

# **STRATEGIES FOR SUPPORTING STUDENTS ON THE AUTISM SPECTRUM**

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**A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive; see text):**

1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

*Specify* current severity:

**Severity is based on social communication impairments and restricted, repetitive patterns of behavior (see Table 1).**

**B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text):**

1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypes, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).
3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

*Specify* current severity:

**Severity is based on social communication impairments and restricted, repetitive patterns of behavior (see Table 1).**

**C. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).**

**D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.**

DIAGNOSTIC CRITERIA FOR  
AUTISM

# FOCUS FOR TODAY

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- Discuss the impact Executive Functioning and Theory of Mind deficits have on college students and strategies to support their learning.

# HOW AUTISM MIGHT PRESENT IN YOUR CLASSROOM

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- Unusual communication patterns
  - Verbal, nonverbal, paraverbal
- Unusual affect
- Socially awkward
- Struggles with flexibility
- Unexpected reaction to sensory stimuli

# PICTIONARY

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- In groups of four determine one person that will draw the word for the team.
- When I say go, turn your card over and draw a picture depicting the word, attempting to get the team to say the word.
- You will have one minute to accomplish this.

# WHAT SKILLS DID YOU NEED TO PLAY PICTIONARY?

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- Planning and prioritizing
- Impulse control
- Flexible thinking
- Working memory
- Initiate a task
- Organize thinking

# SO WHAT IS EXECUTIVE FUNCTIONING?

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- Refers to a person's ability to manage or regulate a collection of basic cognitive and emotional processes.
  - Planning
  - Initiation
  - Organization
  - Execution of tasks
  - Coping with transitions
  - Regulate emotional responses



- An air traffic control system at a busy airport safely manages the arrivals and departures of many aircraft on multiple runways, the brain needs this skill set to filter distractions, prioritize tasks, set and achieve goals, and control impulses.

# THERE ARE 8 KEY FUNCTIONS

## FUNCTIONS

- Impulse Control
  - Helps us to think before we act (what are the consequences of my words and actions?)
- Emotional Control
  - Helps to keep our feelings in check (may overreact, have difficulty with criticism)
- Flexible Thinking
  - Adjust to the unexpected, shift thinking
- Working Memory
  - Helps to hold onto key information and to draw upon that information and use it for an activity or task (directions, content presented verbally)

## IMPACT ON LEARNING

- Wait to speak about a topic at an appropriate time
- Engage in group dynamics (working collaboratively)
- Adjust to topic changes, changes in assignment dates, adjust prior thinking as new information is presented.
- change our minds and make mid-course and corrections while thinking, reading and writing
- Difficulty with the mental strategies involved in memorization and retrieving information from memory
- meaningfully include past knowledge in discussions





# 8 KEY FUNCTIONS CONTINUED

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- Self Monitoring
  - Allow us to evaluate our own actions/behavior
    - Surprised when they receive a poor grade
- Planning and Prioritizing
  - The ability to decide upon a goal break it up into tasks (prioritize) in order to plan to meet the goal
- Task Initiation
  - Take action to get started on a task/assignment
- Organization
  - The ability to keep track of things physically and mentally (keeping track of materials, ideas, organizing ideas verbally or in written form)
- Reflecting on work or own behavior
- evaluate ideas (own ideas as well as others)
- make plans
- keep track of time
- Manage time (assignments, midterms, finals...)
- keep track of more than one thing at once
- Begin assignment (where to even start)
- Struggle to tell a story (verbally or in writing); has trouble communicating details in an organized, sequential manner

# STRATEGIES TO SUPPORT STUDENTS

## **GENERAL STRATEGIES**

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- Write the class agenda on board
- Take step-by-step approaches to presenting information
  - Help students to connect information as you move from one topic to another
- Use tools like time organizers, computers or watches with alarms.
  - Just write the time on the board when giving them allotted times to work in class (intermittently remind them how much time is left)
- Provide written directions with oral instructions whenever possible.

