The Roots of Antisocial Behavior in Youth

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Objectives

- To describe the antisocial continuum from oppositional defiant disorder to psychopathic personality disorder
- To describe developmental, neurological, and relational influences in the formation of antisocial features in conduct disorders
- To discuss key implications for intervention & management of antisocial behavior with youth

No excuses, just explanations

What we know about the antisocial continuum: Persistent and serious

- Persistent aggression after third grade is predictive of continued aggressiveness; its stability is similar to that of intelligence; the more severe the more stable
- Conduct problems can be predicted with 80% accuracy 5 years later based on social skills, negative/aggressive behavior, and disciplinary contacts
- Adolescents with psychopathy at age 13 were as high at age 24 (even higher when poor, delinquent peers, & abuse)
- Three years after leaving school, 70% of antisocial youth have been arrested at least once.

What happens to nice kids…

…That makes them go bad?
### Psychopathy Checklist-Revised – The “Gold Standard”

1. Glibness/superficial charm (1)
2. Grandiose sense of self-worth (1)
3. Pathological lying (1)
4. Cunning/manipulative (1)
5. Lack of remorse or guilt (1)
6. Shallow affect (1)
7. Callous/lack of empathy (1)
8. Failure to accept responsibility for own actions (1)
9. Need for stimulation/proneness to boredom (2)
10. Parasitic lifestyle (2)
11. Poor behavioral controls (2)
12. Early behavior problems (2)
13. Lack of realistic, long-term plans (2)
14. Impulsivity (2)
15. Irresponsibility (2)
16. Juvenile delinquency (2)
17. Revocation of conditional release (2)
18. Promiscuous sexual behavior (T)
19. Many short-term relationships (T)
20. Criminal versatility (Hare, 1986) (T)

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### Meet the psychopath...

- Parental alcohol abuse
- Paternal abandonment
- Exposure to father beating brother to death
- Multiple head injuries from parental abuse, fighting, recklessness
- Learning disabilities
- Introverted & shy as a child; charming as adult
- Peer teasing & rejection; relieved by beating them
- Compulsive gambling
- First murder age 14; tortured & killed animals, claimed 200 people

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### Defining Antisocial Spectrum

"When I’m good, I’m very good. When I’m bad, I’m better." (Mae West)
So, what’s the big deal if so few people have it?

The high cost of antisocial behavior

- High quality early childhood development programs have high cost-benefit ratios of $3 for every $1 invested (Lynch, 2004)
- Out of district school placement can cost about $200,000/year
- By the time youth are finally referred to day treatment programs they have already cost about $250,000 in services
- Early invention programs can prevent as many as 250 crimes per $1 million spent while the same amount spent in prisons would prevent only 60 such crimes a year
- By age 28, the costs for public service for individuals with conduct disorder were 10 times higher than non-CD persons, especially related to crime (Scott, et al., 2001)
- Antisocial persons have longer and more periods of costly unemployment
- The cost of incarceration per prisoner per year is $20,000-$50,000; the damage to people and social institutions has been estimated at additional $50,000 annually
- Recurrent/lifetime incarceration costs about $3 million per person NOT counting the indirect costs of adjudication, damage to victims, and related costs

**Callousness**

4. I do not care who I hurt to get what I want.
8. I am concerned about the feelings of others.
9. I do not care if I get into trouble.
16. I do not feel remorseful when I do something wrong.
21. The feelings of others are unimportant to me.
7. I do not care about being on time.
20. I do not like to put the time into doing things well.
2. What I think is right and wrong is different from what other people think.
10. I do not let my feelings control me.
12. I seem very cold and uncaring to others.

**Uncaring**

15. I always try my best.
23. I work hard on everything I do.
16. I apologize ("I am sorry") to persons I hurt.
5. I care about how well I do at school or work.
17. I try not to hurt others’ feelings.
24. I do things to make others feel good.
13. I easily admit to being wrong.
5. I feel bad or guilty when I do something wrong.

**Unemotional**

1. I express my feelings openly.
19. I am very expressive and emotional.
6. I do not show my emotions to others.
22. I hide my feelings from others.
14. It is easy for others to tell how I am feeling.

