

## Difficulties in Particular Sensory Modalities that May Affect Learning in the College/University Environment

### Vision

#### Hyper-sensitivity

- Bothered by bright lights (fluorescent lights)
- Bothered by flickering lights (i.e., some projectors have a slight flicker to them that is hardly noticeable to most individuals but may be noticeable to the individual with visual hyper-sensitivity)
- May be startled by people when they are moving too quickly
- Dislikes visually busy places
- May become hyper-focused on tiny particles or details of items
- May be bothered by certain colors or patterns
- May be hyper-aware of all actions in the room
- May experience difficulty copying from the board if the board has lots of information on it
- Avoids eye contact
- Prefers dim lighting, shade
- Rubs eyes a lot, may get headaches from reading

#### Hypo-sensitivity

- May stare at objects or people
- Flicking hands or fingers in front of eyes
- Obsesses about reflections and feeling the edges of items
- Difficulty with eye-hand coordination tasks; illegible handwriting, difficulty staying in lines, or copying from overhead/board/projector
- Difficulty distinguishing between similar letters and shapes
- Difficulty with visual tracking, may lose place frequently when reading

### Hearing

#### Hyper-sensitivity

- Dislikes noisy places
- Dislikes crowded areas where there may be unexpected or loud noises
- Easily startled by noises that are at a level that do not bother others
- Easily distracted and bothered by background noises
- Covers ears with loud or unexpected sounds
- Asks others to be quiet
- Makes noises to cover up environmental noises
- Becomes easily frustrated

#### Hypo-sensitivity

- May not consistently respond to name (in the presence of normal hearing)
- Prefers music and tv to be loud (may play music on headphones loud enough for others to hear)
- Doesn't notice background noises
- Makes own sounds frequently, and is unaware that they are audible to others and may bother them
- Seems to be unaware of human speech at times (appears to be "zoned out" even in the presence of intact hearing)
- May have difficulty with grammar and/or spelling
- May use audible self-talk at an age that is greater than expected (self-talk is internalized in most individuals by about 5 years of age)
  - May be unaware that self-talk is audible to others

## **Vestibular**

### Hyper-sensitivity

- Fearful of all heights (may even avoid classes that are on higher floors)
- Gets motion sick easily
- Dislikes leaning back for washing hair (this can lead to hygiene issues)
- Bumps into things
- Experiences dizziness or nausea associated with movement
- Poor balance
- Prefers sedentary activities
- Doesn't settle down after a movement activity
- Turns whole body when looking at something

### Hypo-sensitivity

- Dislikes sedentary tasks (seems to be in constant motion or needs to be moving). Has a hard time sitting still for learning
- Slumps or leans in chair; slouches in chair against the wall
- Falls out of chair
- Rocks self or moves head back and forth while sitting
- Fidgets or bounces
- Takes risks during recreational activities
- Has poor bilateral coordination or balance
- Low muscle tone
- Difficulty paying attention and answering questions

## **Olfaction**

### Hyper-sensitivity

- Talks about smell a lot, notices odors others don't notice
- Is bothered by smell more than others, and gets headaches, is unable to concentrate, and/or must leave spaces due to smells
- May have issues with toileting (due to smell)

### Hypo-sensitivity

- Smells and licks inedible objects
- Likes strong odors
- Doesn't notice unpleasant odors
- Is unaware of own body odor, so may not understand need for hygiene

## **Tactile**

### Hyper-sensitivity

- Avoids touch or is bothered when others accidentally touch or run into them
- Does not like others standing close to them or behind them
- Startles easily when touched unexpectedly; reacts emotionally when unexpected touch occurs
- Bothered by seams in clothing, tags, waistbands, etc.
- Bothered by the feeling of certain chairs
- Dislikes crowds or standing in line
- Avoids standing or sitting closely to others
- Prefers to touch others rather than to be touched
- Hyper-reactivity to touch can lead to hygiene issues where the individual avoids certain aspects of hygiene (i.e., deodorant, grooming ) because of its light touch components.
- Always touching others or is unaware when is touching others

### Hypo-sensitivity

- May touch objects that are not theirs
- Doesn't seem aware when has a messy hands or face
- Seems unaware of light touch
- Drools, doesn't wipe runny nose
- Difficulty with fine motor tasks

## **Proprioception**

### Hyper-sensitivity

- Walks on toes or walks really heavily
- Puts body into strange positions
- Chews on clothing or other objects
- May bounce legs, tap feet, tap fingers, tap pens
- Grinds teeth, cracks knuckles
- Difficulty with fine motor tasks
- Accidentally breaks things frequently
- Uses too much force for things like opening and closing doors
- Leans or flops unto things
- Difficulty interacting appropriately with peers (may be in their face or space, and show an unawareness of personal boundaries)
- Having low muscle tone (i.e., lack of muscle contractions and resistance, not necessarily decreased strength)

## **Interoception**

### Hyper-sensitivity

- Fright instigated by a pounding heart
- Intense hunger pains, resulting in eating more
- Frequent use of the restroom

### Hypo-sensitivity

- May rarely feel him or herself breathing or his or her heart beating
- May not feel hungry or thirsty often and, because of not sensing the need to do so, may not perform these everyday tasks as often as others do
- Often a slow potty trainer and may develop enuresis because of not feeling the need to eliminate bowel waste or urine before the body begins to perform the task anyway, may not breathe or sweat because of not feeling the need to when his or her body should, may also be diagnosed with interceptive discrimination dysfunction

### Sensory-Seeking

- May need to keep moving because they may also be seeking a pounding or racing heartbeat
- May frequently take large, deep breaths or have a fast rate of respiration
- May experience hunger and thirst sensations as actually feeling good, causing them to not desire to eat or drink because they may not be wanting the feeling to go away
- Can also lead to not eliminating bowel and bladder waste, because they may crave the sensation of needing to do so

(Hyche & Maertz,  
2014)

(adapted from: Sensational Brain, 2018; Culp, 2011)

“College life is...full of new and varied stimuli (e.g., fire alarms, crowded dining halls, constant socialization, etc.) that make it particularly difficult for those with sensory integration challenges. Without effective ways to handle sensory overload and other stressors, students with ASD can become overwhelmed and may resort to familiar self-soothing tendencies, such as rocking or pacing. These tendencies could be perceived as socially inappropriate, leading students with ASD to become increasingly isolated from peers.” (Ackles, Laurie; Boman, Marty; Brown, Jane Thierfeld; Cornman, Douglas; Lubbers, Pamela; McGarry, Brad; Rigler, Michelle, 2014)