

How the Autistic Mind Functions – an Insider’s Report

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Abstract

Autism can most clearly be understood from the inside looking out. Those who are looking in have no frame of reference by which to readily understand what it is they are observing. Autism is neither neurodevelopmental nor a disorder. It is simply an inherent neurophysiological difference in how the brain processes information. We who are autistic live in a specialized inner space that is entirely intellectual, free from emotional and social distractions. We observe the world in scholarly detail but without any emotional attachment to what we see.

Introduction

Contrary to popular misconception, autism is a rare condition that may affect only about 0.6% of the general population [1]. Also contrary to popular misconception, autism is neither neurodevelopmental nor a disorder. It is simply an inherent neurophysiological difference in how the brain processes information [2, 3]. We who are autistic live in a specialized inner space that is entirely intellectual, free from emotional and social distractions. We observe the world in scholarly detail but without any emotional attachment to what we see [4]. Retrospective analysis indicates that Newton, Jefferson, Darwin, Edison, Tesla, and Einstein were autistic [5].

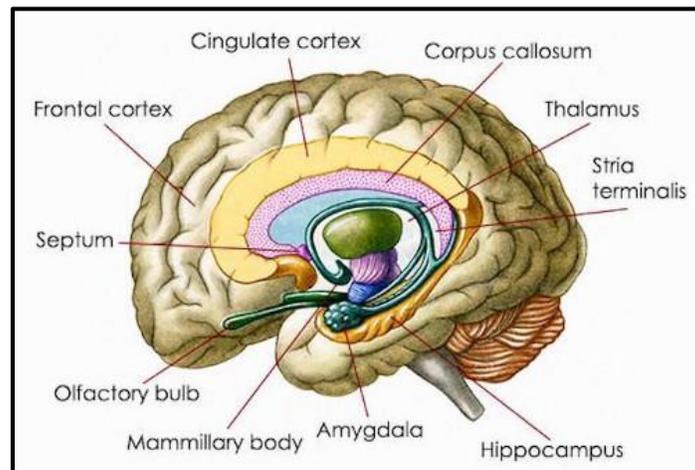


Figure 1: Neurophysiology of the Autistic Brain.
Image Credit: nutritionreview.org

The neurological structure of the autistic brain is the same as for any other brain. What is different about the autistic brain is how it functions with respect to its neurophysiology.

Cingulate Cortex/Gyrus	Dysfunctional	The cingulate gyrus (CG) is that part of the brain which focuses attention. In autism, the CG appears to keep the person’s attention trapped in the left frontal lobe, creating a perpetual state of hyperfocus.
Left Frontal Cortex/Lobe	Dysregulated	In the autistic left frontal lobe, alpha frequencies (8-12 Hz) predominate over beta (12.5-30 Hz), which is the exact opposite of the neurotypical brain. Higher alpha frequencies in the left brain appear to be compensating for the inability to access creativity and intuition from the right brain.
Right Frontal Cortex/Lobe	Inaccessible	There is normal brainwave activity in the right frontal lobe, with alpha frequencies predominating over beta. However, neural networks are suspected of being underdeveloped. The autistic person is completely unaware of anything that happens in his/her right frontal lobe, the place where emotions and social connectivity are experienced.
Amygdala	Inactive	The amygdala plays a central role in the expressing of emotions, especially fear. A dysfunctional CG prevents the autistic person from feeling any emotion, with the result that the amygdala is virtually non-functioning. An autistic person typically never experiences fear.

Table 1: Autistic Neurophysiology.

In a neurotypical brain, the cingulate gyrus (CG) acts like an automatic transmission that seamlessly switches attention back and forth between frontal lobes, as required. In autism, however, a dysfunctional CG keeps attention fixated in the left frontal lobe (logical/analytical) – with no ability to access the right frontal lobe (emotional/creative), which plays a central role in spontaneity, social behavior, and nonverbal abilities. Some neurotypical people are left-brain dominant whereas others are right brain dominant. Autistic people, however, are left brain exclusive. We speak factually, without emotion, and with a neutral facial expression [4]. We also tend to speak in monotones, without the changes in inflection that characterize neurotypical speech.

Left brain exclusivity creates perpetual hyperfocus, which is the defining characteristic of autism. Hyperfocus is the unrelenting state of intense single-minded concentration fixated on one thought pattern at a time to the exclusion of everything else, including one’s own feelings [2-4]. This is the ultimate one-track mind.

The role of the amygdala is to express emotions, especially fear. Inability to experience emotional activity in the right frontal lobe renders the amygdala nonfunctional. Autistic people are incapable of experiencing fear of any kind. None of us have ever experienced an adrenal *fight-or-flight* reaction. In every life-threatening situation we coldly calculate risks and mitigating factors to form an immediate plan of action.

