Psychopathy in Youth: Current Findings

David S. Kosson
Department of Psychology

Goals
- Introduction to Psychopathy in Youth
- Why We Study Psychopathic Traits in Youth
- Approaches to the Assessment of Psychopathic Traits in Youth
- What We Know about Psychopathy in Youth
- Juvenile Justice and Mental Health Implications of Psychopathic Traits in Youth

Eric Harris
- Contempt / Lack of Empathy
- Callousness
- Lack of Remorse or Guilt
- Grandiosity, Superiority
- Glibness and Pathological Lying

HISTORICAL FLOW CHART FOR PSYCHOPATHY

286 BC: Theophrastus: The Immoral Man
1801: Phillipe Pinel: Manie sans Delirie
1812: Benjamin Rush: Socially Deranged Behavior
1891: J. L. Koch: Psychopathic Inferiority
1914: K. Birnbaum: Sociopath
1923: Franz Alexander: Neurotic Character vs. True Criminal
1941: Hervey Cleckley: The Syndrome We Recognize
1960: Lee Robins: DSM-III Antisocial Personality Disorder
1980: Robert Hare: The Psychopathy Checklist

Theories of Psychopathy

Genetic / Biological Perspectives
- Temperamental Accounts
  - Low Fear Capacity
  - Low Behavioral Inhibition
  - Poor Executive Function
- Low Arousal
- Environmental Contribution usually assumed

Theories of Psychopathy

Environmental Perspectives
- Blackburn: Dismissive Attachment
- Assoc with Fear of Rejection
- Assoc with Early Abuse
- McCords: Early Physical Abuse
- Maher: Inconsistency in Parenting
- Biological x Environmental Interactions
Theories of Psychopathy

- Cognitive Perspectives
  - Response Modulation Perspective
  - Left Hemisphere Activation Hypothesis
  - Integrated Emotion Hypothesis

- Affective Perspectives
  - Cleckley: Inability to Appreciate the Meaning and Significance of Human Behavior
  - Low Fear Hypothesis
  - Integrated Emotion Hypothesis

Affect Dysregulation Theory

- Penney and Kosson: a new theory of the development of psychopathic traits

Why Study Psychopathy in Youth?

- Psychopathic traits in youth
- Persistent, diverse, and serious antisocial behavior
Why Study Psychopathy in Youth?

- Identify psychopathic traits early
- Identify risk and protective factors

Persistent, diverse, and serious antisocial behavior

Psychopathy in Youth: Not a new idea!

- 1941 - H. Cleckley: roots of disorder in childhood
- 1964 - W. & J. McCords: need to identify and treat psychopathy in youth
- 1965 - H. Quay: Subtypes of delinquent youth, psychopathic youth = a pejorative label
- 1980 - DSM-III: Aggressive-undersocialized
- 2013 - DSM-V: Conduct Disorder with Limited Prosocial Emotions

Psychopathy: A subset of adolescent offenders

Self-Report Inventories
- MMPI-A, MACI
- YPI, PPI, APSD
- SRP-II, CPS-II, MTI, SALE, ICU

Informant Rating
- APSD
- CPS
- CPTI

Observer Rating
- IM-P

Structured Clinical
- DSM-IV
- ICD-10
- PCL:YV

What We Know about Youth with Psychopathic Traits

Psychopathic Traits

Multiple Assessment Approaches
Psychopathic Traits

Self-Report Inventories
Informant Rating
Observer Rating
Structured Clinical Rating

Every approach has strengths and weaknesses.

The good news: there is reasonable reliability and validity data for all these measurement approaches.

The bad news: the correlations between scores on these different measures are very low.

