

Autism, Agnosia, \$ Apraxia Part 3

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What are apraxia and agnosia?



Apraxia impacts a person's ability to carry out purposeful, coordinated movements, even though they have the physical ability to perform the movements.

Agnosia impacts a person's ability to recognize or accurately interpret sensory information, even though they have the ability to perceive sensory information.

Apraxia and agnosia happen when there is limited or disrupted connectivity between or within parts of the brain that perform specific functions.

Buccofacial apraxia

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Buccofacial apraxia is difficulty with intentional



facial movement. A person may be very expressive with their face, but then struggle with intentional facial movements for things like returning a friendly smile, winking, blinking, squinting, speech, and chewing.

Depending on the type and severity, people with buccofacial apraxia often appear to be insincere, upset, bubbly, angry, confused, or overly intense because they cannot control how much they move their face or may not be able to feel what their face is doing.



Mirror Agnosia



Mirror agnosia is difficulty recognizing one's own face or appearance. This can take several forms. People with mirror agnosia may have a memory of their face but not recognize it as their own. A person with this type of mirror agnosia may see a group photo and realize they know every face in the picture but not recognize themself in the photo.

Others may know how they look but get an extreme discomfort when seeing their reflection or photos as if they are occupying a body that's not their own.

Gender agnosia



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Gender agnosia is difficulty recognizing gender in self and others. Children with gender

agnosia may mix up pronouns or use them interchangeably, even with gendered relationship titles (mom is "he" and dad is "she.")

Like all agnosias, gender agnosia presents differently among people. Some, for example, can recognize gender cues from voices but not visuals, or vice versa. Research suggests gender agnosia is more common among autistic people.

Alien hand syndrome

Alien hand Syndrome

Alien hand syndrome is a form of motor disinhibition that is caused by an interruption in connectivity between the left and right hemispheres of the brain. People with alien hand syndrome can move both hands, but one hand (or entire arm) seems to be operating independently of the conscious mind.

People with motor disinhibition of any type often describe the experience as if an external force has hijacked their body's Bluetooth.

Left-right Agnosia

Left-right agnosia is difficulty identifying left and right. People with this can struggle to identify their left or right hand or foot, or they may confuse the directions when they are given instructions that involve left or right. They may also have difficulty reading a map or following a route because they cannot distinguish between left and right.

Some people with left-right agnosia may believe they're using their left hand when they're using the right or not be able to identify if an object is moving forward or backward.

@NeuroClastic Autotopagnosia

Autotopagnosia is difficulty recognizing or locating one's own body parts. People may have difficulty pointing to or naming their own body parts, or they may not be able to

distinguish between their left and right sides or identify body parts on a picture of a human body.

People with autotopagnosia might not be able to recognize where pain originates on their body, where something is touching them, or if a toothache is on the left or right or top or bottom.

Gait apraxia

Gait apraxia affects an individual's ability to walk and coordinate leg movements. People with gait apraxia may have difficulty initiating and coordinating steps when walking, appear unsteady or hesitant, have a shuffling gait, or strugglee to maintain their balance. They may also have difficulty with complex movements such as turning or walking on uneven surfaces.

People with gait apraxia may have to concentrate on their legs and even look at their feet to will them to move. They may be able to walk in a straight line but struggle to work out the logistics of getting their legs to cooperate to step up onto a curb or into a car.



Apraxia & Agnosia

- are common in autistic and otherwise neurodivergent people but are rarely identified
- can be congenital (present from birth) or acquired (due to injury or illness)
- are often misunderstood as a lack of intelligence or as a behavior problem
- range from mild to severe
- can sometimes be improved with appropriate therapies
- unrecognized and under-accommodated agnosia can lead to traumatic experiences and low self-esteem
- are responsible for many of the behaviors targeted in intervention therapies
- several types are related to inability to retrieve specific types of memory
- need appropriate accommodations

stay tuned for more!

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