Autism Across the Life Span:
Session I: Introduction to autism and autism in infants and young children
Presentation at the Paragon School, Orlando, Feb. 17, 2012
Fred R Volkmar MD
www.Autism.fm or fred.volkmar@yale.edu

Overview of the day
• Session I:
  – Overview of autism – history and clinical features
  – Autism in infants and young children
  – Screening and service issues
• Session II:
  – Causes of autism: genetics and brain mechanisms
  – School age children
    • Assessment and Interventions
• Session III:
  – Adolescents and adults with autism
  – Interventions and Outcome
  – Issues with DSM-V

Issues for screening
• Issues in early diagnosis
  – Stability, syndrome progression
  – Applicability of categorical criteria
• Screening instruments available
  – Focus on a limited number of behaviors
  – Both general and autism specific screeners used
  – Issues in design/evaluation
  – Current AAP recommendations
  – Problems in screening

Definition of Autism DSM-IV
• Criteria grouped in 3 areas (social/communication-play, & restricted interests/activities/behaviors)
  • Must have a total of at least 6
  • At least 2 social, 1 from each of the other areas
• Onset before age 3 years based on delay/abnormal functioning in
  • Social Interaction
  • Language as used in social communication
  • Symbolic or imaginative play
• Data show
  • Good balance of Sensitivity and Specificity
  • Good coverage of entire IQ Range
  • Increased reliability for novice raters
  • Convergence with ICD-10

Conflicts of Interest
• Grants
  – NIMH P50 MH081756-01
  – NICHD 5-P01-HD03008
  – Autism Speaks
  – Simons Foundation
• Books and Journals
  – Volkmar, F., Klin A., Sparrow, S. Asperger’s Syndrome, 2000. (also being revised)
  – Editor – Journal of Autism and Developmental Disorders
Behaviors differentiating

Behaviors < 1 year:
- Social: lack affection/anticipation, alone, gaze, limited imitation & games
- Communication: poor response to name, limited looking/joint attention
- Behaviors: aversion touch,
- Behaviors 1-3:
  - Social: limited interest peers, social referencing, smile, affect, play
  - Communication: low rate, lack shared interest, name, use of body as tool, no response gestures
  - Behaviors: mannerisms, repetitive interest, odd sensory behaviors, odd object use

Why 25 hours a week?
Recommendations:
- Children with ASD in intensive programs have consistently made greater gains
- 25 hours should be a standard school day for these children
- What constitutes 25 hours will vary from child to child- according to the child’s age, family, and the child’s needs.
- We need more research- not just about number of hours, but how this time is best comprised for different children and families.

Some Paradoxes
- Autism then and now
  - Once thought rare - now common
  - Early confusion with schizophrenia
  - Childhood schizophrenia now seen as uncommon
- Thought to be congenital
  - But usually diagnosed much later
- Diagnostic tensions
  - Lumping splitting
  - Categorical and dimensional

What is autism?
- Enlightenment, reports of ‘feral’ children
- Victor – the wild boy – worked with Itard
- Probably first reports of children with autism
- Early confusion (for MANY years) with ‘psychosis’ and Schizophrenia
- Schizophrenia described late 19th century
- Dementia praecox
- Extended to children ’dementia praecoxima’
- Everything was equated with schizophrenia!
Diagnostic Concepts

• Although interest in classification of childhood developmental and psychiatric disorders began in the 19th century, what we now recognize as diagnostic concepts began shortly after the 20th century.
  - These include:
    - Heller's syndrome (1908) – Heller – Childhood Disintegrative Disorder
    - Early Infantile Autism (1943) – Kanner - Autistic Disorder
    - Autistic psychopathy (1944) – Asperger – Asperger Disorder

• Note: although ICD is the worldwide system (and DSM regarded as a 'local variant') unlike other 'variants' the DSM systems is more widely used for psychiatry!

A SHORT REVIEW: Current Concept*

• Autistic Disorder (childhood autism)
  - The prototypic disorder in the group
  - First recognized by Kanner (1943)
  - Essential Features: Autism and Resistance to Change
• Asperger’s Disorder (Asperger syndrome or ‘autistic psychopathy’)
  - Identified by Asperger (1944)
  - Social disability BUT good verbal skills
  - Circumscribed (interfering interests), motor issues
• PDD-NOS (atypical autism, “autism spectrum”)
  - Poorly defined but quite common
• Childhood Disintegrative Disorder (Heller’s syndrome)
  - Quite rare but very interesting, very late onset of an autistic like condition
• Rett’s Disorder
  - Dr. Rett, first thought to be form of autism, a single gene disorder

Note this all may change!