# IMPACT ON LEARNING

- Wait to speak about a topic at an appropriate time
- Engage in group dynamics (working collaboratively)
- Adjust to topic changes, changes in assignment dates, adjust prior thinking as new information is presented.
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# SUPPORTS

- If you have specific students with this difficulty, set up cues with them to wait to speak.
- Can use cards or just write on the board expectations-roles
- Help students make connections by integrating information presented previously as you move forward.
- Help students make connections to the content to assist with understanding and memorization
- Use visuals when possible to connect past knowledge in discussions

# IMPACT ON LEARNING

- Reflecting on work or own behavior
- evaluate ideas (own ideas as well as others)
- make plans
- keep track of time
- keep track of more than one thing at once
- Begin assignment (where to even start)
- Struggle to tell a story (verbally or in writing); has trouble communicating details in an organized, sequential manner

# SUPPORTS

- Meet with students privately
  - Reinforce positive aspects of work/behavior then address difficulties (teaching skill)
- When opportunities arise assist students in reflecting on ideas
- Break long assignments into chunks and assign time frames for completing each chunk.
- Utilize the Blackboard calendar to keep track of long term assignments, due dates, chores, and activities (encourage students to use a calendar to do this)
- Encourage students to use a linear template to organize ideas (graphic organizer)

# MANAGING WORK

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- Manage time (assignments, midterms, finals...)
- Once or twice, model the use of a checklist within your class and encourage students to create checklist for completing assignments.
- Strongly encourage students to meet with you during office hours to on a regular basis to review work; troubleshoot problems.

# THEORY OF MIND

- Introduced by Premack and Woodruff (1978) to describe ways in which we understand and interpret our social world
- “The ability to make inferences about another’s representational states and to predict behavior accordingly”
  - Lewis & Mitchell, 2014

# THEORY OF MIND

- THE ABILITY TO UNDERSTAND THAT OTHERS HAVE THOUGHTS, PERSPECTIVES, AND OPINIONS OTHER THAN OUR OWN IS KNOWN AS THEORY OF MIND.
- TAKING THE PERSPECTIVE OF ANOTHER DURING CONVERSATION
- PEOPLE WHO STRUGGLE WITH THEORY OF MIND:
  - BELIEVE THAT OTHERS HAVE THE SAME THOUGHTS AND OPINIONS AS THEY DO
  - FAIL TO UNDERSTAND WHY SOMEONE WOULD MAKE A PARTICULAR CHOICE OR DO SOMETHING BECAUSE THEY THEMSELVES WOULD NOT DO SO.

# DEVELOPMENT OF THEORY OF MIND

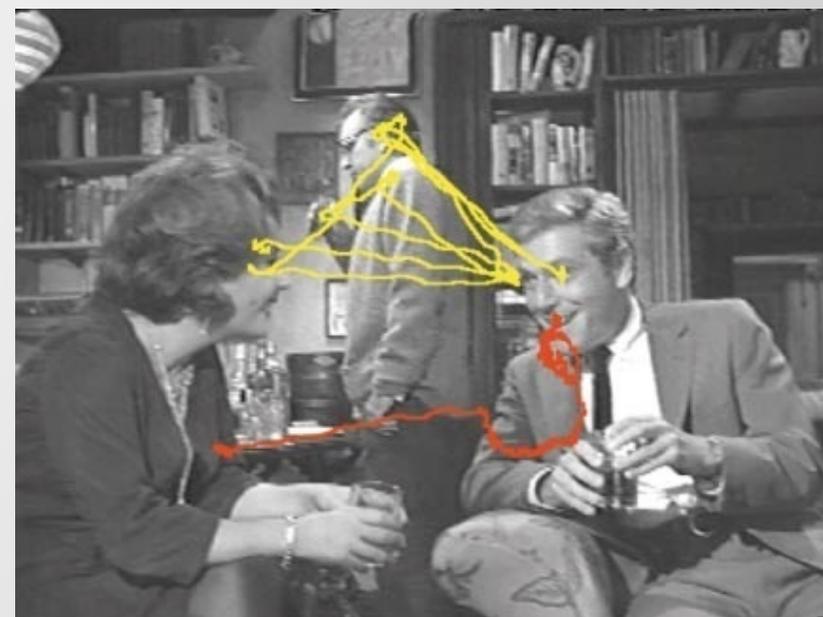
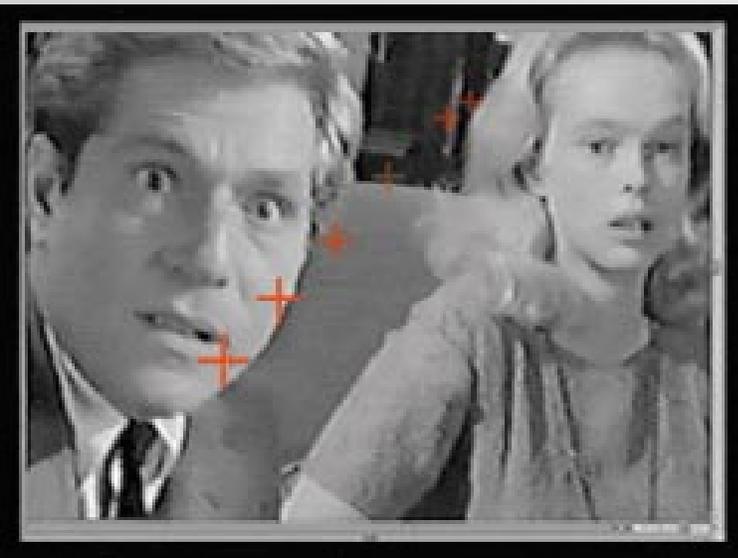
- Occurs around age 4, becomes second nature around age 5
  - But some components can occur earlier
- Prior to this, children presume that others
  - Think the way they think
  - Feel the way they feel
  - Believe what they believe
- Sometimes referred to as ‘egocentrism’
  - <https://www.youtube.com/watch?v=RibbgbQ6wbk>



