factors for anxiety in autistic children?

On one hand, studies show that sensory hypersensitivities and sleep difficulties increase cognitive overload in autistic children, which may contribute to the development of anxiety. Conversely, anxiety can also worsen sensory sensitivities and sleep problems.

On the other hand, difficulties in social communication can affect a child's ability to form relationships, which may lead to psychosocial distress and contribute to the development of generalized or social anxiety, for example.

Autistic children who also have ADHD are more likely to show signs of anxiety. Interestingly, some studies

have found that autistic children with above-average cognitive functioning or strong language skills tend to report more anxiety. However, it's important to note that autistic children with lower cognitive functioning may also experience anxiety, though their language challenges make it harder for them to express their needs and for others to recognize their symptoms.

What are some intervention strategies?


Studies on anxiety treatment in verbal autistic children show that psychotherapy interventions—especially cognitive behavioral therapy (CBT) strategies—are the most commonly used by professionals. CBT is based on the idea that our beliefs, attitudes, and thoughts influence our emotions and behaviors. The goal of therapy is to restructure thought patterns to reduce emotional distress.

Additionally, interventions that help children develop social skills in natural settings—real-life social interactions—can help reduce anxiety in autistic children. A better understanding of social situations allows the child to better predict social interactions, which in turn reduces their intolerance to uncertainty in social contexts.

Lastly, making daily life adjustments for the child can be beneficial if the sources of anxiety are properly identified. For example, the environment can be adapted to meet the child's sensory needs by dimming lights or reducing background noise.

The Future of Research

Co-occurring anxiety and autism is a research field that deserves more attention, due to the specific ways anxiety presents in autistic children. Future research should focus on refining tools for assessing anxiety in autistic children to better match their developmental and language levels. It is also important to distinguish between autistic traits and anxiety symptoms in order to tailor interventions accordingly.

Finally, developing adapted screening tools that can be used by all professionals working with autistic children would support early detection of anxiety in young autistic children. 



Release of Dr. Laurent Motttron's New Book:

"If Autism Is Not a Disease, Then What Is It?"

By DR. LAURENT MOTTTRON

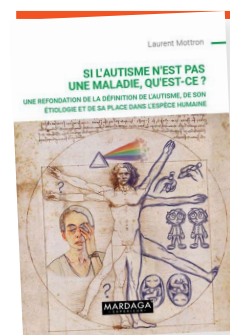
I feel compelled to write a book when I want to explore a complex and important issue in greater depth than what scientific articles allow. In my first book, *"Autism: A Different Kind of Intelligence"*, I demonstrated that autism is associated not with a lower form of intelligence, but a different one, and how it can be distinguished from developmental disorders. In my second book, *"Early Intervention for Autistic Children"*, I laid the groundwork for intervention principles intended to replace the then-dominant behavioral therapies. In this most recent work, *"If Autism Is Not a Disease, Then What Is It?"*, I attempt to answer a fundamental question: What kind of human variation is autism?

With the rise of the neurodiversity movement, most scientists and the general public now agree that autism—though it can make life very difficult for individuals and those around them—is not a disease. It is defined as a difference, which, while sometimes involving serious disadvantages, also offers certain advantages. Yet scientists continue to link it to genetic abnormalities and classify it as a "disorder," even though in most cases they are unable to identify any clear genetic or neurological anomalies. It is known beyond doubt that autism runs in families, but it is not associated with any specific genetic, brain-based, or other kind of abnormality. Lastly, defining autism as a spectrum allows for the inclusion of individuals as diverse as a non-verbal child with highly stereotyped behavior and a university professor obsessed with their research agenda, without understanding what they have in common.

Having encountered thousands of autistic individuals over the course of my life—many of them non-verbal preschoolers—I gradually came to the conviction that these children, at the time I saw them, were highly similar to one another. There was a kind of prototype of autism within this spectrum. As a group, however, they were very different from what they would later become: an Asperger syndrome individual or any adult who identifies as autistic.

I realized that autism, as it was originally discovered, corresponds to a phase of life, rather than a state that defines a person from birth to death. I came to understand that what we call the social signs of autism stem from not giving other humans the same priority that typical children do, though autistic children often regain some of that priority later. As for the so-called repetitive behaviors, these could all be explained by a greater interest in "pure" information than in the relationship between that information and human beings. For instance, autistic individuals may not be interested in the human voice or turn when their name is called but may become fascinated by language in its written form—presented to them without human interaction. This also explains why their first words are often learned from tablets and spoken in a language their parents don't speak.

