

JAMES COPLAN, M.D.
Neurodevelopmental Pediatrician • Author • Speaker
Making Sense of Autistic Spectrum Disorders

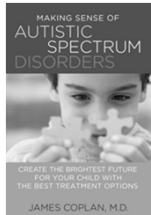
Mental Health and Autism Spectrum Disorder: The Elephant in the Room

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Disclosures

- Dr. Coplan is author of *Making Sense of Autistic Spectrum Disorders: Create the brightest future for your child with the best treatment options* (Bantam-Dell, 2010), and receives royalties on its sale



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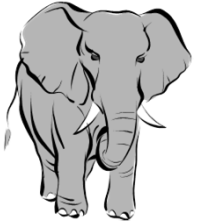


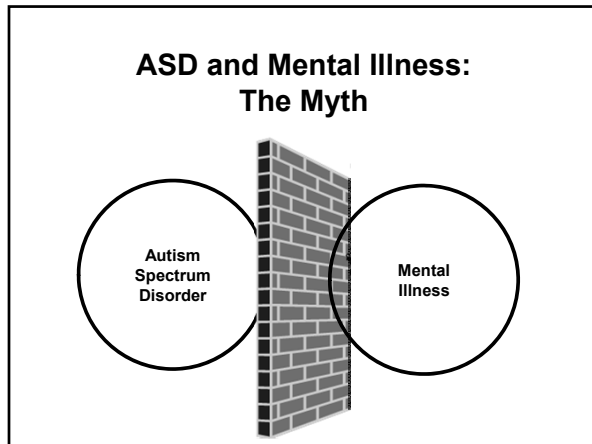
Outline

- 1) Statement of the Problem
 - 1) Compartmentalized Thinking
- 2) "Us vs. Them" : What I learned from Newtown
- 2) Show me the data
 - 1) Intra-individual
 - 2) Intra-familial (with a glance at Family Mental Health)
 - 3) Basic Science
- 3) Does ASD predispose to violent crime?
- 4) Where do we go from here?
 - 1) Individual & Family care
 - 2) System change

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The History of Science in 1 Slide

Description & Classification*

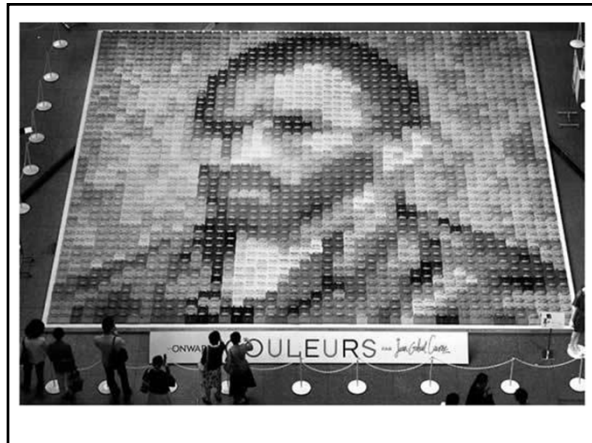
(Group items into categories, based on externally visible characteristics)



Analysis

(Explain & predict, based on an understanding of why and how things happen)

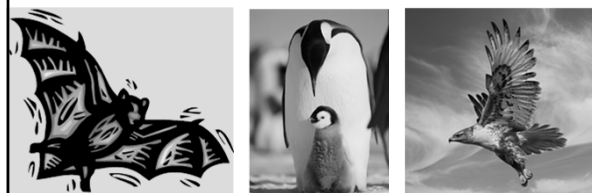
* Plato (428-328 BCE): "Carve Nature at its joints." We can't explain why or how things happen, but if we observe carefully, and group similar items into categories, eventually the big picture will emerge.



Problems with classification schemes based on appearance

- Different underlying mechanisms can produce similar-appearing results
- Similar underlying mechanism can produce different-appearing results

Which 2 go together?



Psychiatry: Where we are today

Description & Classification

(based on externally visible characteristics)



Analysis

(based on an understanding of fundamental mechanisms)

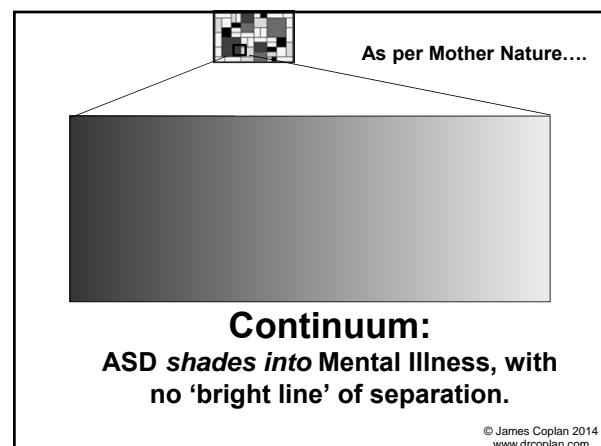
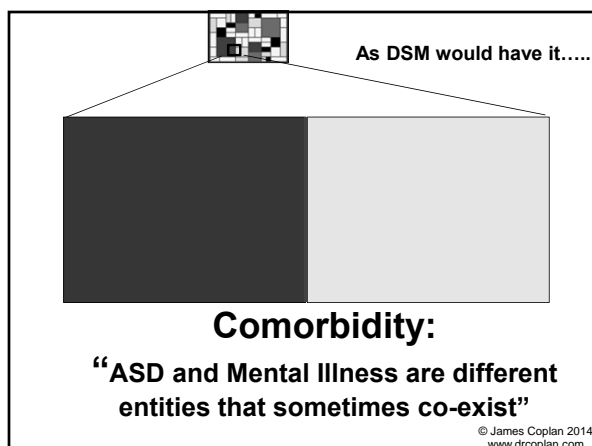
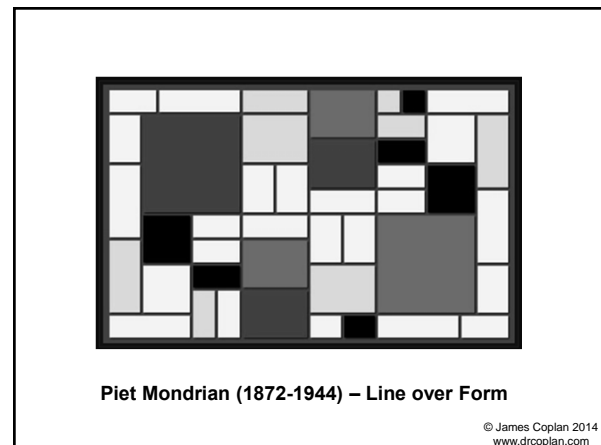
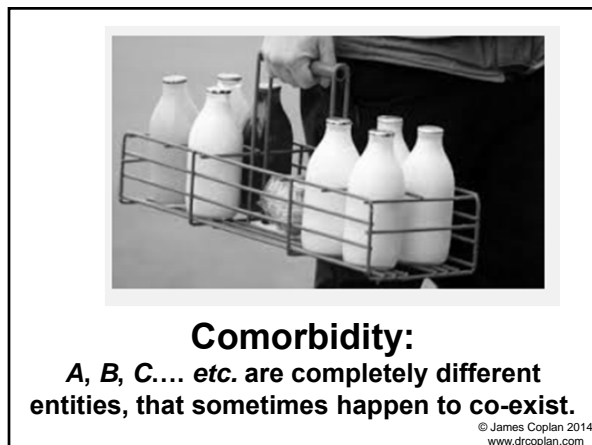
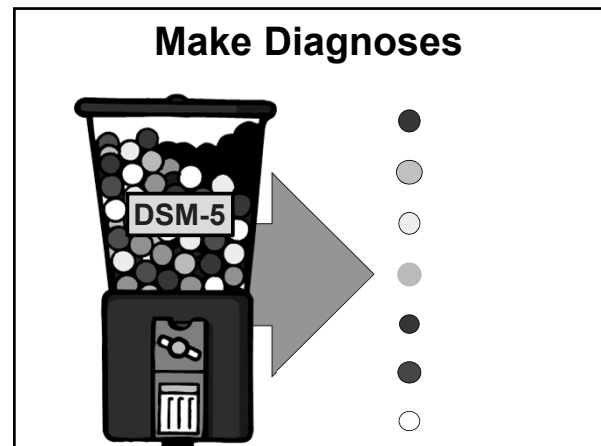
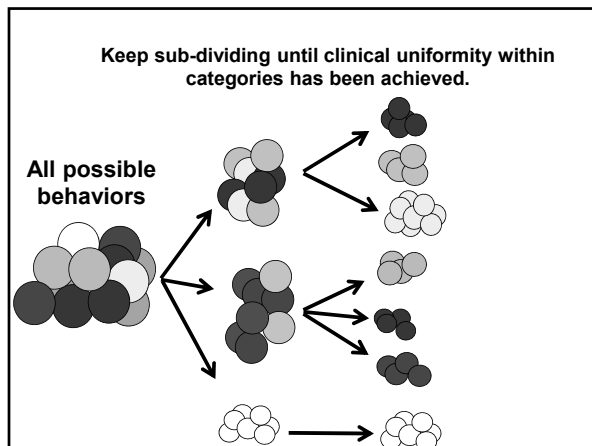
DSM5:

