

The Developmental Course of Autism Spectrum Disorder Impacts Intervention Selection

James Coplan, MD
Neurodevelopmental Pediatrics of the Main Line, PC
<http://www.DrCoplan.com>
info@drcoplan.com



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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



- This presentation will include a discussion of off-label drug use

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Topics

- Core features of ASD
- Co-Morbidity
- Etiology
- Epidemiology (the “explosion”)
- Prognosis (the “Natural History”)
- Developmental / Educational Interventions
- Behavior Management & Medication
- Quackery
- Family Matters
- Transition to Adulthood / Long-term issues

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Topics

- Core features of ASD
 - Social
 - Language
 - Cognitive Rigidity & Repetitive Behavior
 - Sensorimotor
- Co-Morbidity
 - IQ
 - Mental Health
- Prognosis (the “Natural History”)
- Developmental / Educational Interventions
 - Bottom-Up ➔ Top-Down
- Transition to Adulthood

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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
www.drcoplan.com



Kanner, 1943

- N = 11 (M 8; F 3)
- Age: 2 to 8 yr.
- Clinical Features:
 - Impaired socialization
 - Idiosyncratic language
 - Repetitious behaviors
 - Unusual responses to sensory stimuli

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

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Impaired Socialization

- “Aloof”
- “Withdrawn”
- Limited eye contact
- Indifferent to others

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Impaired Socialization “In his own little world”



Age: 22 months. Nonverbal. CARS=44.

MRN 11-0741

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Idiosyncratic Language

- Echolalia
- Delayed Echolalia
- Pronoun Reversal
- Odd inflection

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Repetitious Behaviors

- Rigid Routines
- Stereotypies
- Lining up / spinning objects

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Unusual sensory responses

- “Petrified of vacuum cleaner”
- Drawn to, or afraid of, spinning objects
- Mouthing behavior
- Ingesting inedible materials
- Food selectivity

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Kanner, 1938 → 1943

- Gradual improvement in early childhood
 - Social skills
 - Language
 - Cognitive flexibility
 - Sensory Aversions

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Kanner, 1938 → 1943

“Between the ages of 5 and 6 years, they gradually abandon echolalia and learn spontaneously to use personal pronouns.

“Language becomes more communicative, at first in the sense of a question-and-answer exercise, and then in the sense of greater spontaneity of sentence formation....

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

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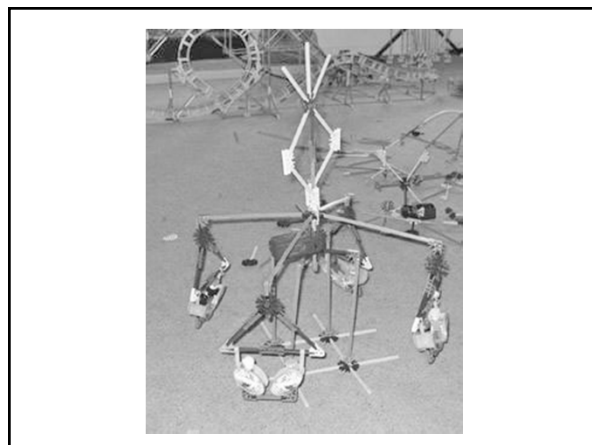
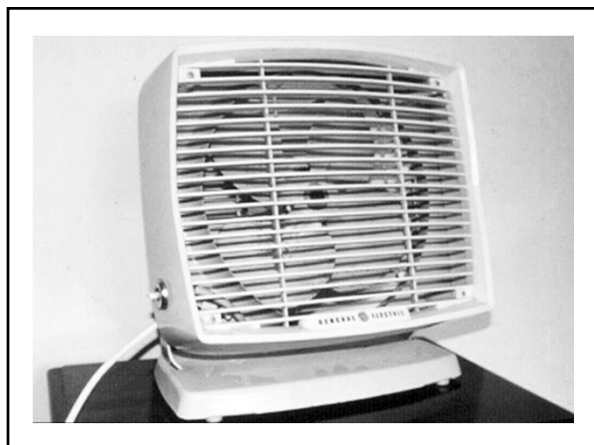
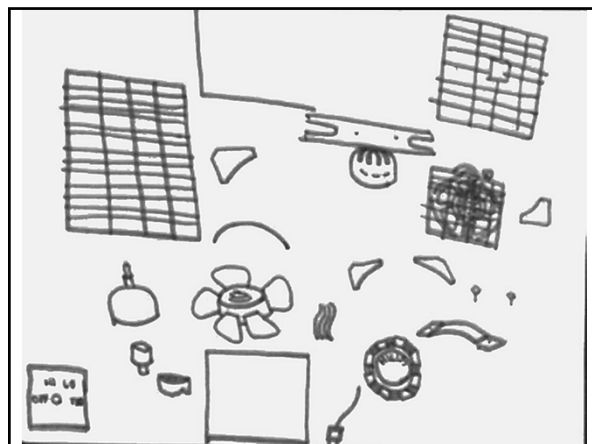
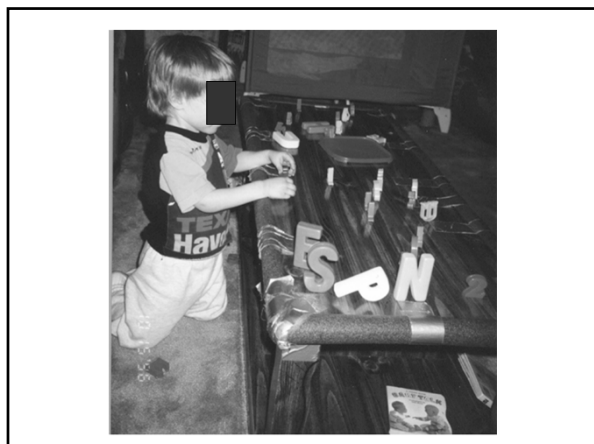
Kanner, 1938 → 1943

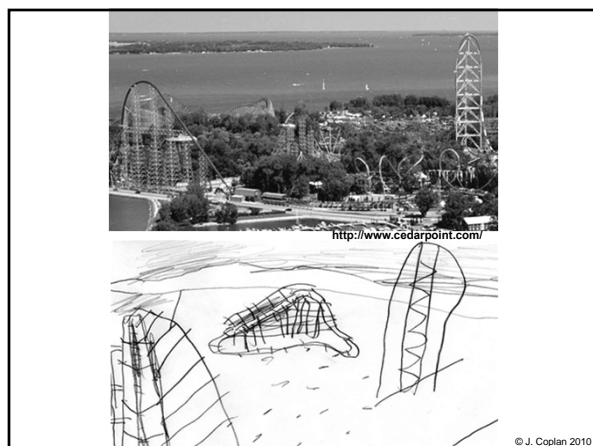
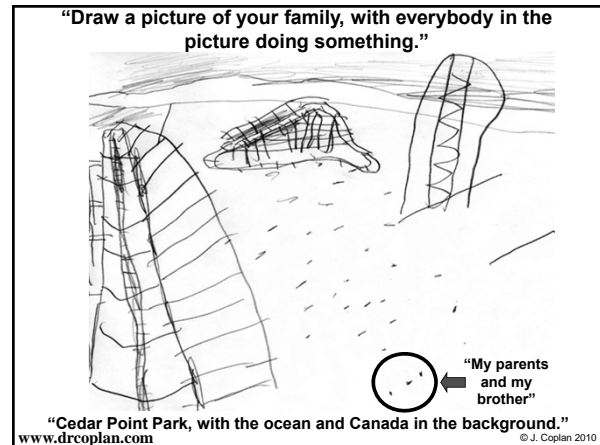
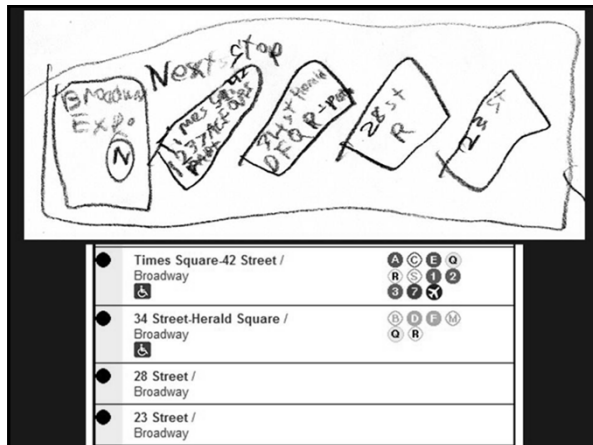
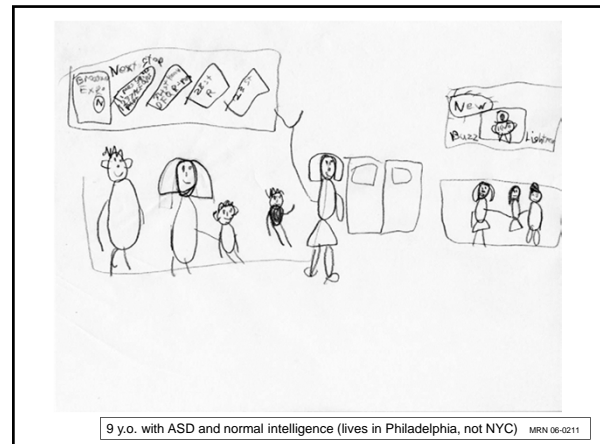
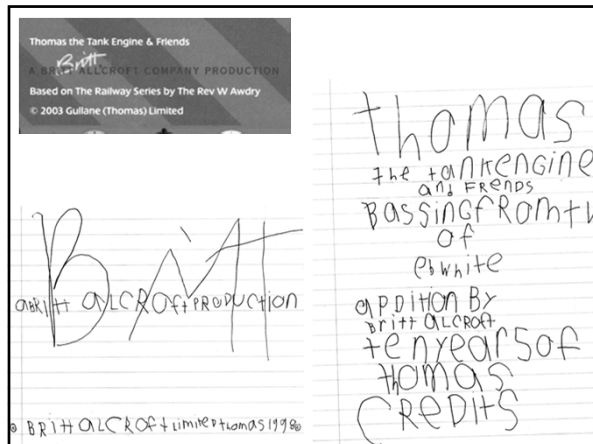
“Food is accepted without difficulty. Noises and motions are tolerated more than previously. The panic tantrums subside. The repetitiousness assumes the form of obsessive preoccupations...

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

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Kanner, 1938 → 1943

“Reading skill is acquired quickly, but the children read monotonously, and a story or a moving picture is experienced in unrelated portions rather than in its coherent totality...”

*** “Central coherence”**
Kanner, L. Autistic Disturbances of Affective Contact. Nervous Child, (2) 217-250, 1943

www.drcoplan.com

Kanner, 1938 → 1943

“Between the ages of 6 and 8, the children begin to play in a group, still never with the other members of the group, but at least on the periphery alongside the group.

Kanner, L. Autistic Disturbances of Affective Contact. Nervous Child, (2) 217-250, 1943
www.drcoplan.com

Kanner, 1938 → 1943

“People are included in the child's world to the extent to which they satisfy his needs...”

Kanner, L. Autistic Disturbances of Affective Contact. Nervous Child, (2) 217-250, 1943
www.drcoplan.com

Kanner, 1938 → 1943

All of this makes the family feel that, in spite of recognized ‘difference’ from other children, there is progress and improvement.

