

When senses are intense

Monique Thoosen and Carmen Lamp explain how sensory processing may be problematic from time to time for all of us, but for children on the autism spectrum it can sometimes lead to great discomfort. Understanding that is key to helping them

We have heard people saying their student or child 'has' sensory processing, as if it's a disorder. It is not: everyone 'has' sensory processing, as everyone experiences sensory input – and experiencing sensory input can be wonderful.

Through our senses we come to know about the environment and about our bodies. Each one of the senses is its own gateway to the world outside and inside ourselves. We receive sensory input and react to it. Yet experiencing sensory input can sometimes be troubling for people on the autism spectrum,

though usually not so much that you would call it a disorder.

Sensory processing rules our lives. The lives of everyone, not just autistic people. Most of us have experience with being under- or over-responsive. You may become overwhelmed with auditory input in a busy store because you sense too much, or not notice you're wearing a tee-shirt inside out because you sense too little.

From these experiences most of us – if our mirror neurons function well enough – will be able

to realize how we all process sensory input differently. You notice others don't seem to mind all the noise. It varies per person and per sense how much (or how little) input is processed and in what manner. This is a reason that we all respond differently to identical sensory input.

People on the autism spectrum process most sensory information (and cognitive information) differently from neurotypicals. For those on the spectrum, the way sensory input is processed in the brain can be confusing. They can also be overresponsive or underresponsive, just like we all can. But with autism this experience is usually more intense and happens more frequently than with neurotypicals.



Overresponsive

The 'sensory input filter' of a person on the autism spectrum appears to find a lot of input very important and interesting. Therefore, an abundance of input is allowed through, causing these people to be over-responsive, often for smell, touch and sound input.

The disadvantage of the intense perception of input is that, for instance, certain sounds or touches that other people wouldn't find disturbing may be uncomfortable or even painful to the over-responsive person. An example is being aware of the feeling of labels, jewellery or hair on their skin all day long, which can be

Conversation starters: teachers should get students talking about sensory processing, suggest Carmen Lamp (left) and Monique Thoosen

“The way sensory input is processed in the brain can be confusing”

IMAGE OF THE AUTHORS BY DORIEKE FOTOGRAFIE

quite distracting. It makes it difficult to concentrate and learn. In class, over-responsive students can be more concerned with a clothing label than what the teacher says.

Being over-responsive has its advantages, too, such as possessing more detailed sensory information than the average person and enjoying sensory input more. This could translate into seeing more details in a painting, or hearing the nuances in someone's singing better.

Underresponsive

The phenomenon of people with autism being *under*-responsive to sensory input is less known than being over-responsive. We find that too little/too weak input is allowed through for some senses. They might be under-responsive for the sense of movement and balance, or for interoception, which is the ability to sense the internal state of the body – to identify feelings of hunger, thirst or pain, for instance.

Being underresponsive also has its advantages, such as not easily being bothered by movement and temperature. For example, not getting carsick or seasick because the movements don't bother you, or not feeling cold when playing in the snow.

It's helpful to discuss being under- and over-responsive with students because all of us are likely to think that our own experience is commonplace: that it must be 'how it works for everyone'. And with this mindset, people expect certain behaviour

from others. For instance, to not touch you; not realizing this isn't the case for others, you may become angry at them for touching you. Knowing that everyone responds differently to sensory input creates more acceptance of everyone's needs, not just for autistic children.

By starting a conversation about sensory processing and asking students how they like or dislike certain input, it's easier for them to understand certain behaviour, including their own habits. When students explain their preferences, focusing on similarities and differences, you can create an atmosphere of mutual understanding and acceptance of everyone's individual needs.

Most people don't seem to be aware of how our senses 'shape' our individual world. But how you process sensory input has a large impact on how you feel.

Sensory processing results in good feelings and bad feelings. Luckily, you can influence this process. We believe that, with the right information, people can apply strategies to make it easier for an autistic child to participate in the world.

Further reading

Monique Thoosen and Carmen Lamp's book, *Sensory Solutions in the Classroom*, contains more than 250 tips and strategies for over- and under-responsive individuals. Published by Jessica Kingsley, £16.99/\$24.95



“Knowing that everyone responds differently to sensory input creates more acceptance”

Start a sensory conversation in class

To start a conversation about how strong everyone likes their sensory input to be, the teacher can carry out some experiments that offer different sensory experiences.

The students then compare each other's reactions: did you like this, do you prefer stronger or weaker input to match your needs?

Suggestions:

- Taste different things, such as an apple, bread, raisins, lemon

- Listen to different sounds, with different volume levels, such as the singing of a bird or the sounds of a fair
- Feel different textures, such as a piece of velvet, an ice cube, a sheet of sandpaper
- Experiment with positions where you concentrate the best: sitting, lying on your belly supported on your elbows, or standing up at a higher work surface.
- While comparing, students will start realizing that preferences differ, sometimes by a little, sometimes by a lot.