**Differences between Callous-Unemotional and Impulsive Youth**

**Callous-Unemotional**

- Fearlessness & thrill-seeking
- Stable behavior
- Severe & persistent aggression
- Instrumental aggression
- Highly heritable
- Poor processing fear & distress in others
- 2 or more Sx are related to significant impairment
- Less responsive to parenting intervention
- Less responsive to behavior Tx

**Impulsive Conduct (ADHD)**

- Dysfuntional families
- Reactive/COMP (Instrumental aggression)
- High emotional reactivity to threat or other’s distress
- Low heritability
- Response to angry faces
- No amygdala dysfunction

Callous/Unemotional youth have more police contacts

Born to be wild?

- In 1972, 1,795 3-year-olds were enrolled in a longitudinal study of trait development in psychopathy. Toddlers were rated for disinhibited temperament, stimulation seeking and fearlessness. Physiological reactions by skin conductance (startle response) was also monitored.
- 25 years later, 335 adults were reassessed using a self-report version of the PCL-R.
- Adults with higher psychopathy scores had marked differences as 3-year-olds: less fearful/inhibited, more stimulus seeking, and reduced sensitivity to negative stimuli.


So, how do they get that way?

Nature or Nurture?-- yes, both!

<table>
<thead>
<tr>
<th>CRIMINAL BIOLOGICAL PARENTS</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Adoptive Parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td>24.5% of 143</td>
<td>14.7% of 204</td>
</tr>
<tr>
<td>NO</td>
<td>20.0% of 1226</td>
<td>13.5% of 2492</td>
</tr>
</tbody>
</table>

- Heritability of ASP (as well as prosocial behavior) estimated at 50%
- Trauma modifies the risk
- Incompetent parenting further modifies the risk

Fetal Alcohol Exposure

- 1-2 cases per 1000 youth have FASD; for women who already have one child with FAS the risk is 771 per 1000
- Prenatal exposure results in twice the risk for development of Axis-II (personality) disorders, including antisocial personality (Barr, et al., 2006)
- The Washington Group found a 19% co-morbidity between FASD and ASP (Famy, et al., 1998)
- FASD is related to adult antisocial behavior regardless of previous conduct disorder (Langbehn & Cadoret, 2001)
- FAS/FAE is related to cognitive defects, low IQ, impulsive behavior, reduced empathy, lying, cheating, stealing, attention deficit, mood instability, (Streissguth, 1991)

MAOA-L gene on the X (male) chromosome appears to weaken brain circuits that regulate impulses, emotional memory and thinking, and produce hyperactive alarm center

- It breaks down key mood regulating chemical messengers (esp serotonin)
- Reduces volume of cingulate gyrus cortex (blue area) that regulates impulsive aggression
- This gene combined with childhood abuse increases risk of impulsive aggression

Normative Healthy Attachment

- eye contact
- crying
- smiling
- reaching
- grasping
- approaching
- following
- seek closeness & reciprocity
- frustration tolerant
- high intimacy
- long lasting relationships
- high levels of commitment
- high relationship satisfaction
- stress resilient
- fewer physical & psychological problems
- less aggresive, more cooperative
- high belonging

Attachment Problems

- Parent to blame for psychopathy?
- Unresponsive to Comforting
- physically aggresive
- Insecure Attachment
- untrusting
- fearful
- Insecure Attachment
- physicial abuse
- domestic violence
- absent
- neglect
- inconsistent
- ever/under stimulate
- ever/under attentive
- rejecting

Violence-related Gene

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The more abuse, the more behavior problems...


What would it be like to live here?

How would you explain this to friends?

“uh, yeah...we’re kinda laid back here at home...”

Meet my Mom & Dad: Changes with Meth addiction— What happens to children who see their parent undergoing this?
Less easily-socialized youth require more competent parenting to avoid personality disorders.

