

# Time Perception in Autism Spectrum Disorder

## Overview

Time perception is an essential part of the way people make sense of the world around them. In autism, affected people have trouble processing the passage of time and may experience a delayed reaction to certain stimuli.

## What Is Time Perception?

What is time perception? Time perception refers to how the human brain interprets the passage of time. According to Brain Research Institute of UCL, neurological circuits in the cerebellum, basal ganglia and prefrontal cortex are responsible for time perception, with a healthy human brain checking incoming information and measuring the passage of time. In certain neurological conditions, such as autism, the concept of time is somehow distorted. Why people with autism perceive time differently is unknown, though evidence suggests a neurological impairment in the areas of the brain that measure time.

## Delayed Processing

Many people with autism experience a delay in how they process certain stimuli, including time. It may take a while for them to understand words spoken to them, how new people and objects in their environment relate before they respond. They may appear unresponsive and aloof because they have not yet processed the information presented. It can sometimes be hard for them to comprehend that hours have passed. For example, a person with autism who has echolalia may hear a phrase in the morning and repeat the phrase hours later out of context.

## Autism Intense Focus and Time Perception

Some people with autism exhibit an ability to focus on an object or activity for hours with unusual intensity. This intense focus may be related to time perception in autism spectrum disorder because the person is unaware of how much time has passed. While a non-autistic person would be fatigued by focusing on one thing for hours, the person with autism does not view the time passage as long and may view hours in terms of minutes.

## Time Perception and Learning

Problems with time perception can make it more difficult for a person with autism to learn in traditional classroom settings. Time perception that affects learning includes:

### Delayed hearing

Some autism experts believe that people with autism have trouble processing verbal instruction because it takes a longer time to hear the words, understand their context and prepare an appropriate answer.

### Delayed response to surroundings

Delayed processing of time and information make it more difficult for a person with autism to comprehend and relate to their surroundings. The disorientation and stress that comes with new experiences and routine changes may be related to a rush of new and confusing information to process.

Time perception should be taken into consideration when interacting with people with autism.

## Dealing with Autism Time Perception

Teachers and parents must adapt instructions and teaching methods to accommodate the way autistic students perceive time. The following tips can help parents and teachers deal with autism time perception:

Provide structured learning environments and strict routines. Every day life requires a large amount of processing of information and details. A person with autism may prefer strict routines and resist change because it helps him process time and other information easier since it is familiar.

Use visual aids to help the person with autism understand instructions and communicate rather than relying entirely in verbal instruction.

Be patient when a person with autism is in the process of listening and answering verbal information. Do not interrupt him because that could throw off his answer.

Learning sessions should be free of distractions and follow a structure with short, concise instructions.

## Conclusion

People with autism perceive time differently than non-autistic people, and that can present communication problems. These difficulties do not have to get in the way of communication and education. After gaining an understanding of autistic time perception, parents and teachers can find effective ways to communicate with people with autism.