This lack of interest in the social world may be subtly noticeable toward the end of the first year of life but becomes suddenly evident around 18 months.



With the rise of the neurodiversity movement, most scientists and the general public now agree that autism—though it can make life very difficult for individuals and those around them—is not a disease.

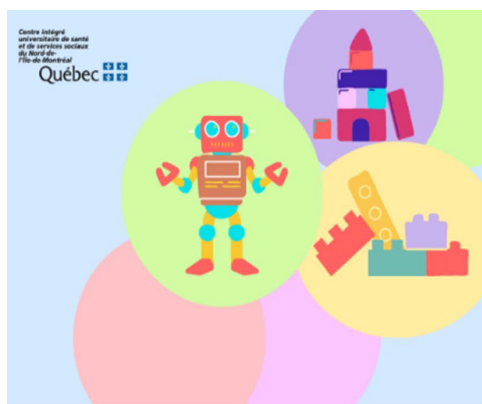
I realized that autism, as it was originally discovered, corresponds to a phase of life, rather than a state that defines a person from birth to death.

It then persists, almost unchanged, until the child begins to speak again. At that point, the autistic child often regains at least some communicative language and recovers part of the typical child's social interest.

With all these ideas in mind, I began to wonder whether other examples exist in human development where some children take a minority path at a moment when two possible directions are available—within a short window, influenced by familial predisposition, and at a similar rate across all human groups. I searched for other examples of what we call a *bifurcation*, asymmetric because only a minority follow one of its branches. I realized that there are such minority developmental patterns in humans, with familial predisposition, that

are not caused by abnormalities. These include twin pregnancies, left-handedness, breech births, and possibly others. All of these are irreversible, at least for a time, and can lead to serious complications—perhaps explaining why they remain minority traits in the human population.

In all these cases, there comes a point in development where a “choice” is made between two paths—one of which is taken by the vast majority, while the other, though less common, is possible. For example, starting around the 25th week of pregnancy, the fetus no longer floats freely in the womb but remains in a head-down position. Only 2% of fetuses—usually in predisposed families—remain head-up, which can



En quoi consiste votre participation ?

Votre enfant complétera des **tests cognitifs** et participera à une **situation de jeu**.

Ce projet est divisé en **3 phases** qui comprennent en moyenne **3 à 5 séances**. L'âge de votre enfant déterminera à quelle phase celui-ci débutera sa participation.

30\$ vous sera remis à la fin de chaque séance.

Objectif du projet

Ce projet de recherche a pour objectif d'identifier les indices de l'intelligence chez les enfants autistes et de déterminer si ces indices sont propres à l'autisme.

Il vise à valider les méthodes d'évaluation qui permettent de donner un portrait plus complet du potentiel intellectuel des enfants autistes.

De plus, le projet nous permettra d'identifier les comportements et les habiletés perceptives qui pourraient être liées à l'intelligence.

Critères de participation

Votre enfant est âgé de 2 à 11 ans.

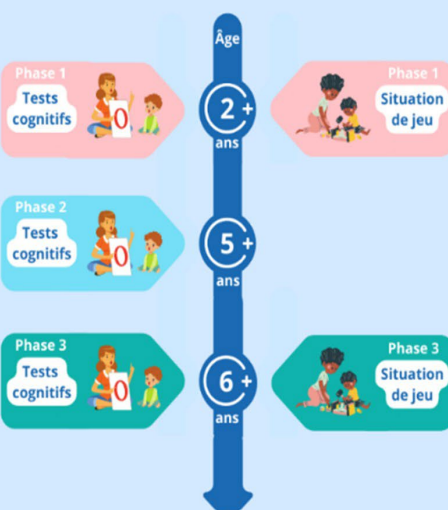
Il présente une des caractéristiques suivantes:

- a) a un diagnostic de trouble du spectre de l'autisme ;
- b) a un diagnostic de trouble du langage, trouble de l'apprentissage, TDAH ou autres ;
- c) il est neurotypique (aucune particularité dans le développement de votre enfant).