The appeal of Gangs
Gangs and cohesive juvenile groups often provide what the youth’s family does not provide:

- a substitute for family closeness and intimacy
- safety and protection
- listening and acceptance of the person
- acceptance of deviant behavior
- reinforcement of deviant beliefs
- provide uniqueness and special status
- mutual stereotyping of others outside the group
- strong cohesion and boundaries
- channel for unconventional behavior and aggression

Normal Teen Behavior – Duh!

- Forgetful – leaves behind and loses things, late on assignments
- Impulsive, risk taking, reckless
- Poor judgment, poor decisions, can’t foresee consequences
- Gangly, awkward, clumsy
- Misunderstanding, misreading, misinterpretations
- Stay up late, can’t get up early
- Moody, overly sensitive, hysterics
- Shocking dress, tattoos, piercing
- Alcohol, drug use
- Argues with logical and rational reasoning
- Messy rooms, lockers, notebooks
Risk Taking Teens: What (how) were you thinking!? 
- About 60% of teens engage in potentially dangerous behavior  
- The drop in dopamine levels decreases the ability to experience pleasure  
- To obtain pleasure, more stimulation seeking occurs: drug and alcohol abuse, extreme sports, slasher movies, speeding, high-risk sex  
- Teens show less brain activity in areas of the brain that motivate them to receive rewards (right ventral striatum)  
- Compared with adults, they seek easier means to gain rewards (e.g., recklessness & drugs)  
- They have difficulty maintaining focus on long term goals  
- They take higher risks with peers than when alone

Pruning: Use it or Lose it!  
- Synapse formation in the frontal cortex are over-produced until just before puberty (11 girls, 12 boys), then are pruned  
- Excess connections means they have trouble tracking multiple thoughts & focusing attention  
- The gray matter is thinned at 1-2% per year (up to 50%) as excess connections that are not used are eliminated  
- Ability to learn languages declines after age 12 (changes in the corpus callosum fibers)  
- At this age, teens begin deciding what they want to do and how they want to spend time— if it is laying around and watching TV, the other potentials get pruned. What you do is what you get good at.  
- Pruning may expose latent problems such as ADHD, Tourette’s, and schizophrenia

Comorbidity of Disorders in offending youth (ODD & CD)  
- 70-87% of juvenile offenders have psychiatric problems  
- 50-80% have learning problems, special education, repeat grade  
- 45-80% have conduct disorder  
- 55% have character disorder  
- 65% with IQ <70 engage in inappropriate sex behavior  
- 35-50% mood disorder  
- 30-50% anxiety disorder  
- 30-40% attention/hyperactivity disorder  
- 20-30% substance abuse (6x alcohol, 7x marijuana)
### ADHD: Severe Adverse, Social, Emotional, and Cognitive Consequences

<table>
<thead>
<tr>
<th>Behavior</th>
<th>ADHD</th>
<th>Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat a Grade</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Teen Pregnancy</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Sexually Transmitted Diseases</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Intentional Injury</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Incarcerated</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Fired from Job</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Attempt Suicide</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Data from Barkley RA, Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment, 1999; Swanson AM, Manuscript in preparation, 2001.*

### Sample ADHD Dynamics & Conduct

Sample ADHD Dynamics & Conduct

1. Hyperactivity → Out of seat, bother others
2. Impulsiveness before thinking → Make mistakes, get in trouble
3. Inattention, poor concentration → Misread social cues, unpredictable relating
4. Poor working memory, slow processing → Difficulty learning, get behind
5. Difficulty relating, get behind → Repeated failure, feel it’s unfair
6. Repeated failure → Feel it’s unfair, default to delinquent peers
7. Feel it’s unfair, default to delinquent peers → Act out
8. Act out → Defiance

### The Antisocial Brain: Emerging Research Evidence

The Antisocial Brain: Emerging Research Evidence

*How the brain works...*
Neurological Dysfunction in Offenders

- Poor coordination, odd appearance, speech & vision problems
- Headaches, seizures, hypoglycemia, dizziness
- 26% Repeat offenders but only 5% of 1st time offenders had maternal drug abuse