Correlations between scores on self-report and clinical measures = .20 to .40

Concerns about Assessing Psychopathic Traits in Youth
- Scores on measures of psychopathy may be inflated by general characteristics of adolescence
- Labeling a child/adolescent a “psychopath” → many negative connotations
- Stability of psychopathic traits from childhood to adulthood controversial
- Assumption of “untreatability” could be extended to youth

Scores on measures of psychopathy may be inflated due to characteristics of adolescence
- To the extent that scores are inflated, we should see:
  1) Higher scores for youth than for adults
  2) A corresponding general lack of predictive power for ratings of psychopathic traits in adolescents
Labeling: A Pernicious Problem

“Juveniles who are branded as psychopaths are more likely to be viewed as incorrigible, less likely to receive rehabilitative dispositions, and, if it is an option, more likely to be transferred to the criminal justice system to be tried as adults and face the possibility of adult sanctions including incarceration in adult jails and prisons.”
- Steinberg (2002)

Stability: The False Positive Problem

“Sometimes, however, the child or adolescent will for a while behave in a way that would seem scarcely possible to anyone but the true psychopath and later change, becoming a normal and useful member of society.”
Cleckley (1976, p. 270)

We May Be Able to Impact Stability

“Psychopathy is stable across time, in part, because we currently fail to recognize its presence early and adequately and fail to intervene effectively.”
Lynam (2002, p. 258)

Information about the Psychopathy Checklist: Youth Version

Psychopathy Checklist: Youth Version
(Forth, Kosson, & Hare, 2003)

- Derivative of Hare PCL-R
- Expert-rater format
- Multi-domain and multi-source information required
- 20 items rated on 3-point scale
- Range: 0 to 40

Factor Structure of the PCL-YV

- Tests of factor solutions validated in PCL-R suggest that both the 3-factor and 4-facet models identified in adults provide acceptable fit to the data.
- The factor structure is now well-established in both females and males.
Factor Structure of PCL:YV

**PSYCHOPATHY**

- Interpersonal
- Affective
- Lifestyle
- Antisocial

**Factor Structure of PCL:YV (Forth et al., 2003)**

- CFA: Tested 3 models
  - 2 factor (Hare et al., 1990)
  - 3 factor (Cooke & Michie, 2001)
  - 4 factor (Hare, 2003; Parker et al., 2003)
- 1,631 male and female adolescents (11% female)
- 5,964 male and female adult offenders (17% female; Hare & Neumann, 2006)

**PCL:YV Interpersonal Items**

- Impression management
- Grandiose sense of self-worth
- Pathological lying
- Manipulation for personal gain

**PCL:YV Affective Items**

- Lack of remorse
- Shallow affect
- Callous/lack of empathy
- Failure to accept responsibility

**Kosson, Neumann, Forth, Salekin, Hare, Krischer, Sevecke (2013)**

CFI = .91, TLI = .95, RMSEA = .075, SRMR = .063, N = 646 Girls
PCL:YV Lifestyle Items
- Stimulation seeking
- Impulsivity
- Lacks goals
- Irresponsibility
- Parasitic orientation

PCL:YV Antisocial Items
- Early behavior problems
- Poor anger control
- Serious criminal behavior
- Serious violations of release
- Criminal versatility

Antisocial Processes Screening Device (Frick & Hare, 2001)
- Derivative of Hare PCL-R
- Used as a multi-informant and as a single-rater index of psychopathic traits
- 20 items rated on 3-point scale
- Range: 0 to 40

Information about the Antisocial Process Screening Device
Correlations between scores on different versions are modest.
Most studies are studies based on the self-report measure.
There is little attention to whether findings for the different measures are similar.

Reliability of Psychopathy Scores
Evidence Bearing on the Concerns

Comparison: Adolescents vs Adults
(Vincent, 2002)

- 269 male young offenders
  - Age = 16.9; 76% secure custody
- 444 male adult offenders
  - Age = 28.6; all incarcerated
- Percent scoring 30 or greater
  - Adolescents = 11%
  - Adults = 26%
**Factor Score Comparisons**  
(Vincent, 2002)

**PCL:YV Scores: Distributions**

**Which items are most discriminating of the construct?**

- Adult Male Offenders  
  (Hare, 2003)
  1. Callous/lack of empathy
  2. Lack of remorse or guilt
  3. Conning/manipulative
  4. Shallow affect
  5. Need for stimulation
  