Leo Kanner (1943):

Reported 11 cases

Two Essential Features
• Autism
• Resistance to change

Congenital in nature

Developmental Issues

False leads:
  - SES, IQ, Schizophrenia

Cognition and Cognitive Functioning*

Kanner’s initial impression normal IQ
  - Children did well on some parts of IQ test
  - Poor performance due to “negativism”?
    • Actually makes no sense
  - But very quickly reports began to suggest
    • Odd patterns of skills
    • Nonverbal >> verbal, spinter skills, ‘savant skills’
  - As time went on it became clear that there was a strong risk for intellectual deficiency (IQ<70)
  - BUT note: this risk seems to be DECREASING!
    • *we’ll discuss cognitive profile implications for health care in talk 2
**Natural Sense of Perspective**

*Illustration 1: Natural sense of perspective (underground station)*

**Unusual Drawing Ability**

**Unusual Drawing Ability**

Stephen Wiltshire

**Unusual Musical Ability**

Blind Tom

**Communication Problems**

- First described by Kanner
- We used to say that 40-50% mute in classic autism
- BUT number has decreased (probably due to earlier diagnosis)
- A range of problems both in language AND communication more generally
  - echolalia, pronoun reversal, monotonic voice, pragmatic deficits
- Not just due to cognitive problems and different from language disorders (no compensation, little motivation)
- Communicative speech by age 5 predicts outcome
- Potential adaptive functions of echolalia

**Calender Calculation**

- The day of the week when you were born in 700 ms: calendar computation in an Autistic account. Thies et al. Journal of Experimental Psychology: Human Perception and Performance (2008) 34:553-6168
Behavioral Features

- Kanner termed these “insistence on sameness”
  - Literality insistence on sameness
  - Resistance to change
  - Repetitive Behaviors
- Typically emerge by age 3 years
  - Often preceded by odd interests and/or sensitivities to the nonsocial environment
  - May take the form of odd attachments
    - Unlike typical transitional objects, these are:
      - Hard, not cuddly objects
      - The class of objects rather than the actual object is important
      - Very predictive of early diagnosis when present
      - They do help with transitions
- The apparent ‘over’ engagement with nonsocial world is in marked contrast to the lack of interest in the social world that is profoundly typical for the normally developing child!

Normal Social Development

- Infants come into the world “prewired” for social interaction
  From the first day of life infants are profoundly sociable
  Human face/voice are the most interesting stimuli in the environment
  Early emergence of
  Selective attention
  Social reciprocity
  Attachments
  Social-communicative skills

A pop quiz! Can you find the typical person in this photo (everyone else has autism!)

Special diagnosis issues: infants and young children

- Onset
  - Kanner (1943) suggested children were born with autism
  - > 50% of parents concerned in first year and 90% by age 2
- Presentation problems:
  - Language delay, possible lack of hearing, social deviance
- Regression:
  - About 20-33% of parents report regression (language, social skills, communication, play, gestures...) (mixed up in vaccine business)
  - But probably if strictly defined 1-2% (various patterns)
  - Marked regression is probably a marker for poorer outcome
- By age 3 there is a general consensus that diagnosis is quite stable
- Before 3 several patterns
  - Early diagnosis (and treatment) → better outcome
  - This is not a trivial problem or issue!

“Red flags” for autism in infants

- Social Development
  - Doesn’t orient to name
  - Trouble with eye contact
  - Failure to use joint attention (pointing, showing) by 12-15 months
- Communication
  - No vocalizations by 6 months
  - No polysyllabic babbling by 12 months
  - No spontaneous words by 24 months
  - No spontaneous phrases by 36 months
  - Any loss of babbling, words, or phrases or loss of comprehension
- Other features
  - Temperament: overly easy, fussy
  - Odd interests (long attention to fans, hood ornaments of cars)
  - Stereotyped behavior category is often the last to develop! (and to complicate life in and of itself most related to IQ and is less specific)