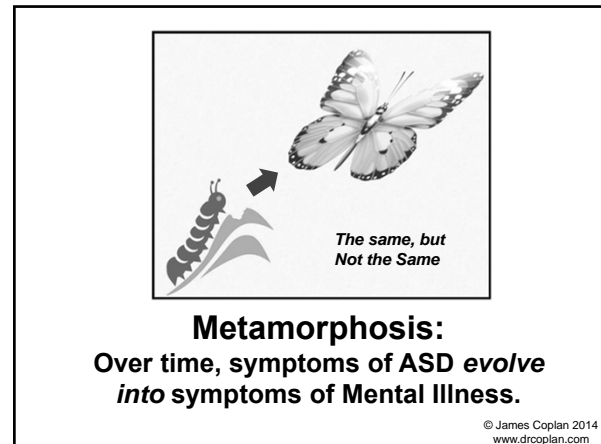
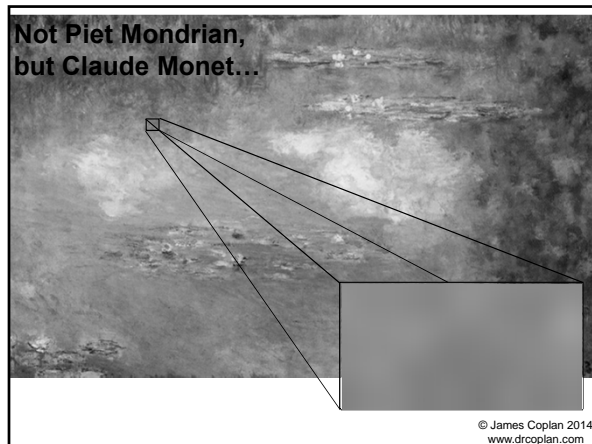
Categories based on symptoms → quest for *symptom homogeneity within categories*



DSM 6

(classification based on causation and brain systems)

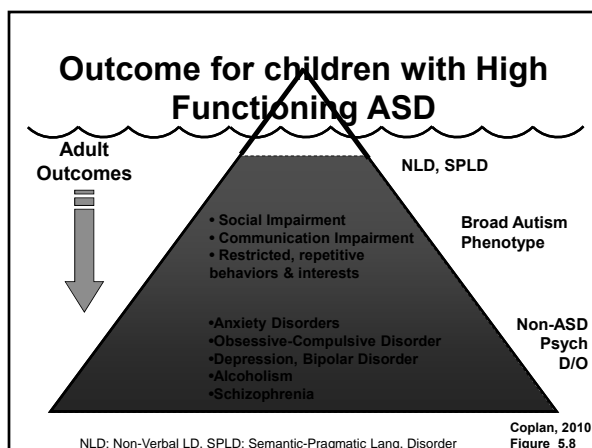
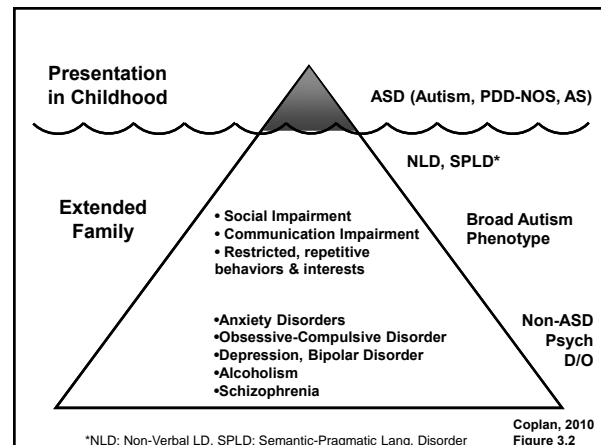




In the world of Metamorphosis...
"Losing the diagnosis" does not mean "cured"

- **Persistence of**
 - Cognitive patterns
 - Behavioral patterns
 - Emotional patterns
- **Emergence of Non-ASD psychiatric disorders**
 - Anxiety
 - Depression
 - Mood Disorders
 - Schizophrenia

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Psychiatry: Coming soon...

Description & Classification
(based on externally visible characteristics)

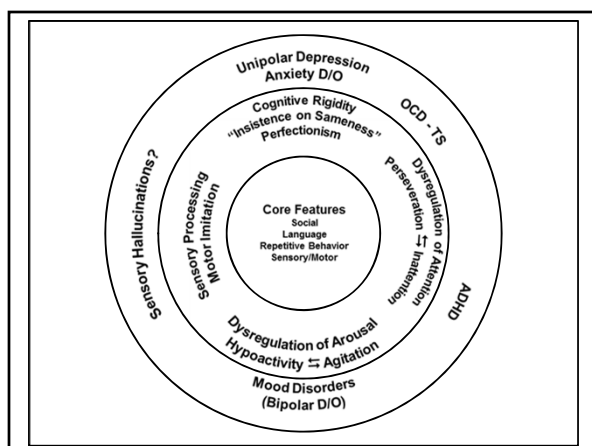
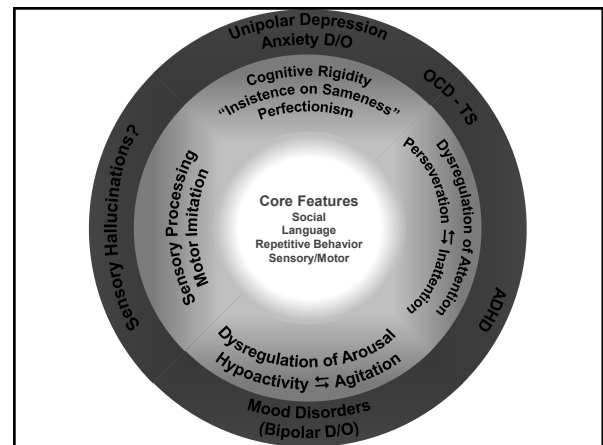
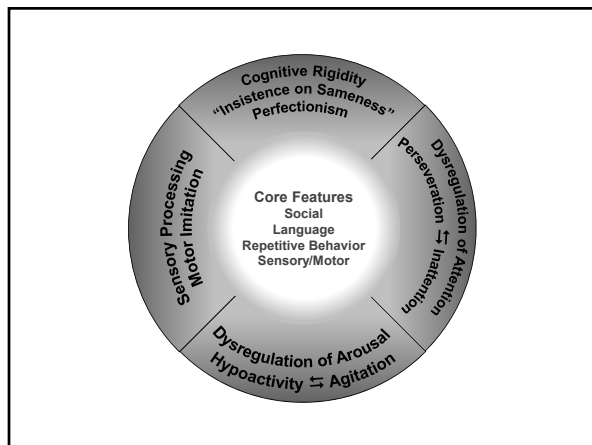
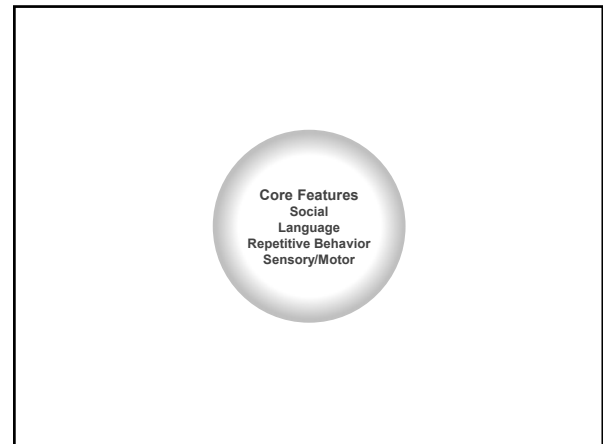
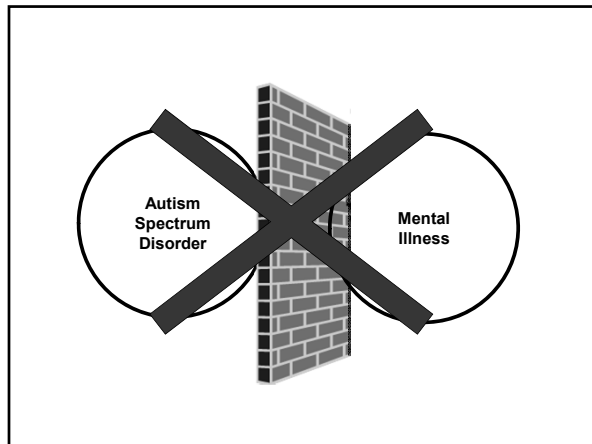
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Analysis
(based on an understanding of fundamental mechanisms)

DSM5:
Categories based on symptoms → quest for symptom homogeneity within categories

↓

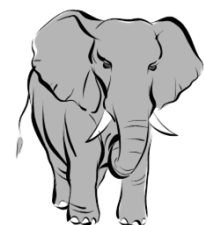
DSM6
Classification based underlying biology; "Mapping ASD from the inside out" (King & Lord 2011)



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- 5) Where do we go from here?



