

“I thought it would get
easier.”

meeting the social needs of college
students with ASD

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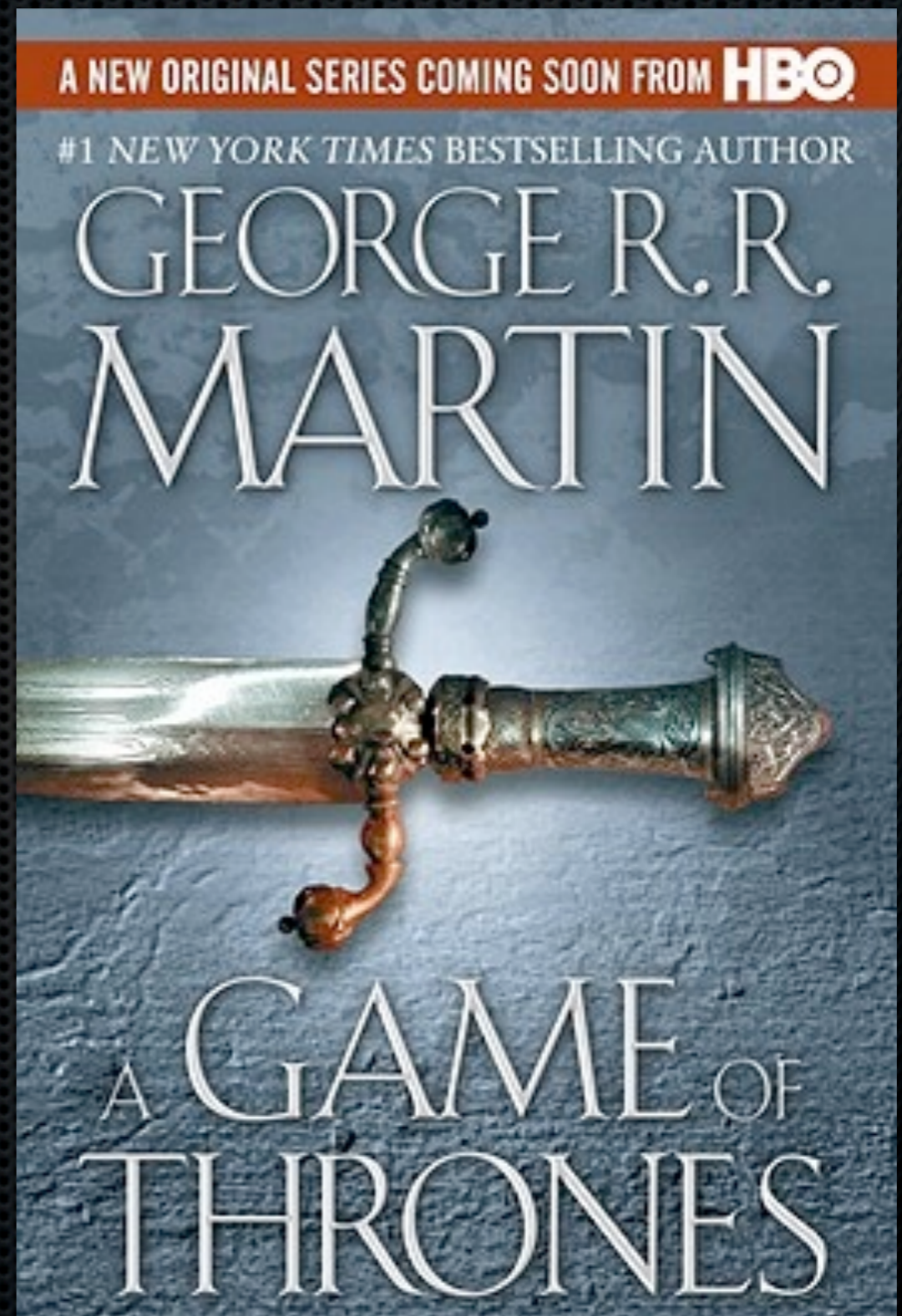
Penn State Hershey

Disclosures

- ✦ Research Funding
 - ✦ PA DPW Bureau of Autism Services: ASERT grant
 - ✦ Penn State Children, Youth, and Families Consortium

James

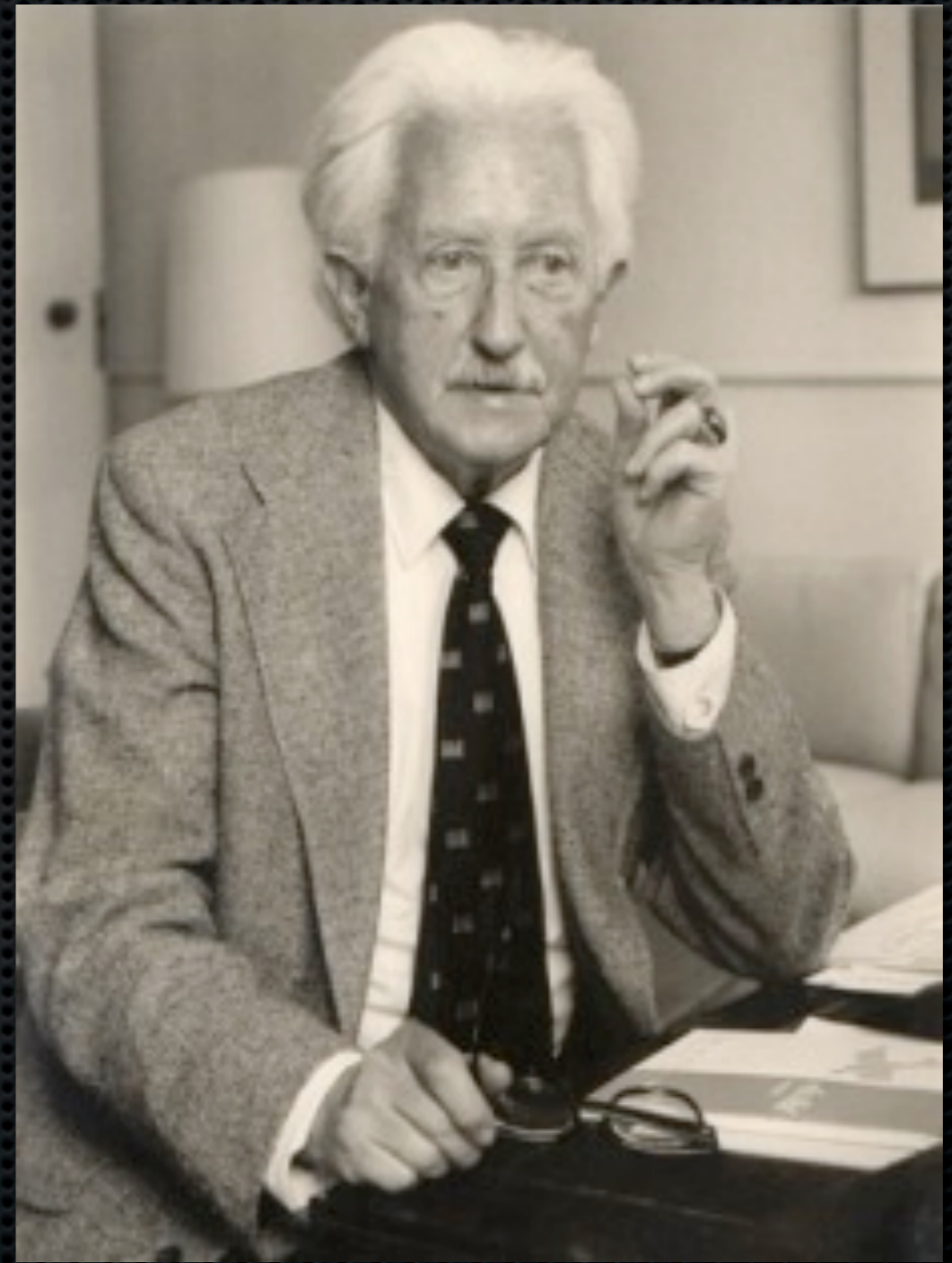
19 year old young
man with ASD and
severe anxiety