Lieu du projet

Hôpital Rivière-des-Prairies

Au Laboratoire du Groupe de recherche en neurosciences cognitives et autisme de Montréal



Vous êtes libre de participer à une ou plusieurs parties de ce projet, toute participation est grandement utile au progrès de la recherche sur l'autisme !
Vous pouvez vous retirer en tout temps du projet sans avoir à vous justifier.

Voir la suite et comment participer à la page suivante →

cause major complications at birth but sometimes results in no lasting harm.

According to this theory, autism would be linked to choosing a path of information processing in which human beings lose the priority they typically hold over surrounding information. In typical children, this prioritization manifests in shared gaze, orienting to voices, and seeking emotional connection with caregivers. This could explain why autistic individuals, having lost that priority, give greater importance to “physical” or non-social information—movements, colors, sounds, structures, and even language, but in an alternate form.

This theory helps explain many things that previously seemed unrelated: the division of autistic traits into “negative” social signs and “positive” non-social, perceptual ones; the regression around 18 months, when typical children rapidly develop language; the plateau in preschool years when the child doesn't speak; and the recovery—ranging from almost complete to none at all—by school age. It also accounts for the consistent prevalence of autism across human populations, its minority status, and the existence of familial predisposition. Finally, this model justifies presenting language to autistic children in a non-social form, at least during preschool years, if we hope to spark their interest in it.



Notre étude longitudinale vise à suivre le développement des compétences et intérêts des enfants, à mesure qu'ils grandissent.

Qu'est-ce qu'une étude longitudinale ?

Cette méthode consiste à étudier plusieurs fois les mêmes enfants à des âges successifs.

Situation de jeu

Votre enfant sera exposé à des jeux avec lesquels il pourra jouer. Vous pourrez l'observer derrière un miroir sans tain. La situation de jeu sera filmée.



Tests cognitifs

Votre enfant sera amené à accomplir différentes tâches cognitives (avec ou sans matériel) présenté sur une table par une membre de l'équipe.

À noter que toutes les évaluatrices ont une expertise auprès des enfants autistes ou à besoins particuliers d'âge préscolaire et scolaire.

Les données sont confidentielles. Elles seront conservées de façon sécuritaire. Elles seront uniquement accessibles aux membres de l'équipe de recherche. Aucune information permettant de vous identifier ou d'identifier votre enfant ne sera partagée.



Pour participer au projet
ou pour toutes autres questions :

(514) 323-7260 #4572

projet.intelligence.cnmtl@ssss.gouv.qc.ca



Sous la direction de

Isabelle Soulières, Ph.D.
Professeure-chercheure et neuropsychologue
Université du Québec à Montréal
Hôpital en santé mentale Rivière-des-Prairies

Claudine Jacques, Ph.D.
Professeure-chercheure et psychoéducatrice
Université du Québec en Outaouais
Hôpital en santé mentale Rivière-des-Prairies

Laurent Mottron, M.D., Ph.D.
Psychiatre et chercheur
Université de Montréal
Hôpital en santé mentale Rivière-des-Prairies

Précision: Le projet Une autre Intelligence présente un grand besoin de filles autistes âgées entre 6-12 ans.

ÉLÈVES AUTISTES D'ÂGE SCOLAIRE RECHERCHÉS POUR UNE ÉTUDE!

Centre intégré
universitaire de santé
et de services sociaux
du Nord-de-
l'Île-de-Montréal

UQÀM
Québec

Cette étude vise à documenter les profils d'habiletés scolaires des élèves autistes.



Critères d'éligibilité :

- ★ Être âgé entre 6 et 12 ans
- ★ Diagnostic d'autisme

Participation attendue :

- ★ 2 séances de 1h30

Compensation :

- ★ 30\$ par séance (total 60\$)

Lieu :

- ★ Hôpital Rivière-des-Prairies ou Pavillon Adrien-Pinard, UQÀM

**Pour participer,
contactez Ève Picard au :**



(514)-323-7260 #4572



projet.intelligence.cnmtl
@ssss.gouv.qc.ca

Étude menée par :

Isabelle Soulières, UQÀM
Claudine Jacques, UQO
Valérie Courchesne, CAMH

Approuvé par le comité éthique du CIUSSS NIM, #2023-2639.