Leo Kanner, 1943

Kanner, L. Autistic Disturbances of Affective Contact. Nervous Child, (2) 217-250, 1943
www.drcoplan.com

Kanner, 1971

- Deceased: 1
- Lost to follow-up: 2
- Institutionalized: 5
- Living on work farm: 1
- Living at home: 2
 - BA degree / bank teller
 - Sheltered workshop / machine operator

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Kanner's contributions

- Clinical Description
 - Social, Language, Repetitious behavior, & Sensory aversions / attractions
- Attribution: An “inborn error of affective contact”
- Described the *Natural History* of improvement over time

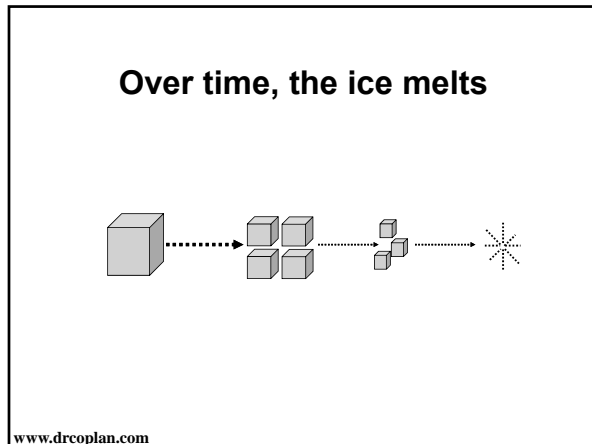
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Natural History: “The temporal course a disease from onset to resolution”

Center for Disease Control & Prevention

ASD has a *Natural History*

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**Quantifying severity of ASD,
and changes over time**

➔

Clinical Domain • Social • Language • Repetitious Behavior • Sensory	Decreasing Atypicality Increasing Age		
	Severe / Youngest	Moderate / Older	Mild / Older

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Social Interaction

“Our child is *among* us, but not *with* us.”
Parent of a 4 year old with ASD

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↓

Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
	Severe / Youngest	Moderate / Older	Mild / Older
1. Social Interaction	<ul style="list-style-type: none"> •No eye contact •No physical affection •Cannot be engaged in imitative tasks 	<ul style="list-style-type: none"> •Intermittent eye contact •Seeks affection “on his own terms” •May invade personal space of others (not true affection) •Engageable in imitative tasks, although with difficulty 	<ul style="list-style-type: none"> •Good eye contact •Shows interest in others, but often does not know how to join in •Easily engaged in imitative activities •Rigid; has difficulty if perceives that rules have been broken •Difficulty with “Theory of Mind” tasks

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↓

Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
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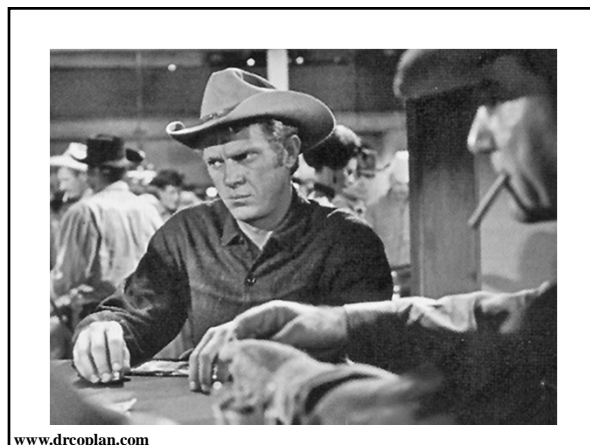
Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
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Theory of Mind

- 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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Theory of Mind

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Theory of Mind

Muff

Muff is a little yellow kitten.
She drinks milk.
She sleeps on a chair.
She does not like to get wet.

What is this story about?
How would Muff feel, if you gave her a bath?

- Clean

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Theory of Mind

Camping

Six boys put up a tent by the side of the river. They brought things to eat with them. When the sun went down, they went into the tent to sleep. In the night, a cow came and began to eat grass around the tent. The boys were afraid. They thought it was a bear.

Is this a sad story, a scary story, or a funny story?

- A scary story, because the boys were scared. (PDD-NOS)
- It was a most unusual story, because you don't often find cows in the woods. (Asperger Syndrome)

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Language

“My child talks, but he doesn’t communicate.”

Mother of a 3 year old with autism

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Language Deficits in ASD

- **Pragmatics:** Use of language for the purpose of social interaction
 - Framing
 - Topic maintenance
 - Conversational repair
 - Impaired Pragmatics:
 - Nonverbal
 - Echolalia, delayed echolalia
 - Off-topic responses
 - Person talks “at” rather than “with” partner

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Language Deficits in ASD

- **Prosody:** Tone, Pitch, Volume
 - Stilted
 - Sing-song
 - Robotic
 - Pedantic
 - Overly loud

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Quantifying severity of ASD - 2

Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
	Severe / Youngest	Moderate / Older	Mild / Older
2. Language •Pragmatics •Prosody	•Nonverbal •No response to voice; may “act deaf” •No use of gestures as a means of compensating for absence of spoken language •May use “hand-over-hand” to guide caregiver to desired objects	•Echolalia, Delayed echolalia •Verbal Perseveration •Odd Inflection (stilted, sing-song, ↑↓ volume) •May use stock phrases in an attempt to communicate •Makes use of visual modalities (symbol cards; sign language)	•Speaks fluently, but literal; lacks understanding of verbal nuance •Difficulty with Pragmatics (framing, turn-taking, topic maintenance; conversational repair; talks “at” rather than “with” others) and Theory of Mind language tasks (fibbing; humor, verbal make-believe)

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Repetitious Behavior

“My child has over-attention deficit disorder.”

Father of a 10 year old with autism and perseverative behavior

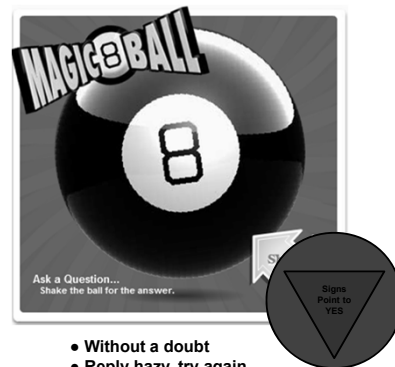
Repetitious behavior in ASD

- **A direct expression of the underlying biology**
 - Cognitive Rigidity
 - Stereotypies
- **Stress relief**
- **A coping mechanism, to offset deficits in Theory of Mind & Central Coherence**

Quantifying severity of ASD - 3

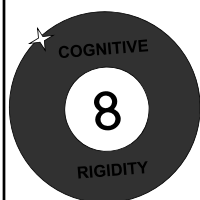
Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
	Severe / Youngest	Moderate / Older	Mild / Older
3. Repetitious Behaviors <i>Cognitive Rigidity</i>	<ul style="list-style-type: none"> • Extreme distress if routines are changed or when required to transition from one task to another • Fascination with odd objects (tags, wheels, fans, etc.) 	<ul style="list-style-type: none"> • Same, but with diminishing level of distress; able to accept verbal preparation for changes in routine • Complex repetitious play (lining up objects, memorizes numbers, letters, etc) 	<ul style="list-style-type: none"> • May demonstrate conscious awareness of preference for routines; easier to self-modulate • Play remains repetitious, but repetitive quality is more subtle; preoccupation with arcane topics • Problems with Central Coherence
<i>Motoric</i>	<ul style="list-style-type: none"> • Frequent, intense stereotypical movements (flapping, spinning, toe-walking, finger twiddling) 	<ul style="list-style-type: none"> • Motor stereotypies occasional; may re-emerge when excited 	<ul style="list-style-type: none"> • Motor stereotypies rare or absent

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- Without a doubt
- Reply hazy, try again
- Signs point to NO
- Better not tell you now...

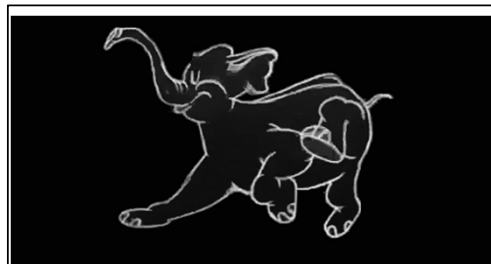
Cognitive Rigidity



- "Externalizing Behaviors"
- Inability to shift mental sets
 - Insistently repetitious behavior
 - Compulsions
 - Obsessions
 - Perfectionism
 - (Anxiety)
 - (Depression)

"Internalizing Behaviors"

How to you kill a blue elephant?



Shoot it with a blue elephant gun.

How to you kill a pink elephant?

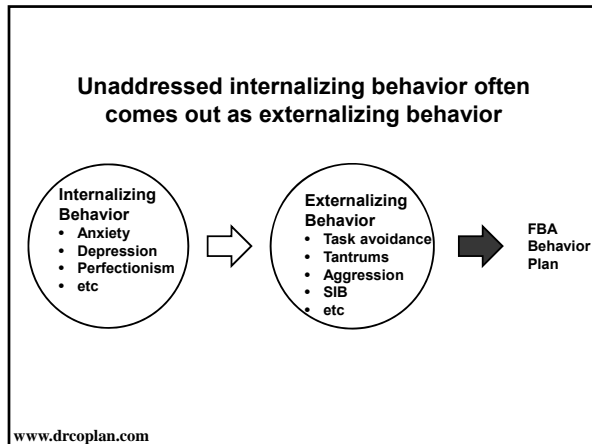


Hold it by the trunk until it turns blue, then shoot it with a blue elephant gun.

Unaddressed internalizing behavior often comes out as externalizing behavior



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The Story of Billy's Box - 1
(or, why it's important to ID internalizing behavior)

- 8 y.o. boy with ASD and normal Nonverbal IQ
- Severe tantrums at school
- Antecedents:
 - TRANSITIONS
- Function?
 - Not attention, escape, access
 - “Biological” (i.e. just part of his ASD)?

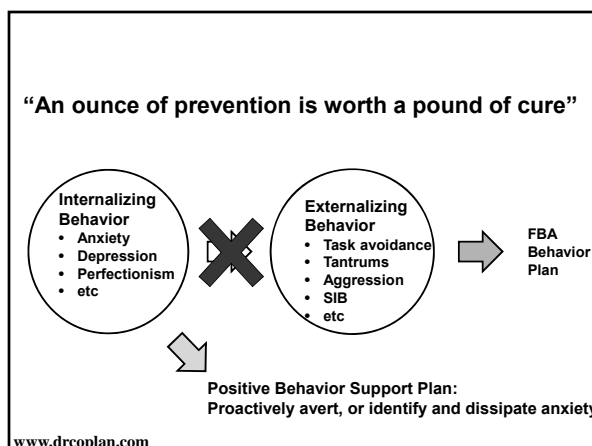
The Story of Billy's Box - 2
(or, why it's important to ID internalizing behavior)

Q: “Billy – You’re always getting in trouble at school. What’s going on?”

A: “I’m afraid that if I hand in my work, I’ll never get a chance to go back and make it perfect.”

The Story of Billy's Box - 3
(or, why it's important to ID internalizing behavior)

“Put your papers in the box, and we promise you will be able to go back later and work on them some more, if you want to.”



Central Coherence

- Ability to see “the big picture” rather than a collection of individual elements

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**Tasks requiring Central Coherence
(in addition to Theory of Mind)**

What's happening in this picture?



What's happening in this picture?



"The man is drowning."

What's happening in this picture?



"The man is swimming, and the car is about to fall on him."

What's happening in this picture?



A: The man took off his clothes and jumped in the water.
Q: Why did he do that?
A: Because the car was about to crash?

What's happening in this picture?



What's happening in this picture?



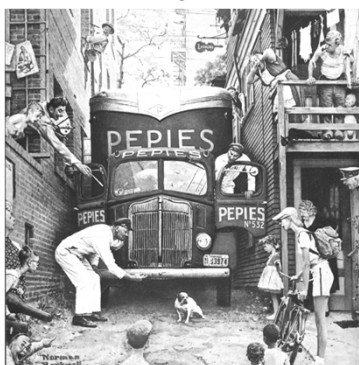
"The girl is screaming."

What's happening in this picture?

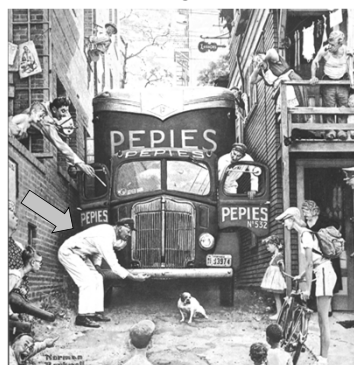


"That girl is trying to steal the other girl's book."

What's happening in this picture?



What's happening in this picture?



"The man is trying to fix the truck."

What's happening in this picture?



"The man is playing with his dog. The truck can't go because all the people are in the way."

Can you figure out this story from the pictures?





Q: What's happening in this picture?

A: The kitten is on the boy's back and is about to eat him.

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Q: What's happening in this picture?

A: The boy is hoarding animals.