  N = 3847

- Adolescent Male Offenders  
  (Vincent, 2002)
  1. Callous/lack of empathy
  2. Lack of remorse
  3. Manipulation
  4. Grandiose
  5. Shallow affect
  
  N = 269

**Labeling**

- Forth, Kosson, and Hare (2003): No youth should ever be labeled psychopathic.
- Prior studies do not directly address how often these labels have been applied to youth.
- Prior studies do not directly examine whether youth have been harmed by these labels.
Labeling: Impact on Jurors

- Juror studies — Results revealed substantial effects for a history of antisocial behavior. Psychopathic personality features also appeared influential, albeit on fewer variables. There were no negative effects associated with conduct disorder or psychopathy labels. Results suggest that the criteria underlying labels, more than labels themselves, exert influence in juvenile justice contexts.
  

Stability of Psychopathy Scores

Stability: Results Depend on the Method of Measurement

- Parent ratings:
  Frick, Kimonis, Dandreaux, & Farell (2003):
  Youth ages 10 to 14 years;
  Stability of total APSD ratings = .80 over 4 years

- Teacher ratings:
  Youth T1 age 8;
  Stability of callousness ratings = .61 over 1 year
  .48 over 4 years
  .27 over 9 years

- Self-report APSD scores:
  age 17 to 24 years;
  MPQ Fearless Dominance stability = .59 to .60
  Youth Mean T1 Age = 10.7; two year stability = .43-.64

- Self-report YPI scores:
  ages 16 to 19 years;
  YPI subscale stability = .43 -.61 in males and females
  Blonigen, Hicks, Krueger, Patrick, & Iacono (2006)
  Forsman, Lichtenstein, Andershed, & Larsson (2008)
  Munoz & Frick (2007)

Rank Order Stability of Psychopathic Traits

Hemphala, Kosson, Westerman, and Hodgins (2014)
Five Year Stability, Mean Age 16.8 at start (PCL:YV) and PCL-R in Adulthood

<table>
<thead>
<tr>
<th></th>
<th>Spearman Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>PCL Total score</td>
<td>.68</td>
</tr>
</tbody>
</table>

Within-Individual Stability of Psychopathic Traits

Hemphala, Kosson, Westerman, and Hodgins (2014)
Five Year Stability, Mean Age 16.8 at start (PCL:YV) and PCL-R in Adulthood

<table>
<thead>
<tr>
<th></th>
<th>% Decrease</th>
<th>% Stable</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
<td></td>
</tr>
<tr>
<td>PCL Total score</td>
<td>14.0</td>
<td>88.9</td>
<td>0.0</td>
</tr>
<tr>
<td>PCL Total score</td>
<td>11.8</td>
<td>88.9</td>
<td>1.6</td>
</tr>
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</table>
Construct Validity

- Concurrent Validity
- Discriminant Validity
- Convergent Validity
- Predictive Validity

PCL:YV: Relationships with Other Measures of Psychopathy

<table>
<thead>
<tr>
<th>Interpersonal Measure of Psychopathy</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forth (1995)</td>
<td>.32</td>
</tr>
<tr>
<td>Kosson et al. (2002)</td>
<td>.37</td>
</tr>
<tr>
<td>Bauer, Whitman, and Kosson (2011)</td>
<td>.53</td>
</tr>
</tbody>
</table>

PCL:YV: Relationships with Other Measures of Psychopathy

### APSD

<table>
<thead>
<tr>
<th>r</th>
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</thead>
<tbody>
<tr>
<td>Self reported ratings:</td>
</tr>
<tr>
<td>Cruise et al. (2000)</td>
</tr>
<tr>
<td>Falkenbach et al. (2002)</td>
</tr>
<tr>
<td>Lee et al. (2003)</td>
</tr>
<tr>
<td>Murrie &amp; Cornell (2002)</td>
</tr>
<tr>
<td>Salekin (2008)</td>
</tr>
<tr>
<td>Mother ratings (McBride, 1998)</td>
</tr>
<tr>
<td>Staff ratings (Murrie &amp; Cornell, 2002)</td>
</tr>
</tbody>
</table>

