THE MANY FACES OF ASPERGER SYNDROME

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• Financial:
  • Professional Communication Services, Inc.: President
  • AS Works: Co-owner
  • Author
WHERE'S THE PROBLEM?

• Theory of Mind
• Executive Function
• Central Coherence
• Emotional Intelligence
• Social Interaction
• Social Communication
• Social Emotional Regulation
What’s Theory of Mind?
Origin of the Term

“An individual has a theory of mind if he imputes mental states to himself and others. A system of inferences of this kind is properly viewed as a theory because such states are not directly observable, and the system can be used to make predictions about the behavior of others.”

Development of ToM

- Understanding of attention in others is a critical precursor to the development of theory of mind.
- This skill is typically found by 7 to 9 months of age.
Understanding Attention

• Involves understanding that seeing can be directed selectively as attention.

• That the looker assesses the seen object as "of interest."

• That seeing can induce beliefs.
• Attention can be directed and shared by the act of pointing.

• Pointing requires taking into account another person's mental state, particularly whether the person notices an object or finds it of interest.
INTENTIONS

• Understanding of others' intentions is another critical precursor to understanding other minds.

• It is a fundamental feature of mental states and events.

• Research in developmental psychology suggests that the infant's ability to imitate others lies at the origins of both a theory of mind and other social-cognitive achievements like perspective-taking and empathy.

Inherent Difficulty

Humans can only intuit the existence of their own mind through introspection, and no one has direct access to the mind of another.

However, Vulcans can.
Why it’s necessary to develop “Aspie-Eyes”
Assumptions impact intervention

- Decisions are based on what we see and infer.
- But what if our decision is incorrect?
How Does ToM Impact AS/HFD?

A developing Theory of Mind
Networked brains

- The Borg have them
- Humans do not
• Children with AS referred to desire and made few references to thought and belief (Ziatas, Durkin, and Pratt, 2003)

• AS children have significant difficulty attributing mental states in context and need more prompts to solve questions (Kaland, 2002)

• Creates increased paranoia (Blackshaw, et al., 2001)
“Jacob Marley Effect”

- Lock-boxes of memories
- Triggered by any of the 5 senses
Deficits Related to ToM

B. Myles and J. Southwick, 1999

• difficulty explaining one’s own behaviors
• difficulty understanding emotions
• difficulty predicting the behavior and emotional states of others
• problems understanding the perspectives of others
• problems inferring the intentions of others
• lack of understanding that behavior impacts how others think and/or feel
• problems with joint attention and other social conventions
• problems differentiating fiction from fact
Requirements for ToM

- For children to be able to recognize and act upon assumptions acquired from observations, it is critical that they understand the nature and causes of emotions (E. Silliman, S. Diehl, R. Bahr, T. Hnath-Chisolm, C. Zenko, S. Friedman, 2003)
Sally-Ann Test

- Only 20% of a sample of autistic children were able to pass this task despite having mental ages over 4 years. (Baron-Cohen, Leslie and Frith, 1988)

- Almost all neurotypical children over the age of 4 years passed the task. (Wimmer and Perner, 1983)
1st Order ToM

- The ability to infer the thoughts of another person
- “You can think what Joe is thinking about.”
2nd Order ToM

- The ability to reason about what one person thinks about another person's thoughts
- You can think what Bobby is thinking about Joe
Use Caution

- False-negatives are high with AS
- Many individuals with AS can pass structured tests designed to assess both orders of ToM
- Cognitive assessment vrs functional social assessment
Another Way To Look At It

- I know that not everyone like’s what I like.
- I know that what I do (or don’t do) impacts your decision to like me (or not like me).
If Only It Could Be As
Simple As Sheldon’s
Flow Chart
A term used to describe what most people would expect to see in a given situation.