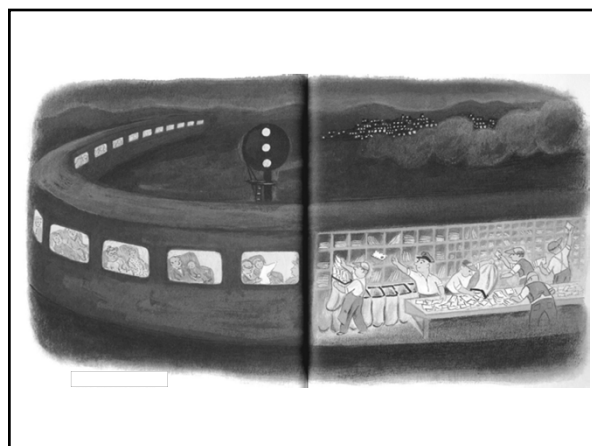
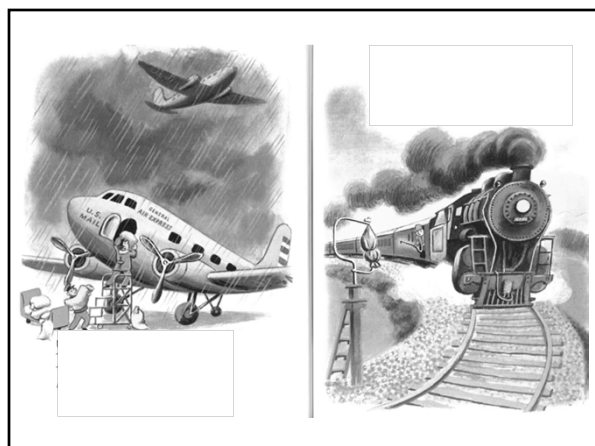
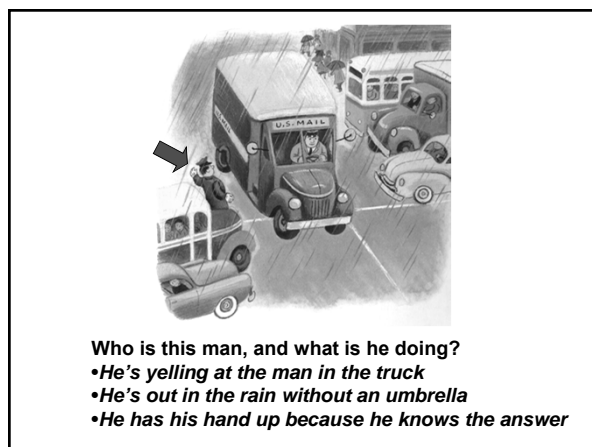
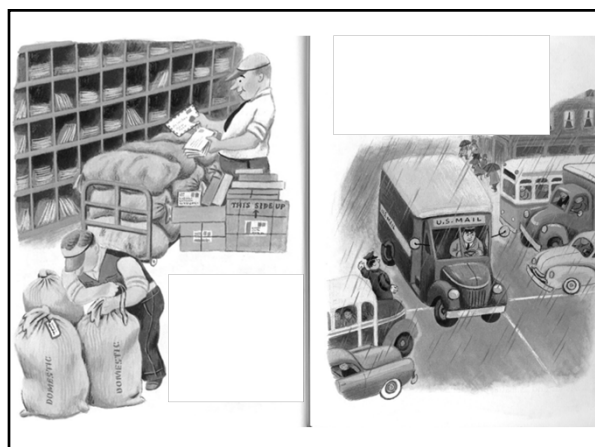
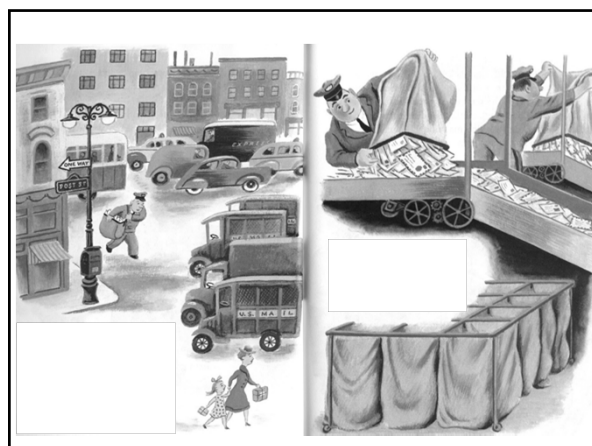
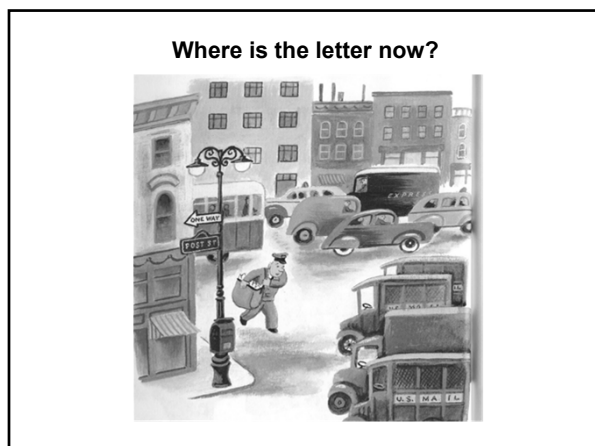


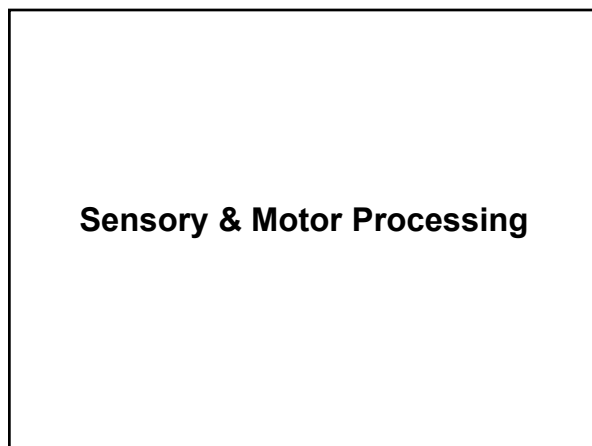
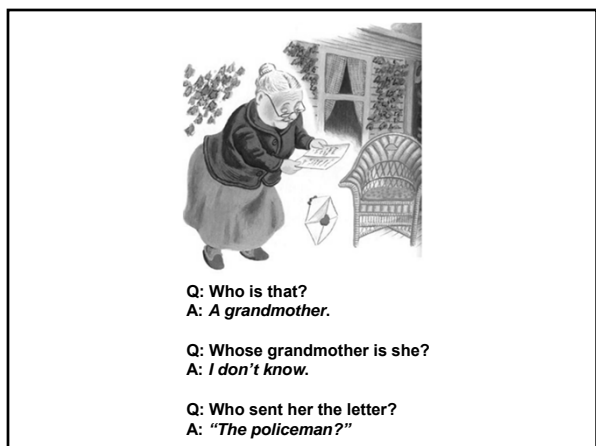
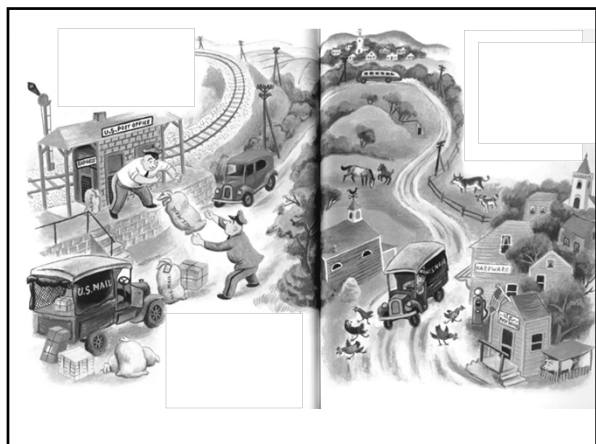
Q: What's this?

A: It's a rectangle with a triangle and an X on it.

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Quantifying severity of ASD - 4

Clinical Domain ↓	Decreasing Atypicality / Increasing Age ⇒		
	Severe / Youngest	Moderate / Older	Mild / Older
4. Sensorimotor: • Intense aversion or attraction to specific classes of stimuli • Clumsiness	<ul style="list-style-type: none"> • Auditory: Hyperacusis, covers ears, acts deaf • Visual: self-stimulation (lights/patterns); looks at objects from odd angles • Tactile: rubbing, licking, mouthing, deep pressure; averse to light touch • Olfactory: Sniffing • Extreme food selectivity • ↑ Pain threshold • Fears: Heightened / blunted 	Same, but diminishing intensity	Same, but diminishing intensity

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Abnormal responses to sensory stimuli



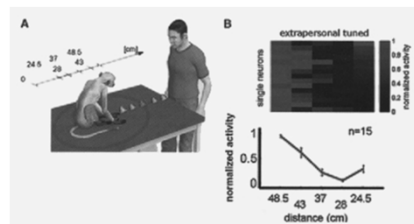
© Coplan, J. Making Sense of Autistic Spectrum Disorders. Bantam-Dell, 2010

Sensory Processing

- Subjective Properties
 - Familiar / Unfamiliar
 - Pleasant / Unpleasant
 - Strong / Weak
 - Internal / External
- Sensory Input → Self-awareness
 - Fine motor coordination
 - Personal Space
- Mirror Neurons → Empathy

Mostofsky, S. and J. Ewen, *Altered Connectivity and Action Model Formation in Autism Is Autism*. Neuroscientist, 4/15/2011
www.drcoplan.com

Mirror Neurons: The Missing Link?



Caggiano et al Science 17 April 2009. Mirror Neurons Differentially Encode the Peripersonal and Extrapersonal Space of Monkeys



Figure 2.5. Stimulus faces of Andrew Meltzoff and a young mimic.

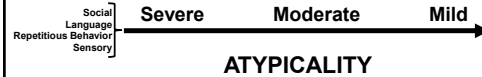
Meltzoff, Andrew N. and Moore, M. K. Imitation of facial and manual gestures by human neonates. Science 198:75-78, 1977



http://en.wikipedia.org/wiki/File:Makak_neonatal_imitation.png



“The Spectrum”: ASD in One Dimension



Atypical features can range from severe to mild

Coplan J Atypicality, intelligence and age: a conceptual model of autistic spectrum disorder. Dev Med Child Neurol 2003 45(10):712-6



Topics

- Core features of ASD
 - Social
 - Language
 - Cognitive Rigidity & Repetitive Behavior
 - Sensorimotor
- Co-Morbidity
 - IQ
 - Mental Health
- Prognosis (the “Natural History”)
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Atypicality vs Delay

- **Delayed:** Behavior would be normal in a younger child
 - Ex: Pulling to stand at 18 months; normal tone & reflexes
 - Ex: Babbling in a 24 month old
- **Atypical:** Behavior would be abnormal at any age
 - Ex: Spasticity & hyperadduction
 - Ex: Reciting TV commercials but not saying “mama” or “dada”

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Measuring intelligence in ASD

- How to operationalize the measurement of intelligence in ASD?
 - Omit ASD-specific areas of dysfunction or inflator scores:
 - Language
 - Social judgment
 - Savant skills
 - What’s left?
 - Non-verbal Problem-Solving
 - Adaptive skills (somewhat)
 - Play skills (somewhat)

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Non-verbal Problem-Solving

- Object permanence
- Tools (Spoon, Crayon)
- Cause & Effect
- Rule-based behavior

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Problem-Solving

1" Cubes

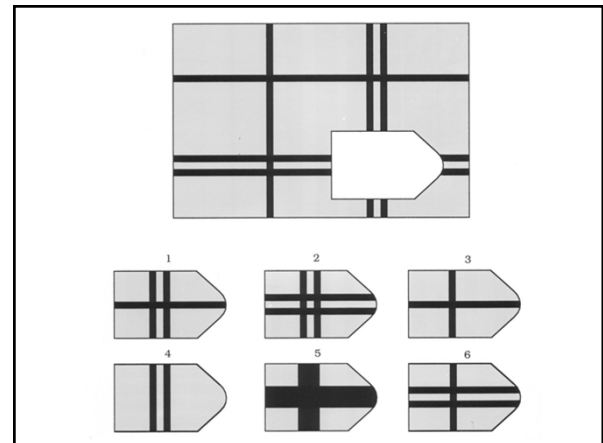
- Takes one: 6 m
- Transfers: 7 m
- Bangs two: 9 m
- Takes three: 10-12 m
- Copies
 - 14 m
 - 18 m
 - 24-27 m
- Builds:
 - 30-36 m
 - 3 1/2 yr
 - 4 yr
 - 5 yr
 - 6 yr

Problem-Solving

Crayon

- Mouths: < 9 m
- Makes marks 10-12 m
- Scribbles p demo: 14 m
- Scribbles spont: 16 m
- Alternates from stroke to scribble: 22 m
- - 24-27 m