Psychopathy and Demographics

<table>
<thead>
<tr>
<th>Setting</th>
<th>Age</th>
<th>Sex</th>
<th>Ethnicity</th>
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</thead>
<tbody>
<tr>
<td>Institutionalized</td>
<td>-.07</td>
<td>-.09</td>
<td>.04</td>
</tr>
<tr>
<td>Probation</td>
<td>-.07</td>
<td>-.05</td>
<td>.03</td>
</tr>
<tr>
<td>Community</td>
<td>.10</td>
<td>--</td>
<td>.18</td>
</tr>
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</table>
Psychopathy and Intelligence

<table>
<thead>
<tr>
<th>Study</th>
<th>Verbal</th>
<th>Nonverbal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>McBride (1998)</td>
<td></td>
<td></td>
<td>-.01</td>
</tr>
<tr>
<td>Ridenour et al. (2001)*</td>
<td></td>
<td></td>
<td>-.11</td>
</tr>
<tr>
<td>Salekin et al. (2004)</td>
<td>-.01</td>
<td>-.09</td>
<td>-.05</td>
</tr>
<tr>
<td>Bauer et al. (2011)*</td>
<td>-.02</td>
<td>-.02</td>
<td>.01</td>
</tr>
</tbody>
</table>

*VOC, BD, and Estimated IQ
**Used modified PCL-R

Psychopathy and Ethnicity

![Psychopathy and Ethnicity chart]

PCL:YV: Anxiety and Depression

<table>
<thead>
<tr>
<th>DSM Disorders</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression diagnoses</td>
<td>-19 to .16</td>
</tr>
<tr>
<td>Anxiety diagnoses</td>
<td>-.10 to .07</td>
</tr>
<tr>
<td>Self-report depression</td>
<td>.07 to .25</td>
</tr>
<tr>
<td>Self-report anxiety</td>
<td>-.09 to .25</td>
</tr>
</tbody>
</table>

Construct Validity

- Concurrent Validity
- Discriminant Validity
- Convergent Validity
- Predictive Validity

Conduct Disorder

- Aggression to people and animals (7 items)
- Destruction of property (2 items)
- Deceitfulness and theft (3 items)
- Serious violation of rules (3 items)
- Early onset vs late onset type

“...conduct disorder is a heterogeneous category, both phenotypically and etiologically...it has little utility for identifying the small group of youth involved in grossly disproportionate amount of crime during adolescence and adulthood.”

Petrila & Skeem (2003, p. 689)
Prevalence of CD and Psychopathy (and Overlap) among Incarcerated Adolescents

80 - 95%: Conduct disorder
10 - 30%: Psychopathy

PCL:YV and Disruptive Disorder Symptoms

<table>
<thead>
<tr>
<th>DSM Disorders</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # CD symptoms</td>
<td>.38-.64</td>
</tr>
<tr>
<td>Aggressive CD symptoms</td>
<td>.47</td>
</tr>
<tr>
<td>ODD symptoms</td>
<td>.21-.30</td>
</tr>
<tr>
<td>ADHD symptoms</td>
<td>.09-.40</td>
</tr>
</tbody>
</table>

Psychopathy and Disruptive Behavior Disorders (Salekin et al., 2004)

- Do psychopathy measures contribute uniquely in predicting offenses over and above CD, ODD, and ADHD?
- “Of the three psychopathy measures, only the PCL:YV was able to predict overall, violent, and nonviolent offenses, after initially accounting for the predictive effects of CD, ODD, and ADHD symptoms.”

