

**Allen Specter Center for Public Service  
Knowledge Exchange Talk - January 2018**

# **Supporting Full Participation Among Individuals With Autism Spectrum Disorder**

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*the* **Good Doctor**  
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# 1 in 68



3 to 6 boys = 1 girl



# Family, Friends, etc.



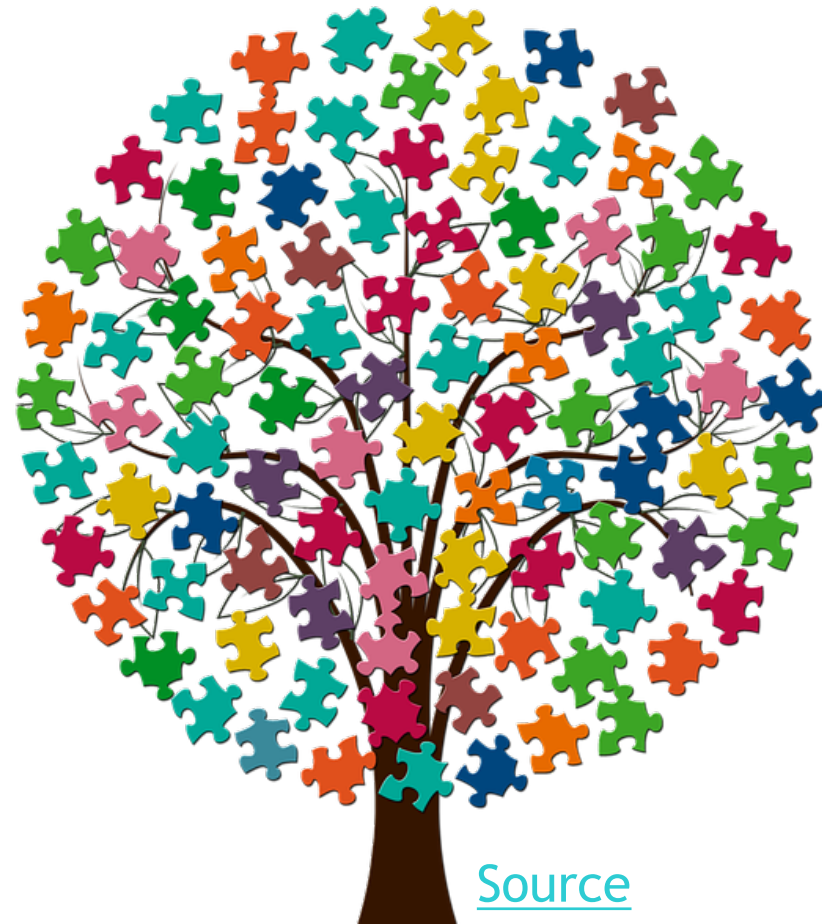
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# So, ... what is autism?



# Autism is...

- A condition with multiple causes (e.g., genetic, environmental)
  - changes in multiple parts of the brain
  - changes occur before birth (mostly)
- A condition with many symptoms (i.e., communication, social interactions & sensory processing)
  - The degree of expression of each symptom varies between people
  - “Unique”



# Diagnosis Criteria:

## Social Communication & Social Interaction

1. Deficits in **social emotional reciprocity**
  - Social approach
  - Back & forth in conversation
  - Sharing interest in other's interests
  - Initiating & responding communication
  - Understanding multiple perspectives
  - Non literal language
2. Deficits in **nonverbal communication**
  - Poor integration of verbal & nonverbal communication
  - Deficits in understanding and using gestures
3. Deficits in developing, maintaining & understanding **relationships**
  - Adjusting behavior to suit various social contexts
  - Understanding the implicit rules of relationships
  - Difficulty making friends