- Draws:
 - 30-36 m
 - 3 1/2 yr
 - 4 yr
 - 5 yr
 - 6 yr



Adaptive Skills

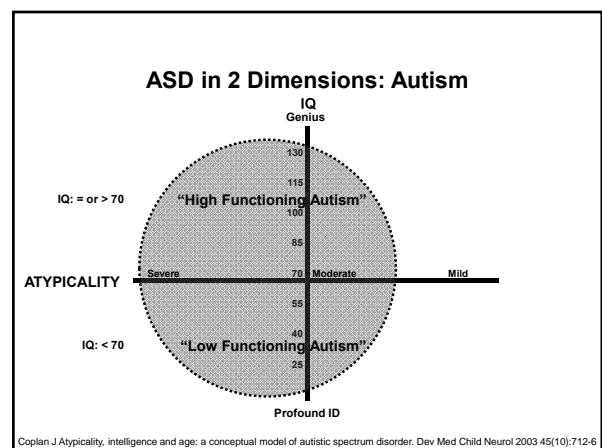
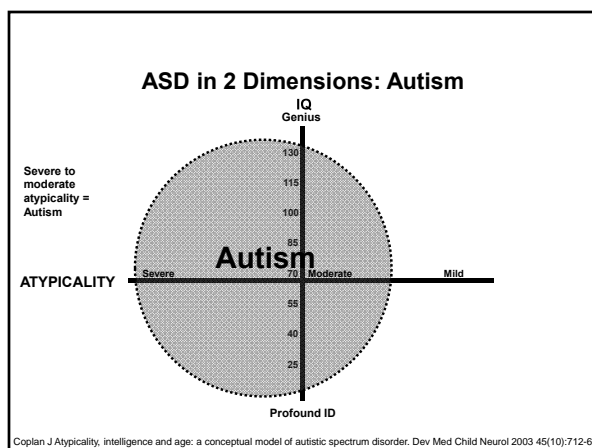
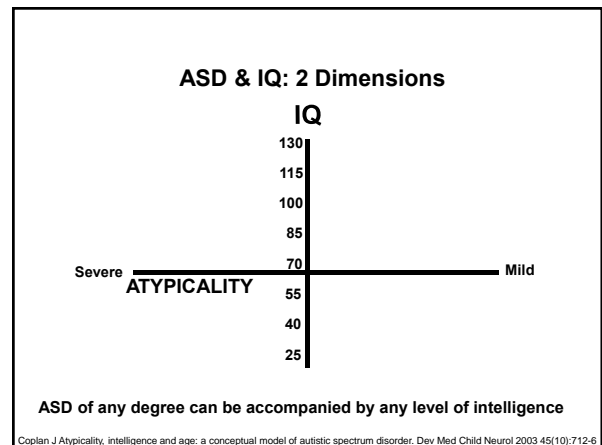
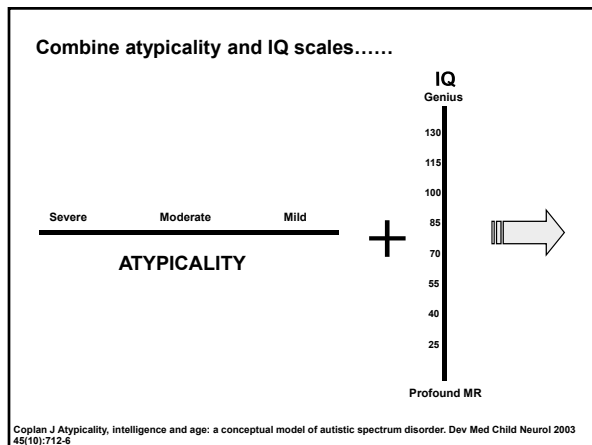
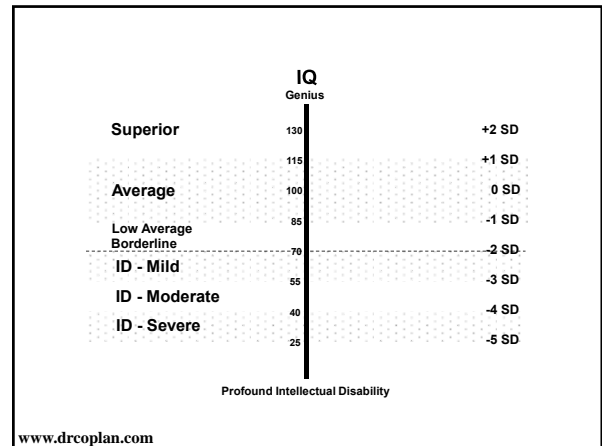
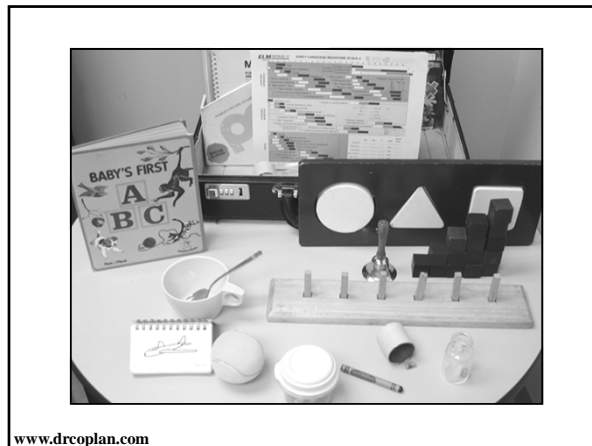
- Self-feeding
 - Finger-feeding
 - Cup
 - Spoon (tool use)
- Self-dressing
 - Unbuttoning, buttoning
 - Zippers, Snaps
 - Tie shoes
- Toilet-training

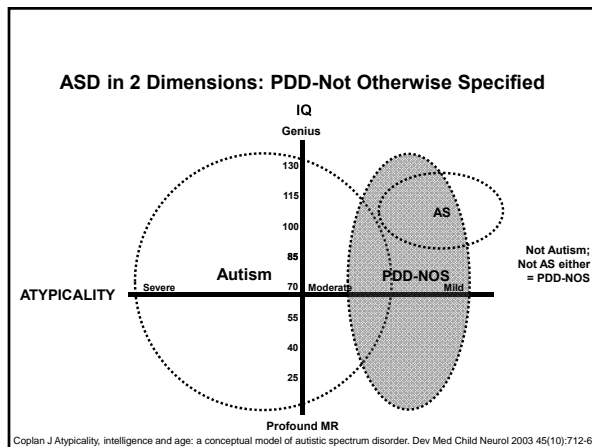
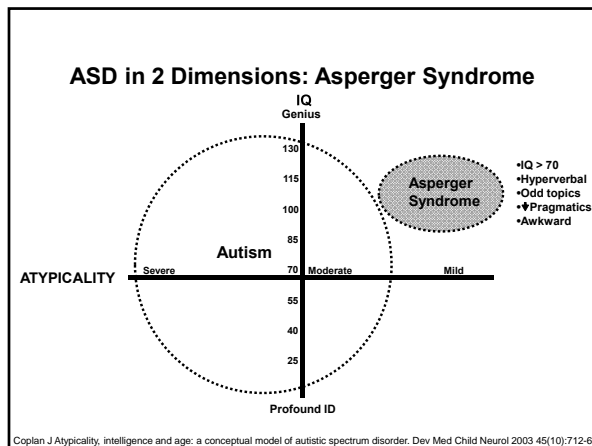
www.drcoplan.com

Play

- Midline hand play (3 mo)
- Banging & Mouthing (7 - 9 mo)
- Casting (12 mo)
- Tools (crayon) ~ 14 mo
- Cause & Effect (14 to 16 mo & up)
- Imitative Play (24 mo)
- Imaginative Play (36 mo)
- Rule-based Play (48 mo)

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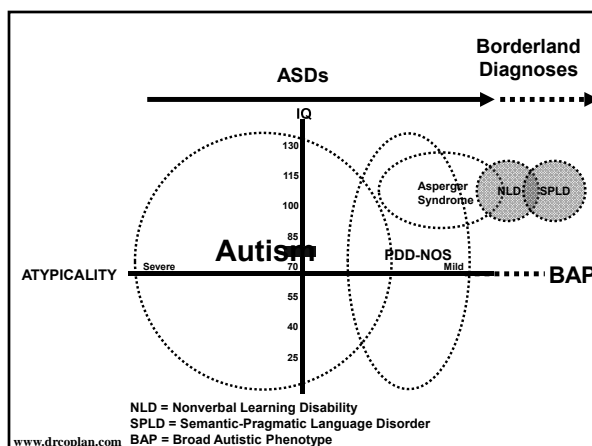




At the “Borderland” of ASD

- **Nonverbal Learning Disability (NLD)**
 - ↓ Language pragmatics
 - ↓ Social skills
 - Disregard for personal space
 - ↓ Coordination / Sensory processing
 - Verbal IQ > Performance IQ
- **Semantic-Pragmatic Language Disorder (SPLD)**
 - ↓ Language pragmatics only
- **(Broad Autistic Phenotype: Traits, not disorder)**

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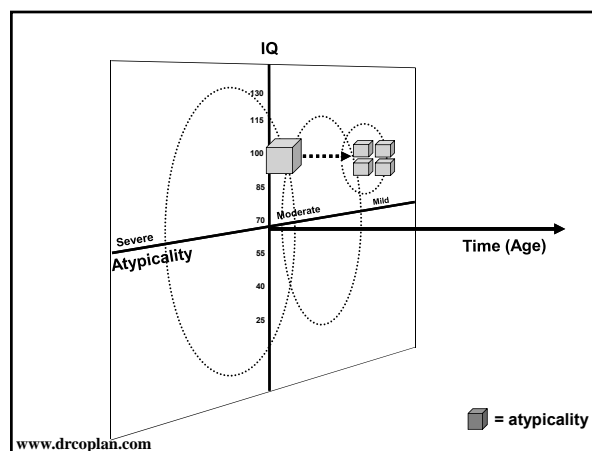
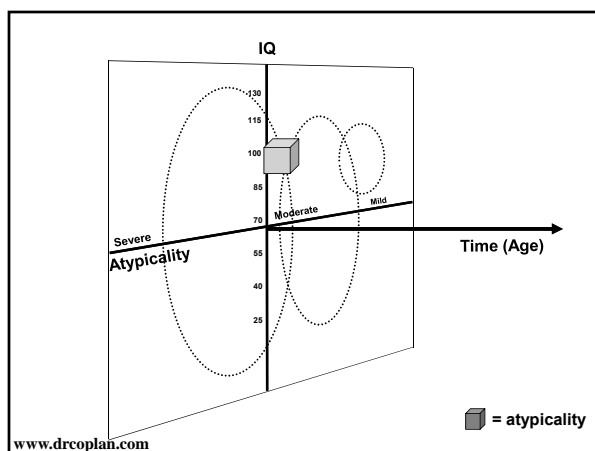
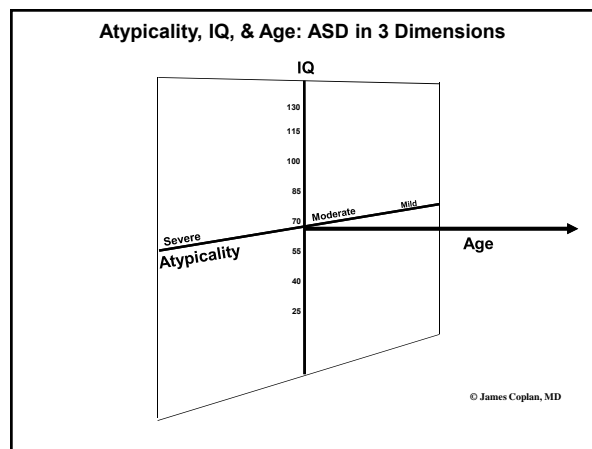
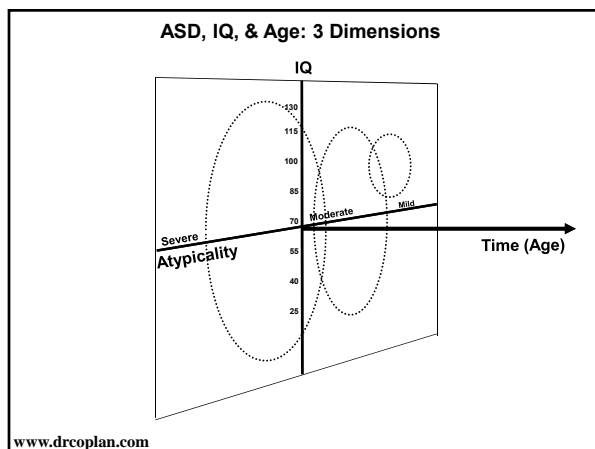
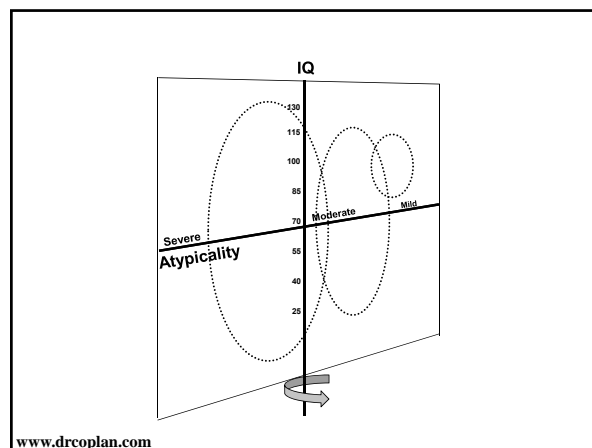
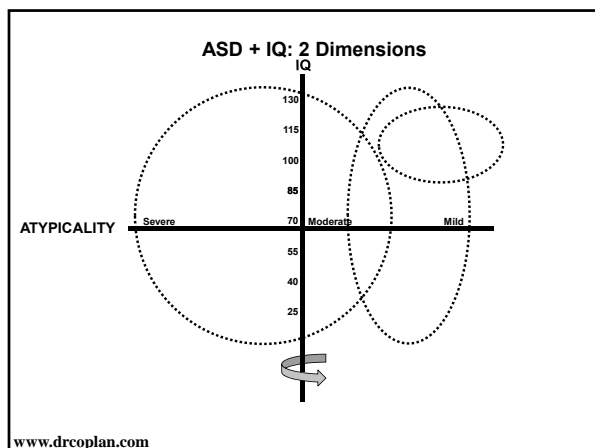