83% of felons report that they suffered a head injury prior to their first encounter with police; some as late as age 30 (Sarapata, Herrmann, Johnson, and Aycock, 1998)

http://www.acs.appstate.edu/dept/ps-cj/neurology.htm

Effects of Stress & Trauma on the Brain

- Long term exposure to stress & violence produces high level of fear hormone, cortisol (reduces connections & may shrink hippocampus (memory))
- Children of neglectful mothers are more socially withdrawn, inattentive, cognitively under-achieving in elementary years
- Physical, verbal (repeated yelling, scolding, criticism), sexual abuse is related to decrease in working memory
- May increase "limbic (mood) irritability" producing abnormal EEGs associated with aggression
- Repeated recollection and obsessing can intensify the stress effects
- Stress tends to short-circuit frontal lobe processing (what little there is) and switch to emotional processing (resulting in over-sensitivity)
- Children globally (rather than chaotically) neglected have enlarged ventricles or cortical atrophy

Judgment last to develop

The area of the brain that controls "executive functions" — including weighing long-term consequences and controlling impulses — is among the last to fully mature. Brain development from childhood to adulthood:

5-year-old brain<br>Preteen brain<br>Teen brain<br>20-year-old brain

Dorsal lateral prefrontal cortex ("executive functions")

Top view

Back

Red/yellow: Parts of brain less fully mature
Blue/purple: Parts of brain more fully mature

Sources: National Institute of Mental Health; Paul Thompson, PhD, UCLA Laboratory of Neuro Imaging; Thomas McKay | The Denver Post

Lebes of the Brain:

Brain CEO: Forebrain or Prefrontal Area

- Planning
- Attention
- Judgment
- Reflection
- Prioritizing
- Self control
- Strategizing
- Sequencing
- Anticipation
- Organization
- Impulse control
- Second thought
- Working memory
- Modulating mood
- Response flexibility
- Goal-directed behavior
- Foresee consequences

...instead they rely on their emotional brain
The strange case of Phineas Gage

- Gage was a railroad construction supervisor in 1848 when a 3½-foot 13 lb tamping rod was driven through his skull by an explosion. The tamping rod severed the connections in the left hemisphere, frontal area. He was knocked down but remained conscious and returned to work about 9 months later.

- Prior to the accident, Gage was described as moral, hardworking, sensitive, conscientious, intelligent, capable, shrewd but well liked businessman.

- Following the accident, his personality changed: he was impatient, capricious, lying, swearing, fighting, drinking, extravagant, seizure prone, and antisocial.

Corpus Callosum: The connection

- Connecting L and R hemispheres, it is related to creativity, higher types of thinking, intelligence, consciousness, and self awareness.

- It changes throughout childhood and takes different shapes for different childhood illnesses; full maturity in 20s.

- Its increasing elaboration can help learning finally "click," such as insight.

- Abused children have smaller corpus callosum and poorer integration between the hemispheres, and can be related to poor emotional regulation, cause-effect thinking, recognition of emotions in others or expression or own emotions, and conscience.

- ASP showed >white matter volume, >collosal length, < collosal thickness, & >connectivity between hemispheres (Raine, et al., 2004). Larger volume is related to >affective & interpersonal deficits, <autonomic stress reactivity. This suggests arrest of early axonal pruning or increased myelination.

The “Oops” Center—anterior cingulate gyrus

- The cingulate is responsible for helping focus attention.

- Links cingulate and emotional hippocampus for integrating reason & emotion to guide decisions.

- Undergoes high myelination (doubles) during adolescence.

- “Oops center” anticipates risk, detects and keeps us from making errors.

- May involve ability to empathize—may not be able to recognize and appreciate other’s feelings until mid to late teens.

Undersocialized subjects have more difficulty than control subjects in naming the color, suggesting frontal lobe involvement (Waid & Orne, 1982).
Iowa Gambling Task:
Don’t they know they’re losers?

Task: Choose a card to win game money.
Decks vary in payoff: some pay constant low reward, while others pay high but also have large penalty.