# Diagnosis Criteria: Restricted, repetitive behavior, interests, and/or activities

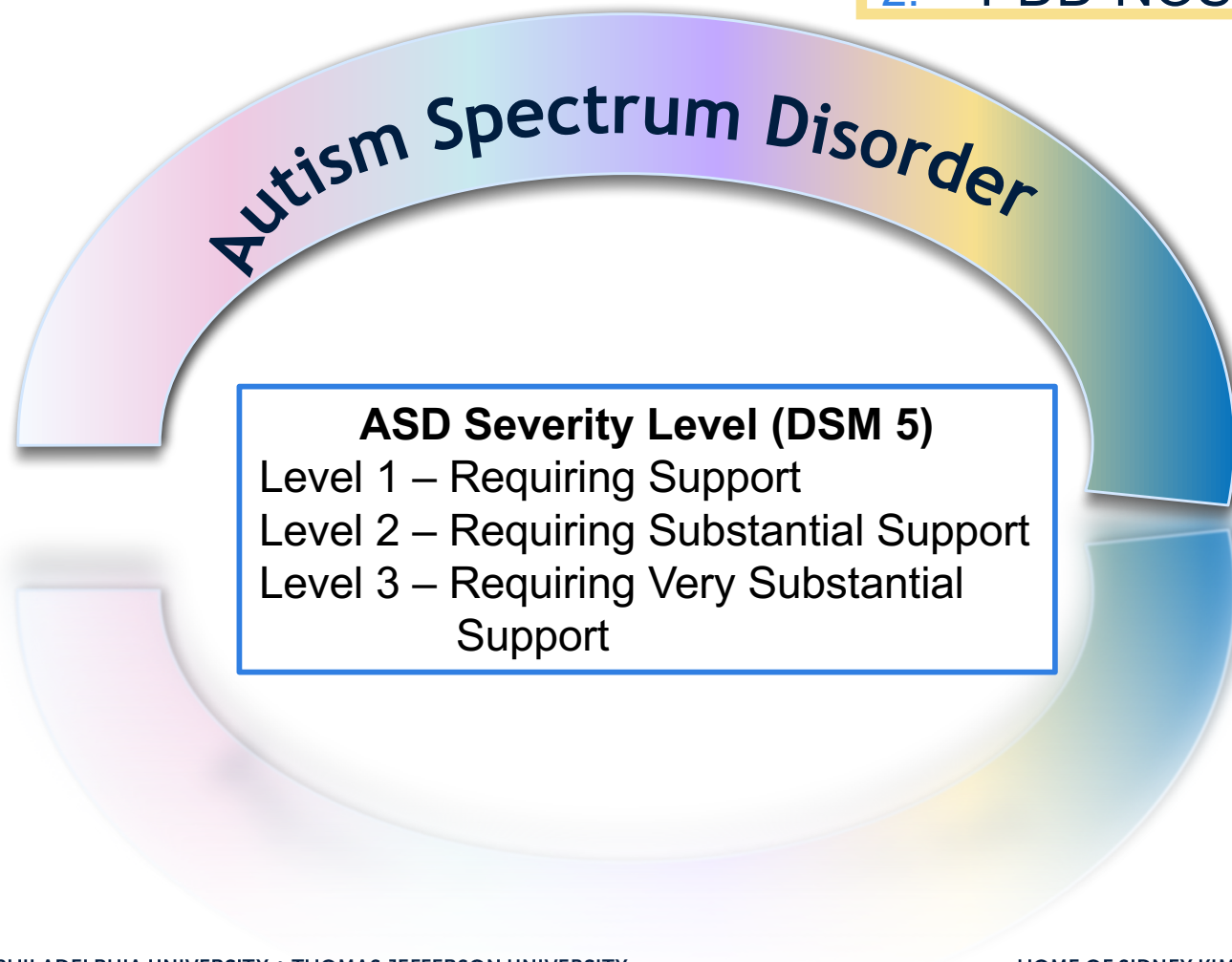
1. Repetitive movements, use of objects, or speech
2. Insistence on sameness, inflexible adherence to routines, and/or ritualized patterns of verbal or nonverbal behavior
3. Highly restricted interest
4. Sensory Differences: Perception, Integration & Reaction
  - Over or under reactivity to sensation (e.g., touch, sound, smell)
  - Integrated use of sensory information in daily life
  - Unusual interest in sensory aspects of the environment