Psychopathic Traits and Concurrent Aggression (Penney & Moretti, 2007)

- 142 high-risk adolescent males and females
- Youth with higher PCL:YV score engaged in
  - More overt aggression,
  - More relational aggression
  - More violent offences
- No gender differences
- PCL:YV related to aggression directed towards peers, not parental or romantic relationships

Psychopathic Traits and Reactive and Instrumental Aggression (Flight & Forth, 2007)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental violence</td>
<td>.69</td>
</tr>
<tr>
<td>Severity of victim injury</td>
<td>.43</td>
</tr>
<tr>
<td>Reactive violence</td>
<td>.55</td>
</tr>
</tbody>
</table>

Psychopathy and Instrumental Aggression (Vitacco et al., 2006)

- 122 violent male adolescent offenders
- 5 – item measure of instrumental aggression
  - Planning, goal-directed, unprovoked, lack of anger, limited victim relationship
- Compared 3 vs 4 factor PCL:YV model
The three factor model explains 8% of the variance in instrumental aggression.

The four factor model explains 20% of the variance in instrumental aggression.

**Psychopathic Traits and Coercive Sexual Behavior**

- Caputo, Frick, & Brodsky (1999): Sex offenders had more callous and unemotional traits than other kinds of offenders.
- Sikorski (2006): Sex offenders with higher PCL:YV ratings had more extensive criminal histories, chaotic caregiver relationships, and difficulties obeying authority figures. They were exposed to more violence from an early age and exhibited more unruly and forceful behavior.

**Laboratory Measures**

- Adult psychopathic offenders exhibit deficits in learning to inhibit responses that are punished.
- Some but not all studies have reported deficits in youth with psychopathic traits.
- Whitman et al.: the first study with PCL:YV.
- PCL:YV scores correlated with passive avoidance errors but not omission errors.
PCL:YV and Attachment
*(Flight & Forth, 2007; Kosson et al., 2002)*

<table>
<thead>
<tr>
<th>Measure</th>
<th>r</th>
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</thead>
<tbody>
<tr>
<td>Closeness to family: SR</td>
<td>-.23</td>
<td></td>
</tr>
<tr>
<td>Closeness to family: Parent</td>
<td>-.24</td>
<td></td>
</tr>
<tr>
<td>Closeness of family: SR</td>
<td>-.35</td>
<td></td>
</tr>
<tr>
<td>Closeness of family: Parent</td>
<td>-.25</td>
<td></td>
</tr>
<tr>
<td>Closeness to Parents: IPPA</td>
<td>M: -.17 F: -.37</td>
<td></td>
</tr>
<tr>
<td>Closeness to Peers: IPPA</td>
<td>.12</td>
<td>.03</td>
</tr>
</tbody>
</table>

PCL:YV and Cognitive Function

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Orbitofrontal</td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>Go No-Go Task</td>
<td>Deficit</td>
<td>No deficit</td>
</tr>
<tr>
<td>Stop Signal Task</td>
<td>Deficit</td>
<td></td>
</tr>
<tr>
<td>Maze Qual. Score</td>
<td>Trend</td>
<td>No deficit</td>
</tr>
<tr>
<td>Smell Identification</td>
<td>No deficit</td>
<td>No deficit</td>
</tr>
</tbody>
</table>

Regional Brain Activation during Reversal Learning
*(Finger et al., 2008)*

- Youth with high scores on both the Antisocial Process Screening Device and the PCL:YV
- Probabilistic reversal task: Two stimuli on each trial. For some stimulus pairs, responses to one of the two stimuli were rewarded 100% of the time; for other pairs, responses to one of the two stimuli were rewarded 80% of the time.
- Then, after successful performance, the contingencies on most stimuli reversed.

Regional Brain Activation during Reversal Learning
*(Finger et al., 2008)*

In youth without psychopathic traits, punished reversal errors led to reductions in left and right medial prefrontal (BA 10) activation. In youth with psychopathic traits, reversal errors were associated with increased activation in the medial prefrontal area. Similar findings were evident in caudate.