Autistic Hyperfocus

Hyperfocus is the unique and defining characteristic of autism that is responsible for all 50 of its observed traits listed below. Hyperfocus is the perpetual and unrelenting state of intense single-minded concentration fixated on one thought pattern at a time, to the exclusion of everything else. All 50 of these traits are caused by the inability to run two mental programs simultaneously.

Approximately one-third of the traits below can also have other causes. That is why the symptom survey approach to diagnosing fails. Without understanding causality, the categorizing of symptoms creates only confusion.

Mental Traits	<ul style="list-style-type: none"> • Intense single-mindedness • Trapped in thoughts • Mind always busy, tendency to overthink • Passionately pursues interests, often to extremes • Amasses encyclopedic knowledge about areas of interest • Self-awareness but no social awareness • Interruptions trigger agitation, confusion, or anxiety • Cannot multitask
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Sensory Overload	<ul style="list-style-type: none"> • Hypersensitive to loud noises and bright lights • Experiences anxiety from being mentally trapped in a sensory assault • Overwhelmed from hearing unwanted conversations • Overwhelmed by too much information • Coping with electronics and filling out forms may cause anxiety • Sensory overload makes it impossible to think or focus • Difficulty listening to radio or talking with others while driving
Emotional Traits	<ul style="list-style-type: none"> • Unable to feel emotion • Processes emotions intellectually • Has generalized physiological responses instead of emotions • Anxiety bypasses the intellect to warn of unprocessed emotions • Incapable of experiencing fear • Can be angry without knowing so • Never (or rarely) cries or laughs • Cannot nurture self psychologically • Shrinks from emotional displays by others • Unable to defend against emotional attacks
Social Traits	<ul style="list-style-type: none"> • Considers self to be an outsider • Lacks innate desire to socialize • Unaware of feelings, needs, and interests of others • No awareness of how perceived by others • Unaware of socially appropriate responses • Cannot pick up on subtleties, unable to take hints • Unable to read body language
In Conversation	<ul style="list-style-type: none"> • Speaks factually with no trace of emotion • Takes everything literally • Easier to monologue than dialogue • Oblivious to motivations of others while they are speaking • Misses sarcasm • Misses social cues and nonverbal communication • Participating in 3-way conversations may be overwhelming • May have difficulty following topic changes
In Relationships	<ul style="list-style-type: none"> • Understands love intellectually but cannot feel love • May understand empathy but unable to feel it • Cannot be emotionally available to others • Others cannot provide an emotional safety net
Temperament	<ul style="list-style-type: none"> • Drawn more strongly to certain things than to people • Innate forthrightness tends to scare others • Never bored, always engaged in some mental activity • Consistent to daily routines, agitated if routine is disrupted • Spontaneity not possible, activities must be pre-planned • Cannot lie spontaneously, can tell only premeditated lies

Table 2: 50 Autistic Traits Caused by Hyperfocus.

Litmus Test for Autism

Hyperfocus is the unique and defining causal state of autism that creates its observed characteristics. Hyperfocus prevents someone from dividing attention between two thought patterns

or two stimuli at the same time. An autistic person talking to you is incapable of feeling any emotion in that moment. The easiest way to find out if someone is autistic is to ask these five questions, to which you will receive the following responses [2-4].

1.	How often do you cry?	“never” or “rarely”
2.	How often do you laugh?	“never” or “rarely”
3.	What are you afraid of?	“nothing” or an intellectual answer
4.	What are you feeling now?	“nothing” or an intellectual answer
5.	Do you ever get bored?	“never”

Example of an intellectual answer: “No, I’m not angry. That wouldn’t be logical.”

Anyone who answers all five questions as above is autistic. Anyone who answers four or fewer as above is not autistic.

Note: If the person answers the third question with a phobia (e.g., of heights), then re-ask the question this way, “*Aside from this phobia, do you normally experience fear of any kind?*”

Authenticity is Primary

Autistic people are on a lifelong pursuit to understanding whatever is of interest to them. Having attention fixated in our left frontal lobe compels us to apply ruthless logic to everything we encounter. Something either makes sense, or it does not – something either works, or it does not – something is either right, or it is not. We are relentless truth seekers who see everything in terms of black-and-white. There are no shades of grey.

Hyperfocus prevents us from having any ulterior motive. We cannot divide our attention between truth seeking and any other purpose. We are as we present ourselves, entirely without guile. We say exactly what we mean and mean exactly what we say.

Our inherent authenticity makes us vulnerable socially. We naively expect others to be as honest with us as we are with them. We are hopeless at nonverbal communication and so take everybody at their word.