Adam Lanza: What We Think We Know About the Apparent Newtown Shooter

Ryan Lanza reveals brother Adam Lanza was autistic, had personality disorder (Video)

CONNECTICUT SCHOOL SHOOTING | DECEMBER 19, 2012 | BY RACHAEL MORRIS | 1 Share

Adam Lanza Diagnosed With Sensory Integration Disorder

Hartford Courant, Frontline investigation looks into Newtown-school shooter's background. 10:25 | 12/19/2012

<http://www.examiner.com/article/ryan-lanza-reveals-brother-adam-lanza-was-autistic-had-personality-disorder>
<http://www.theatlanticwire.com/national/2012/12/adam-lanza-bio/60018/>
<http://abcnews.go.com/Health/video/cancer-survivor-catches-fire-at-oregon-hospital-18538818>

AUTISM CANADA FOUNDATION THE PREMIER RESOURCE FOR INFORMATION ON AUTISM SPECTRUM DISORDERS

Autism Canada's Statement On The Sandy Hook Elementary School Tragedy 12/17/2012

- It has been reported that the shooter at Sandy Hook Elementary School had autism. In the weeks and months to come there will be much more information about his condition, but today it has never been more important to understand that *autism / Asperger's is not a mental health condition. Autism is a neurological condition....*

ARI AUTISM RESEARCH INSTITUTE
Autism is Treatable

ARI Statement on the Newtown, CT Tragedy

The staff at the Autism Research Institute is deeply saddened by yesterday's tragic events at Sandy Hook Elementary School in Newtown, Connecticut...

Some public comments have drawn potentially inaccurate and stigmatizing conclusions about a link between the diagnosis [of autism] and a propensity for violence and lack of empathy...

Autism is not a mental health disorder - it is a neurodevelopmental disorder...

AUTISM SOCIETY
Improving the Lives of All Affected by Autism

Autism Society of America Statement 12/17/2012

- No evidence exists to link autism and premeditated violence...
- Individuals with autism who act aggressively typically do so because they are reacting to a situation...
- Many of the individuals with Asperger's syndrome who have committed crimes had co-existing psychiatric disorders...*

AUTISM SPEAKS
It's time to listen.

Have something old, something new, something borrowed. www.autismspeaks.org Get Favors Here! & have something BLUE

Home Ways to Give Research Family Services What is Autism? Advocacy Events

Merchandise Blog Partners Resource Guide Tool Kits Autism Apps


DONATE NOW. Newtown **Statement from Bob and Suzanne Wright**

People want immediate or simple answers when an unimaginable tragedy like this occurs. Autism did not cause this horror...

<http://www.autismspeaks.org/news/news-item/statement-bob-and-suzanne-wright>

We have a problem here...
(3 problems, actually)

- There is no bright line between Autism Spectrum D/O and "Psychiatric" disorders
- Shifting responsibility onto persons with "mental illness":
 - Stigmatizes the mentally ill, and
 - Ignores the mental health needs of persons with ASD





Outline

1) Statement of the Problem

2) Show me the data

- a) Intra-individual
- b) Intra-familial (with a glance at Family Mental Health)
- c) Basic Science

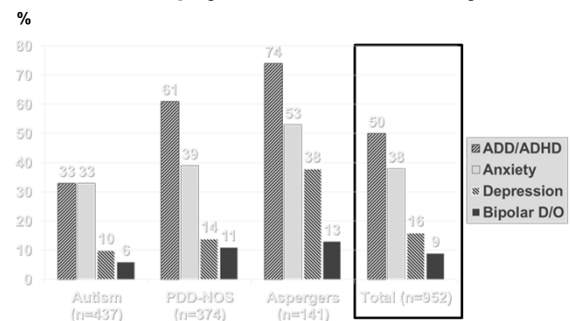
3) Does ASD predispose to violent crime?

4) Where do we go from here ?

(a) Intra-Individual

- **When co-morbidity approaches 100%, is it still “co”- morbidity?**

Children with ASDs, age 10+: Neuropsychiatric co-morbidity



IAN Research Report #1 - May 2007

http://www.iancommunity.org/cs/ian_research_reports

Psychiatric Disorders in Children With Autism Spectrum Disorders: Prevalence, Comorbidity, and Associated Factors in a Population-Derived Sample

Simonoff, E., et al. J Am Acad Child & Adolescent Psychiatry, 2008. 47(8):921-929

- **112 children with ASD, age 10-14**
- Assessed using the parent-report Strengths and Difficulties Questionnaire (SDQ)
 - 70% had at least one comorbid disorder
 - 41% had two or more

Psychiatric Disorders in Children With Autism Spectrum Disorders: Prevalence, Comorbidity, and Associated Factors in a Population-Derived Sample

Simonoff, E., et al. J Am Acad Child & Adolescent Psychiatry, 2008. 47(8):921-929

Disorder	Prevalence (%)
Anxiety Disorder (any)	41.9
• Social anxiety disorder	• 29.2
• Generalized anxiety disorder	• 13.4
• Panic disorder	• 10.1
• Simple phobia	• 8.5
• Obsessive-compulsive disorder	• 8.2
• Agoraphobia	• 7.9
• Separation anxiety disorder	• 0.5
Any depressive disorder *	1.4
ODD or Conduct Disorder	30.0
ADHD	28.2
Other disorders	24.7
• Enuresis, Encopresis	• 11.0, 6.6
• Tic D/O, Tourette syndrome	• 9.0, 4.8
• Trichotillomania	• 3.9
Any comorbid disorder	70%

*An additional 10.9% had irritability / depression not meeting DSM criteria

Psychiatric Symptom Impairment in Children with Autism Spectrum Disorders

Kaat, A.J., et al. Journal of Abnormal Child Psychology, 2013

- 115 pts w. ASD at University Hosp. Child Devel. Clinic
 - Age 6–12 yr; Male (86 %); White (91 %)
 - Mean Full Scale IQ (N=95): 85
 - <70: 24 (23 %)
 - Spectrum Dx:
 - Autistic Disorder: 31 %
 - Asperger's Disorder: 19 %
 - PDD-NOS: 50%
- Child and Adolescent Symptom Inventory-4R
 - Parent & teacher ratings

Psychiatric Symptom Impairment in Children with Autism Spectrum Disorders

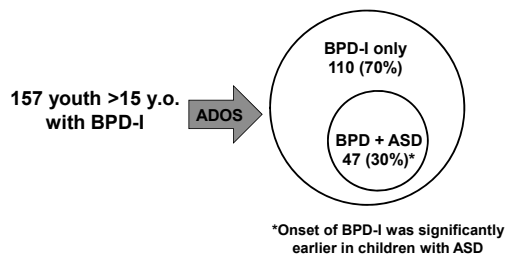
Kaat, A.J., et al. Journal of Abnormal Child Psychology, 2013

Disorder	Prevalence (%)*	
	Impairment**	DSM-IV criteria
ADHD (any type)	83%	82%
Oppositional defiant disorder	53%	34%
Conduct disorder	23%	9%
Anxiety disorders	70%	47%
• Generalized anxiety disorder	• 48%	• 32%
• Social phobia	• 51%	• 23%
Major Depressive D/O, Dysthymia	45%	19%
Manic episode	53%	18%
Schizophrenia	48%	10%
Any disorder	94%	84%

* Combined Parent and Teacher ratings

** "Impairment" = "Often or Very Often"

Mood D/O in ASD: Comorbidity or Continuum?



Examining the comorbidity of bipolar disorder and autism spectrum disorders: a large controlled analysis of phenotypic and familial correlates in a referred population of youth with bipolar I disorder with and without autism spectrum disorders. J Clin Psychiatry. 2013 Jun;74(6):578-86. Joshi G, Biederman J, Petty C, Goldin RL, Furtak SL, Wozniak J.

ASD, Psychosis, and Schizophrenia (SCZ)

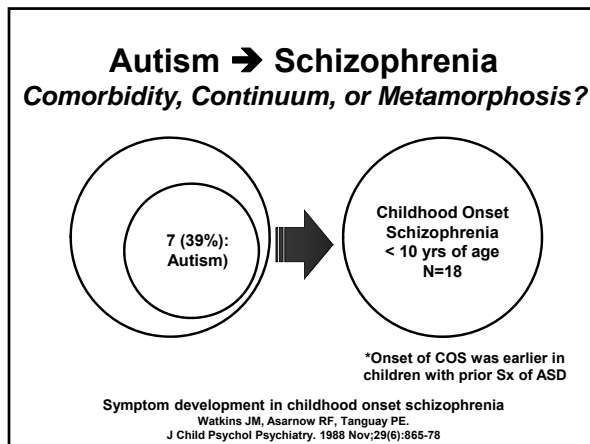
Psychosis

- Psychosis: A symptom of mental illness characterized by radical changes in personality, impaired functioning, and impaired reality testing (hallucinations / delusions).
- Psychosis may appear as a symptom of
 - Mood d/o
 - Personality d/o
 - Schizophrenia
 - Schizophreniform d/o, Schizoaffective d/o, etc.
 - Psychotic disorders (Brief psychotic d/o, psychotic d/o due to a general medical condition, substance-induced psychotic d/o, etc.)

Schizophrenia

<http://medical-dictionary.thefreedictionary.com/schizophrenia>

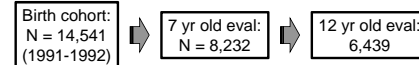
- A *chronic psychotic disorder* (or a group of disorders) marked by severely impaired thinking, emotions, and behaviors.
- Symptoms:
 - (+): Hallucinations, delusions, disorganized speech (loose associations); inappropriate, odd, or catatonic behavior
 - (-): Apathy / avolition; anhedonia, poor social function, ↓ speech
 - Cognitive: Impairment of attention, memory, planning (executive function), insight



The association between early autistic traits and psychotic experiences in adolescence

Jones, R.B., et al., Schizophr Res, 2012. 136(1-3): p. 164-189

• **Avon Longitudinal Study of Parents and Children (ALSPAC) birth cohort**



The association between early autistic traits and psychotic experiences in adolescence

Jones, R.B., et al., Schizophr Res, 2012. 136(1-3): p. 164-189

Questions at age 7:

- Speech development
- How they got on with others (social interaction problems)
- Odd rituals or unusual habits that were hard to interrupt

Questions at age 12: Any of the following in past 6 mo?