Regional Brain Activation during Facial Affect Processing
*(Marsh et al., 2008)*

- Youth with high scores on both the Antisocial Process Screening Device and the PCL:YV
- Task: indicate the gender of the person (male vs. female). Stimuli were neutral, fearful, or angry faces (50%, 100%, or 150% intensity).
- Reduced amygdala activation for fearful versus neutral faces in the group with psychopathic traits

Neuroanatomical Differences in Youth with ADHD and Psychopathic Features
*(Wellington et al., 2006)*

- Youth diagnosed with Attention Deficit Hyperactivity Disorder (Combined Type) and some psychopathic traits (PCL:YV total scores of 19-36) versus controls
- MRI scans to calculate putamen volumes
- No differences between groups in putamen volume
- Controls had smaller volume for right putamen than for left putamen. ADHD + PSY traits group had smaller volume for left than for right putamen.
Construct Validity

- Concurrent Validity
- Discriminant Validity
- Convergent Validity
- Predictive Validity

Meta-Analyses: Psychopathy and Recidivism
(Number of Studies) Effect Size

<table>
<thead>
<tr>
<th>Study</th>
<th>General</th>
<th>Violent</th>
<th>Sexual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asscher (39)</td>
<td>.21</td>
<td>.22</td>
<td>--</td>
</tr>
<tr>
<td>Edens (20)</td>
<td>.24</td>
<td>.25</td>
<td>.07</td>
</tr>
<tr>
<td>Leistico (62)</td>
<td>.50</td>
<td>.47</td>
<td>--</td>
</tr>
</tbody>
</table>

Asscher et al. (2011); Edens et al. (2007); Leistico et al. (2008)

Psychopathy and Recidivism Over a 10-Year Follow-Up Period
(Gretton, Hare, & Catchpole, 2004)

Psychopathy and Recidivism among Sexual Offenders

- Young (2007): Psychopathy not predictive alone; but High PCL:YV youth who were unresponsive to treatment reoffended at a higher rate than other youth.

Table 3. Weighted and Unweighted Mean Effect Sizes of the PCL/PCL-R Factor Scores as Predictors of Institutional Adjustment and Recidivism

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>k</td>
<td>r</td>
</tr>
<tr>
<td>Overall outcome</td>
<td>.50</td>
</tr>
<tr>
<td>Adult</td>
<td>.35</td>
</tr>
<tr>
<td>Juvenile</td>
<td>.4</td>
</tr>
</tbody>
</table>

Walters (2003)
The Relationship between Psychopathic Traits and Negative Affectivity among Youth

Studies Reporting at Least one Positive Association
- Lynam (1997)
- Kosson et al. (2002)
- Salekin et al. (2004)
- Salekin et al. (2005)
- Vitale et al. (2005)
- Schmidt et al. (2006)
- Ugueto (2006)
- Hipwell et al. (2007)
- Kosson et al. (2009)
- Bauer et al. (2011)
- Vitale et al. (2005)
- Kosson et al. (2013)

Studies Reporting no Association

Studies Reporting a Negative Association

The Relationship between Psychopathic Traits and Negative Affectivity among Youth

Psychopathic Traits in Youth

A New Perspective on Emotional Deficits and Psychopathic Traits

That the relationship between negative affectivity and psychopathic traits changes from childhood to adulthood suggests that there are important developmental processes occurring in adolescence that shape the progression of the syndrome toward the adult phenotype.

The Affect Dysregulation Theory of Psychopathy

Affect regulation, the volitional use of processes to monitor and modulate affective arousal in the service of adaptive functioning.
The Affect Dysregulation Theory of Psychopathy

1) Frequent Negative Affect
2) The Role of Environmental Factors
3) Negative Preception
4) Chronic Anger Expression

[Genetic Contribution to Psychopathy]

The Role of Negative Affect

Frequent experiences of negative affective arousal, combined with deficient skills to modulate this arousal adaptively, place some children with a genetic loading for psychopathic traits at heightened risk for developing psychopathic traits.