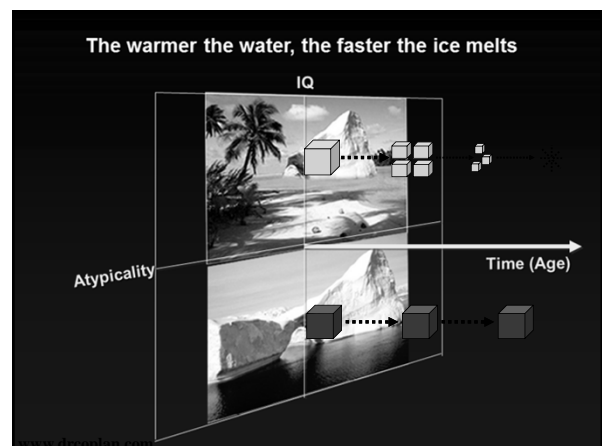
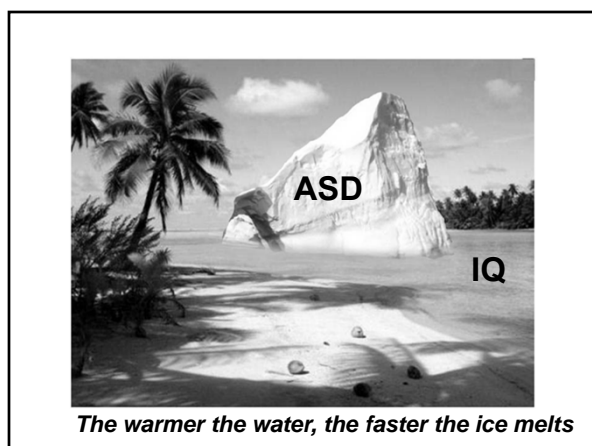
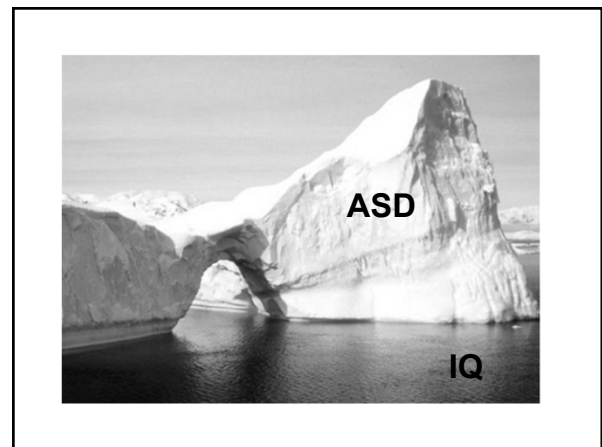
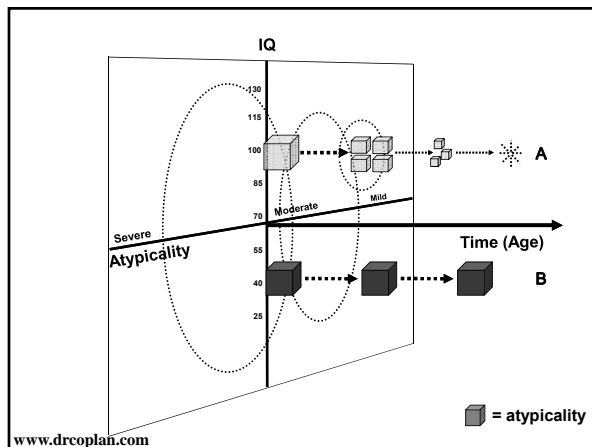
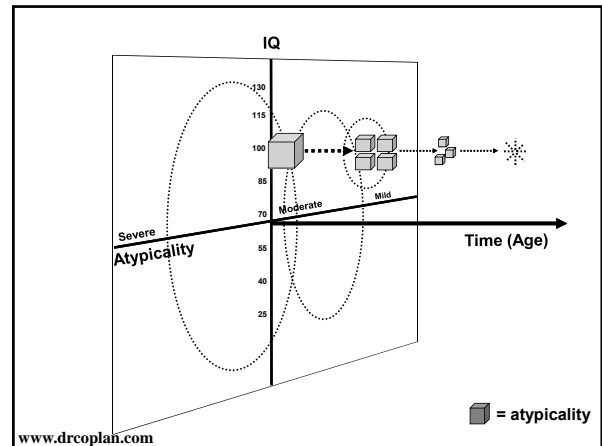
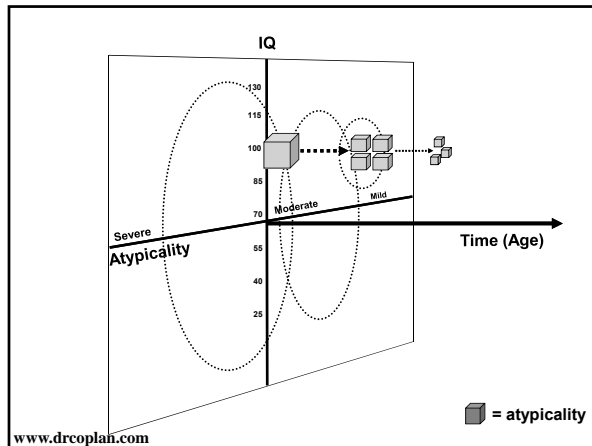
Influence of IQ on Prognosis

- “In terms of scholastic progress, social competence, and work opportunities, the child’s IQ level is as influential as the presence of autism.”*
- 1973-2005: > 10 studies; >1000 subjects

* Bartak, L. and M. Rutter, Differences between mentally retarded and normally intelligent autistic children. Journal of Autism & Childhood Schizophrenia, 1976. 6(2): p. 109-20

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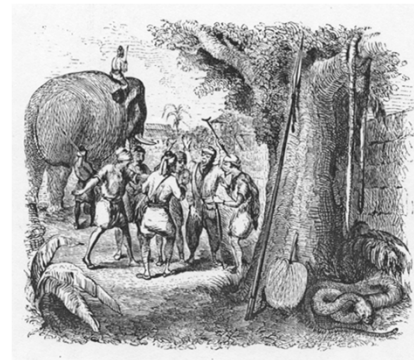
Topics

- **Core features of ASD**
 - Social
 - Language
 - Cognitive Rigidity & Repetitive Behavior
 - Sensorimotor
- **Co-Morbidity**
 - IQ
 - Mental Health
- **Prognosis (the “Natural History”)**
- **Developmental / Educational Interventions**
 - Bottom-Up ➔ Top-Down
 - Transition to Adulthood

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Interventions: Issues

- **Lack of controlled studies**
 - What is the best therapy?
 - How much therapy is “enough”?
 - How much progress is due to therapy, and how much to natural history of ASD?
- **Therapeutic dogmatism**
 - The blind men and the elephant



*Clever Stories of Many Nations, Rendered in Rhyme
John Godfrey Saxe, 1865*

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Therapeutic Dogmatism

(Six Blind Men and the Elephant)

Is ASD:

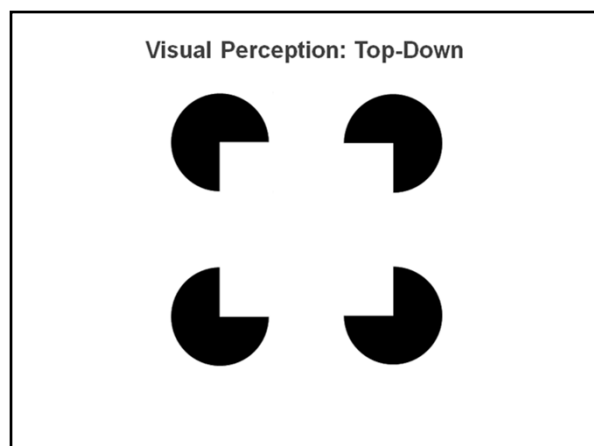
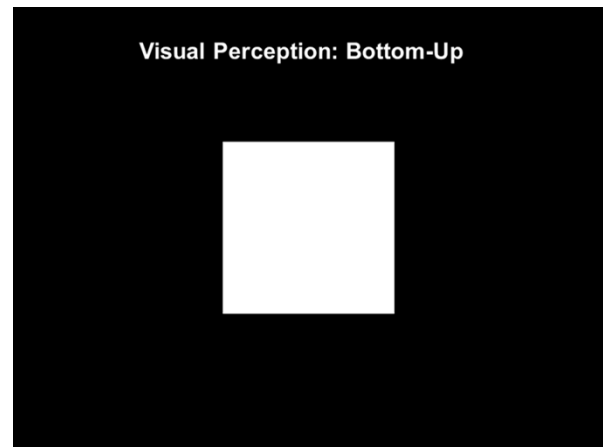
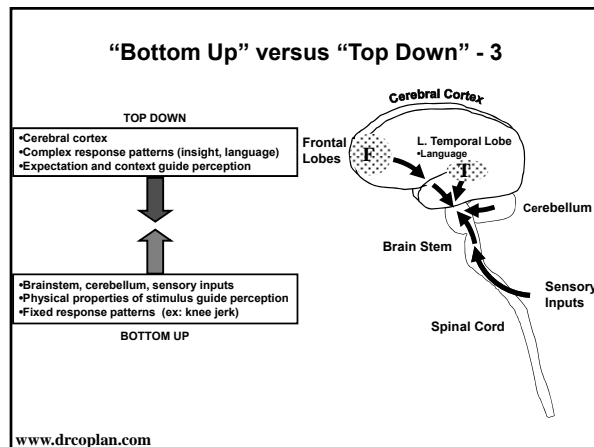
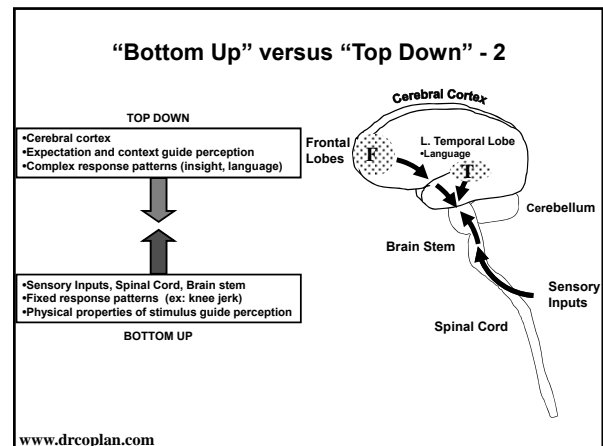
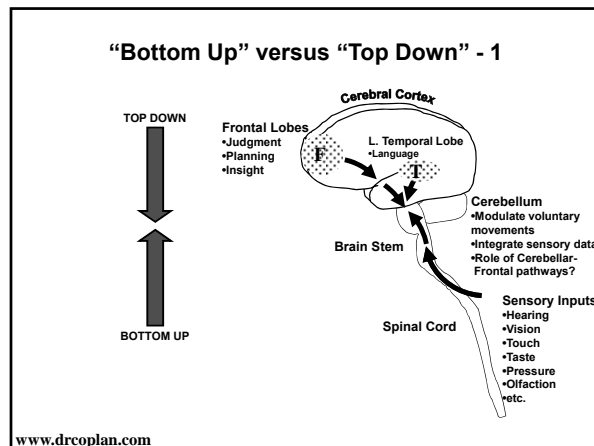
- a sensory processing disorder...
 - a language disorder...
 - a social disorder...
 - a behavioral disorder...
 - a learning disorder...
 - a neurological syndrome...?
- Answer: All of the Above (and More)

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Therapies for ASD: A Modest Proposal

- **Therapies for ASD should be matched to the natural history of ASD itself**
 - *As the child’s symptoms evolve, so should the forms of therapy*
 - *It’s not a matter of right vs wrong; It’s a matter of what & when*