Early Screening Guidelines

- Level One: Routine developmental surveillance
  - Performed on all children at all well-child visits
  - Identifies children at risk for typical development
  - Red flags indicate additional screening
- Level Two: Diagnosis and evaluation of autism
  - In-depth evaluation of children identified as at-risk
  - Differentiates autism from other developmental disorders

(Johnson & Myers, 2007)
Early Screening Guidelines:
Level Two
• Referral to early intervention, school district, or specialist
• Formal DSM-IV diagnostic procedures
  • A range of instruments are available for both diagnostic purposes and establishing levels/profiles of strength weakness developmentally
• Typically need for multiple discipline involvement
• Expanded laboratory evaluation as needed
  • Metabolic testing (usually yield is very low)
  • Genetic testing (this is a rapidly growing area)
  • Electrophysiological testing (EEG) – if seizures, language loss, etc.
  • Neuroimaging (for features not explained by diagnosis of autism)

Modified Checklist for Autism in Toddlers (MCHAT: Robins et al., 2001)
• SCREENER: 23 item parent-report checklist
• Routinely given at 18 & 24-month well visit
• Best discriminators of ASD in 24-month old children include (in order):
  * Proto-declarative point
  * Response to name
  * Interest in other children
  * Brings objects to show
  * Follows point
  * Imitation
  * Social smile (responding to another smile)

Implementing screening
Between the idea
And the Reality
Between the Motion
And the Act
Falls the Shadow
T.S. Elliot “The Hollow Men”

Reality issues with screening
• In the US the child typically sees the pediatrician 11 times before 3
  • Autism screening now recommended at 18 and 24 months
  • Many other things also should be screened
    • Maternal depression, safety, sleep, nutrition, obesity prevention, etc.
    • A short time is available for well child care
    • Surveillance alone is not sufficient (Robins, 3 of 21 ASD– 5000 children)
  • King et al. 2011 reviewed 27 practices
    • Practices almost always used parent report measures
    • >85% patients were screened BUT
      • Generally practices could NOT adhere to AAP recs 30 month re-check
      • Only about 61% of failed screen cases referred
      • Most practices had trouble following up referrals
      • Families often did not follow-up on referrals and service available limited!
Toddlers’ viewing Toddlers
which child do you think might have autism?

Face and gaze processing: Attentional bias for faces

Faces are detected faster than objects: Faster reaction time to faces than other classes of stimuli

Faces hold attention more strongly than objects: Longer reaction time needed to initiate a saccade to a target away from a face

Limited attentional bias for faces in toddlers with ASD

Chawarska, Volkmar, & Klin, 2010. Archives of General Psychiatry, 67(2) 178-185

• ASD: limited attentional bias for faces
• The effect is ASD-specific
• The effect is robust: present regardless of the experimental paradigm (e.g., Chawarska et al., 2003)
• Marker for suppressed activation of the attentional system involved in face processing autism

Growth patterns in toddlers with autism

Head circumference growth

Head circumference, height, and weight growth
Generalized overgrowth in boys with autism

Chawarska, Campbell, Chen, Shic, Klin, & Chang. (Accepted) Archives of General Psychiatry

- Generalized rather than head-specific overgrowth in autism
- Extreme overgrowth associated with more severe social disability at 2 years but not nonverbal DQ
- Need to identify factors that impact both neural and skeletal growth

List of publications on toddlers


WHAT DO WE KNOW ABOUT INFANTS?

Setting for intervention

- Recognize child’s difficulties in responding to complex (social/non-social) environments
- Balance of "pull out", small group, classroom-based, and unstructured environments
- Classroom environment
- Continuity and consistency – across settings and across people
- Monitoring and flexibility – team approach and collaboration
- School/home communication

Social Skills

- Balance of methods
  - Adult instruction, peer, hybrid
  - Teach self-management and social skills
  - Goals (initiations and responses with/to peers)
- All ages and levels of severity
- Most research has been done with young children

Approaches to teaching social skills

- Vary depending on age of child and level of impairment
- For younger children – focus is often on peers (with adult monitoring)
- For school age – hybrid methods (circle of friends, individual work)
- For adolescents – adult mediated with explicit teaching
**Language-Communication**