- Hallucinations (visual, auditory)
- Delusions (being spied on, persecution, thoughts being read, reference, control, grandiose ability, other)
- Thought interference (thought broadcasting, insertion and withdrawal)

The association between early autistic traits and psychotic experiences in adolescence

Jones, R.B., et al., Schizophr Res, 2012. 136(1-3): p. 164-189

- “Childhood autistic traits, particularly speech problems and odd rituals or unusual habits, are associated with psychotic experiences in adolescence.

- This may be a result of a shared aetiology or because autistic traits may also be an early precursor of psychotic experience”

“Is Schizophrenia on the Autism Spectrum?”

King & Lord, 2011

- “Schizotypal Personality” is distinguished by “unusual preoccupations, unusual perceptual experiences, odd thinking and speech (e.g., overelaborate, or stereotyped), inappropriate or constricted affect, behavior or appearance that is odd, eccentric, or peculiar; lack of close friends or confidants other than first-degree relatives, and social anxiety...”

“Is Schizophrenia on the Autism Spectrum?”

King & Lord, 2011

- “What arguably distinguishes schizophrenia spectrum from autism spectrum in two individuals who otherwise share all of these symptoms is the presence of paranoid ideation...”

“Is Schizophrenia on the Autism Spectrum?”

King & Lord, 2011

- “Given the degree of overlap, one might reasonably ask if paranoid thinking could be a logical downstream consequence of a common underlying difficulty in the perception of social communication”

Theory of Mind



www.drcoplan.com

Theory of Mind

- Realization that other people have an internal mental & emotional state, different from one's own
- Ability to gauge the internal mental & emotional state of others
 - Able to infer motives & predict behavior of others
 - Empathy
 - Humor

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Q: What's happening in this picture?

© Coplan, J. Making Sense of Autistic Spectrum Disorders. Bantam-Dell, 2010



Q: What's happening in this picture?
A: The boy is hoarding animals.



Q: What's happening in this picture?
A: The kitten is on the boy's back and is about to eat him.

© Coplan, J. Making Sense of Autistic Spectrum Disorders. Bantam-Dell, 2010

What's happening in this picture?



What's happening in this picture?



Two strangers got into the house and are handing out newspapers.

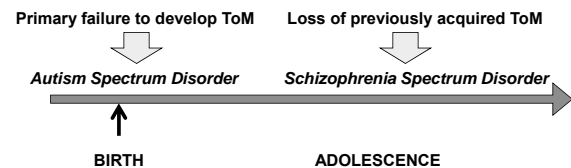
What's happening in this picture?



"They are stealing the children."

Possible Relationship Between ASD and SCZ

How would your behavior change, if you suddenly lost Theory of Mind (ToM)?



(b) - Intra-Familial: Psychiatric morbidity in the families of children with ASD



It's a family affair...

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The NERVOUS CHILD

Quarterly Journal of Psychopathology, Psychotherapy, Mental Hygiene, and Guidance of the Child

AUTISTIC DISTURBANCES OF AFFECTIVE CONTACT

By LEO KANNER

SINCE 1938, there have come to our attention a number of children whose condition differs so markedly and uniquely from anything reported so far, that each case merits—and, I hope, will eventually receive—a detailed consideration of its fascinating peculiarities.

Kanner, L. Autistic Disturbances of Affective Contact. *Nervous Child*, (2) 217-250, 1943
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Welcome

James Coplan, MD

Related Links

Here are some of my favorite links to other web sites and resources for parents. Check them out!

- AAP Offers Sound Advice on Autism: New Resource
- American Academy of Pediatrics
- autismresources.com
- Early Language Milestone Scale (ELM Scale-2)
- Leo Kanner: Autistic Disturbances of Affective Contact (Nervous Child, vol. II, 1943, pp. 217-250). The original and still the best discussion of autism in the young child.
- Pediatric@ Journal
- The Incredible 5 Point Scale
- Variety

PATHOLOGY

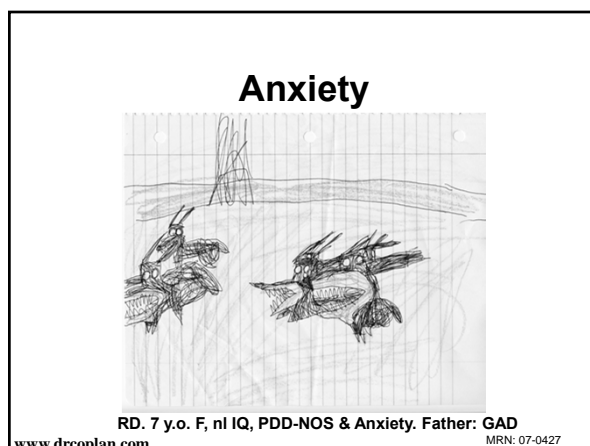
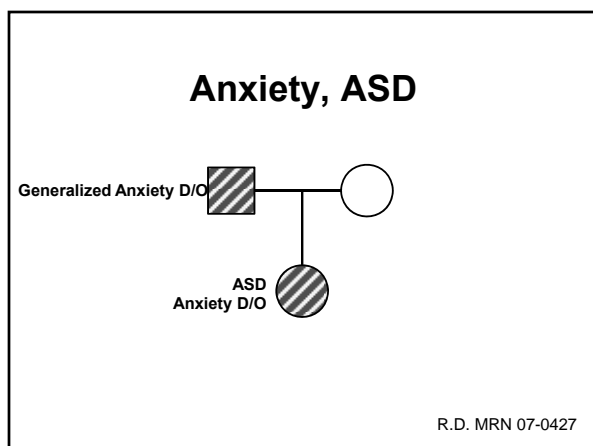
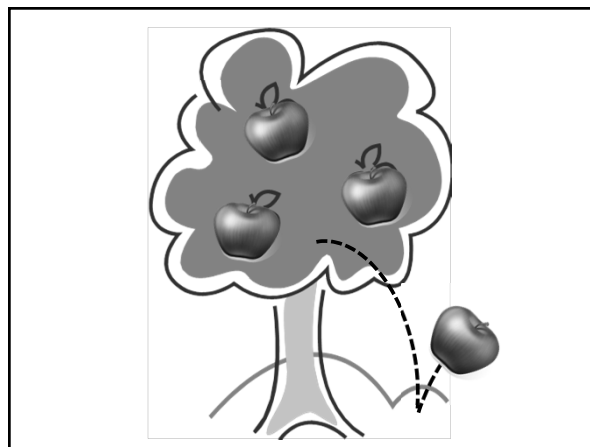
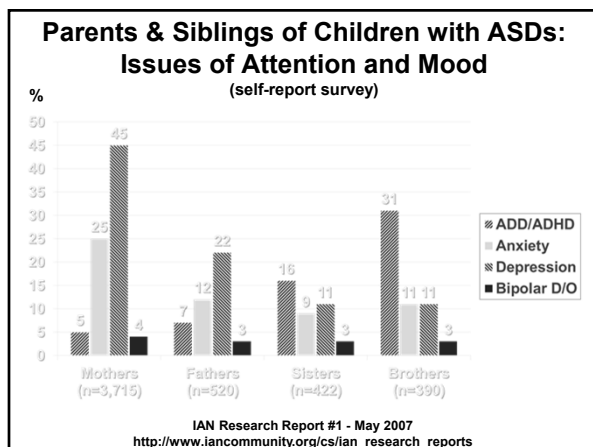
To understand and process emotional problems is very difficult. Psychological adjustment is a long and arduous process and the child's mind is not yet able to cope with the emotional and intellectual demands of the world.