Erik Erikson

Adolescence:
Identity vs. Role
Confusion

Establishment of sexual,
ethnic, career identities or
confusion about what future
roles to play.





Adolescence:

Who am I?

Where do I belong in the world?

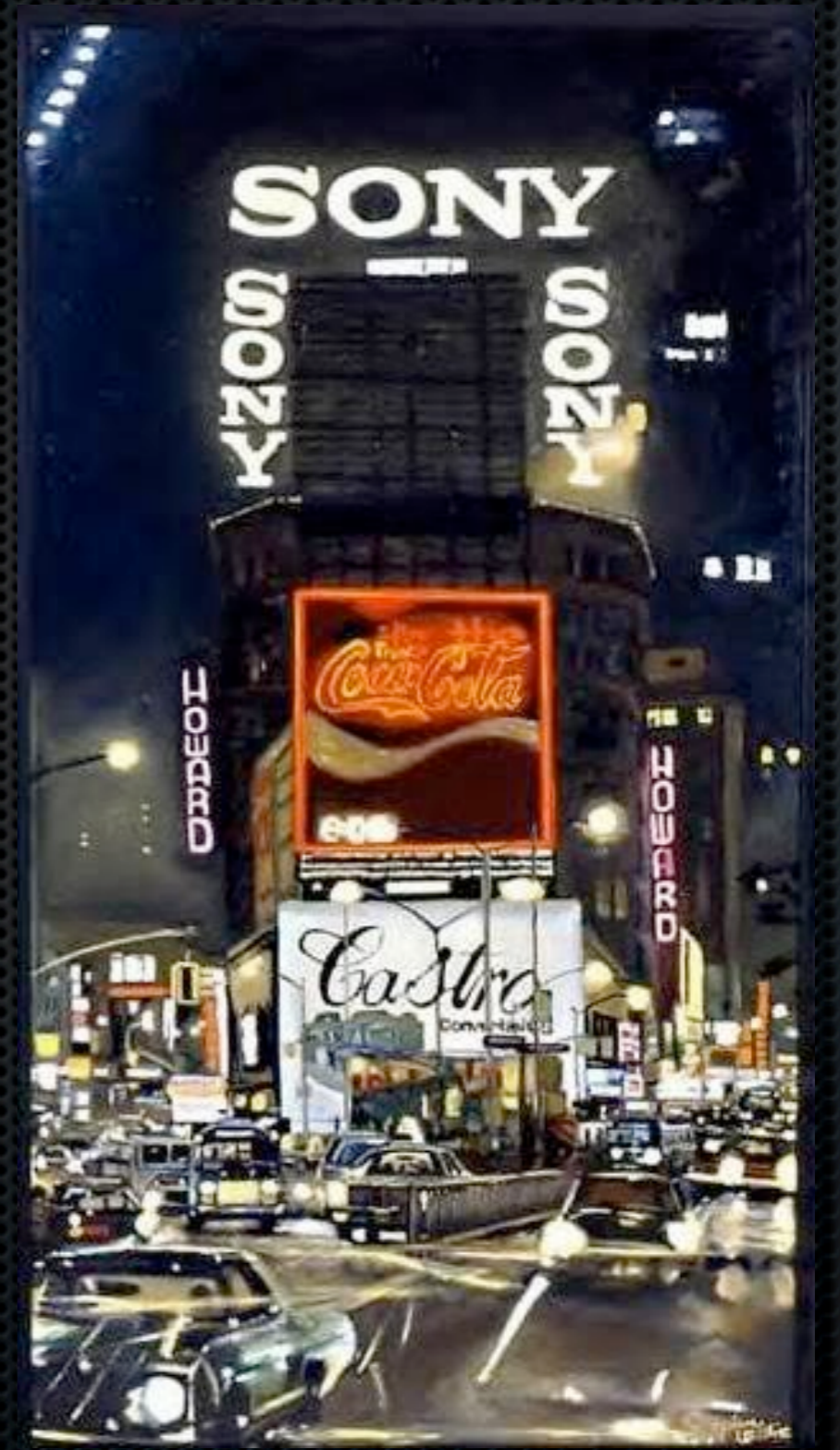
What do I have to contribute?