# Why “Spectrum”?

1. Asperger’s Disorder
2. PDD-NOS



# Anxiety & ASD

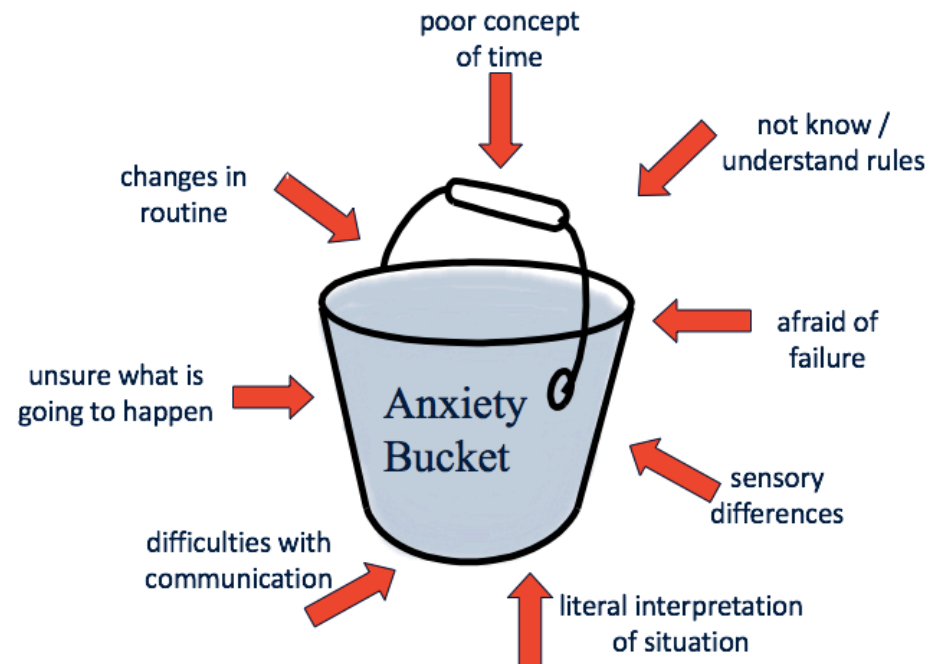
- General population: >10% of children have anxiety
- ASD: 40-80% of children have anxiety
  - Higher functioning = higher rates of anxiety
  - Older = higher rates of anxiety

“The more anxious a person with ASD is, the less likely they are to be able to cope with demands.”

[Kreiser \(n.d.\). Anxiety in Autism Spectrum Disorder; Mayes et al. \(2011\)](#)

# Sources of Anxiety in ASD

1. the environment
2. interactions with others
3. concern for other
4. fearful anticipation of an event or outcome
5. disappointment



Trembat, D., Germano, C., Johanson, G., & Dissanayake, C. (2012). The experience of anxiety in young adults with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities, 27(4), 213-224.*

# What might be hard for people with autism?

## University Life

- Group projects
- Navigating university events
  - Expectations
  - Sensory preferences
- Residence life
- Interacting with faculty and peers
- Asking questions

## Social Life

- Making & keeping meaningful friendships
- Participating in recreational activities
- Dating or being in a committed relationship

