

Chapter Five

# INFANCY DISORDERS IN THE AUTISTIC SPECTRUM

Developmental Psychopathology: From Infancy through Adolescence, 5<sup>th</sup> edition  
By Charles Wenar and Patricia Kerig

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## PERVASIVE DEVELOPMENTAL DISORDERS??

Autistic Disorder  
Asperger's Disorder

- Two distinct disorders or different ends of the *autistic spectrum*?
- Text = DSM-IV-TR's separate diagnostic categories
- Most current thinking is ASD: Autism Spectrum
  - Autism: lower end, type of PDD
  - Asperger's: higher end

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## DSM-IV-TR

1. Impairment in *Social Interaction*
2. Impairments in *Communication*
3. Restricted and *Stereotyped Behavior and Interests*

Delays or abnormal functioning must be present *before age 3*

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- Varied manifestations in children with autism  
→ heterogeneous group of *Autistic Disorder*
- Behaviors, communication, and social functioning are interrelated
- See Table 5.1 for criteria necessary from each category to meet requirements for a "formal diagnosis"

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- Social Interaction**
- Impaired use of *nonverbal behaviors* typically used to regulate social transactions
  - Absence of, or developmentally inappropriate, *peer relations*
  - Lack of spontaneous *sharing of experiences* with others
  - Lack of social or emotional *reciprocity* (e.g., poor eye contact, rigid physical responses to affection, lack of expressive gestures, use of instrumental gestures)

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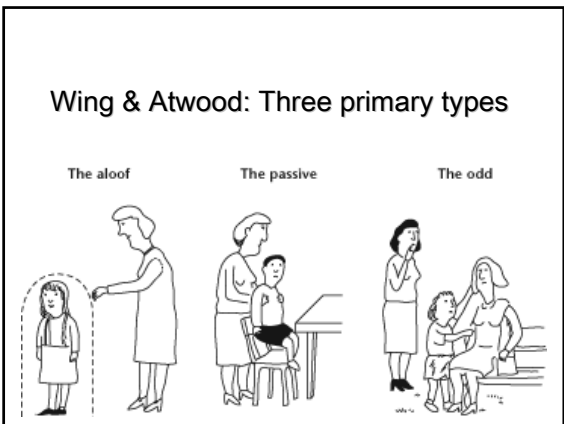
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***Communication***

- Lack of or delay in development of *spoken language*
- Marked difficulty initiating or sustaining *conversations*
  - Highly literal and concrete
- *Idiosyncratic* use of language
- Lack of varied and spontaneous imaginary *play*

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***Restricted & Stereotyped Behavior, Interests and Activities***

- Preoccupation with interests that are *abnormal in intensity or focus*
- Rigid adherence to *routines or rituals*
- Repetitive and stereotyped *motor movements*
- Preoccupation with *parts* of objects at the expense of relating to the whole

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**ASPERGER'S DISORDER (AD)**

- Hans Asperger published his work in 1944, but it was not widely recognized until reintroduced to the profession in the 1980s (Uta Firth)
- *Asperger's Disorder (AD)* or "Asperger's Syndrome" (AS) → DSM-IV-TR, 1994

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**DSM-IV-TR criteria for Asperger's Disorder (AD) are the same as Autism for the following:**

- Impairments in *Social Interaction*
- Restricted and *Stereotyped Behavior, Interests, and Activities*

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**DSM-IV-TR *differences* between Autism and Asperger's:**

With Asperger's there is

- *No clinically significant language delay*
- *No clinically significant delay in cognitive development, adaptive behavior or curiosity about the broader environment*
  - except for social impairments

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**Characteristics of Autistic Disorder and Asperger's Disorder**

- AGE OF ONSET
- PREVALENCE
- GENDER
- COMORBIDITY

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## ETIOLOGY OF DISORDERS IN THE AUTISTIC SPECTRUM

- BIOLOGICAL CONTEXT
- INDIVIDUAL CONTEXT

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## BIOLOGICAL CONTEXT

- Environmental Factors
  - Thimerosal in immunizations
  - Preservative, not the biologically active ingredient
  - See Kennedy (Rolling Stone) for popular review
  - See Rutter et al for scientific study
- Genetic Factors
  - Family prevalence (autistic like)
  - Dawson's antecedent studies
- Neuropsychological Factors
  - Neurochemical & Neuroanatomical

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## Environment = clean bill of health?