Autism 101: The Core Deficits

Impaired Social
Interactions

Impaired
Communication

Restricted and
Repetitive Behaviors



Autism 101

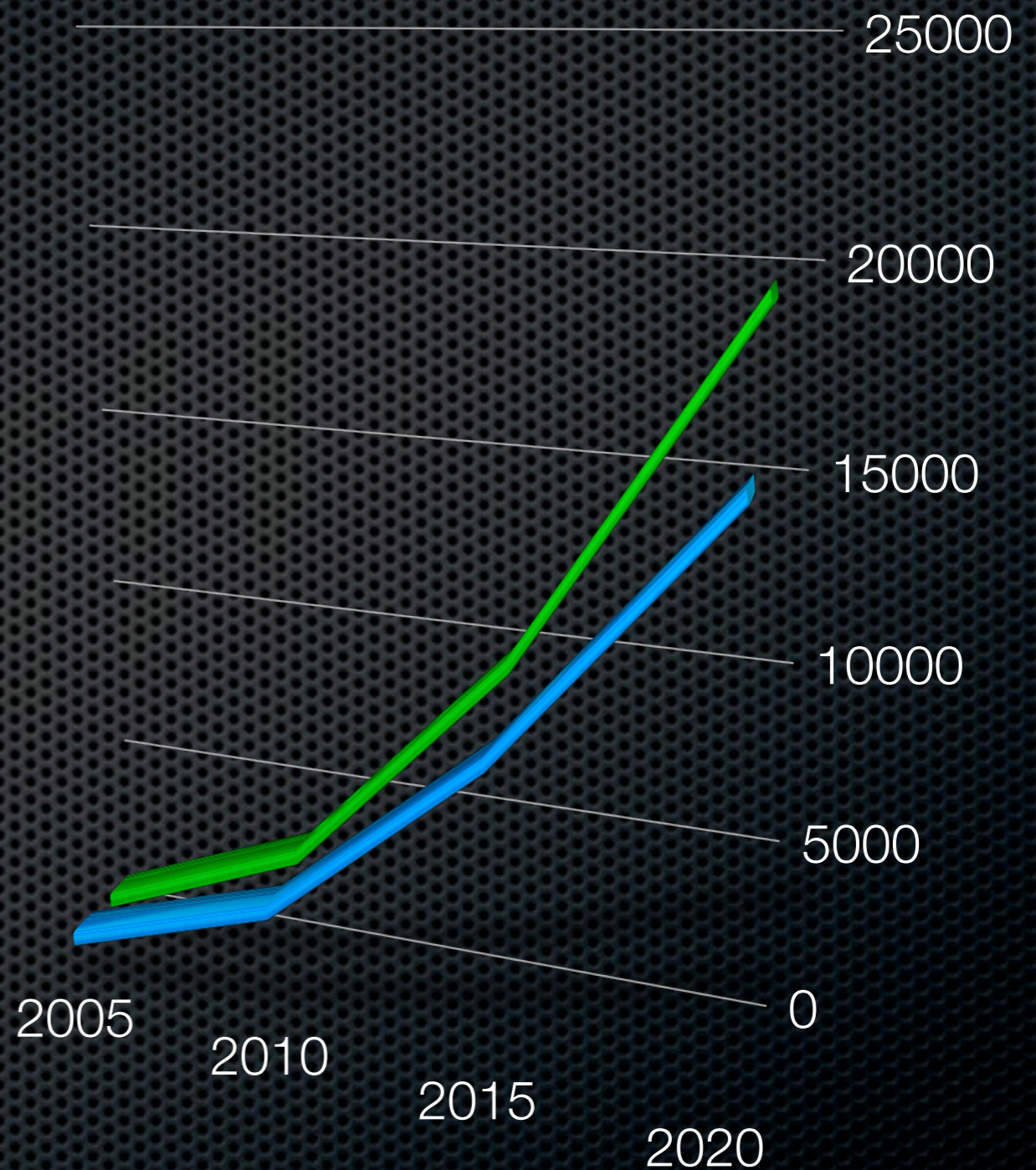
- ✦ social impairment and skills deficits may be considered the critical feature of the spectrum
- ✦ these symptoms may have some level of independence from other symptom domains of ASDs

Autism 101

- ✦ Socialization deficits are a major source of impairment regardless of cognitive or language ability
- ✦ These deficits do not remit with development whereas other symptom areas of ASDs can

The growing problem...

...number of Pennsylvanians diagnosed with autism spectrum disorders over 21 years of age



- no new diagnoses
- assuming new diagnoses proportional to current rate

College... The Holy Grail

Academic Readiness

vs.

Social Readiness



Jane

21 year old young
woman with Asperger
Disorder and anxiety



Autism on Campus

- success at the college level calls for an individual to demonstrate advanced social skills, sophisticated communication skills, and increased adaptive skills
- impairments in these areas are the hallmarks of ASD
- these areas of need are often overlooked in the well meaning intentions to academically prepare students with ASD for post-secondary education

Autism on Campus

- students with ASD enter what may be the most socially intense environments of their lives with many of the supports they have come to rely on no longer present
- they tend to become socially isolated and prone to high rates of clinical anxiety and depression