## Daily Living Skills

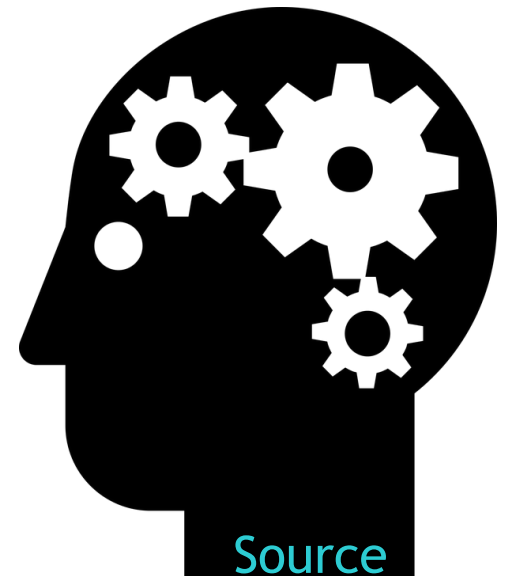
- Changes in routine
- Clothing
- Eating
- Going to a bank or other services
- Going to restaurants & other activities
- Sleeping

## Recreation

- Less varied recreation
- Less social recreation
- Similar interest in a variety of recreational activities

# What autism is NOT!

- ≠ Intellectual disability
- ~1/2 of people with ASD have normal or above normal IQ
- ≠ “Genius”
- Parts of their brain function differently
  - Strengths
  - Challenges





# What autism is NOT! Loners



# ALONE but NOT by CHOICE

- Fewer friends than people with other disabilities (Bastiaansen et al., 2004; Solish et al., 2010)
- 88% have NO ‘out-of-school’ interactions with friends (Wagner et al., 2002)
- Few adults report having peer relationship (Orsmond et al., 2004; Saldana et al., 2009)
- Caregivers and support personnel sometimes identified as friends (Kuo et al., 2011)
- Experience more loneliness (Bauminger et al., 2003; Huang & Wheeler, 2006)
- Experience persistent social isolation (Friedman et. Al., 2013)
- Desire friendship and meaningful relationships (Friedman et. Al., 2013)
- Barriers to Social Relationships: Social & communication skills, and the **lack of knowledge of others**

# So, what is it like to have autism???



Link to video of twin sisters who have autism describing what autism is to them: <http://youtu.be/qbf-81Ll3wk>



# What are people with autism great at?

- Attention to details
- Being Direct - “you will know where you stand”
- Expert in topics of interest
- Focusing on visual details (more than the whole)
- Memory
- Thinking “outside of the box”
- Thrive on routine
  - Consistent
  - Dependable
  - Loyal



# 10+ things you can do to help

1. Make the implicit, explicit
  - Non verbal language
  - Non literal language
  - Social rules
2. Be mindful of what you say/do; they are not “socially blind”
3. Consider initiating communication
4. Allow extra time for responses -- verbally & writing
5. Remember, they may think or act “differently”; they are not weird or rude
6. Remember, we are all different in some ways



7. Be patient; they may have had multiple negative interactions or experiences
8. Be aware that typical environment may be difficult to manage: noise, touch, smell or visually busy environments
9. Be accepting of unusual sensory or social behaviors (e.g., smelling your hair or touching your shirt)
10. Accommodation is for ALL, don't single anyone out
- 11....

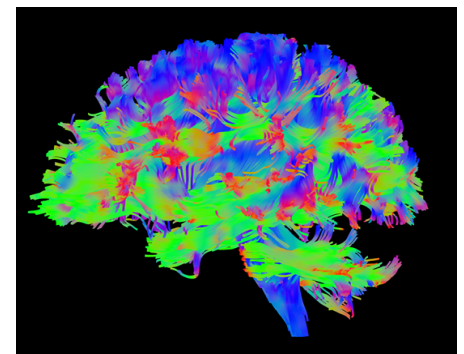


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# Jefferson OT: ASD Lab

<http://www.jefferson.edu/university/health-professions/departments/occupational-therapy/research/autism.html>

1. **EuREKA Project:** Enhancing recreation with children with ASD
2. **GOALS<sup>2</sup> Program:** Supporting academic learning & living needs of college students with ASD
3. **EASI:** Evaluation of Ayres Sensory Integration: Developing tools to assess senses
4. **Sensory Integration Intervention Efficacy:** Enhancing function through sensory integration occupational therapy intervention
5. **Sensory Integration Intervention Mechanism:** Degree and type of changes in Neural Connectivity following sensory integration occupational therapy intervention
6. **SAFE:** Creating Sensory Aware and Friendly Environments