- ↳ Hornig, M., Chian, D., & Lipkin, W.I. (2004). Neurotoxic effects of postnatal thimerosal are mouse strain dependent. *Molecular Psychiatry*, 9, 833-845.
  - ↳ Immune vulnerable strains show effects
  - ↳ Immune resistant strains do not
  - ↳ Analogous to individual differences in humans

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Table 1. Comparison of the incidence of autism in school aged children (ages 6-11) in states whose release of chemical groups (neuro- and developmental toxins) and dioxins fall in the top or bottom quartile of all states.

| ST                          | ASD Rate | ASD Odds | OR            |
|-----------------------------|----------|----------|---------------|
| <i>Neurotoxins</i>          |          |          |               |
| Low                         | 0.007131 | 0.007182 |               |
| High                        | 0.010007 | 0.010109 | <b>1.41**</b> |
| <i>Dioxins</i>              |          |          |               |
| Low                         | 0.009464 | 0.009554 |               |
| High                        | 0.011061 | 0.011184 | <b>1.17*</b>  |
| <i>Developmental Toxins</i> |          |          |               |
| Low                         | 0.010215 | 0.010320 |               |
| High                        | 0.010495 | 0.010606 | <b>1.03*</b>  |

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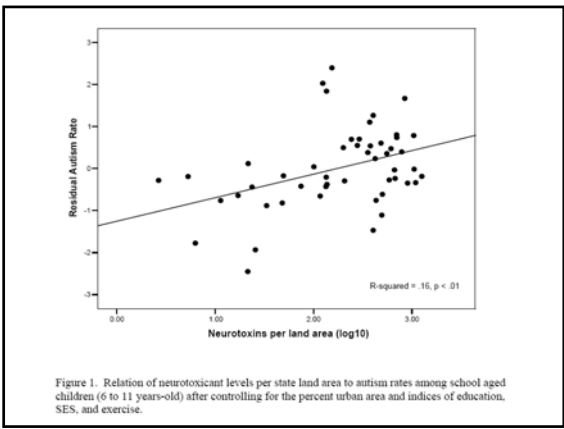
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- INDIVIDUAL CONTEXT**
- Attachment
    - “Refrigerator mothers”
    - ERP to mother v. other
  - Emotional Development
    - Emotion recognition & emotion expression
  - Joint Attention
    - Lack of referential looking & referential gesture
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- Language Development
  - Perspective-taking
  - Social
  - Better relations with adults than children (AS)
- Cognitive Development
  - Autistic savants v. splintered skills
  - Executive functions
- Theory of Mind (ToM)
  - "Sally-Anne" Experiment

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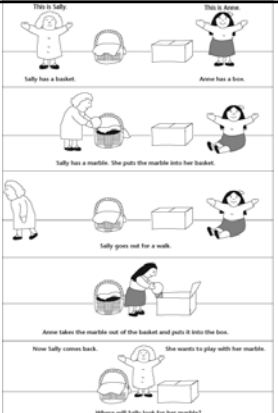
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*Sally-Anne*

*When Sally returns from her walk, where will she look for her marble?*



This is Sally. She has a basket. This is Anne. Anne has a box.

Sally has a marble. She puts the marble into her basket.

Sally goes out for a walk.

Anne takes the marble out of the basket and puts it into the box.

Now Sally comes back. She wants to play with her marble.

Where will Sally look for her marble?

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- Typically developing children conclude that when Sally returns, she will look in the basket because that is where she originally placed the marble
- Children with autism typically cannot master the task, no matter how high their IQ — they state that Sally will look in the box
- *Theory of mind* deficit
  - Ability to go beyond one's self and infer what *another* person knows and does not know and to predict behaviors accordingly

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## DEVELOPMENTAL COURSE

### INITIAL DETECTION

- Delay vs. regression

### DEVELOPMENTAL OUTCOME

- Highly variable
- Speech development before age 5
- IQ

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- Because people on the high-functioning end of the MR spectrum can attain notable achievements, do they have a *disorder*?
  - Disorder v. disability
  - What is the cost to the individual?
- Differences and idiosyncrasies can sometimes yield amazing gifts:
  - Temple Grandin
  - Paul Collins, *Not Even Wrong*

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## INTERVENTION

- Importance of *early detection* and intervention
- Most effective intervention programs are designed to increase child's functioning in multiple domains and share these features:
  - Target a *broad range* of behaviors
  - Assist children to *generalize* new skills to multiple situations
  - *Highly structured* with low teacher-to-student ratio
  - Incorporate high *family involvement*
  - Skills designed to assist the child to *transition* from program to mainstream classroom

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**Types of Intervention**

- Lovaas' *Behavior Modification Program*
  - operant conditioning principles
  
- *TEACCH* Treatment and Education of Autistic and Related Communication
  - emphasizes language acquisition
  
- *ASPIRATIONS!* & Drama Play connection
  - Social skills through scripts

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