<table>
<thead>
<tr>
<th>Card</th>
<th>Bad Decks</th>
<th>Good Decks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Gain/Deck: $100</td>
<td>Gain/Deck: $100</td>
</tr>
<tr>
<td>B</td>
<td>Loss/10 cards: $1250</td>
<td>Loss/10 cards: $1250</td>
</tr>
<tr>
<td>C</td>
<td>Net/10 cards: -$250</td>
<td>Net/10 cards: -$250</td>
</tr>
<tr>
<td>D</td>
<td>Rewards/10 cards: 5</td>
<td>Rewards/10 cards: 1</td>
</tr>
</tbody>
</table>

- Healthy Ss stay with “good decks” while ASPs stick with “bad decks” even when they know they are losing overall
- Healthy Ss show GSR stress response long before they consciously recognize losing; ASPs never develop this reaction to pending punishment
- Impairment related to orbito-frontal dysfunction (the “oops” spot)
- ASP shows hypersensitivity to reward and hyposensitivity to punishment
- They may not be able to learn social conventions associated with loss and gain

Mirror neurons: Monkey see, monkey do

- Newborns as young as 72 hours old can imitate some facial expressions
- A mirror neuron is a neuron which fires both when an animal performs an action and when the animal observes the same action performed by another
- Mirror neurons have been found in the premotor cortex (motor behavior) and the inferior parietal cortex (distinguishing self/other)
- These appear to be involved in understanding intentions of others, empathy, predicting actions of others, and social bonding
- Such empathy usually prevents us from causing discomfort to others (Blair’s theory of Violence Inhibition Mechanism)

Poor recognition of emotional cues (impaired empathy)

Conduct Disordered Youth:
- When reading emotion, teens rely more on the amygdala (L), while adults rely more on the frontal cortex (R)
- Errors in evaluating motive and intent (even normal teens are 2x that of adults); Misinterpret social cues & attribute hostile intentions
- Abnormal standards and expectations regarding own behavior; Tease others but respond negatively to others
- Impairment in deep emotional relationships (that come from reading emotional cues)
- Conclusion: the neural pathways that are supposed to process human emotion are either non-functional or are processed differently—psychopaths don’t identify with the emotional stress of their victims

“That was funny!”: Bullies enjoy the pain of others

- Aggressive youth were shown clips of a pianist having fingers pinched by closing the piano lid on them
- Areas related to processing pain were activated, but...
- So were the amygdala and vertral striatum (reward centers)
- Unlike unaggressive youth, aggressives did not activate medial prefrontal or temporoparietal junction associated with self regulation (impulse control)
- Youth without aggression problems did not show the same activation, but instead it evoked empathy

http://huehueteotl.wordpress.com/category/science/neuroscience/
The Post-It Notes of the brain: Working Memory

- WM is the “mental workspace for storing & manipulating information – learning potential
- Related to literacy & math (and academic failure in these)
- Difficulty in problem solving
- Difficulty in cause-effect thinking, seeing potential consequences
- “Goes in one ear and out the other”

$4 \times 3 + 6 - 2 = ?$

Moral Reasoning

The Brain and Ethical Reasoning: The lesser of two evils

“You are standing next to a switch in a trolley track and you notice that a runaway trolley is about to hit a group of five people who are unaware of their danger. However, if you switch the track, the trolley will hit only one person. What do you do?”

“You are standing on a bridge over a trolley track beside a single person. Again you notice that the runaway trolley is headed toward five unaware people. Do you push the single person onto the track to stop the trolley?”
Brain injury & moral choices: “Willingness to violate moral choices of any type”

**Brain Injury and Moral Judgment**

A recent study shows that patients with damage to the brain’s ventromedial prefrontal cortex express increased willingness to harm another person for the greater good. Below are several moral scenarios posed to these patients and a neurologically normal group.

**Ventromedial Cortex**

You have abandoned a sinking cruise ship and are in a crowded lifeboat that is dangerously low in the water. If nothing is done it will sink before the rescue boats arrive and everyone will die. However, there is an injured person who will not survive in any case. If you throw that person overboard, the boat will stay afloat and the remaining passengers will be saved. Would you throw the person overboard in order to save the lives of the remaining passengers?

**Source:** Nature


**Non-reactivity to Emotional Stimulation**

Antisocials react to horrific pictures the same as they do to neutral pictures.