- Language functioning at age 5 is one of the two strong predictors of outcome
- Probably at least 75% of preschoolers with autism can develop useful speech
- Even for individuals with minimal verbal speech teaching alternative COMMUNICATION skills is critical
- Importance of augmentative approaches
  - Low and High Tech
  - Picture exchange, schedules, etc.
  - Organizational aids

**Augmentative Strategies**

- Augmentative forms of communication
- Manual sign, Picture Exchange, computerized communication systems, etc.
- Use of visual strategies
- No data that there is a negative result from using augmentative strategies for enhancing communication skills

**Program differences: Approaches to teaching**

- ABA
  - Massed trial, naturalistic language
- Developmental Approaches
- Areas of intervention
  - Initiation, commenting, joint attention
  - Conversational skills, gestures
  - Articulation, prosody

**Play skills (younger children)**

- Challenges for children with autism given the nature of play
- Importance of play for
  - Peer interaction
  - Learning, cognitive flexibility
- Approaches:
  - Modeling, explicit teaching
  - Some differences ABA vs. developmental approaches

**Behavioral issues**

- Teaching new and desired behaviors
  - Discrete trial, peer mediation, naturalistic, pivotal response
- Decrease problem behaviors
  - that interfere with learning
- Methods:
  - Functional analysis, extinction, examination of antecedents and consequences

**Organizational skills**

- Social deficits [2] failures in learning what to attend to
- Learning to learn skills
  - Lists, organizers, written/visual schedules
  - Software, assistive device
- Realistic, step-wise plan (goal directed)
  - Activities of daily life: homework, shopping
- Learning from experience, modifying strategies, multitasking
Adaptive skills & Generalization

- Identify appropriate targets for intervention
  - Use of Vineland and IQ levels
- Generalization across settings, people, contexts at every opportunity
- Do NOT teach skills in isolation
- Encourage functional independence and self-sufficiency
- Coordination with home/family

Occupational/Physical Therapy

- Sensory issues/sensitivities
  - Individualized program
  - Deal with sensory issues in appropriate ways
- Encourage gross and fine motor skills
  - Writing, keyboarding
- Feeding/eating and oral-motor issues

Implications for teaching—translating what we know to the classroom

- Problems in organization
  - Stepwise approach, consistency, routines, visual aids, sufficient time
- Attentional problems
  - Isolate relevant information, structure environment, support attention
- Sequencing
  - Visual cues, predictability, consistency

Implications for teaching II

- Gestalt learning style (learning in ‘chunks’)
  - Present materials across settings, encourage generalization, family involvement
- Visual learning style
  - Use visual supports, give adequate time, limit verbal language, short simple language

Implications for learning III

- Trouble with time and temporal sequences
  - Visual supports, concrete instructions, adequate time, clear expectations, clear outcome and feedback
- Trouble understanding Social Cues
  - Exaggerate, pair gestures and words, teach in context, avoid overly elaborate language, explicit teaching

Issues in mainstreaming

- Rebuttable Presumption
- Difficulties with generalization
- Use of TRAINED peers
- Effective peer mediated approaches complicated to deliver but can benefit
- The ‘holy trinity’ mainstreaming
  - (AKA the 3 WORST places to mainstream!)
Approaches to Teaching: Developmental Strategies

- Awareness of usual developmental sequences and progressions as starting point
  - Be aware that these are sometimes violated!
- Use a child-centered approach (child leads and adult follows) when possible
- Child's preferences/motivations help guide program development
- Pay attention to the learning environment

Resources

- "more than words" – www.hanen.org
- Visual strategies... - Linda Hodgdon
- Social stories – Carol Gray
- TEACCH program – Schopler and Mesibov
- Computer resources
  - Laureate.com, inspiration.com
- Handbook of Autism 3rd edition

Vaccinations and Autism

- Focus esp. on MMR but all vaccines are suspect!
- Background
  - Vaccinations are a major public health success story!
  - Wakefield paper (Lancet 1998) associated "regressive autism" with MMR
  - Issues Measles virus OR the thimerisol preservative?
- Although the study has now been withdrawn the impact lingers
- Parents are concerned about vaccinations and autism
- Rates of vaccinations have led to localized outbreaks of communicable illness in the US and UK