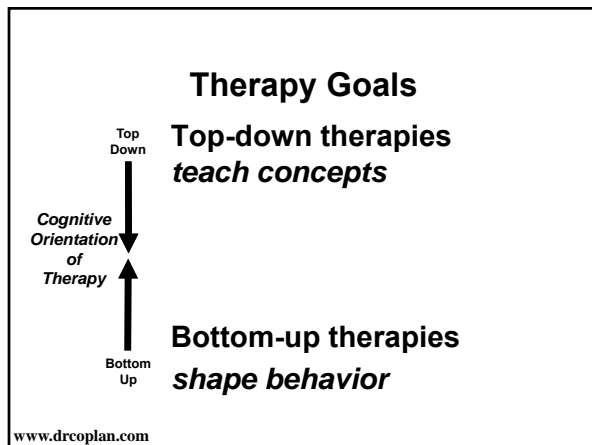
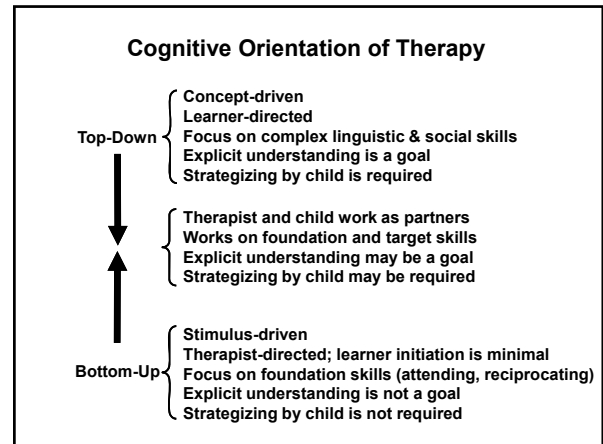
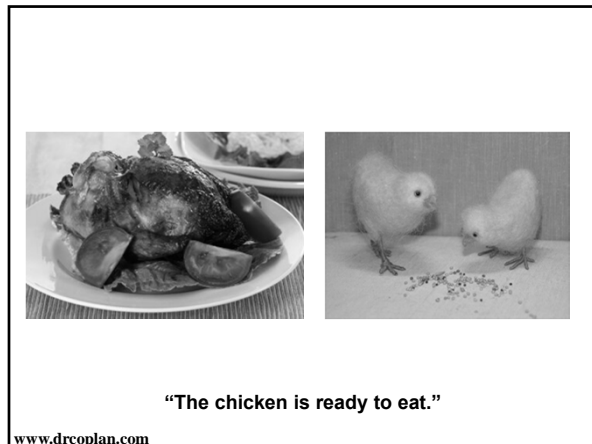
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Language: Bottom-Up vs Top Down
(Literal meaning, vs. Context)

"The chicken is ready to eat."

www.drcoplan.com

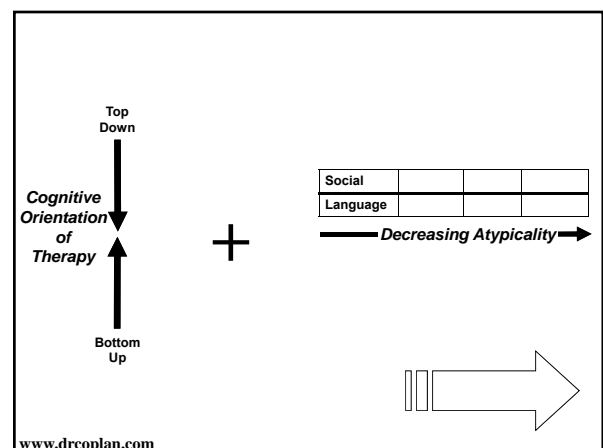


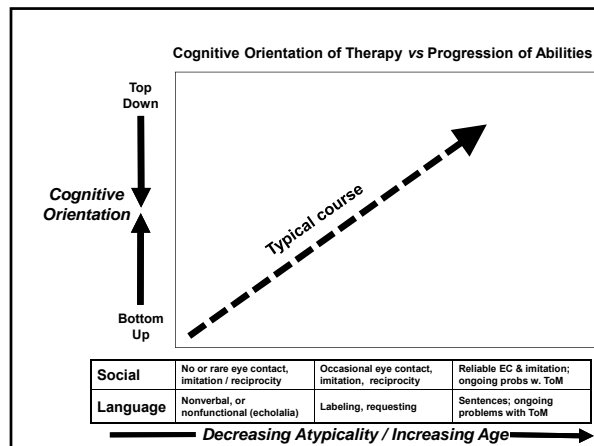
Degree of Atypicality

	Severe	Moderate	Mild
Social	No or rare eye contact, No social reciprocity (imitation; initiation)	Occasional eye contact & social reciprocity	Reliable EC & reciprocity; Ongoing problems with Theory of Mind (personal space, rules, etc.)
Language	Nonverbal, or nonfunctional (Echolalia, delayed echolalia)	Labeling, requesting; +/- commenting, reciprocating	Commenting, reciprocating; Ongoing problems with Theory of Mind (humor, make-believe, fibbing, etc.)

Decreasing Atypicality →

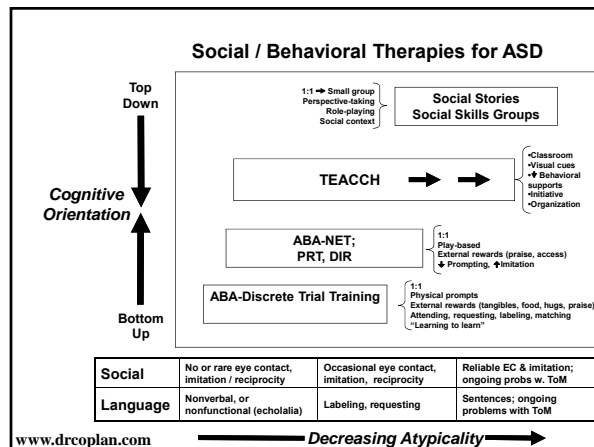
www.drcoplan.com





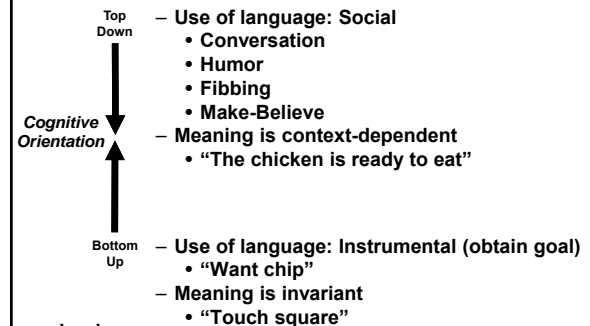
Social and Behavioral Therapies

www.drcoplan.com

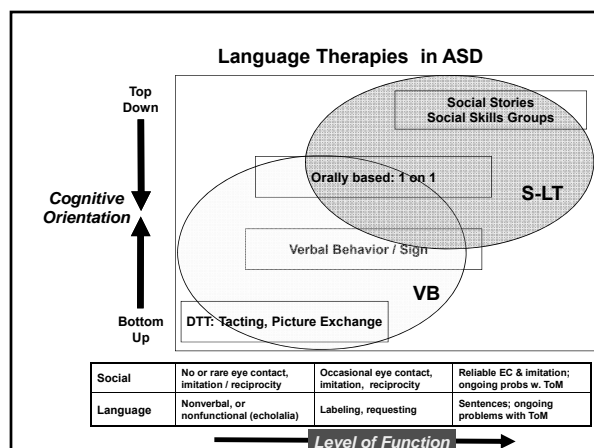


www.drcoplan.com

Language Function / Language Therapies



www.drcoplan.com



Language Therapy Philosophies

- **Behaviorism**
 - ABA-Discrete Trial Training (DTT)
 - Verbal Behavior (VB)
- **Traditional speech therapy**
- **Social Skills Groups**

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Behaviorism

- All behavior is the result of prior experience
- Behaviorists deny the existence of “understanding,” “thought,” “intuition,” etc.
 - Johnny says “I want an apple” not because “he knows what it means,” because the last 1000 times he emitted that behavior, he received an apple.
- The focus of behavioral therapy is to *shape behavior* (not to impart understanding)

Behaviorism

“The analysis of skills for the purpose of diagnosis and treatment planning is linguistically based. This is handicapping because, despite linguistic information from the assessment, the therapist lacks the functional analysis of verbal behavior needed to effect *behavior change*, which is the *sole aim of therapy*.” (Emphasis added)

Esch, LaLonde, and Esch. Speech and language assessment: A verbal behavior analysis. SLP-ABA, (5):2, 2011

Behaviorism

“With all his (VB) training, I still think he sometimes doesn’t understand what is being asked of him.”

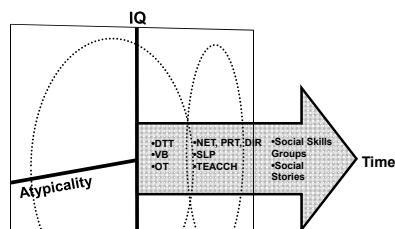
Mother of a 5 year old boy with mild ASD and normal nonverbal abilities. (MRN 09-0623)

Sensory-Based therapies for ASD

- OT / Sensory Integration Therapy
 - “Sensory Diet”
 - Desensitize to aversive stimuli
 - Use sensory-seeking behaviors to enhance cognitive/behavioral function (claimed)
 - Mirror neurons: The missing link between bottom-up and top-down therapies? (proprioceptive awareness → consciousness)

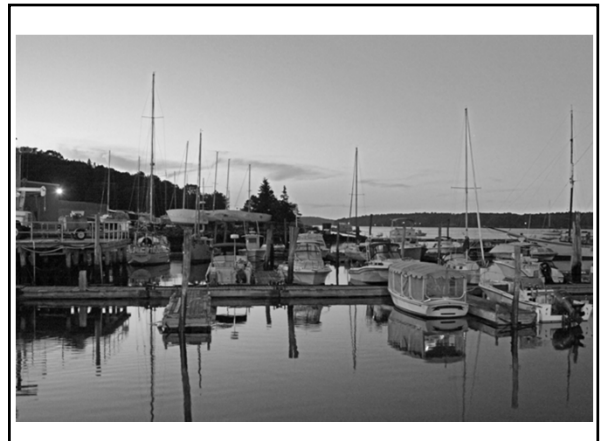
Coplan, 2008, in press

Progression of Interventions



© James Coplan, MD
www.drcoplan.com

DTT: Discrete Trial Training
VB: Verbal Behavior
OT: Occupational Therapy
NET: Natural Environment Training
PRT: Pivotal Response Therapy
DIR: “Floor Time”
SLP: Speech/Language Pathology
TEACCH: “North Carolina method”

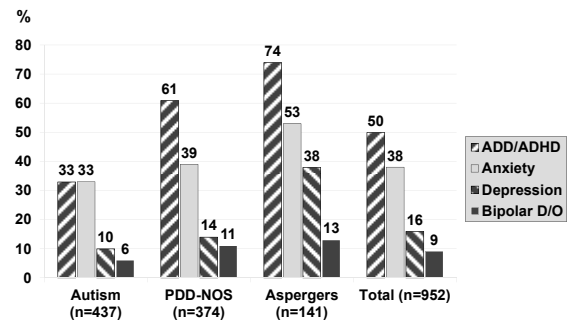


Topics

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 - Social
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 - Cognitive Rigidity & Repetitive Behavior
 - Sensorimotor
- **Co-Morbidity**
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 - Mental Health
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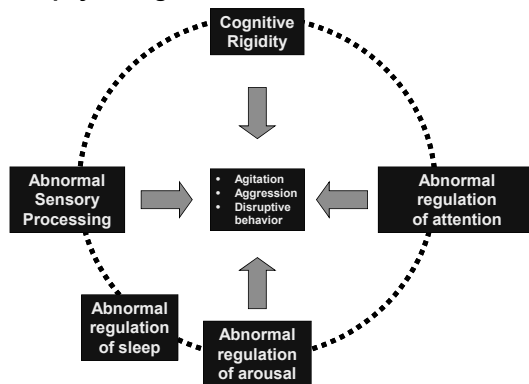
Children with ASDs, age 10+: Disorders of Attention and Mood