# AUTISM AND THEORY OF MIND

- Many people diagnosed with ASD struggle to observe and interpret non-verbal social cues
- This is a core obstacle in social development
- Impairment in eye gaze perception may contribute to this
- <https://www.theguardian.com/science/shortcuts/quiz/2014/apr/01/compound-emotions-ohio-state-university-quiz>

# AUTISM AND THEORY OF MIND



Klin, A., et al (2002) Defining and quantifying the social phenotype in autism. *American Journal of Psychiatry*, 159, 895–908.

# FOUNDATIONAL SKILLS IN THEORY OF MIND

- Joint attention – ability to initiate, reciprocate, and maintain interactive eye gaze, gestures, and attention-gaining strategies
  - <https://www.youtube.com/watch?v=IAb4vLMMAbY>
- Imitation – ability to learn and replicate the actions of others
  - <https://www.youtube.com/watch?v=Nv-ekDkpuvI>
- Identification – recognition of labels for emotions and ability to discriminate emotional cues across people and self
- Eye gaze detection – ability to follow the directions of a person's eyes to identify what the person wants or is thinking about

# FOUNDATIONAL SKILLS IN THEORY OF MIND



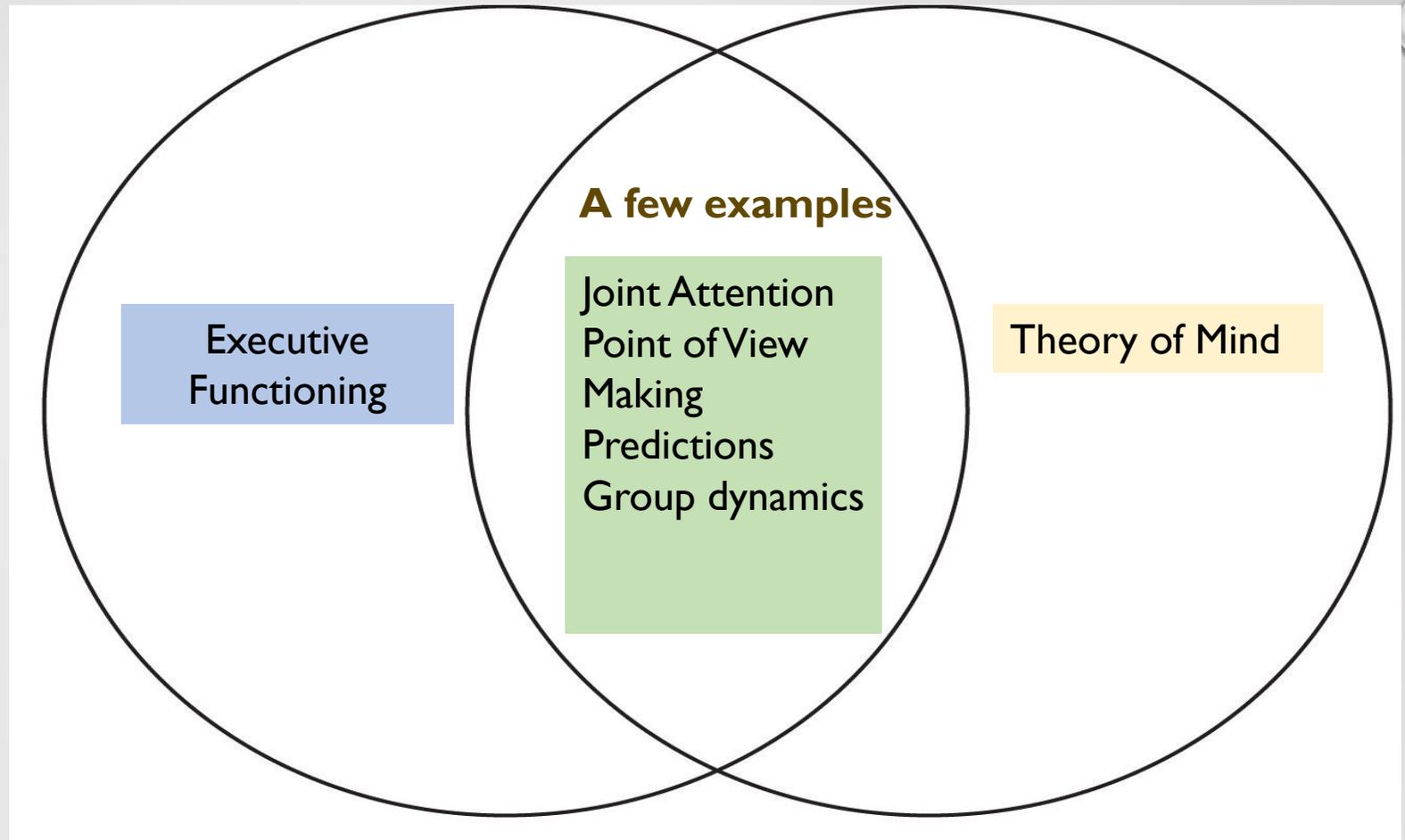
# FOUNDATIONAL SKILLS IN THEORY OF MIND

- Point of view – the ability to recognize that other people may have the same or different likes and dislikes, feelings, and reactions to the same things