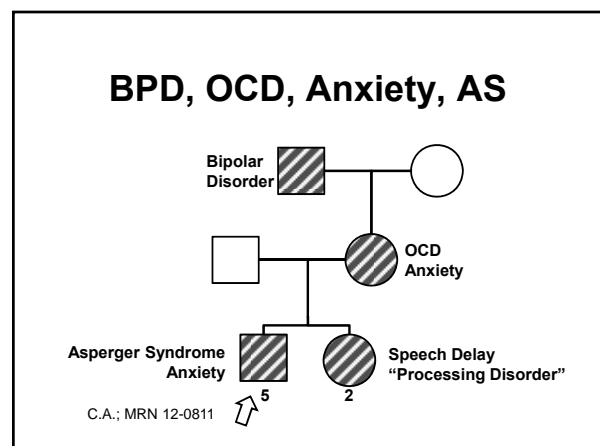
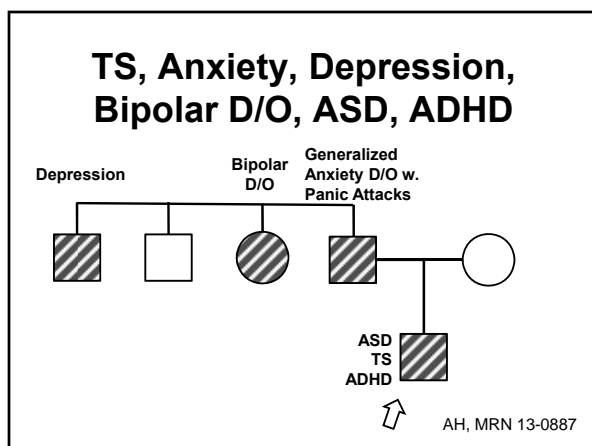
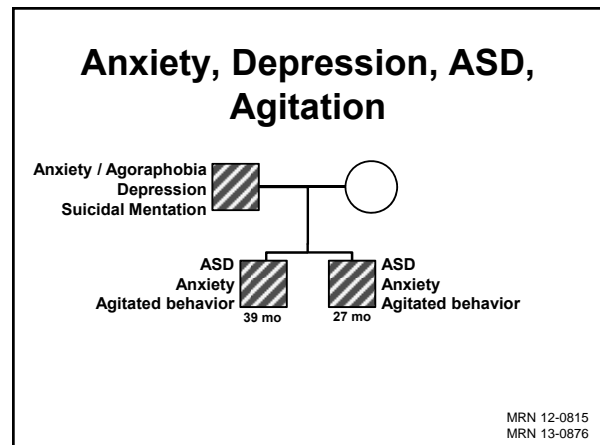
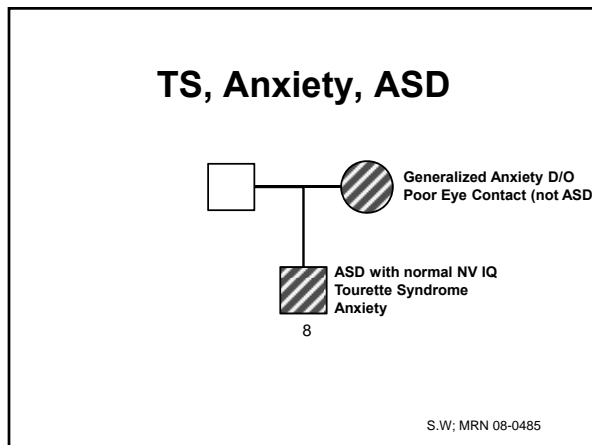
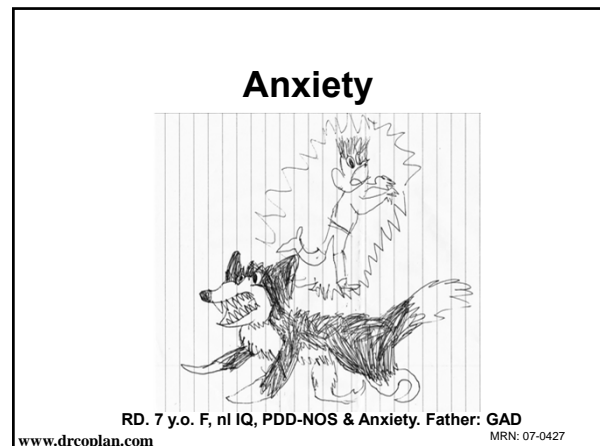
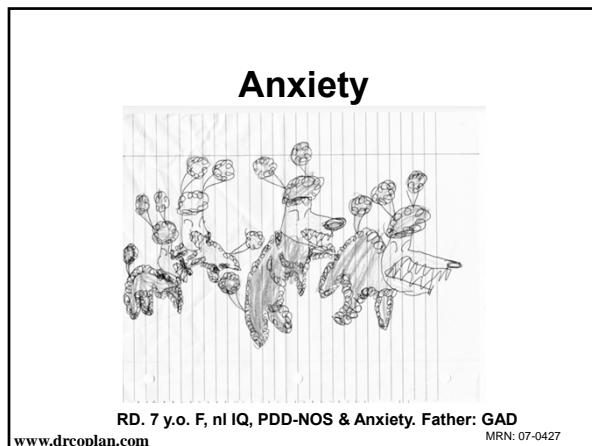
Autistic Disturbances of Affective Contact
By Leo Kanner

www.drcoplan.com

Kanner, 1943

[T]here is a great deal of obsessiveness in the family background. The very detailed diaries and reports and the frequent remembrances, after several years, that the children had learned to recite twenty-five questions and answers of the Presbyterian Catechism, to sing thirty-seven nursery songs, or to discriminate between eighteen symphonies, furnish a telling illustration of parental obsessiveness.





Severe mood problems in adolescents with autism spectrum disorder

Simonoff, E., et al., Journal of Child Psychology and Psychiatry, 2012, 53(11): p. 1157-1166

- 91 adolescents w. ASD (M: 83)
- Measures:
 - IQ, Adaptive function, neuropsych measures
 - “Severe Mood Problems (SMP) Scale”
 - Explosive rage
 - Low mood
 - Depressive thoughts
 - Labile mood
 - Maternal self-report (GHQ)
 - maternal mood, anxiety and somatic difficulties

Severe mood problems in adolescents with autism spectrum disorder

Simonoff, E., et al., Journal of Child Psychology and Psychiatry, 2012, 53(11): p. 1157-1166

- High SMP: 24 (26%)
- Predictors of High SMP:
 - Emotional & behavioral problems at age 12
 - Autism severity (by parent report)
 - Maternal GHQ: “*The current analyses suggest a specific relationship between maternal affective symptoms and SMP in offspring*”
- Not predictors:
 - Full Scale IQ
 - Adaptive function

Bullying Experiences Among Children and Youth with Autism Spectrum Disorders.

Cappadocia, M.C., J.A. Weiss, and D. Pepler, JADD, 2011

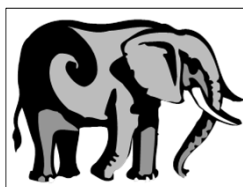
- 192 parents of children diagnosed with ASD age 5–21
 - AS (54%), HFA (14%), PDD-NOS (13%), Autism (19%)
- Bullied (physical, verbal, social, cyber) with the past month: 77%
 - 1 time: 11%; 2-3 times: 23%; weekly: 13%; two or more times per wk: 30%

Cappadocia, M.C., J.A. Weiss, and D. Pepler, Bullying Experiences Among Children and Youth with Autism Spectrum Disorders. JADD, 2011

Risk factors for being bullied	p*
Child - Gender	NS
Child - Age (being younger)	< .05
Child - Social skills deficit	NS
Child - Communication difficulties	< .05
Child - Internalizing mental health problems	< .001
Child - Externalizing mental health problems	NS
Parent - Mental health problems	< .01
Child - Fewer friends at school	< .05

*NS = Not statistically significant. Smaller p = less likely to occur by chance.

The Real Elephant in the Room



Child w. ASD (± MH D/O) + Parent w. MH D/O =



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Family Mental Health

(“We give our children roots and wings” — Hodding Carter)

Family Mental Health is a key ingredient in outcome for all children, but especially for the child with developmental disability, who is less able to work around obstacles arising from family dysfunction than a child with normal development.

© James Coplan, 2013.

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Signs of Family Mental Health

- **Cognitive, Emotional, and Tactical Flexibility**
 - Shifting alliances (adults vs. kids, “boys vs. girls,” etc.)
 - Shifting roles (role of “hero” or “in the doghouse”)
 - Shifting solutions (one size does not fit all; “equitable” vs. “equal”)
 - Shifting combinations for activities. All legitimate combinations should come up once in a while.
- **Sense of humor / playfulness / resilience**

© James Coplan, 2013.

www.drcoplan.com

Danger Signs

- **Inflexibility**
 - Fixed roles
 - Fixed solutions
- **Hypervigilance**
 - Lack of trust in care providers
- **Social Isolation**
 - “Circle the wagons”
 - “Nobody helps us!”

Vignette #1

- ***“Obedience is very important to me.”***
 - Father of 10 y.o. boy with ASD
 - Fa: Untreated anxiety d/o
 - Keeps unsecured firearms in the home
 - Describes son with ASD as “a predator,” because “everything is all about him”

Vignette #2

- ***“Nobody helps us.”***
 - Mother of 14 y.o. boy with ASD
 - Mo.: Untreated Anxiety D/O
 - Family has no social supports
 - Child is on homebound instruction
 - Spends hours / day watching violent video games
 - Threatens to “kill” the examiner during evaluation when E. interrupts game play

Family Function: Resources

- The American Association of Marriage and Family Therapy
 - <http://www.aamft.org/iMIS15/AAMFT/>
- The Bowen Center
 - <http://www.thebowencenter.org/>

(c) - Basic Science

- **ADHD**
- **Anxiety**
- **ASD**
- **Bipolar D/O**
- **MDD (Major Depressive D/O)**
- **Schizophrenia**

Two more terms

- **Phenocopy:** Similar-appearing conditions arising from different genetic mechanisms



- **Pleiotropy:** Different-appearing conditions arising from the same genetic mechanism



Developmental brain dysfunction: revival and expansion of old concepts based on new genetic evidence

Andres Moreno-De-Luca^{1,2}, Scott M Myers³, Thomas D Challman⁴, Daniel Moreno-De-Luca⁵, David W Evans⁶, David H Ledbetter⁷