Tim

22 yo man with
Asperger Disorder

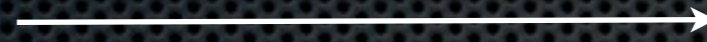




Stalking

Persistent, unwanted attempts to communicate or associate with another

desire for
intimate
relationships



limited
socialization

Stalking



learning that
associations with
others are only
available with
persistence

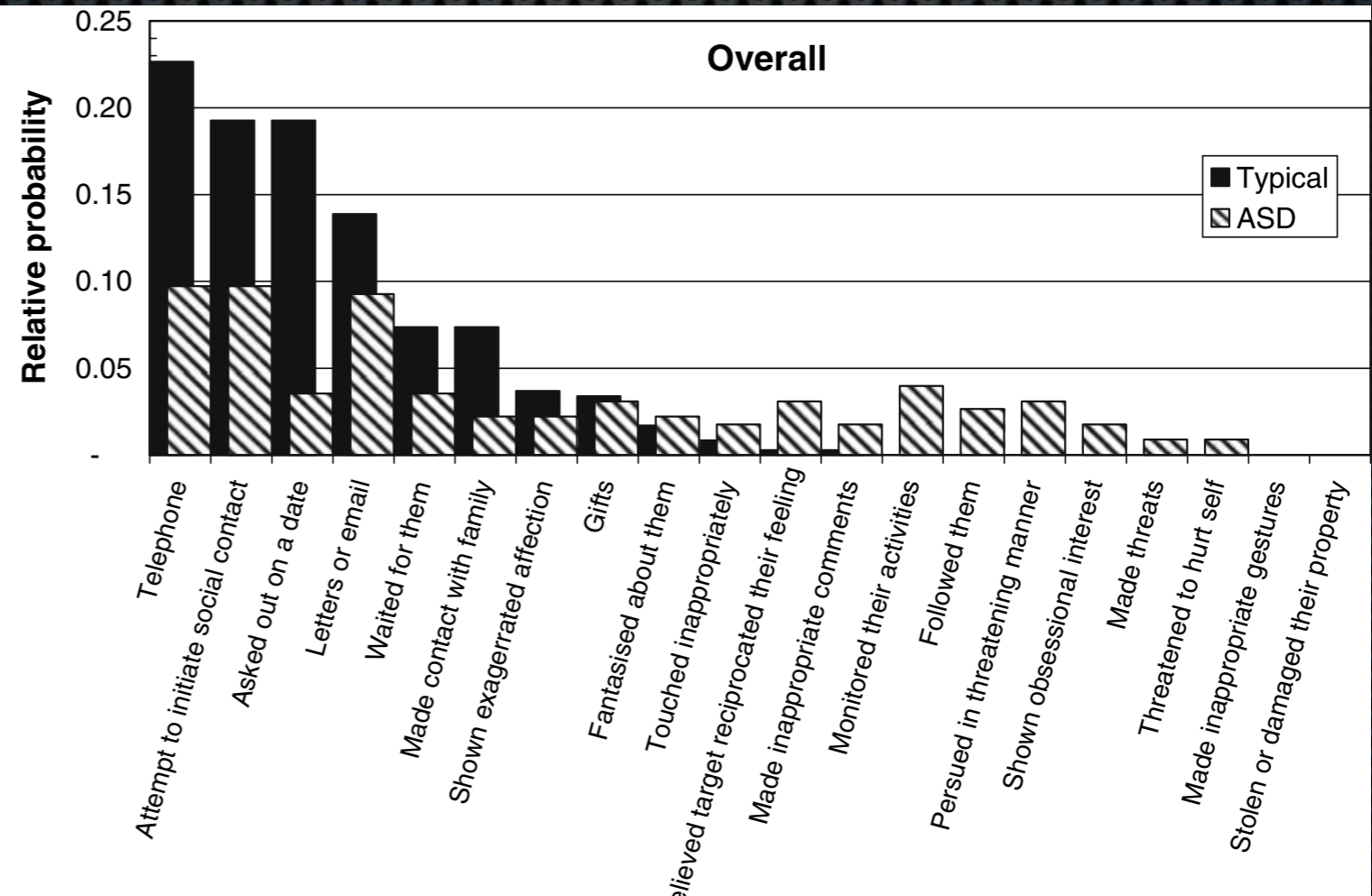


confusion
about what is
appropriate
courting
behavior



Stalking Behaviors

Fig. 2 Relative probability of ASD and typical individuals displaying behaviours in attempting to pursue a social or romantic interest



Social Skills Deficits

The Aging Effect





Meet Alex

14 year old young man with Asperger Disorder
pre-intervention

Social Skills Deficits

- ✦ Theory of Mind
 - ✦ model of the capacity for empathy
 - ✦ the ability to imagine that other people have their own ideas, thoughts, and emotions
 - ✦ adults with ASD have reduced left prefrontal cortex activity when given theory of mind tasks on fMRI



Social Skills Deficits

- ✦ Central Coherence
 - ✦ the ability to integrate individual elements of perception into an overall context of meaning (“the bigger picture”)
 - ✦ those who are affected tend to be detail oriented and have great difficulties capturing the overall context



Social Skills Deficits

- ✦ Executive Functions
 - ✦ planning and monitoring of one's own actions
 - ✦ inhibiting impulses
 - ✦ focusing attention
 - ✦ flexible searching for problem solving strategies
 - ✦ maps to the prefrontal cortex



So what do these social deficits look like in action?



social fluency

difficulty with social initiation and maintenance

Social Fluency

- Combination of accuracy and speed in executing social skills
- Allows individuals to function efficiently and effectively in a variety of social settings
- The basis for successful social transactions