And many more: [Jefferson Autism Research Program](http://www.jefferson.edu/university/research/programmatic-research/programmatic-research-domains/jefferson-autism-research-program.html)

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# EuREKA Project

- Helping children with autism reach their own goals about recreation
- Parent/family driven
- Use Coaching in Context Approach



## GOALS<sup>2</sup> Program

- Helping young adults with autism and other disabilities achieve their own goals in higher education (learning & living)
- Client driven
- Use Coaching in Context and other approaches



## Coaching in Context

**FOCUS on  
Person's STRENGTHS  
&  
ENVIRONMENT / TASK  
MODIFICATIONS**

### Goal-Setting Visit

1. Family-selected goals (e.g., COPM)
2. Make goal measurable (e.g., GAS)
3. Identify bridges & barriers

### Intervention Visits

1. Debrief
  - Goals attainment rating
  - Action plan review
  - Identify bridges & barriers
2. Brainstorm
3. Plan
  - Family/client select strategies
  - Interventionist provides resources or training when family/client identifies the need

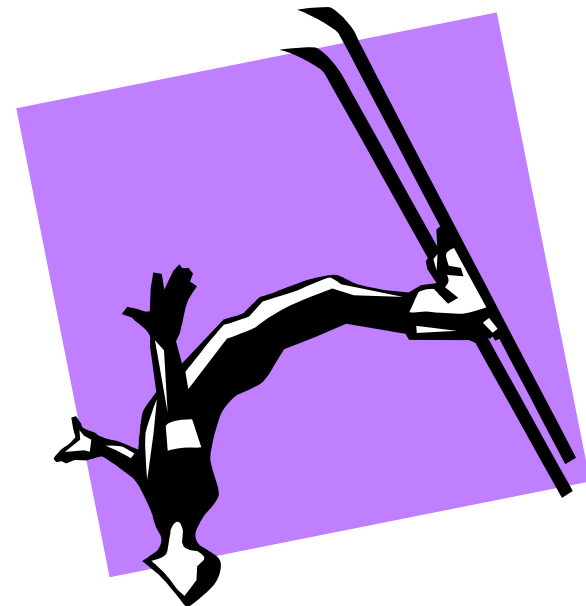
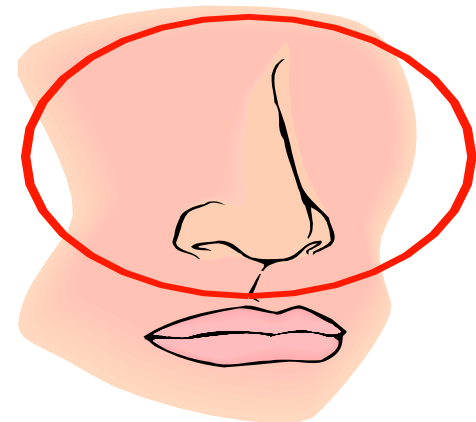
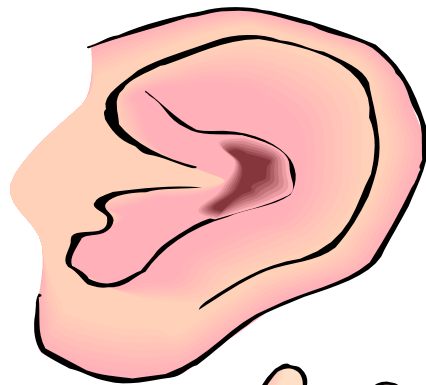
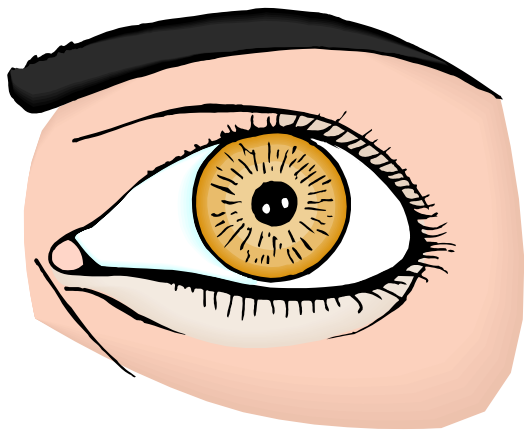