Based on the idea that for any situation, a set of expectations has already been decided upon by a majority of individuals.
“Zero Order Skills”
Richard LaVoie, 2005

- "Skills that are only significant when they fail to exist."
- We pay attention only to the unusual or unexpected.
You are in a mall...
How about now?
We’ve all been out of the “Zone”
Social Awareness is a Learned Behavior

• Conformity by embarrassment
• Need to be seen as part of the group
• How will people think about me?
“But I want to be an individual!”
Cause-Effect

- Figure out what is making people place your dot “Out of the Zone”
If your 1st impression is negative, how many consecutive interactions must be made before one changes his mind?
Mirror Neurons


Social Skills Depend on Mirror Neurons
Reading the Moods of Asperger Syndrome

Happy

Depressed

Irritated

Suicidal

Ecstatic

Bored
Prosopagnosia


• can’t read the face of others

• may focus only on individual components of the face

• may not realize one expression has multiple meanings
Yale Eye Gaze Study

Neurotypicals look at eyes.
People with ASD look at…

Mouths

Inanimate Objects
Some Faces are Hard to Read

- Think before and after Data’s “emotion chip” was implanted
Theory of Mind

Decision Tree

Can he take on the perspectives of others?

- Does he have deficient inferential reasoning?
  - Does he think in Black and White?

Does he know his behavior impacts others?

- Does he know people think differently?

Is he unaware that his delivery style can be abrasive?

- Sequential difficulties?
- Poor impulse control?
  - Is he distractible?
  - Organizational difficulties?
- Rigid thinking?
- Follows a predetermined script
  - Perfectionist?
  - Control freak?
- Fixates on special interests?

- Doesn't learn from mistakes?
- Fails to realize a new approach may be needed?
Also be aware of these theories...
Executive functions
EF Concerns

- Flexibility of thought
  - thought shifting
  - changing an idea
  - hyper-focus on a specific area (OCD)
- Relevance
  - detail oriented
  - fail to see the global picture
• Goal focus
  • getting stuck in details
  • getting distracted
• Experiential learning
  • identifying what works and what doesn’t
  • applying a skill to a new situation
• difficult to see similarity of old situation and how to apply “old” skills to “new” situation
A technique to help understand need for flexible thinking
Be aware of the Amygdala

- individual can’t receive information as effectively as NT peers
- continues to escalate but can’t recognize the escalation until it is too late
- explosion happens “out of the blue”
Executive Function

Decision Tree

- Does he have difficulty relating his information to topic?
- Does he learn from mistakes?
- Does he have goal focus?
- Is he inflexible?
Central Coherence

“Seeing the forest through the trees”
Typical Deficits

- details rule
- inability to outline
- inability to summarize
- inability to come to the point
SOME CLASSIC EXAMPLES

The man can **run**.
(rub, run, rug)

The man **hit** the dog.
(fit, hit)

You should not **hit** dog.

The **fox** ran.
(fog, fox, for)

I see the **lid**.
Central Coherence

Decision Tree

- Can't outline?
- Can't summarize?
- Detail driven?
- Rambles?
Emotional Intelligence
EQ
What is EQ?

• the ability to perceive, identify, and manage emotions on a personal and social level
Typical Coping Strategies

- social regression
- fear reaction
- somatic complaints (hypochondriasis)
- paranoid thoughts &/or feelings
- depression
• clowning to hide inefficiencies
• poor self image
• passive aggression to elicit anger
• impulsivity
Impact of Fear & Stress
IMPACT OF FEAR AND STRESS,
Mesches et al, Journal of Neuroscience 1999

[Graph showing serum corticosterone levels in different conditions: Home Cage, Chamber, Chamber + Cat.]

[Graph showing incidence of PBP or LTP (%): Home Cage, Chamber, Chamber + Cat.]

* Significant difference.
Factors Limiting EQ

• excessive concrete reasoning
• overuse of literal interpretation
• limited analytic skills
• limited flexibility
• limited perspective taking
• focusing on one aspect and not the whole
Social Skill Training
MUST Stress EQ

- social skill training does not make one socially savvy
- the how is not as important as the why
- simply knowing how to do something doesn’t mean knowing when or where to use it
- being aware of one’s EQ is critical
How to reduce nerves and increase self-confidence

Harvard News
Strike a Pose
Super Hero

1. plant your feet about 2 feet apart
2. puff up your chest
3. take a deep breath
4. hold for 2 minutes
Rocky Balboa

1. extend the arms
2. think Victory
3. trick your body into thinking you are a champion!
EQ: Personal Competence

Personal Competence Decision Tree

Does he have Self-Regulation?
Is he trustworthy?
Is he adaptable to new situations?
Is he innovative?