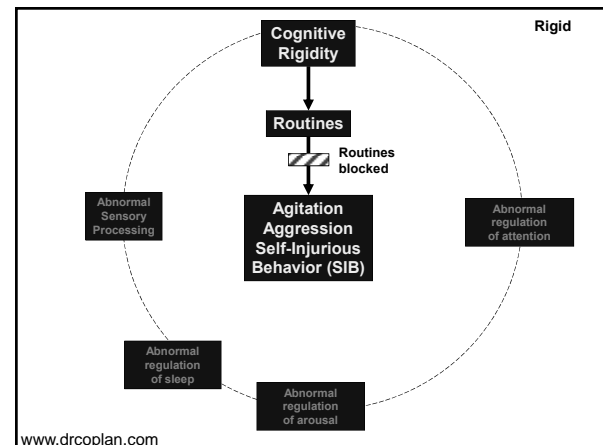
IAN Research Report #1 - May 2007

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

Neuropsychological Traits in Children with ASD



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Changes in Routine



www.drcoplan.com

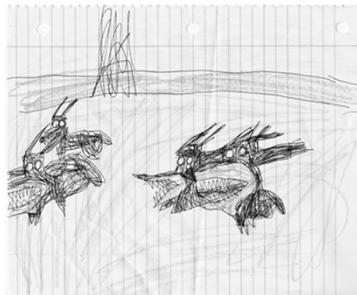
Rainman, 1988



Perfectionism

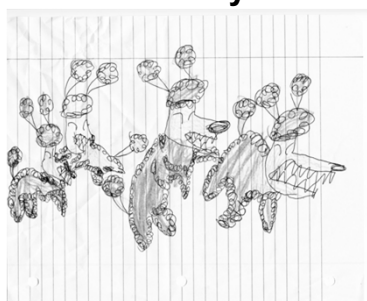


Anxiety



RD. 7 y.o. F, nl IQ, PDD-NOS & Anxiety. Father: GAD
www.drcoplan.com MRN: 07-0427

Anxiety

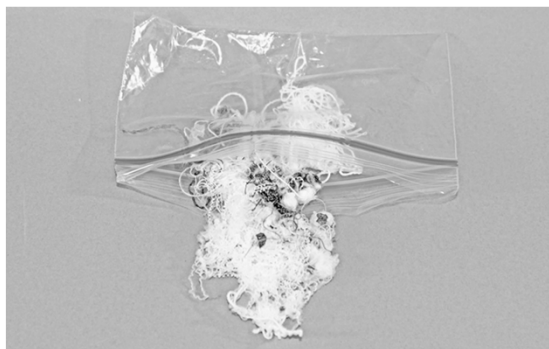


RD. 7 y.o. F, nl IQ, PDD-NOS & Anxiety. Father: GAD
www.drcoplan.com MRN: 07-0427

Anxiety

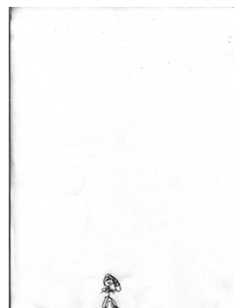


RD. 7 y.o. F, nl IQ, PDD-NOS & Anxiety. Father: GAD
www.drcoplan.com MRN: 07-0427



Joseph F: 15 y.o. boy asperger syndrome & chronic anxiety
MRN: 05-0096

Depression



www.drcoplan.com KO; 10 yr old female, PDD-NOS, normal IQ

Depression, Anger

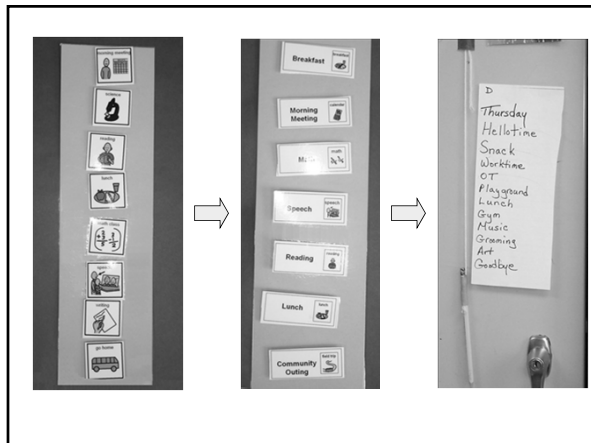


JH; 10 yr old male, PDD-NOS

Addressing Cognitive Rigidity

- **Needed: A Behavior Plan for Internalizing Behavior**
 - Visual Schedules
 - What am I supposed to be doing *now*?
 - What am I supposed to do *next*?
 - CBT, Relaxation Techniques
 - Counseling: Self-esteem, self-awareness, stress management
 - SSRIs

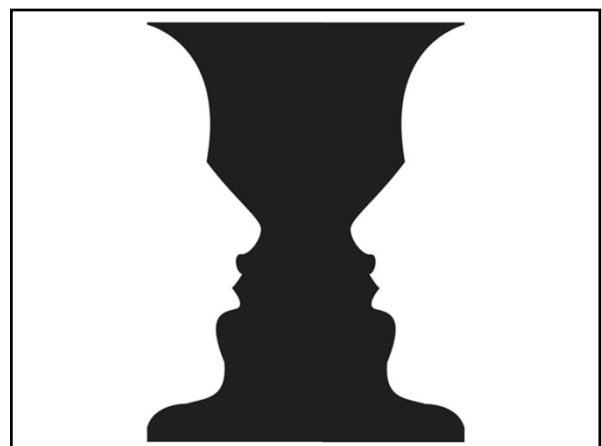
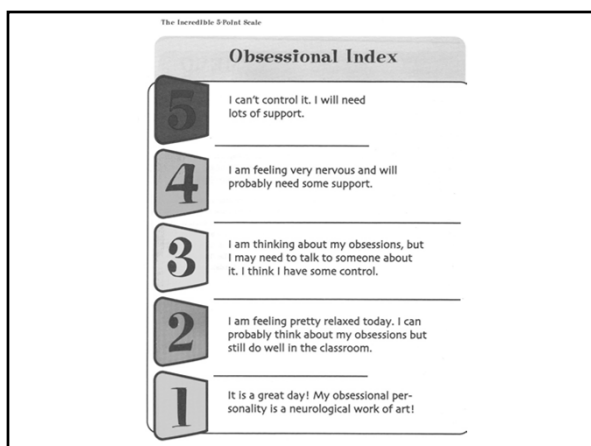
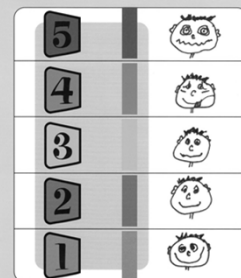
www.drcoplan.com

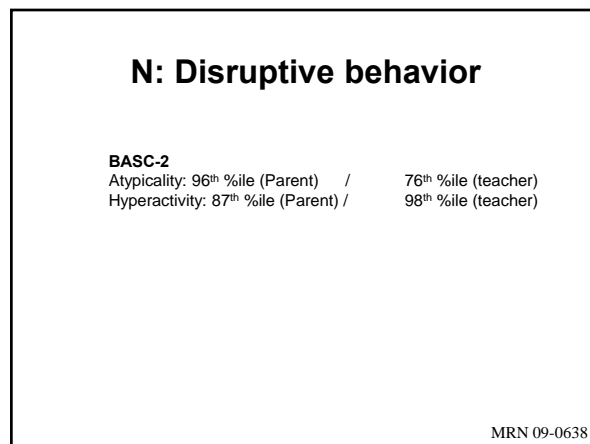
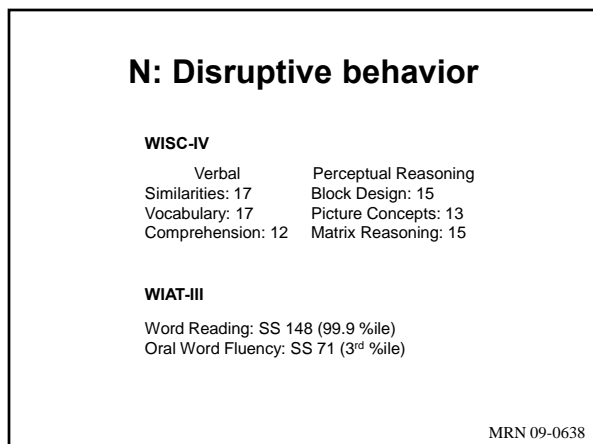
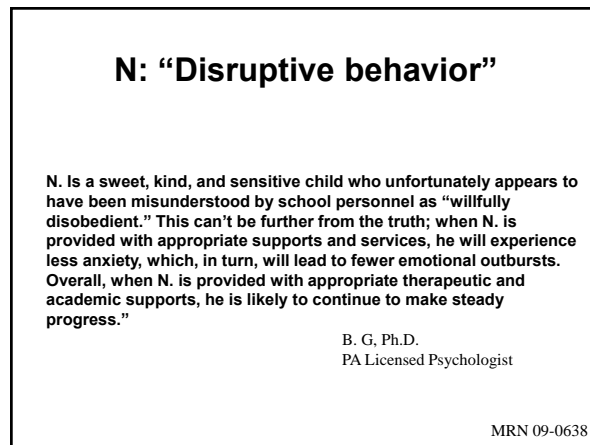
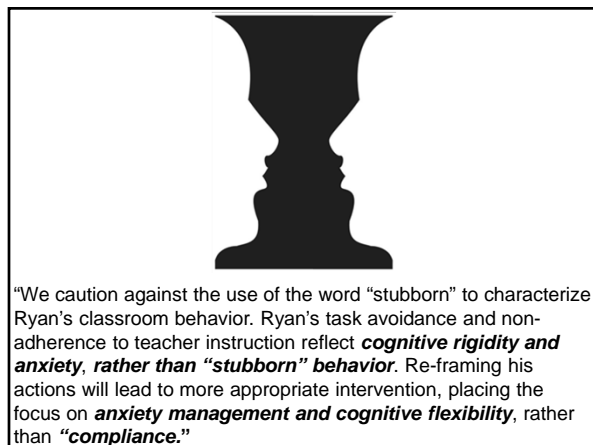
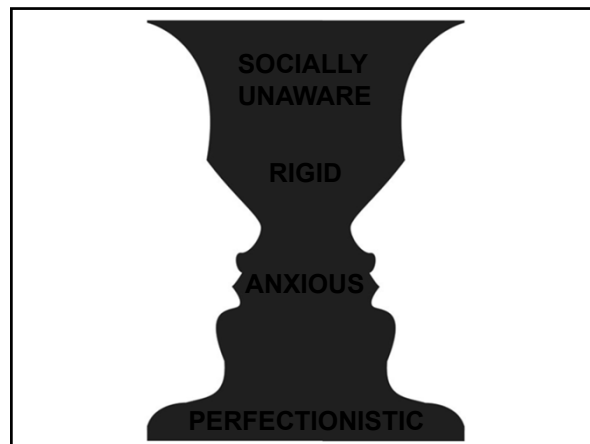
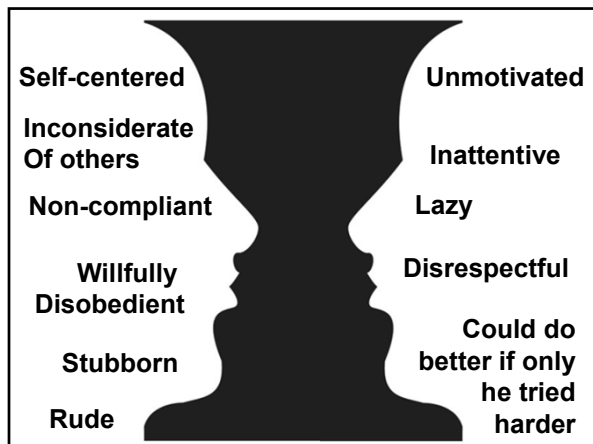