	Frequency in clinical cohorts ^a	Intellectual disability or developmental delay	Autism spectrum disorder	Schizophrenia	Epilepsy
22q11.2	1 in 167	✓	✓	✓	✓
16p11.2	1 in 241	✓	✓	–	✓
1q21.1	1 in 309	✓	✓	✓	✓
15q13.2-q13.3	1 in 358	✓	✓	✓	✓
7q11.23	1 in 415	✓	✓	–	✓
15q11.2-q13	1 in 553	✓	✓	✓	✓
17q21.31	1 in 700	✓	✓	–	✓
16p13.11	1 in 788	✓	✓	✓	✓
17q12	1 in 985	✓	✓	✓	✓
17p11.2	1 in 985	✓	✓	–	✓
8p23.1	1 in 1854	✓	✓	–	✓
5q35	1 in 1970	✓	✓	–	✓
3q29	1 in 2101	✓	✓	✓	–

^aFrequency in individuals referred for chromosomal microarray testing. Common indications for testing include neurodevelopmental disorders and multiple congenital anomalies.¹⁸

Table 1: Variable expressivity in selected microdeletion syndromes. Lancet Neurology 2013; 12: 406–414

Genetic relationship between five psychiatric disorders estimated from genome-wide SNPs

Cross-Disorder Group of the Psychiatric Genomics Consortium
Nature Genetics: v. 45, pp 984–994(2013)

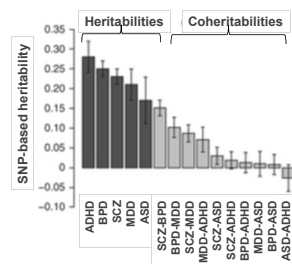
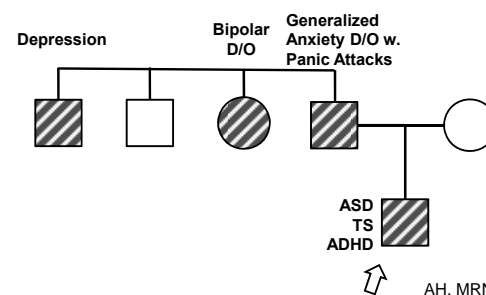


Fig. 1. Evidence for genome-wide pleiotropy between psychiatric d/o.

TS, Anxiety, Depression, Bipolar D/O, ASD, ADHD



deLacy & King 2013

There appears to be no question that a phenotypic continuum links the schizophrenia and autism spectra; moreover, it incorporates neuropsychiatric deficits associated with all of the classic neurodevelopmental disorders [ID...DD... ASD...ADHD, and SCZ]. Affected persons display some subset of symptoms from this neurodevelopmental superset, in individually varying phenotypes likely molded by pleiotropy, different types of genetic defects, and epigenetic mechanisms.

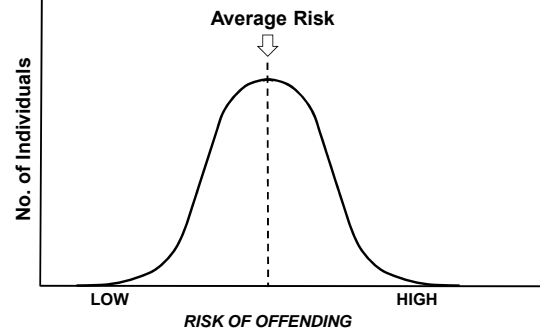


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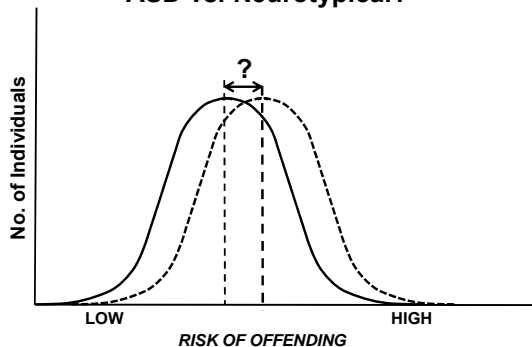
Outline

- 1) Statement of the Problem
- 2) Show me the data
- 3) Does ASD predispose to violent crime?**
- 4) Where do we go from here?

Everyone is at some risk for committing crime



ASD vs. Neurotypical?



Mouridsen, S.E., Current status of research on autism spectrum disorders and offending. *Research in Autism Spectrum Disorders*, 2012. 6(1): p. 79-86

- “There is a complete absence of research which has investigated the prevalence of ASD in general populations of people who had committed crime
- Results published so far provide no basis for addressing the question of whether an association exists between ASD and offending...”

Cohort Studies

Start with *an entire population* and follow all of them: Hard to do:*

ASD?	VIOLENT CRIME?		Risk of violence
	YES	NO	
YES	A	B	$A / (A + B)$
NO	C	D	$C / (C + D)$

Relative Risk (NO DATA)

“ASD-Yes” needs to be big enough to capture some children who commit crime. For example: If crime rate = 1%, we need **at least 100 children with ASD** to be reasonably sure of capturing at least one who commits crime (ignoring sampling error): $A=1$, $B=99$. If we assume a prevalence of ASD of 1 in 48, then $(C+D) = 4,700$ (Total sample size: 4,800)

Mouridsen, S.E., Current status of research on autism spectrum disorders and offending. *Research in Autism Spectrum Disorders*, 2012. 6(1): p. 79-86

- “Some studies have such small, unrepresentative samples that any estimate of prevalence of offending is epidemiologically meaningless
- Even the larger studies are of unrepresentative, clinical populations...”

Mouridsen, S.E., Current status of research on autism spectrum disorders and offending. *Research in Autism Spectrum Disorders*, 2012. 6(1): p. 79-86

“Currently, there is still no body of evidence to suppose that people with ASD are more prone to commit offences than anyone else. However, a small number of serious crimes can be linked to the core features of ASD.”

Asperger's syndrome in forensic settings

Murrie DC, Warren JL, and Kristiansson M
Int J Forensic Ment Health 1:59–70, 2002

Case Series of adult males referred for forensic evaluation

Charges:

- Arson: 1 (serial fire-setting x 11 episodes)
- Sexual assault: 4
- Attempted murder: 1

Asperger's syndrome in forensic settings

Murrie DC, Warren JL, and Kristiansson M
Int J Forensic Ment Health 1:59–70, 2002

Common Themes

- Deficient Empathy: Each of the four men charged with a sex offense, as well as the man who attempted murder, seemed genuinely unaware of the harm they caused their victims. Likewise, the arsonist appeared untroubled that he destroyed property belonging to strangers, rather than to those against whom he sought revenge
- Interpersonal Naiveté: A naïve and often impoverished understanding of human relationships... leaves AS patients vulnerable to mistreatment by others (and) may lead them to seek interpersonal contact in misguided ways

Asperger's syndrome in forensic settings

Murrie DC, Warren JL, and Kristiansson M
Int J Forensic Ment Health 1:59–70, 2002

Common Themes

- Immediate Confession: This could reflect a variety of traits ranging from deficient shame, poor judgment, lack of experience, or an impaired appreciation of the social and legal consequences of a confession, to simple forthrightness, rule-abiding behavior or honesty.
- Sexual Frustration: social impairments combined with a desire for attachment or sexual experience could lead to illegal behavior...The use of pornography was one socially tolerated ways by which several of the men in our sample pursued an impersonal sexual outlet....

Unlawful Behaviors in Adolescents and Adults with Autism Spectrum Disorders

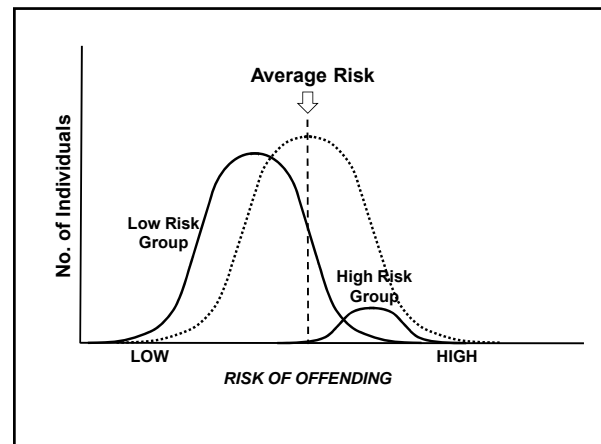
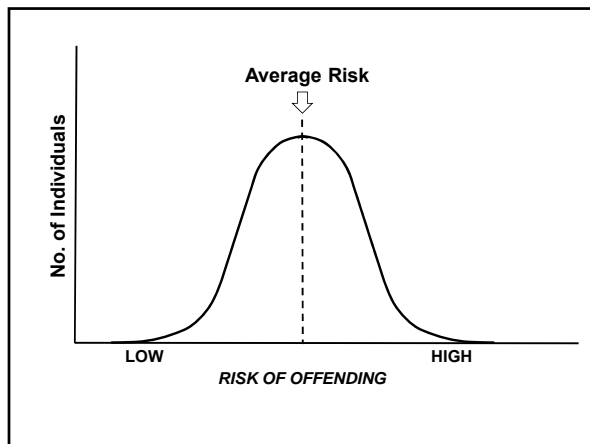
Woodbury-Smith, Marc

2014, *Adolescents and Adults with Autism Spectrum Disorders*, 269-281



Woodbury-Smith 2014

- “There are...no epidemiological community studies of unlawful behavior in ASD
- Small sample size and bias in ascertainment...limit the extent to which [the available] data can be... extrapolated to the wider ... ASD population
- Nonetheless, these data do suggest that small numbers of adults with ASD may be predisposed to violent unlawful behavior.”