Does he manage his emotions effectively?

Does he have Self-Awareness?
Can he accurately assess his strengths and limits?
Is he aware of his own emotions?

Does he have Self-Motivation?
Does he strive to meet or excel expectations?
Does he take initiative?
Is he optimistic?

Is he conscientious?
Does he have self-confidence?
EQ: Social Competence

Social Competence Decision Tree

Is he socially aware?

- Does he empower others?
  - Does he understand the needs of others?
    - Is he aware of the emotional currents and power relationships within a group?
  - Does he display empathy?
    - Does he recognize the benefits of diversity (E pluribus unim)?

Does he have social skills?

- Does he have effective communication skills?
  - Does he recognize, initiate, and maintain change when necessary?
  - Does he influence others appropriately?
  - Is he a good leader?
- Does he empower others?
  - Does he have social skills?
  - Is he a team player?
“It would be very unsafe, unwise, and incorrect to assume that a patient either can or wants to present all aspects of his or her personality fully to the examiner.”

– Walter George Klopfer
Why I Don’t Recommend Standardized Pragmatic Tools

- pragmatic needs change based on person, place, time
- 128 standard score means WHAT?
- utopian evaluation setting
- what do the tests REALLY measure?
- role playing
You Must Consider:

- specific type of difficulties
- frequency of occurrence
- range of difficulties
- student’s self-awareness of deficit
- spontaneous use of compensatory strategies
- when successful communication strategies are used
“Do standardized tools provide us with the necessary information needed to help him succeed in social settings?”
And then Mr. Spock used his mind meld...
Recommended nonverbal communication procedures:
- eye gaze
- gestures

Recommended non-literal procedures:
- metaphor
- irony
- absurdity
- humor
Recommended speech prosody procedures:

- melody
- volume (loudness)
- stress
- pitch
• Recommended social-pragmatic communication procedures:
  • turn-taking
  • cues & prompts
  • social-conversational rules
  • conversational coherence
  • reciprocity
Misdiagnosis is Common

• in one study of 32 students eventually identified as AS, 92% were provided other diagnoses or labels (Church, 2000)

• labels provided by:
  • school/clinical psychologists
  • primary care physicians
  • psychiatrists
Social Deficits Associated with AS/HFA
Social Interaction

- tact
- proxemics
- social rule difficulties
- egocentricity
- misinterpreting jokes
- overly literal
- naive
• obsessive interests
• reduced and restricted range of interest
• poor play skills
• dislike physical contact
• gullible nature
Social Communication

- pedantic speech
- conversational difficulty
- unusual intonation and prosody
- perseverate on questions
- poor abstract reasoning
- poor non-verbal communication
Social Emotional Regulation

- easily stressed
- low self-esteem
- depressed
- overwhelmed by change
- overly anxious
- ritualistic
- sensory overload
Social Skills should focus on:
Feelings & Emotions

• recognizing emotional states in yourself and others
• the language of emotions
• developing self control
Interpersonal Relationships

• how to join in a group
• being left out
• request or demand?
• disagreeing
• apologizing
• fitting in
• caring/sharing
Communication Skills

• body language
• vocal tone
• perspective taking
• mutual focus
• problem solving
Please Welcome Our Distinguished Panel
Anthony

- Interest: music, video games & WWII firearms
• Interest: Politics, score keeper, 5K events
Daniel

- Interest: movie trivia, music from the 50s-90s, and martial arts
John

- Interest: music history, trivia dates
• Be respectful

• The purpose is to help you, the professional, understand how to be a better therapist

• Try to find out what was going through their minds and why it looked different to you
Thank you for attending. Check out my website at www.socialpragmatics.com for more information.