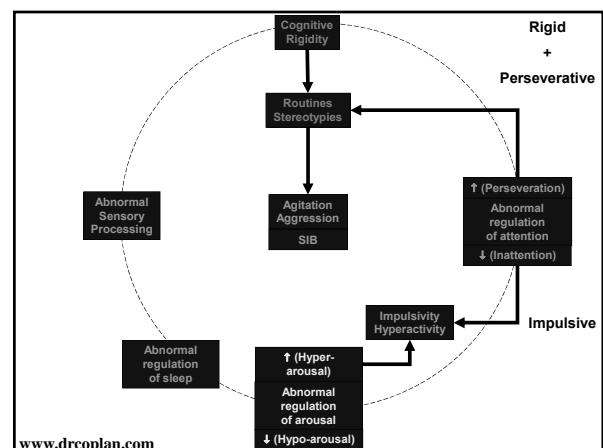
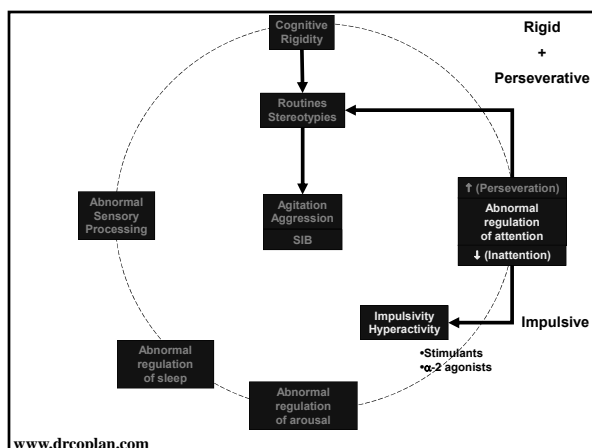
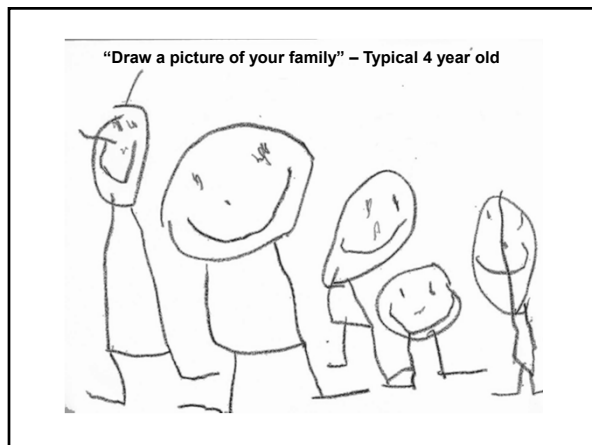
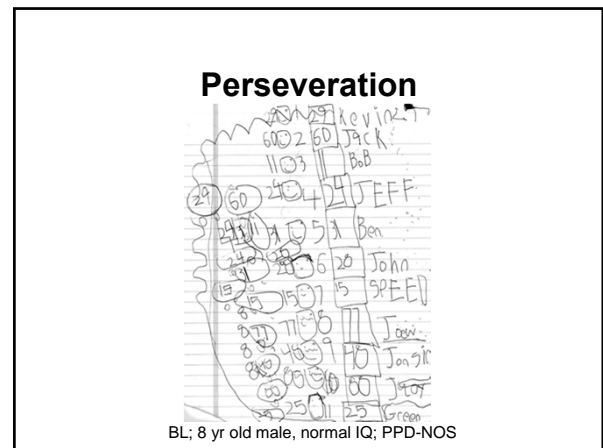
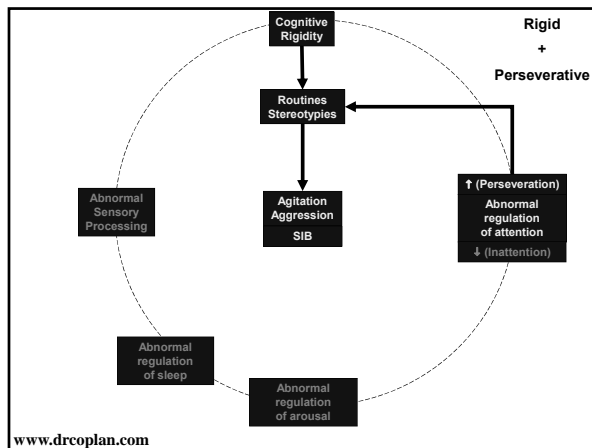
The Incredible 5-Point Scale

Assisting students with autism spectrum disorders
in understanding social interactions
and controlling their emotional responses

Kari Dunn Buron and Mitzi Curtis







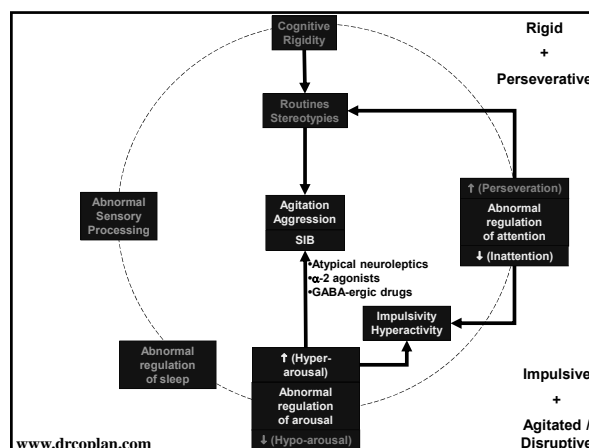
Hypoarousal
• Lethargic

⇒ **Calm & Relaxed** ⇒ **Fight or Flight Response**

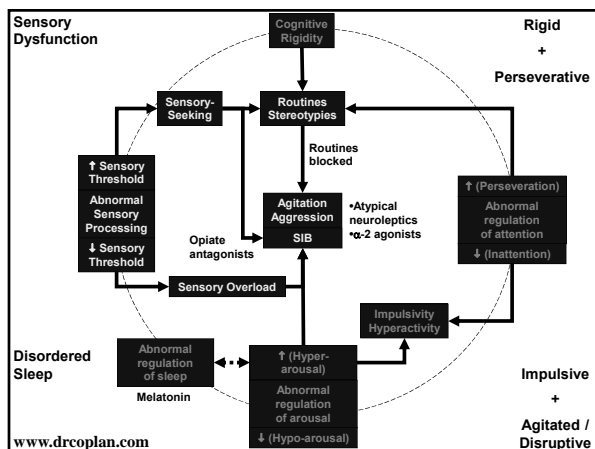
⇐

“Red Alert”
⬆Adrenaline
⬆Heart Rate
⬆Resp. Rate
• Combative

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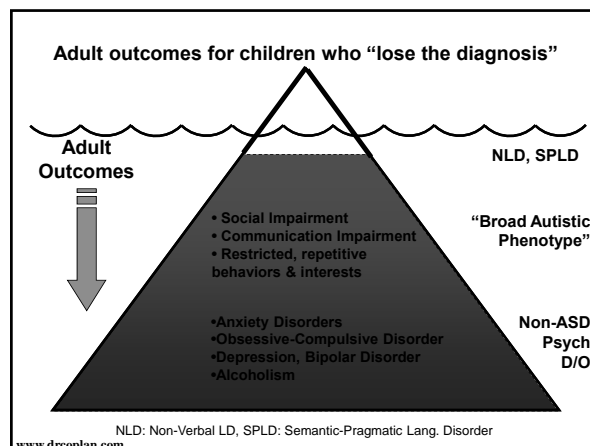
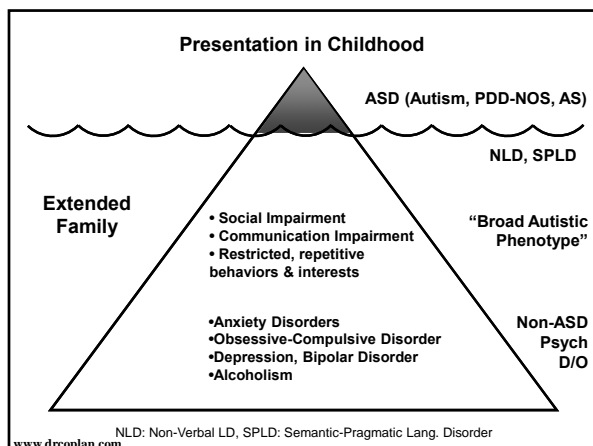
Max Wertheimer

www.drcoplan.com



Our son turned 13 last year. We are noticing that...the world interacts very differently to an autistic child vs. an autistic man.

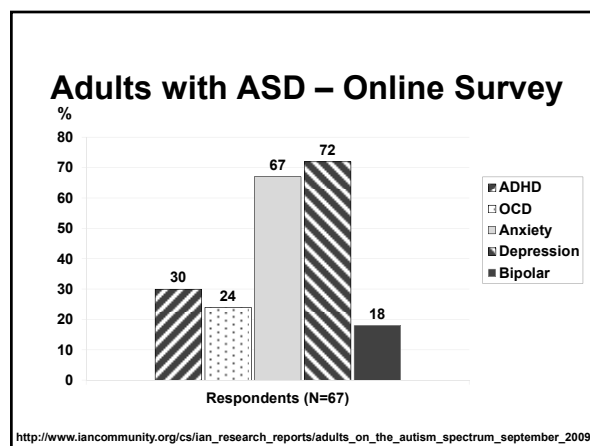
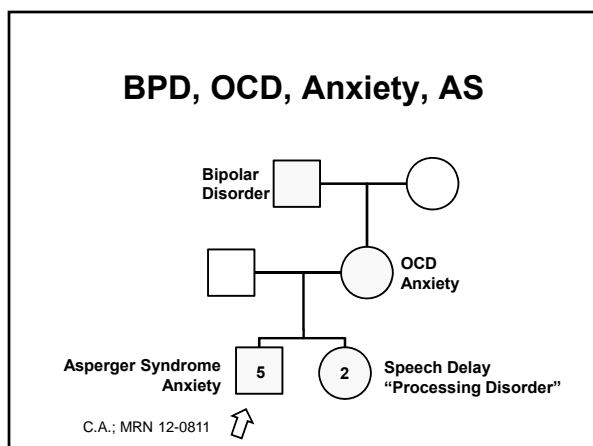
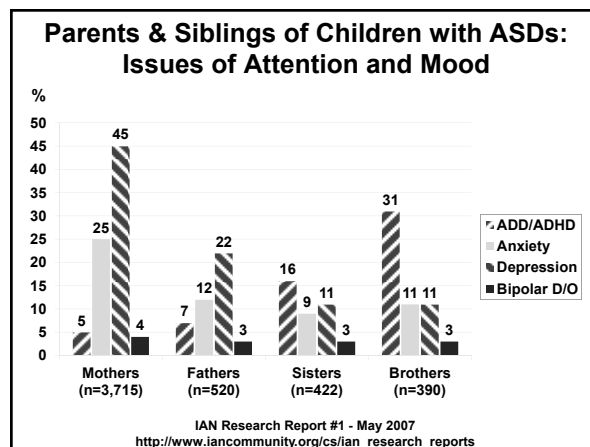
MRN 04-0011



Adult outcome

- “Losing the diagnosis” does not mean “cured”
- Persistence of
 - Cognitive patterns
 - Behavioral patterns
 - Emotional patterns
- Symptoms ⇒ Quirks ⇒ Traits
- Non-ASD neuropsychiatric disorders

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Summary

- **ASD: 4 domains (Kanner)**
 - Social
 - Language
 - Repetitious behavior
 - Sensory

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Summary

- **Natural History is for improvement over time, regardless of intervention**
- **Long-term outcome is driven by the joint impact of IQ and degree of atypicality**
 - *The warmer the water, the faster the ice melts*

Coplan, J., Counseling parents regarding prognosis in autistic spectrum disorder. Pediatrics, 2000, 105(5): p. E65

Summary

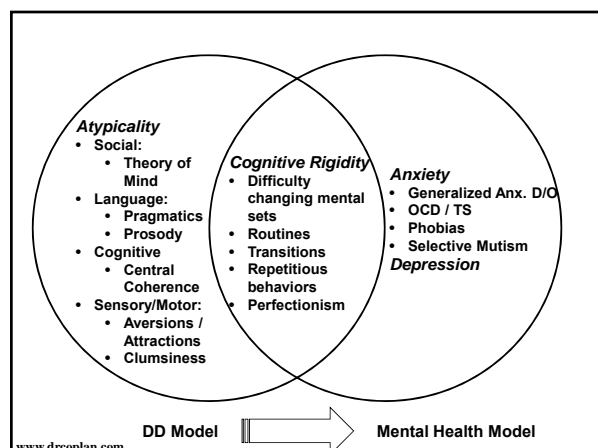
- **Therapies and Classroom Instruction follow a progression from bottom-up to top-down**

Coplan, J., Counseling parents regarding prognosis in autistic spectrum disorder. Pediatrics, 2000, 105(5): p. E65

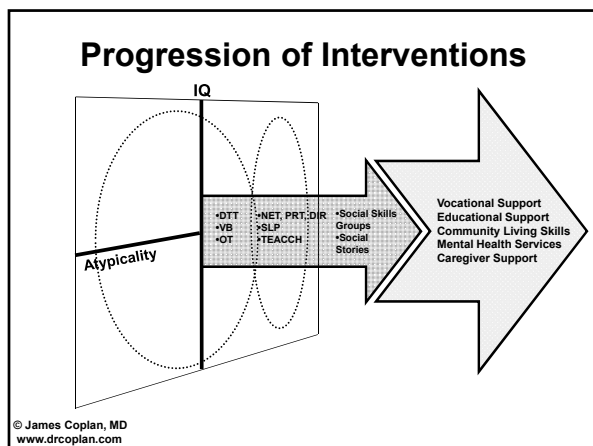
Summary

- **“Losing the diagnosis” does not = “cure”**
- **Shift from Developmental Disability model to Mental Health model**

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Summary

- **Need for Adult Services**

- Clinics for “Long-Term Survivors of Childhood ASD” patterned after Long-Term Survivors of Childhood Cancer
 - Mental Health
 - Job coaching
 - Social contact
 - Family / Caregiver support (parents, partners)
 - Developmental screening of offspring

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