Model Programs

- History
  - Before PL 94-142 and AFTER
  - Similarities and some differences in programs
  - Not every child gets better but overall improved outcome
  - On balance about 25 hours a week seemed important
- Programs: ABA, pivotal response, eclectic, developmental
- Model for why these programs work:
  - Autism poses problems for normative learning
  - In our eye tracking studies maybe 90% of social-affective content is lost to child
  - Implications for joint attention, learning, information processing that become cumulative
- Treatment aims to provide child with tools to learn and grow
  - Importance of fitting the program to the child
  - Importance of evidence-based treatments

Treatment

- Importance of early detection
- Screening approaches
  - Examine a limited range of skills
- NRC report – Educating children with autism
  - Examined all intervention programs with outcome data – focus on preschool
  - Many commonalities, a few differences
  - On balance treatment makes a very major difference

Contributions from/to Development

Autism

Development

Autism has an impact on development
Development has an impact on Autism
Developmental issues in treatment

Autism

Development

Minimize the impact of autism
Maximize developmental gains

Social Development

How to understand improvement?

- Earlier diagnosis
  - Progressively younger children
  - Potential for diagnosis of risk <1 year
- Better interventions
  - Understanding nature of change
  - Need to understand mechanisms
  - Dose issues
  - What are key variables?
  - Child
  - Programs

Contributions from/to Development

Autism

Development

Autism has an impact on development
Development has an impact on Autism

Some Terminology

- Center based
- Home based
- School based
- State Variations and programs
- Age related issues in US
  - <3 (Early intervention programs)
  - >3 Schools mandates to serve
- Methods used
  - ABA
  - Discrete trial, pivotal responses
  - Developmental Approaches
  - Eclectic approaches

Minimize the impact of autism
Maximize developmental gains
From evaluation to treatment

- Parent conference
- Participation of school personnel
- Operationalization of recommendations
- The IEP process
- Implementation
- Follow-up

Model Programs

- Background
- NRC report
  - Structured intensive intervention
  - Commonalities (and differences) in programs
  - NOT every child gets better
  - As a group improved/improving outcomes
    with early intervention
- Some interesting issues
  - University based/affiliated
  - Intensive
    - Average about 25 hours a week

Intervention Programs

- planned and intensive
- Use specific curricula
- Interdisciplinary, integration of services
- Teachers need experience, training, and ongoing support
- Family involvement: generalize skills
- Child engagement is essential
- Functional behavior management
  - foster behaviors facilitate learning
- Transition planning

Features of Comprehensive Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean Age at Entry (range), in Months</th>
<th>Hours Per Week</th>
<th>Usual Setting</th>
<th>Primary Teaching Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Unit</td>
<td>40 (13 to 57)</td>
<td>37.5</td>
<td>School (S)</td>
<td>Discrete trial</td>
</tr>
<tr>
<td>Denver Community Based Approach</td>
<td>46 (24 to 60)</td>
<td>20</td>
<td>School (I), home, community</td>
<td>Playschool curriculum</td>
</tr>
<tr>
<td>Developmental Intervention Model</td>
<td>38 (22 to 48)</td>
<td>18-25</td>
<td>Home, clinic</td>
<td>Floor time therapy</td>
</tr>
<tr>
<td>Douglass</td>
<td>43 (32 to 74)</td>
<td>30-40</td>
<td>School (S and I), home</td>
<td>Discrete with naturalistic</td>
</tr>
</tbody>
</table>

Features of Comprehensive Programs (cont’d)

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean Age at Entry (range), in Months</th>
<th>Hours Per Week</th>
<th>Usual Setting</th>
<th>Primary Teaching Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized Support Program</td>
<td>34 (29 to 44)</td>
<td>12</td>
<td>School (I), home, community</td>
<td>Positive behavior support</td>
</tr>
<tr>
<td>LEAP</td>
<td>43 (30 to 64)</td>
<td>25</td>
<td>School (I), home</td>
<td>Peer-mediated intervention; naturalistic</td>
</tr>
<tr>
<td>Pivotal Response Training</td>
<td>36 (24 to 47)</td>
<td>Varies</td>
<td>School (I), home, community, clinic</td>
<td>Pivotal response training</td>
</tr>
</tbody>
</table>

Features of Comprehensive Programs (cont’d)