“Making Waves” by Alan

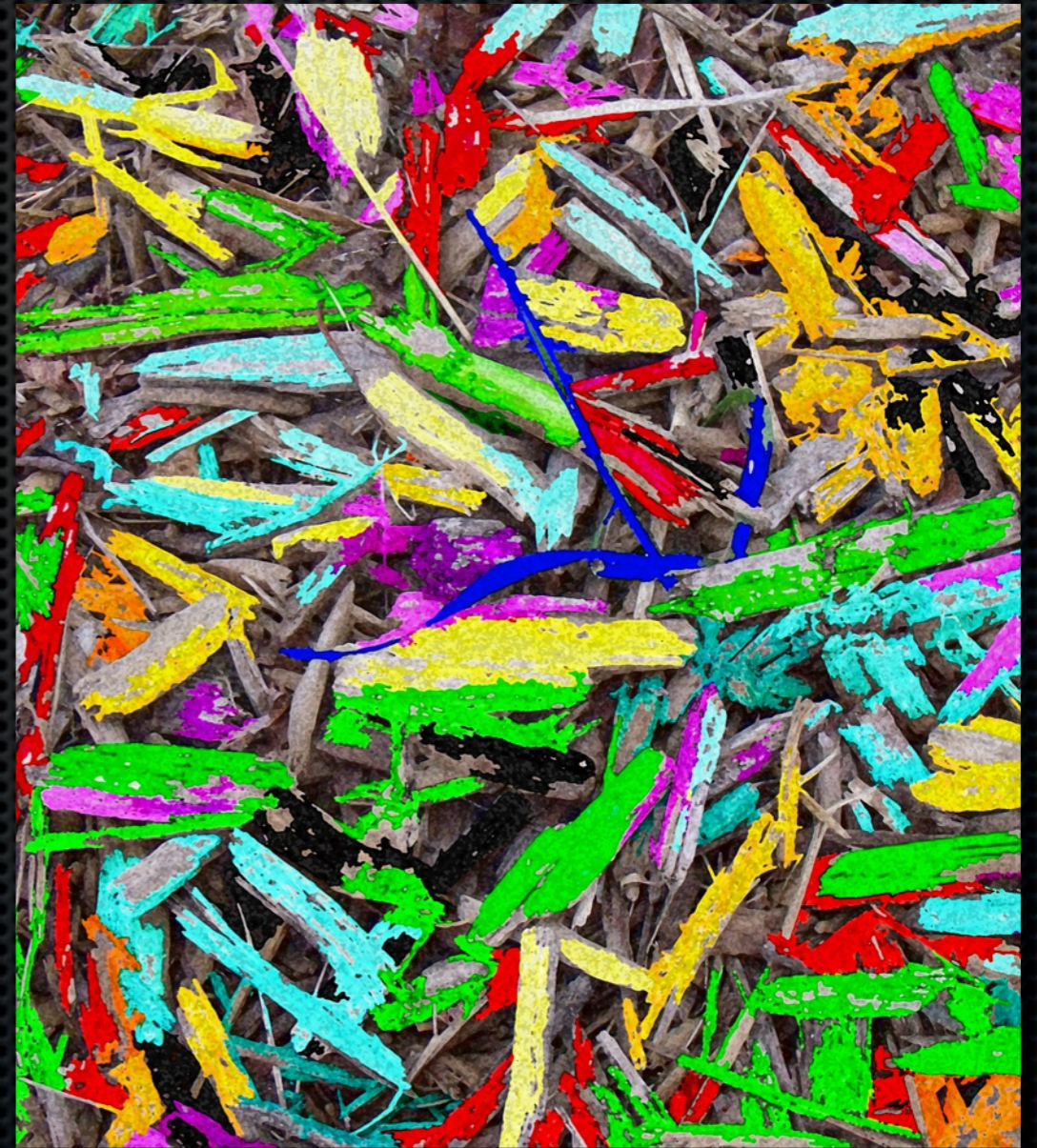


lack of social flexibility

the problem of social scripting

Social Flexibility

- Responding to changes in social contingencies
- Builds rapport, confidence, and trust
- Allows greater adaptability to new social environments
- Basis for positive peer interactions



“Wood Chips by Crayola” by James



lack of social responsiveness

misreading verbal and non-verbal cues

Social Responsiveness

- ✦ Readily reacting to verbal and non-verbal suggestions, influences, or efforts during a social interaction
- ✦ Basis for greater social intimacy within relationships



“Chuckie-T’s” by Becca

Let's take a look at a core social deficit in greater detail.

Face Perception

Typical children and adults have perceptual processes capable of distinguishing between faces with extraordinary skill.

Facial features and their placement are remarkably uniform allowing for this proficiency.

When seeing a familiar face an immediate recognition occurs which is automatic and without conscious effort.

















Feature Level Analysis

preferred method for decoding facial information
by individuals with ASD



Global Processing

automatic facial processing occurs at this level
for most individuals (NTs)

FIGURE 1. Visual Focus of an Autistic Man and a Normal Comparison Subject Shown a Film Clip Containing the Face of a Shocked Young Man

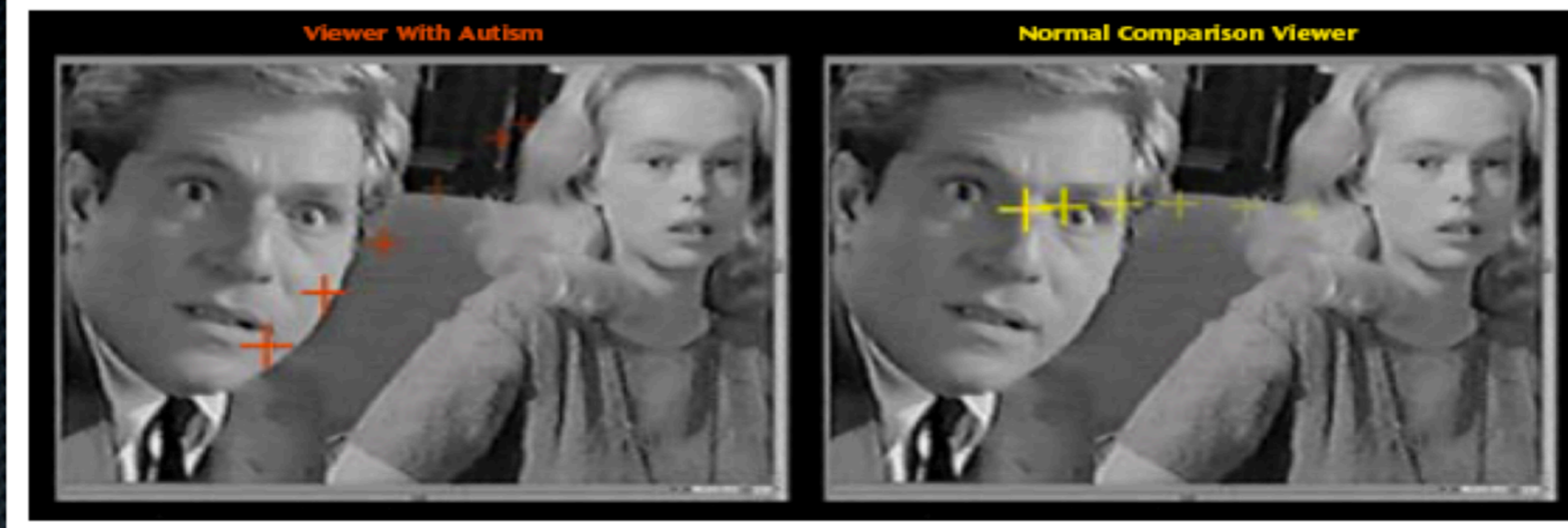


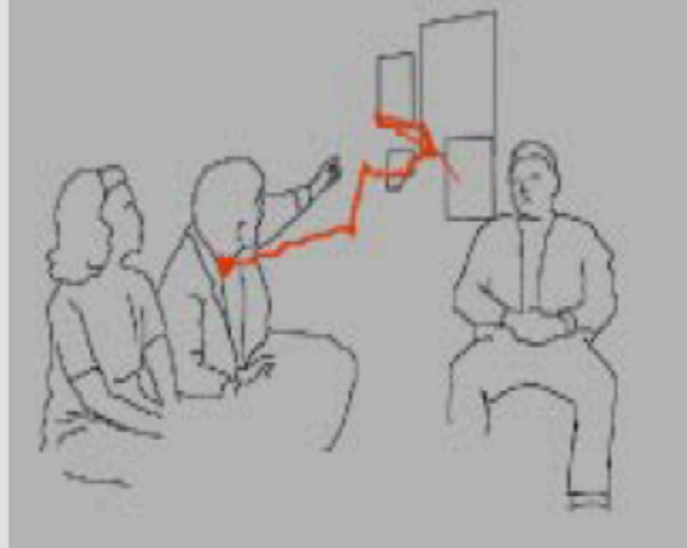
FIGURE 2. Visual Focus of an Autistic Man and a Normal Comparison Subject Shown a Film Clip of a Conversation