**Lykken’s 1957 Study**

The amygdala is 17% smaller in psychopaths.

Normal people show fear, startle, and avoidance reactions to painful stimuli—psychopaths don’t.

**Development of behavior disorders in youth**

- **Environmental**
  - poor density
  - single
  - uninsured
  - MI (depression)
  - AODA
  - premature/absent
  - antisocial
  - divorce
  - peer/attitudinal factors
  - transgenerational

- **Infancy**
  - prenatal
  - low birth weight
  - brain injury
  - attachment
  - hyperactive
  - colicky
  - unhealthy
  - disability
  - pain
  - multiple placements

- **Pears**
  - delinquent/deviant peers
  - antisocial kids
  - bullying
  - rejection by norm group
  - attention/recognition
  - belonging
  - act out
  - revenge

- **Family**
  - cohesion
  - flexibility
  - poor boundaries
  - inconsistent discipline
  - poor supervision
  - marital relationship
  - handle emotions
  - poor role modeling
  - criminality
  - physical, emotional, sexual abuse
  - explicit sexuality
  - incarceration
  - poverty
  - large family
  - father absence
  - long unemployment

- **Legal/Offense**
  - life of violence
  - Types/frequency/severity
  - Non-violent offending
  - Early onset of violence
  - Foul supervision/abuse
  - Domestic violence
  - Escalating pattern
  - Victim age vulnerability
  - Deviant arousal
The Vital Balance

**Violence**

<table>
<thead>
<tr>
<th>Internal Controls</th>
<th>External Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality - What prevents you from offending?</td>
<td>Support</td>
</tr>
<tr>
<td>- values (&quot;It’s wrong&quot;)</td>
<td>- Nurturance</td>
</tr>
<tr>
<td>- empathy (&quot;It would hurt others&quot;)</td>
<td>- Feedback</td>
</tr>
<tr>
<td>- consequences (&quot;I’ll get in trouble&quot;)</td>
<td>- Availability</td>
</tr>
<tr>
<td>- ego-dystonic (&quot;That’s not me&quot;)</td>
<td>- Consistency</td>
</tr>
<tr>
<td>- shame/embarrassment (&quot;what would others think&quot;)</td>
<td>- Positive involvement</td>
</tr>
<tr>
<td>- esteem (I’d feel awful)</td>
<td>- Sanctions</td>
</tr>
<tr>
<td>- identification (&quot;wouldn’t want that to happen to me&quot;)</td>
<td>- Intensive supervision</td>
</tr>
<tr>
<td>- personal responsibility (&quot;I would be responsible&quot;)</td>
<td>- Legal charges</td>
</tr>
<tr>
<td>- self-monitoring &amp; control (&quot;I’d stop myself&quot;)</td>
<td>- Elec. Monitoring</td>
</tr>
<tr>
<td>- coping (&quot;other ways to deal with tension&quot;)</td>
<td>- Placement</td>
</tr>
</tbody>
</table>

**External Controls**

- Support
- Nurturance
- Feedback
- Availability
- Consistency
- Positive involvement
- Sanctions
- Intensive supervision
- Legal charges
- Elec. Monitoring
- Placement

**Letter from a parent...**

*Most of America’s populace think it improper to spank children, so I have tried other methods to control my kids when they have one of “those moments.”*

One that I found effective is for me to just take the child for a car ride and talk. They usually calm down and stop misbehaving after our car ride together.

I’ve included a photo below of one of my sessions with my son, in case you would like to use the technique.