# Dr. Roseann Schaaf's Projects: Focus on Sensory Features of Autism Spectrum Disorders

Link to Dr. Schaaf's talk:

<https://www.youtube.com/watch?v=loS7fNszzSE&feature=youtube>

# The Seven Senses



# Differences in Perception, Integration, Reactivity

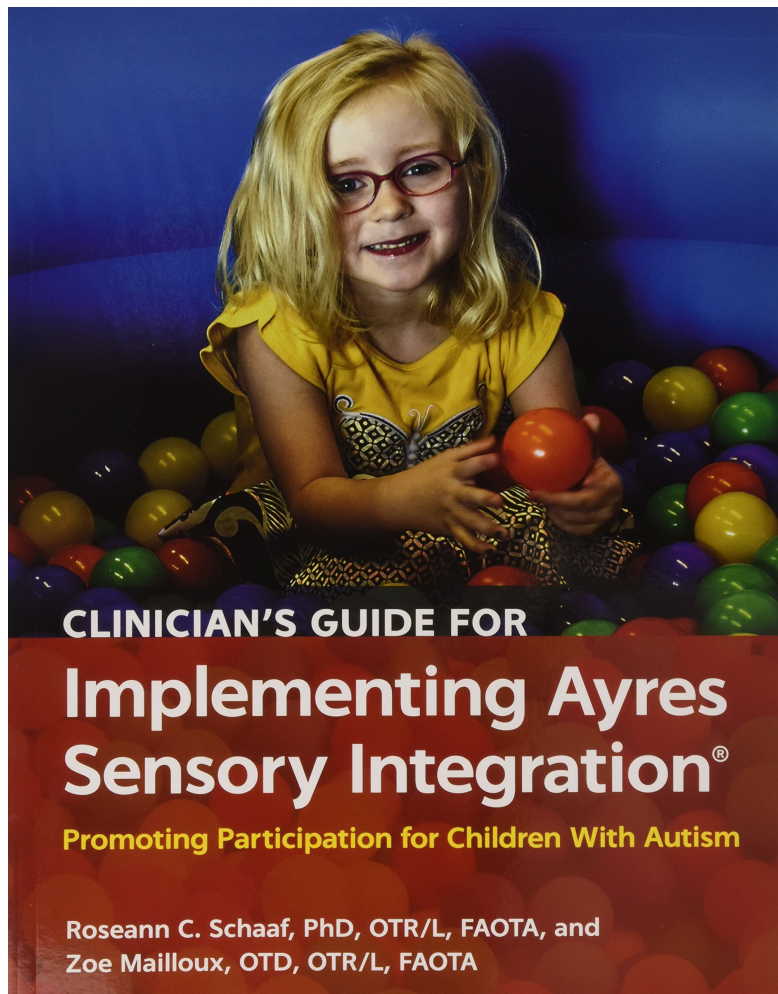


# Evaluation: Developing New Psychometrically Sound Assessments to Understand Autism Sensory Symptoms

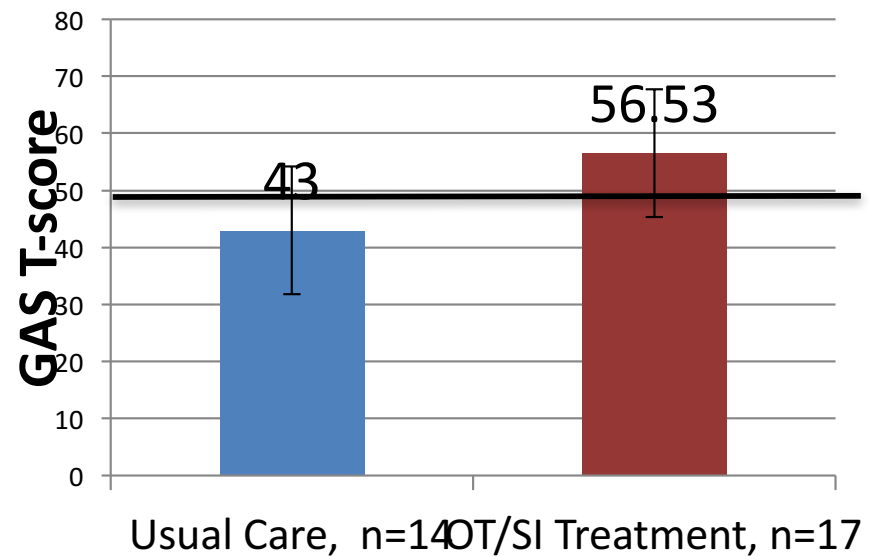