  - We may need to be explicit about our thoughts & feelings
- Predictions – ability to make guesses or infer by looking at pictures, text, or other cues
  - We may need to avoid assuming that prediction is occurring
- Checking in – ability to read a partner’s face frequently during social interactions and to alter behavior based on the partner’s behavior
  - What do all of these things look like? **SOCIAL SKILLS!**

# FOUNDATIONAL SKILLS IN THEORY OF MIND

- Social queries – ability to ask questions for the purpose of gaining social information to learn more about a social partner
  - <https://www.youtube.com/watch?v=k0xgjUhEG3U>
- Matching behavior – ability to recognize when one's own behavior or another person's behavior is an appropriate match for the situation
- Self-assessment – ability to recognize and evaluate own behavior to make modifications that will lead to social learning growth and success

THE OVERLAP IS  
EVERYWHERE!



Executive  
Functioning

**A few examples**

Joint Attention  
Point of View  
Making  
Predictions  
Group dynamics

Theory of Mind

# THE BOTTOM LINE

- Students with Autism **WILL BE PRESENT** in your classroom
  - 1.7% (1 in 59)
  - 0.83% of college students (1 in 120)
    - Less than 20% of students with Autism obtain a degree
- These students **CAN** succeed, and **CONTRIBUTE**, with the proper supports
  - Executive Functioning Strategies
  - Theory of Mind Strategies