Because of inherent authenticity, autistic people have an affinity for animals that we do not share with other humans. With an animal, you always know where you stand. Nikola Tesla shared his New York apartment with pigeons, whom he considered his only true friends.

Asocial by Nature

Hyperfocus keeps attention trapped in the brain’s left frontal lobe (logical, intellectual), with no ability to access activity in the right frontal lobe (emotional, social). We are left brain exclusive. Because we cannot feel our own emotions, other people’s emotions are irrelevant to our mental processes.

The autistic mind can be a delightful place in which to live. We spend every waking moment passionately pursuing our interests and accumulating encyclopedic knowledge about them. Social interactions tend to be time wasters for us. We find small talk painfully boring and long to get back to whatever our passion of the moment may be.

Autistic Anxiety

Hyperfocus prevents autistic people from being able to feel emotion. We process our emotions intellectually, a process that can take up to 24 hours. Failure to process an important emotion causes anxiety.

Autistic anxiety is experienced physiologically. Our bodies become overtaken by a generalized nervousness, uneasiness, and apprehension of unknown cause. Because there is no apparent foe, there is no adrenal “fight or flight” response; and the amygdala remains inactive.

For me, anxiety is a safety net. Whenever I feel anxiety, I run down a mental checklist to figure out which emotion is begging for attention. When I hit on the correct one, the anxiety immediately stops.

Adults who have not learned how to release anxiety may let it build until it explodes into a meltdown, which is an intense involuntary response to an overwhelming assault on psychological and physical systems. Heart rate quickens, it becomes harder to breathe, and one suffers a complete loss of emotional control. When this happens, the only solution is to let the episode run its course in a private space. Attempting to communicate with a person in this state only makes it worse.

Meltdowns in autistic children happen in immediate response to sensory overload or unexpected changes in environment or routine that makes the child feel unsafe. What the child experiences is a horrifying loss of control. When this happens, stop talking, remain calm, and keep your face and voice neutral. Remove the child to a sensory friendly room, staying at arm’s length in case s/he wishes to reach out. Have a calming routine ready for the child with visuals or a blanket that s/he likes.

Fearlessness Improves Mental Clarity

Autistic people think clearly and speak forthrightly about what we believe to be true. We are brutally honest without regard for social convention. We could care less how anybody reacts to us.

Fearlessness enhances our mental clarity. We are oblivious to what others may think of us and so never seek their approval. Emotional arguments fall flat on us. We are immune to intimidation. We see personal attacks as an admission of defeat on the part of our opponents.

Autistic Monologues

Autistic people excel at one-way communication. Monologues are our preferred form of oral presentation. We start at square one and create a complete picture of everything we know on a given topic. This may seem like bragging, but it is not. We are simply sharing our excitement about something we have just learned or have been thinking about for a long time.

Unfortunately, hyperfocus prevents us from having any awareness of your experience of our monologues. We are unable to have a second mental program running asking how much of what we are saying you already know, how you are receiving what we are saying, what you think of us, if you are even interested in this topic, or if we are boring you to tears.

Isaac Newton appears to have been the master of autistic monologue. While Newton was a professor at Cambridge, it is reputed that whenever nobody showed up for his classes he delivered his lectures to an empty hall.

Love and Empathy

Autistic people cannot feel emotion. We process our emotions intellectually. We figure out what love is by processes of deduction and inference. We show our love for others by what we do for them rather than through expressions of emotion.

The same holds true for empathy. We can be very generous to those in need because we have figured out this is the right thing to do. We cannot feel empathy, however.

In relationships, we can learn to be good listeners to our partners if we have figured out that they need to unburden themselves while we remain silent. Remaining silent while our partner is in difficulty is extremely difficult for an autistic person, however. We want to jump in and fix things right away, because we live in a mind that loves to solve problems.

Hyperfocus prevents us from being emotionally available to our partners. This is extremely frustrating to the non-autistic

partner who does not feel loved if her emotions are not reciprocated. This expectation can be the death of that relationship. For such a relationship to thrive, both partners need to replace emotional intimacy with a mental intimacy that understands how the other’s mind functions.

I once asked my wife of 30 years how she managed to stay with me all this time if I cannot be emotionally available to her. She replied, “*Just because you cannot feel your emotions does not mean that I don’t.*”

Conclusion

Autistic people often feel as if they are in a metaphorical glass prison. We can see out and others can see in, but no one understands what is really happening for the person on the other side of the glass. Over the last eight years, there has been an epidemic of false diagnoses of autism because psychiatrists and psychologists presume to understand what they are observing [2]. This insider’s report provides the needed criteria to diagnose autism accurately.

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