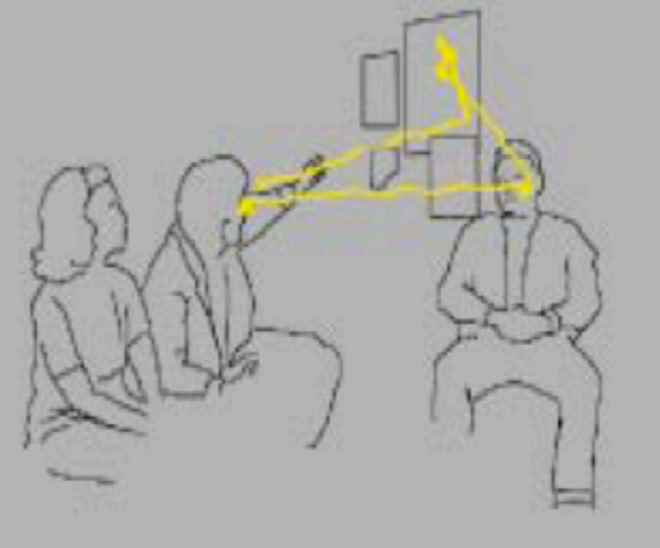
FIGURE 8. Visual Scanning Patterns of an Autistic Man and a Normal Comparison Subject Shown a Film Clip With Social-Visual and Verbal Cues



Viewer With Autism



Normal Comparison Viewer



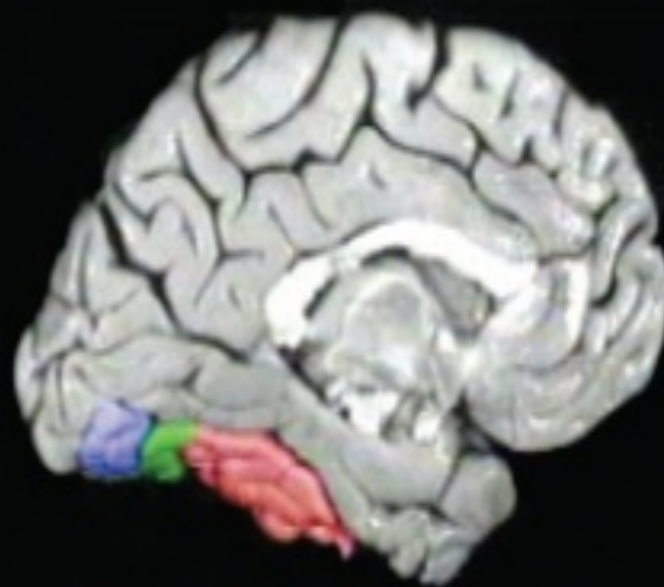
The Inversion Effect



The Inversion Effect



Fusiform Face Area



Fusiform Face Area

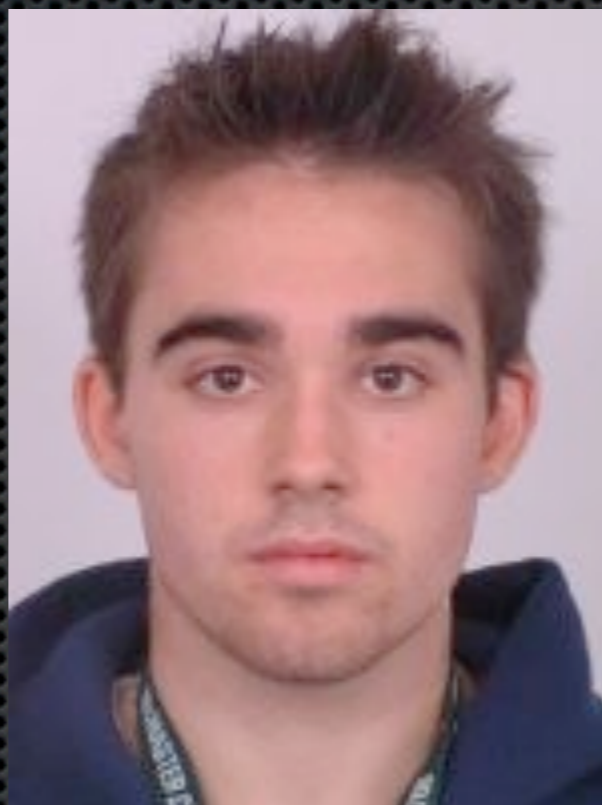
- On the basal temporal lobe

- Strongly activated when looking at human faces

- Also activated in a German sports car enthusiast when presented with pictures of different model years of Porsches

Let's see how well your
FFA's are working today.

Stimulus 1



Stimulus 2



The FFA can be trained.

- ✦ innate ability to process items of high interest or value
- ✦ this includes depictions of faces which are valued



Multi-Media Social Skills Project for Adolescents

- ✦ manual based intervention for adolescents 13-18
- ✦ three 4 week modules, each session lasting 3 hours
- ✦ two components: direct skills instruction and peer generalization