Case Control Studies

Start with individuals who have **already committed crime**.

ASD?	VIOLENT CRIME?		
	YES	NO	
YES	A	B	
NO	C	D	
ODDS of having ASD	(A/C)	(b/d)	

↓
"Cases"
"Controls": Drawn from non-criminal population (but not all of B and D)

Odds Ratio:
"Convenience Samples"
• Clinical
• Criminal Justice

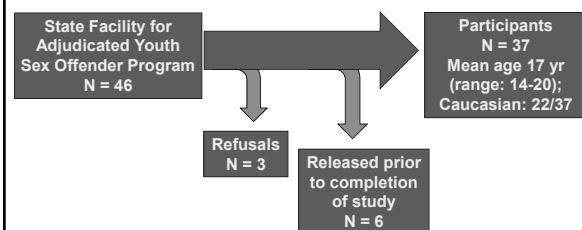
(A/C): ODDS that offender has ASD

(b/d): Odds that non-offender has ASD

(A/C) / (b/d) = **ODDS RATIO**: Are the odds of having ASD increased among offenders compared to non-offenders?

Identifying Individuals with Autism in a State Facility for Adolescents Adjudicated as Sexual Offenders: A Pilot Study

Sutton et. Al. Focus on Autism and Other Developmental Disabilities v 28 (3) 9/2013



Identifying Individuals with Autism in a State Facility for Adolescents Adjudicated as Sexual Offenders: A Pilot Study

Sutton et. Al. Focus on Autism and Other Developmental Disabilities v 28 (3) 9/2013



Autistic symptoms in childhood arrestees: longitudinal association with delinquent behavior

Journal of Child Psychology and Psychiatry, 2012. 53(2): p. 160-167

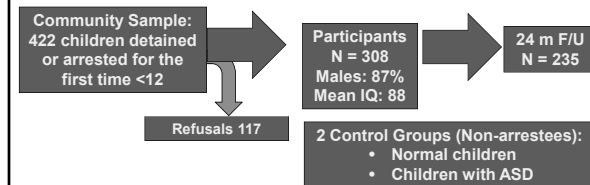
• Research Objectives:

- To compare childhood arrestees with matched comparison groups on levels of autistic symptoms
- To assess the predictive value of autistic symptoms for future delinquent behavior

- Children's Social Behavior Questionnaire (CSBQ)
- Observed Antisocial Behavior Questionnaire
- Diagnostic Interview Schedule for Children (DISC)

Autistic symptoms in childhood arrestees: longitudinal association with delinquent behavior

Journal of Child Psychology and Psychiatry, 2012. 53(2): p. 160-167



Autistic symptoms in childhood arrestees: longitudinal association with delinquent behavior

Journal of Child Psychology and Psychiatry, 2012. 53(2): p. 160-167

• Results:

- Indicators of atypicality (CBSQ):
 - ASD controls > Arrestees > Normal controls, $p < 0.01$
- For Arrestees:
 - CBSQ score predicted future delinquent behavior ($p < 0.001$), even after adjusting for externalizing behavior

Autistic symptoms in childhood arrestees: longitudinal association with delinquent behavior

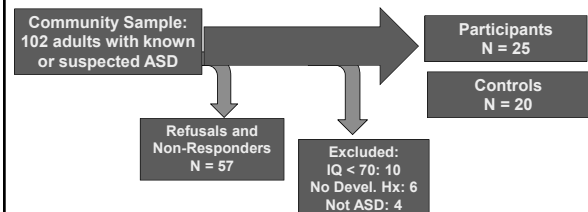
Journal of Child Psychology and Psychiatry, 2012. 53(2): p. 160-167

Conclusions:

- “Childhood arrestees...have more autistic symptoms than children from the general population and less than autistic individuals
- Among the arrestees, autistic symptoms were uniquely positively associated with future delinquent behavior
- Although mediated by co-occurring externalizing disorders, autistic symptoms predicted delinquent behavior over and above externalizing disorders”

High functioning autistic spectrum disorders, offending and other law-breaking: findings from a community sample

Woodbury-Smith et al; The Journal of Forensic Psychiatry & Psychology
Volume 17, Issue 1, 108-120, 2006



High functioning autistic spectrum disorders, offending and other law-breaking: findings from a community sample

Woodbury-Smith et al; The Journal of Forensic Psychiatry & Psychology
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High functioning autistic spectrum disorders, offending and other law-breaking: findings from a community sample

Woodbury-Smith et al; The Journal of Forensic Psychiatry & Psychology
Volume 17, Issue 1, 108-120, 2006

“The rate of law-breaking...was significantly lower [in the ASD group]....

However.... participants with a diagnosis of an ASD were significantly more likely to report activities which could be categorised as ‘criminal damage’. Moreover, they tended to have a greater history of violent behaviours.”

High functioning autistic spectrum disorders, offending and other law-breaking: findings from a community sample

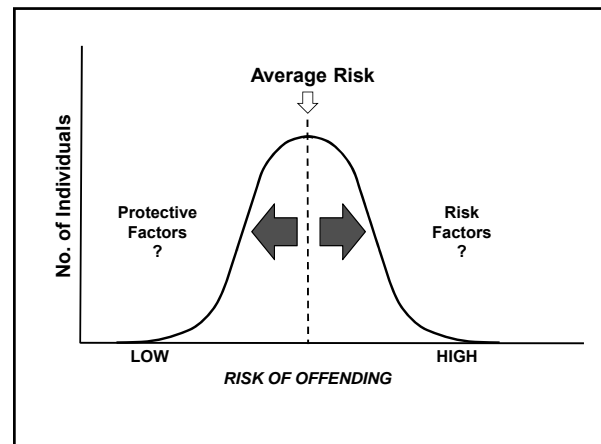
Woodbury-Smith et al; The Journal of Forensic Psychiatry & Psychology
Volume 17, Issue 1, 108-120, 2006

Table II. Results of Self-Reported Offending Questionnaire

Law-breaking (as category of offence)	ASD group: proportion (N) responding 'yes'	Comparison group: proportion (N) responding 'yes'	χ^2
Burglary	4% (1)	0% (0)	0.9
Robbery	0% (0)	0% (0)	0
Theft: handling stolen goods	9% (2)	10% (2)	0.1
Theft: shoplifting	11% (3)	20% (4)	0.7
Theft: other (see text)	0% (0)	0% (0)	0
Drug offences	11% (3)	55% (11)	10.6**
Criminal damage	19% (5)	0% (0)	4.1*
Violence (all offences)	30% (8)	25% (5)	0.1
History of conviction ²	7% (2)	NA	

Notes: *p<0.05; **p<0.01; ²History of convictions according to the Home Office Offenders' Index (see text). NA= No figures available.

* Plus: Arson: 1; Sexual assault of a minor: 1



Contents lists available at SciVerse ScienceDirect

Research in Autism Spectrum Disorders
2012 6(2): p. 949-957

Journal homepage: <http://ees.elsevier.com/RASD/default.asp>

ELSEVIER

The risk factors for criminal behaviour in high-functioning autism spectrum disorders (HFASDs): A comparison of childhood adversities between individuals with HFASDs who exhibit criminal behaviour and those with HFASD and no criminal histories

Chihiro Kawakami^{a,b}, Masafumi Ohnishi^{c,d,e}, Toshiro Sugiyama^c, Fumio Someki^c, Kazuhiko Nakamura^c, Masatsugu Tsujii^f

Kawakami, 2012

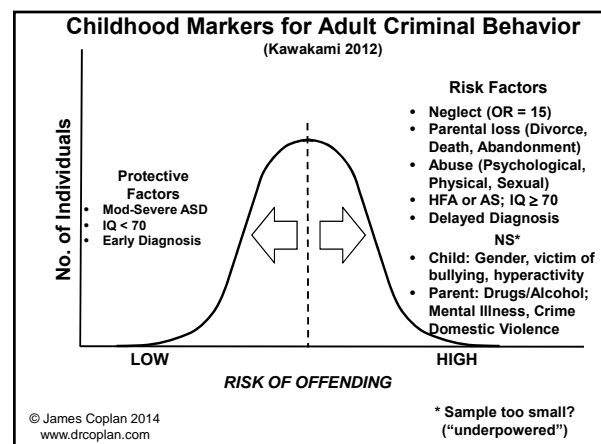
Subjects:

- 175 children & young adults with HFASD (M 147 / F 28)
 - “Criminals”
 - N=36 (M30 / F6)
 - mean age 16.8 y (range 7–30 y)
 - (theft, voyeurism, juvenile prostitution, violence, running away, arson, blackmail, internet harassment)
 - Controls
 - N=139 (M117 / F22)
 - mean age 14.9 y (range 6–28)

Kawakami, 2012

“Childhood adversities” (CAs):

- Maladaptive family functioning
 - Parental mental illness, substance use, criminality, family violence, physical or sexual abuse, neglect, loss of parent, divorce
- Plus:
 - Gender
 - Victim of bullying
 - HFA or AS vs. classical autism
 - Age at Dx of ASD