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean Age at Entry (range), in Months</th>
<th>Hours Per Week</th>
<th>Usual Setting</th>
<th>Primary Teaching Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACCH</td>
<td>36 (24 and up)</td>
<td>25</td>
<td>School (S), clinical</td>
<td>Structured teaching</td>
</tr>
<tr>
<td>UCLA Young Autism Project</td>
<td>32 (10 to 40)</td>
<td>20-40</td>
<td>Home</td>
<td>Discrete trial</td>
</tr>
<tr>
<td>Walden</td>
<td>30 (18 to 35)</td>
<td>36</td>
<td>School (I), home</td>
<td>Incidental teaching</td>
</tr>
</tbody>
</table>

2/16/12
Areas of consensus on early intervention

- Early intervention is important and can make a major difference for many children
- Importance of
  - Planned, intensive intervention,
  - Interdisciplinary, integrated, experienced providers, family involvement
  - Teaching of specific skills, individualized
  - Child engagement is central
    - 25 hours/week, 12 months per year

Areas to work on

- Social skills
- Communication
- Play
- Behavioral issues
- Organizational issues “learning to learn”
- Adaptive skills, generalization

Translation into Public School Settings

- Recognize child’s difficulties in responding to complex (social/non-social) environments
- Balance of “pull out”, small group, classroom-based, and unstructured environments
- Classroom environment
- Continuity and consistency
  - across settings and across people
- Monitoring and flexibility
  - team approach and collaboration

Social Skills

- Adult instruction, peer, hybrid
- Teach self-management and social skills
- Goals
  - initiations and responses with/to peers
- Used for all ages and levels of severity
- Most research has been done with young children

Approaches to teaching social skills

- Vary depending on age of child and level of impairment
- For younger children – focus is often on peers (with adult monitoring)
- For school age – hybrid methods (circle of friends, individual work)
- For adolescents – adult mediated with explicit teaching

Language-Communication

- Language functioning at age 5 is one of the two strong predictors of outcome
- Probably at least 75% of preschoolers with autism can develop useful speech
- Even for individuals with minimal verbal speech teaching alternative COMMUNICATION skills is critical
- Importance of augmentative approaches
Augmentative Strategies

- Augmentative forms of communication
- Manual sign, Picture Exchange, computerized communication systems, etc.
- Use of visual strategies
- No data that there is a negative result from using augmentative strategies for enhancing communication skills

Areas of differences: Approaches to teaching

- ABA
  - Massed trial, naturalistic language
- Developmental Approaches
  - Areas of intervention
    - Initiation, commenting, joint attention
  - Conversational skills, gestures
  - Articulation, prosody
- Mainstreaming and Integration
  - Right and wrong ways

Play and Leisure Time skills

- Challenges for children with autism given the nature of play
  - Highly social, fast paced
- Importance of play for
  - Peer interaction
  - Learning, cognitive flexibility
- Approaches:
  - Modeling, explicit teaching
  - Some differences ABA vs. developmental approaches

Behavioral issues

- Teaching new and desired behaviors
  - Discrete trial, peer mediation, naturalistic, pivotal response
- Decrease problem behaviors
  - Behaviors that interfere with learning
- Methods:
  - Functional analysis, extinction, examination of antecedents and consequences

Organizational skills

- Social deficits failures in learning what to attend to
- Learning to learn skills
  - Lists, organizers, written/visual schedules
  - Software, assistive device
- Realistic, step-wise plan (goal directed)
  - Activities of daily life: homework, shopping
- Learning from experience, modifying strategies, multitasking

Adaptive skills & Generalization

- Identify appropriate targets for intervention
  - Use of Vineland and IQ levels
- Generalization across settings, people, contexts at every opportunity
- Do NOT teach skills in isolation
- Encourage functional independence and self-sufficiency
- Coordination with home/family
Occupational/Physical Therapy

- Sensory issues/sensitivities
  - Individualized program
  - Deal with sensory issues in appropriate ways
- Encourage gross and fine motor skills
  - Writing, keyboarding
- Feeding/eating and oral-motor issues

More Information

- Yale college course on autism: [http://www.youtube.com/watch?v=IRQjU5MNy_0](http://www.youtube.com/watch?v=IRQjU5MNy_0)
- Books and other resources:
  - Roy Gringer: Unstrange Minds
  - Paul Offit: False Prophets
  - B. Hermelin: Bright Splinters of the Mind
  - [www.autism.fm](http://www.autism.fm) has a comprehensive list of resources, websites, books