

Interoception: The “Hidden Sense”

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Have you ever felt hungry? How about feeling the need to use the bathroom? Or tired? Here’s a better question... How did you know **WHAT** you were feeling? Most of us are able to sense what is happening inside our bodies thanks to our eighth sensory system, the “hidden sense,” interoception.

What is the Interoceptive System?

The Interoceptive system gives us the ability to *feel* what is happening inside our body. It has special nerve receptors all over our bodies including our internal organs, bones, muscles and skin. These receptors send information to the brain which uses it to determine how we feel. The purpose of the interoceptive system is to help our bodies stay in a state of optimal balance known as homeostasis. If the body needs energy, you feel hungry, so you eat. If the body is fatigued, you feel tired, so you sleep. Hunger, fatigue, need for the bathroom, body temperature, nausea, pain, sexual arousal... all of these conditions are sensed by the interoceptive system. As if that role wasn’t enough, the interoceptive system is also responsible for allowing us to feel our emotions.

Interoception and Emotions

When you think about it, most of our emotions are linked to physical sensations in our body. For example, you walk out from a store and notice that someone has put a dent in your car and there is no note. You may feel your muscles tighten, your fists and teeth clench, your heart beat quicken, and your face get warmer. These are sensations that you recognize as feeling angry. Noticing these sensations is linked to interoception. Hence, interoception is linked to our emotions. Research has shown that our ability to read our own physical signals directly relates to how well we can identify and regulate our emotional states. And this, in turn, directly impacts our ability to accurately read another person’s physical and emotional cues.

The Interoceptive System and Sensory Processing Disorder

When it is working well, we can sense what our body needs and take action to meet that need. We can experience an emotion and be able to accurately identify what we are feeling (excited, sad, angry, etc.). But like the other seven sensory systems, this system can experience processing difficulties. A person can have modulation difficulties within this system. He may be over-responsive to interoceptive inputs. He may feel pain more acutely or for longer periods of time than other people. Similarly, a person may be under-responsive to interoceptive information. She may not be aware of pain signals unless they are extremely intense.

A person can also have sensory discrimination deficits in this system. He may be aware of vague internal sensations but cannot accurately identify where these sensations are originating from or what they represent. This can cause a person to feel confused, distracted, or anxious. He cannot meet his body’s needs because he cannot tell



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what they are. Is that twinge in my middle a sign that I am hungry? Need to go to the bathroom? Am I about to be sick? How to do you what action you need to take if you don't know what the signs mean? What's more, if you have difficulty understanding your body's internal sensations, trying to understand your emotions would be very difficult. This can result in a person becoming overwhelmed by emotions and reacting in inappropriate ways – physical aggression, emotional shut down, or inappropriate laughing or smiling are common.

What Else Does Interoception Impact?

Because the interoceptive system has a foundational role on our general physical and emotional regulation, it is not surprising that it also directly impacts several other important skill areas. These related areas include self-regulation, self-awareness, social thinking, flexibility of mind, problem solving, intuitive social skills and social participation.

Can You Improve Interoception?

Yes, you can improve a person's ability to perceive and understand their body's interoceptive messages. Research demonstrates that the system can be improved by working with an Occupational Therapist who is trained in sensory processing and can develop and implement strategies for a client directed at their particular interoception subtype (e.g. Sensory-Under Responsivity or Sensory Discrimination Disorder of the interoceptive system). This type of work focuses on learning to attend to interoceptive signals in a specific way. Improving interoceptive awareness (IA) by increasing the client's ability to notice sensations, give meaning to these sensations, and eventually to use the client's improved interoceptive awareness to build related skills.

References:

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