Pre vs. Post Autism “Explosion”

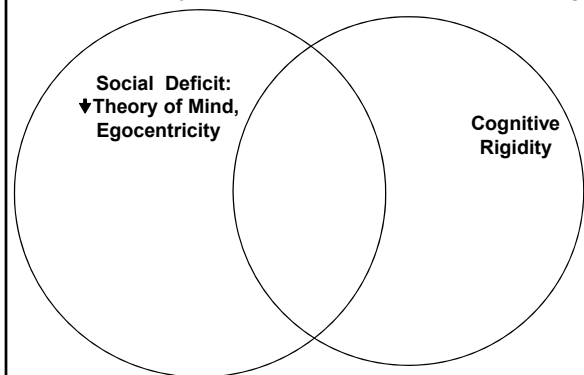
- **1990: IDEA**
 - Autism becomes reportable
- **1994: DSM IV**
 - Asperger Syndrome; Menu Diagnosis
- **↑↑ Reported cases**
 - Milder atypicality; IQ ≥ 70
- **Pre-mid 90’s crime data:**
 - Limited relevance, because the demographics of persons with ASD has changed radically

Core Features & Motives - Wing 1997

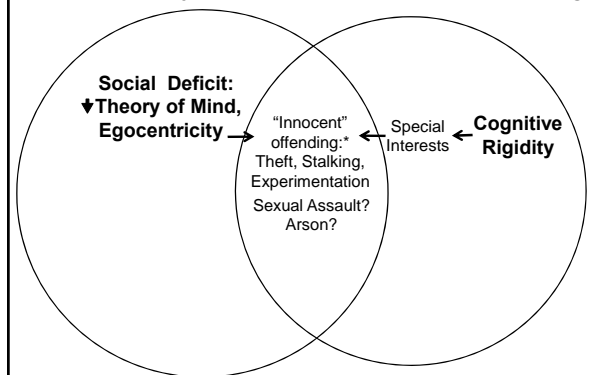
(Wing, L. (1997). Asperger's syndrome: Management requires diagnosis. *Journal of Forensic Psychiatry*, 8(2), 253-257)

- Assumption that own needs supersede all other considerations
- Lack of awareness of wrongdoing
- Intellectual interest (Asperger: “Autistic acts of malice”)
- Pursuit of “special” interests (objects, people)
- Hostility towards family
- Hyperarousal
- Vulnerability
- Cry for help
- Revenge

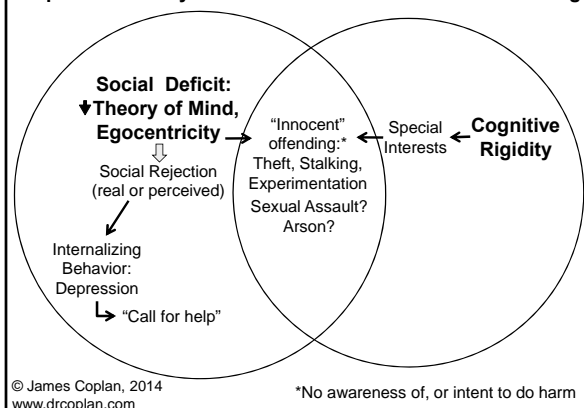
Proposed Pathways from Core Features of ASD to Offending



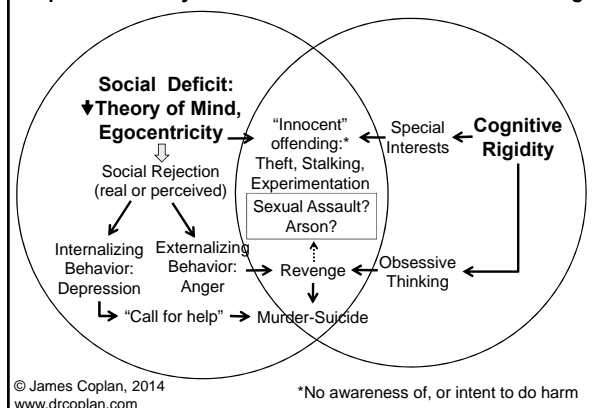
Proposed Pathways from Core Features of ASD to Offending



Proposed Pathways from Core Features of ASD to Offending



Proposed Pathways from Core Features of ASD to Offending



Crime in ASD: The Bottom Line (as of 2014)

- Overall rate of offending in ASD: *Unknown*
 - May be composed of low-risk and high-risk subgroups
 - Intrinsic risk factors
 - HFA / AS, IQ ≥ 70
 - Hyperarousal / Hyperactivity / Mental Illness?
 - Male gender?
 - Extrinsic risk factors
 - Delayed Dx
 - Neglect, Divorce, Abuse
 - Parental mental illness, drugs, crime?

Crime in ASD: The Bottom Line (as of 2014)

- What's Needed:
 - Large-scale community-based studies → Relative Risk of crime (ASD vs. Non-ASD)
 - Case-control studies in criminal populations → Odds of having ASD (Offenders : Non-offenders)
 - Identification of intrinsic and extrinsic risk factors
 - Implementation of targeted preventive strategies
 - Early Diagnosis
 - Family Mental Health
 - Other?



Outline

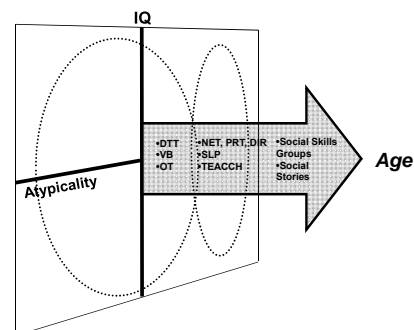
- 1) Statement of the Problem
- 2) Show me the data
- 3) Does ASD predispose to violent crime?
- 4) Where do we go from here?
 - 1) Individual & Family care
 - 2) System change

Individual Care

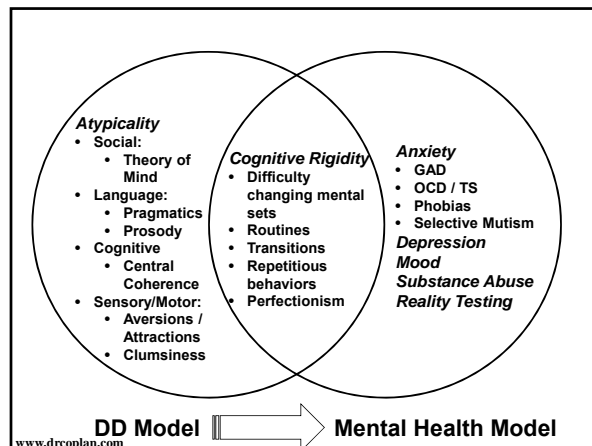
- Not “Co-Morbidity,” but Continuum and Metamorphosis
- “Losing the diagnosis” does not = “cure”
- Shift from Developmental Disability model to Mental Health model
- Need for adult services

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Progression of Interventions (DD Model)

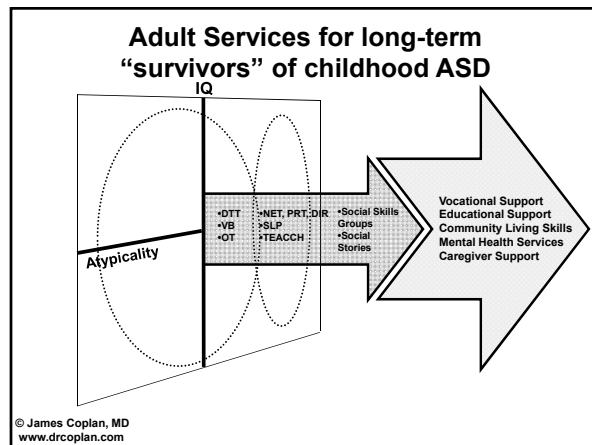


Coplan, J. Making Sense of Autistic Spectrum Disorders
Random House, 2010



School-Based MH Services

- **Proactively monitor student mental health**
 - Don't wait for academic failure or disruptive behavior
 - Positive Behavior Support for Internalizing Behavior
 - Embed MH services within schools?



Family Care

- **Recognize that ascertaining a child with ASD means strong possibility that one or both parents have Mental Health issues and/or family dysfunction that need to be addressed**
 - *This may be the single biggest element of the problem available for intervention*
 - *Addressing this issue will take a lot of people out of their comfort zone*

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Family Care

- **The family is a system → *The unit of treatment is the family***
- **Get both parents involved**
- **Assess mental health of all players**
- **Fostering the family's ability to move forward is my #1 goal. The child's parents & siblings will be involved with my patient long after I have left the stage.**

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Probe Questions

(In ascending order of intimacy)

- **Do you and your partner ever go out as a couple? When was the last time?**
- **Who else do you have as supports?**
- **What have you told your other children / parents?**
- **Tell me a little bit about yourself / how you were raised / your own mental health?**


Guiding Principles

- **No medication unless parents agree to behavioral and/or MH evaluation for their child and/or themselves, if I deem it necessary**

Systems Change

- **ASD community needs to make common cause with MH community in advocating for child and adult MH services**
 - Distinction between ASD and “psychiatric disorder” not scientifically tenable
 - Not financially viable
 - Not in the best interests of children and families
- **Barriers**
 - Hard to shift mental sets
 - Fear, Stigma
 - Institutional inertia / turf





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Thank you

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