Sincerely,
A Friend

**The early solution...lobotomy!**

- In 1966, 12-year-old Howard Dully became the youngest recipient of the icepick transorbital lobotomy for: “being unbelievably defiant...objects going to bed...daydreaming...and says ‘I don’t know.’”
- Lobotomy developer, Dr. Walter Freeman travelled the US in his Lobotomobile conducting up to 2500 of the 10 minute procedures in 23 states from 1936-1967

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Traditional treatment difficulties with antisocial adjustments

• Low motivation to change (low anxiety)
• Rarely initiate treatment (CD Tx)
• Noncompliance with requirements & rules
• Low empathy, remorse, guilt
• Highly impulsive, risk-taking & reckless
• Lack of insight into affective state
• Avoidance of personal responsibility
• Noncompliant with or abuse medication
• Less reactive to aversion & punishment
• Superficial relationships; lack therapeutic alliance
• Tend to focus on primary goal & ignore peripheral & cost/benefit reasoning
• Lack of understanding of antecedents of behavior make relapse prevention strategies difficult
• Cannot trust self-report, deceptive, manipulative

“Am I supposed to know if I’m innocent... I’m a psychopath!”

Components of Empathy Enhancement for Juvenile Offenders

• Ability to identify and express emotions
• Development of good listening skills in order to be able to identify feelings of others
• Address lack of awareness of the devastating short and long term emotional impact that the behavior had on the victim(s); Constructing a series of apologies to his victims
• Identification of feelings prior to, during and after offenses; address lack of remorse
• Comprehension of how anger, stress and values influence their reactions to others
• Modification of behavior out of concern for others’ feelings
• Dealing with own victimization
• Reinforcement of prosocial behaviors (4:1 ratio)

Questionable if client is older teen, repeat offender, psychopathic & sadistic indicators, poor response to treatment

Early Intervention with families: Parental contribution to empathy

• Secure attachment & nurturing: responsiveness to infant, available, sensitivity, consistency
• Take children seriously: respect feelings, preferences, questions
• Practice cooperating: demonstrating collaboration rather than competition
• Guiding & explaining: value sharing, caring, helping, explain why prosocial behaviors are important and appreciated, how aggressive and selfish behaviors harms others, intervening when child is selfish or cruel, explain how others feel
• Modeling: generosity, charitable to others, practice what preached, small acts of kindness
• Promoting and praising prosocial self image: encourage opportunities to experience caring & helping, view self as caring and helping, volunteering, internal rather than external locus of control for altruism

Eliminate violent movies & videos: Repeated viewing of violent programs reduces activity of violence control areas:

• right lateral orbitofrontal cortex (impulse control)
• Amygdala (fear, anger)
• After viewing violence the areas associated with planning aggressive action became more active

• These changes did not occur when Ss viewed movies with non-violent scenes but had horror or physical activity

The yellow area of the brain is the right lateral orbitofrontal cortex, or right lOFC, which has been previously associated with decreased control over a variety of behaviors, including reactive aggression. The graph illustrates that as the number of violent movies watched increased (stimulus number along bottom of graph), the right lOFC activity diminished.

Teaching impulse control

- "Stop! Think! Act!" use at every opportunity, graphic strong verbal praise
- Slow down: time out, count to ten, 3 deep breaths, "warmer—colder", muscle relaxation
- Problem solving puzzles, mazes, manipulative puzzles (e.g., "tavern puzzles, Tower of London")
- Lead the child through the problem solving process (don’t just direct or tell)
- Teach awareness: "Instead of "leave me alone & sit down" try "what do you see me doing now? Do you think this is a good or bad time to ask me a question? What should you be doing?"
- Behavior shaping: giving small, tangible rewards for cooperation with external control of impulsivity. "You can one M&M now or five if you wait till I finish."
- Model impulse control and show how to discuss thoughts and feelings

“Outta the Blue!": Deconstructing actions

1. What happened in (focus on the suddenness)
2. Elaborate on the detail and start mapping
3. Columbo Mode: “What happened just a second before that?”
4. ...and just before that? (focus on details of thoughts, feelings, and behaviors)
5. Ask if the map accurately describes the sequence
6. What might happen if it were stopped at each critical step?
7. Practice re-enactment. Start to escalate, then stop and examine (practice interruption)

Sample Family System Dynamics: It’s all tied together—treat the system!