## Evaluation in Ayres Sensory Integration (EASY)



# Sensory Integration Intervention to Improves Function



## 1. Ayres' SI vs OT

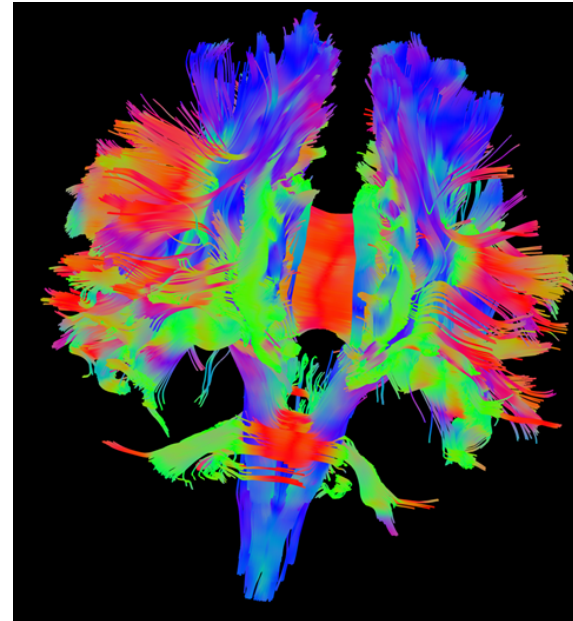
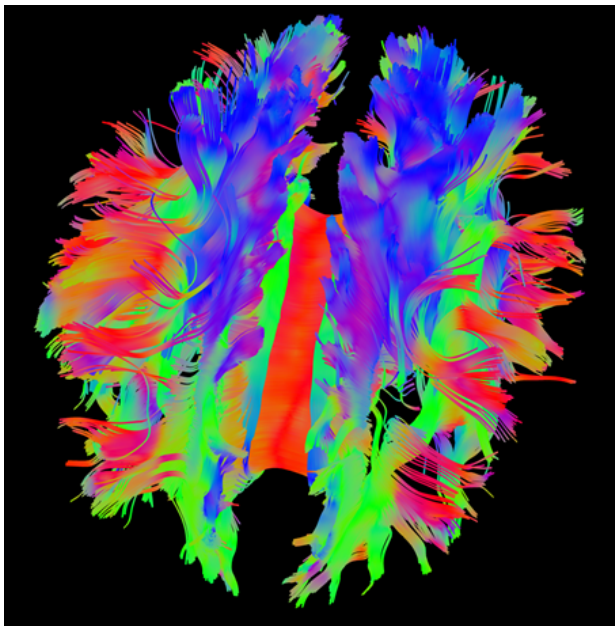


## 2. Ayres' SI vs Behavioral Intervention

Both studies received NIH funding



# Change in Brain Connectivity Following Intervention?





# Training the Next Generation of Occupational Therapy Clinicians and Researchers



Together We Can Make a Difference!



# Questions, Suggestions & other Thoughts



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