Direct Instruction

utilized prepared video models and self modeling

PILOT STUDY

22 participants
23 peer partners

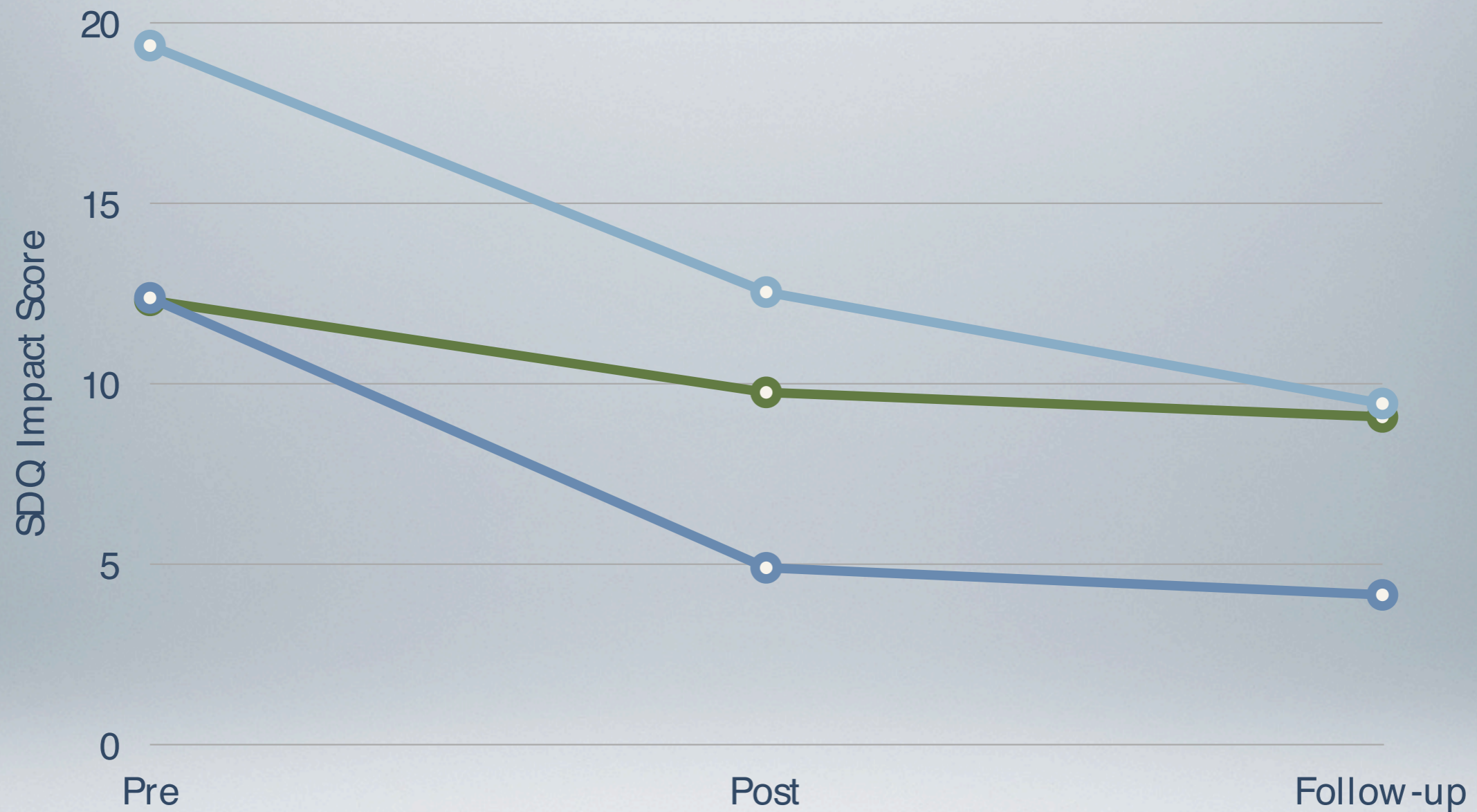
Adolescent Variable	M (SD) or %
Gender (Male/Female)	81/19
Age	14.6 (1.4)
Ethnicity (Caucasian/ Hispanic)	95/5
Composite IQ	109 (14.5)
Severity of ASD Symptoms (SRS <i>t</i> Score)	82.9 (7.7)

Change in Silence by SRS Group



RESULTS FROM PILOT

Participant SDQ Report of Impact by SRS Group



RESULTS FROM PILOT

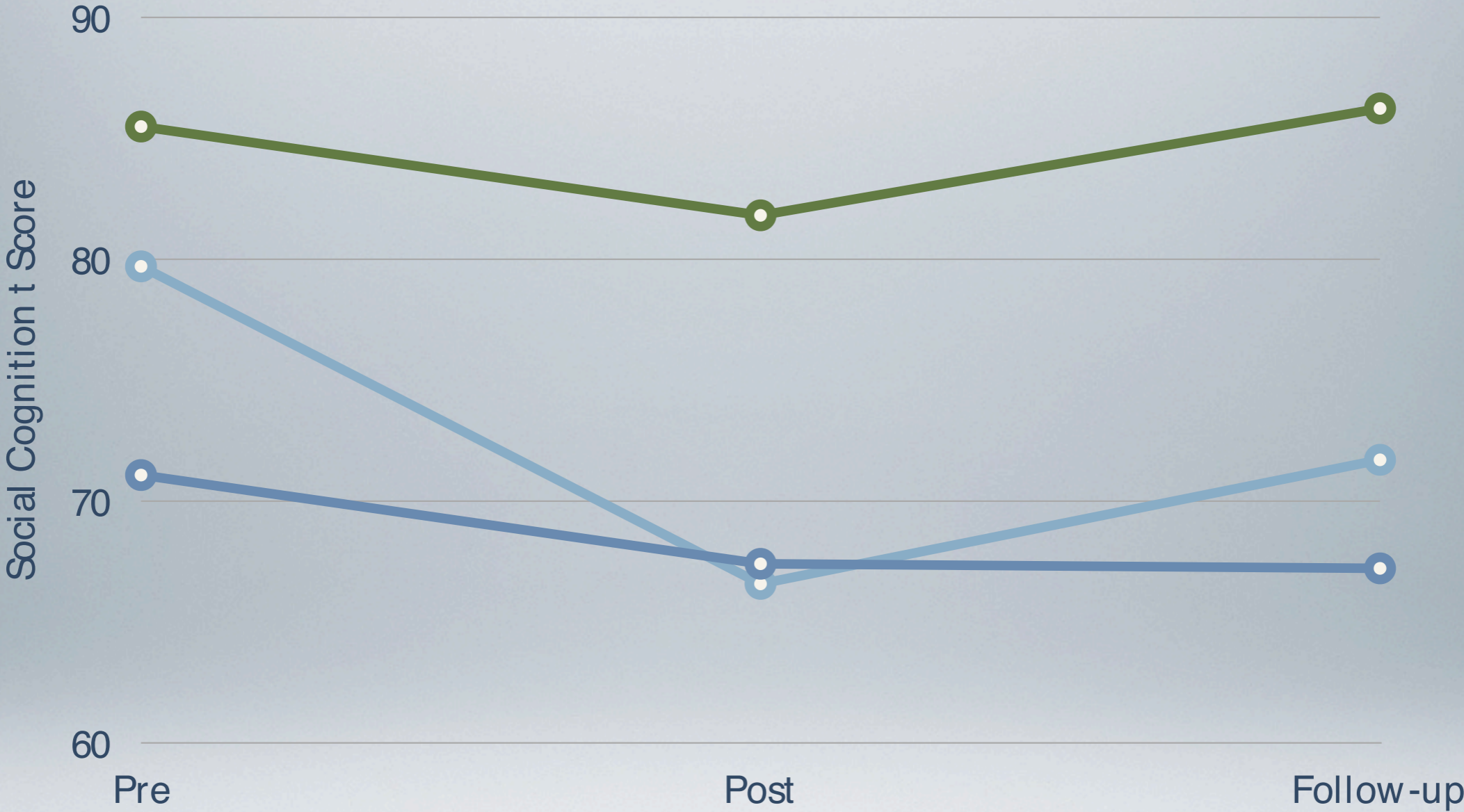
Participant Self-Perception of Social Impairment