Father’s strict
Mother’s leniency
Parental conflict
Verbal abuse
Physical abuse
Self-justification
Withdrawal by each
Son’s behavior issues
Truancy
Frustration with school
Poor academic performance
Angry about abuse
Depressed, preoccupied about situation
Hypersensitive, reactive
Defiant with teacher
Poor concentration at school
Referred for discipline

Coordinate Interventions—
What parents & foster parents should share with therapists

- change in behavior (improvements and deterioration)
- what works & what doesn’t
- follow through with behavior assignments
- issues at home that should be discussed in treatment
- performance and behavior at school
- response to contacts with biological parents
- evidence of warning signs of pending serious behavior
- response to discipline and affection
- compliance with medication & treatment
- response to medication
Juvenile Sex Offenders

"Multisystemic" Therapy Recidivism

- Antidepressants
  - SSRI (Prozac, Zoloft, etc.): reduce depression, anxiety, OCD, mood swings
  - Tricyclics (e.g., Elavil, Tofranil): psychotic depression & ADHD
  - MAOI (e.g., Marplan, Nardil): anger control, impulsivity, interpersonal sensitivity, social anxiety
- Lithium: reduce impulsive, anger, combativeness, explosive, & emotionally unstable behavior (esp. bipolar mood swings)
- Benzodiazepines (e.g., Xanax, Klonopin, Valium): control anxiety & insomnia, episodic aggression (potentially addictive)
- Psychostimulants (e.g., amphetamine, methylphenidate): ADHD
- Anticonvulsants (e.g., Carbamazapine): episodic (limbic) dyscontrol including angry outbursts, violence, & self-mutilation
- Alcohol treatment: Antabuse, Naltrexone, Campral, Topamax

Medication risks include:
- Time to reach therapeutic levels
- Interaction effects with illicit drugs
- Side effects & toxicity
- Dietary restriction with MAOI
- Hoarding drugs for overdose
- Substance abuse or relapse
- Selling medications
- Defiance & noncompliance
- May require close medical supervision
- Only for symptomatic treatment

Medication for antisocial behaviors

Effectiveness of Corrective Thinking

High risk clients
- 66% reduction in crime for those who completed the program.
- 33% reduction in crime for those who entered but did not complete.
- 48% of all clients pursued no new crime.
- 29.4% exhibited a decrease in crime.
- 6.4% showed no change.
- 15.6% exhibited an increase in crime.

Average number of criminal charges:
- Reduced by slightly over 50% for all clients who entered the program.
- Reduced approximately 66% for those who completed the program.
- Reduced by approximately 33% among clients terminated before completion.
- Reduced 79.17% for those who completed and had no previous arrests.
- Reduced 36.36% for those who terminated prior to completion with no prior arrests.

Truthought's Corrective Thinking Treatment Model includes four studies done by University of Wisconsin, US Department of Justice National Institute on Corrections, US Department of Justice Bureau of Justice Assistance (1988-1993)
Effectiveness of interventions for Serious & Violent Offenders

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<tr>
<th>Positive effects, consistent evidence</th>
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<td>Noninstitutionalized Offenders</td>
<td>Institutionalized Offenders</td>
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<td>Individual counseling, interpersonal skills, behavioral contracting</td>
<td>Interpersonal skills, teaching family home</td>
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<td>Multiple services, restitution, probation &amp; parole</td>
<td>Cognitive behavioral treatment, community residential programs, multiple services</td>
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<td>Employment related programs, academic programs, advocacy, family &amp; group counseling</td>
<td>Individual counseling, guided and group counseling</td>
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<td>Reduced caseload, probation &amp; parole</td>
<td>Employment related programs, drug abstinence, wilderness programs</td>
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<td>Wilderness challenge, early release, deterrence and vocational programs</td>
<td>Milieu therapy</td>
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Key Points in Treatment

- Early intervention (childhood) is more effective than later (adolescence and adulthood)
- Multimodal approaches are more effective than singular approaches
- Minimize manipulation by having frequent collaboration among parents & providers
- Decreasing family pathology & increasing competent parenting is essential for youth
- Empathy training works with younger clients and those who are more socialized; less well with callous & remorseless clients (may actually increase recidivism)
- Hold clients to behavior change, not just attendance to and completion of a program
- ODD, CD, and ASP respond to treatment, but no effective treatment has emerged yet for the psychopath