Maternal SRS Report of Total Symptoms by SDQ Group



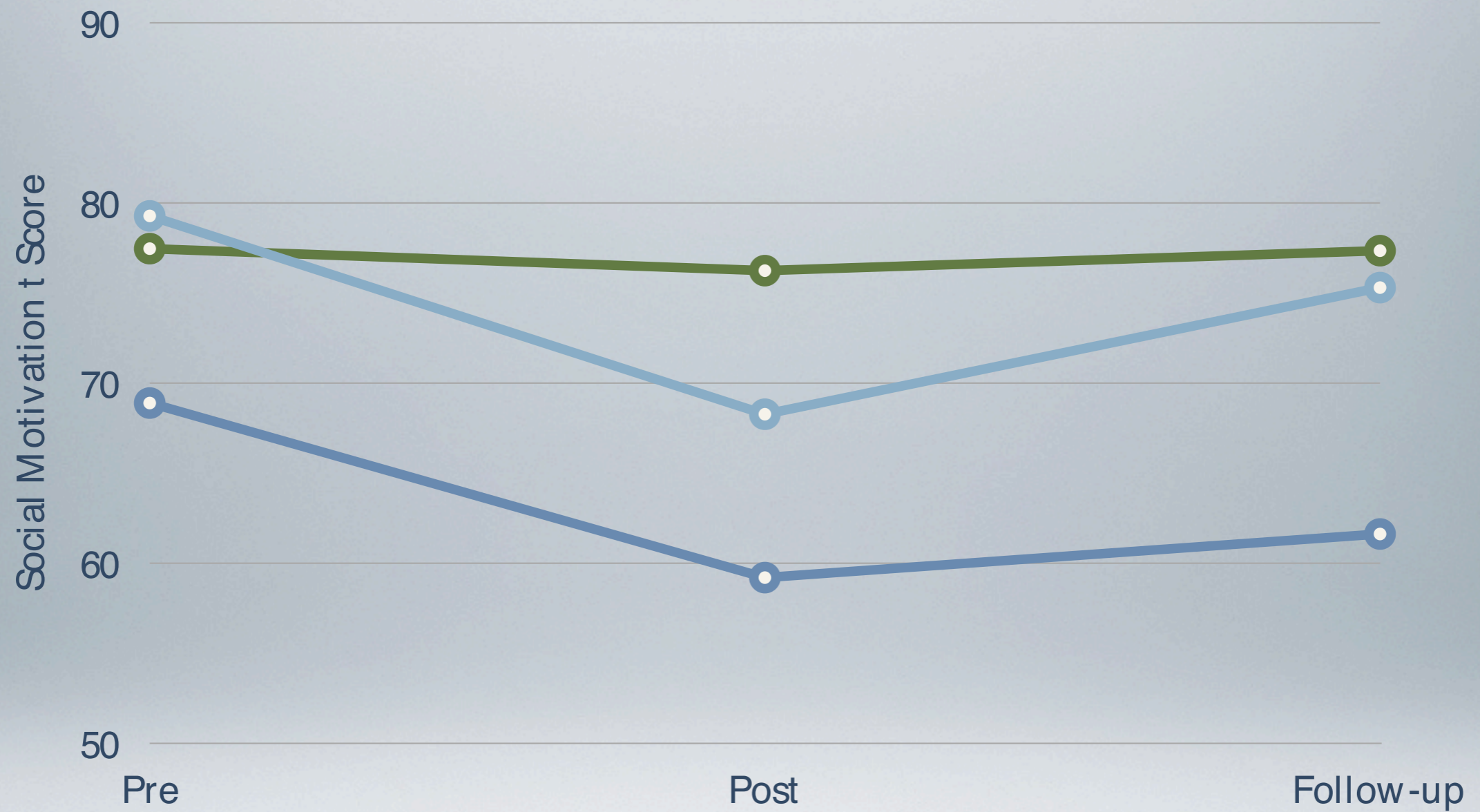
RESULTS FROM PILOT

Maternal SRS Report of Social Cognition by SDQ Group



RESULTS FROM PILOT

Maternal SRS Report of Social Motivation by SDQ Group



RESULTS FROM PILOT

Neurodiversity

expanding our
concept of
multiculturalism





YOU HAVE NO IDEA

what it means to be gifted with Asperger's Syndrome

Outreach Efforts

educate and demystify



Establish a support network.

Network optimally includes peers both on and off the spectrum.



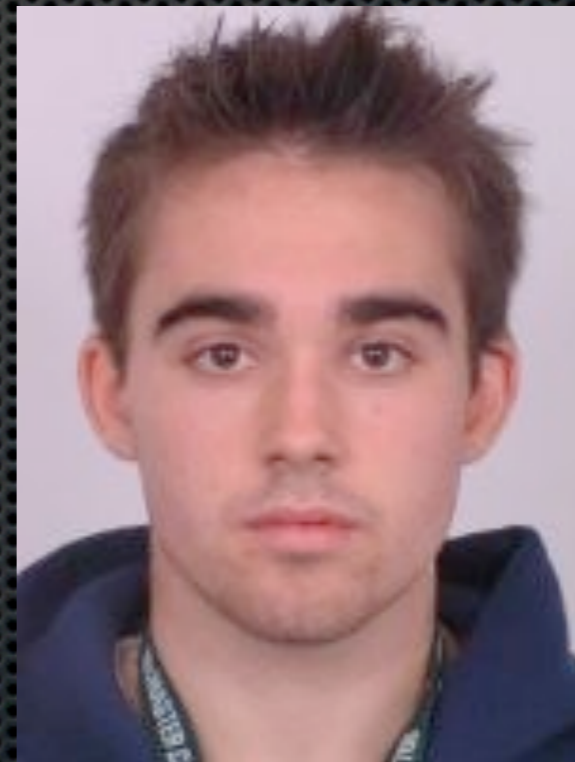
Meet Alex, again
after intervention



Resources

ASERT Resource Center 877-231-4244

So which was it?



So which was it?





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