The Role of Negative Affect

Two mechanisms through which negative affect contributes to the development of psychopathic traits are negative preception and chronic anger expression.

The Role of Negative Affect

I am arguing that many kids with psychopathic traits learn to:
1) Tune out many of their sad and fearful feelings
2) Skew appraisals of situations toward anger
3) Develop a style of chronic anger expression.

The Affect Dysregulation Theory

Psychopathic Traits in Youth

Negative Preception

Anger Expression

Psychopathic Traits in Adults

Anger Expression in Youth

Kosson, McBride, Whitman, & Riser (2013)

- Participants were 98 adolescent detainees
- Median age = 15.91 years
- Approximately equal numbers of EA, AA, and Latino

Measures
- Psychopathy Checklist: Youth Version
- Anger Out and Anger In scales from the Spielberger State-Trait Anger Expression Inventory
- Taylor Manifest Anxiety Scale (TMAS)
Measures
- Psychopathy Checklist: Youth Version
- (In these analyses, scores on Poor Anger Control were removed from PCL:YV total scores)
- Anger Out and Anger In scales from the Spielberger State-Trait Anger Expression Inventory
- Taylor Manifest Anxiety Scale (TMAS)

Correlations Between Anger Expression and Psychopathy Scores

<table>
<thead>
<tr>
<th>Younger Adolescents</th>
<th>PCL:YV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger Out (AEI)</td>
<td>.32**</td>
</tr>
<tr>
<td>Anger In</td>
<td>.23*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Older Adolescents</th>
<th>PCL:YV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger Out (AEI)</td>
<td>.38**</td>
</tr>
<tr>
<td>Anger In</td>
<td>.06</td>
</tr>
</tbody>
</table>

*p < .10; *p < .05; **p < .01

Partial Correlations after Controlling for TMAS Scores

<table>
<thead>
<tr>
<th>Younger Adolescents</th>
<th>PCL:YV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger Out (AEI)</td>
<td>.21</td>
</tr>
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<table>
<thead>
<tr>
<th>Older Adolescents</th>
<th>PCL:YV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger Out (AEI)</td>
<td>.38**</td>
</tr>
</tbody>
</table>

*p < .10; *p < .05; **p < .01

Correlations Between Anger Expression and Psychopathy Facet Scores

<table>
<thead>
<tr>
<th>Younger Adolescents</th>
<th>INT</th>
<th>AFF</th>
<th>LIF</th>
<th>ANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger Out</td>
<td>.16</td>
<td>.36**</td>
<td>.28*</td>
<td>.19</td>
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<tbody>
<tr>
<td>Anger Out</td>
<td>.30*</td>
<td>.27*</td>
<td>.27*</td>
<td>.33**</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01

Procedures for Assessing Negative Preception

Assessing Attentional Bias Following an Affectively Charged Experience
- All adolescents were given 10 trials of a difficult version of the Remote Associates Test.
- Failure and frustration experiences are considered powerful ways to induce negative emotion.
Remote Associates Test (Sample Item)

Red
Light
Sign

Remote Associates Test (Sample Item)

Foot
Collection
Out

Procedures for Assessing Negative Preception

Then all participants completed a dot probe test.

- 40 trials
- Each trial presented an affective word (half related to sadness, half related to happiness) and a neutral word followed by one or two asterisks in the location of one of the words after 500 ms.

Sample Stimuli

BAG
SAD

Attentional Bias Scores

- Bias scores are calculated by subtracting response latencies to probes presented near affective stimuli from response latencies to probes presented near neutral stimuli.

Example:

- Mean latency for probes near neutral stimuli = 500 ms
- Mean latency for probes near affective stimuli = 460 ms
- Difference = +40
Attentional Bias Scores

- Positive difference scores indicate faster responses to probes near affective stimuli and suggest greater attention directed toward affective stimuli.
- Negative difference scores indicate faster responses to probes near neutral stimuli and suggest attention directed away from affective stimuli.

Results

- Mean number correct on Remote Associates Test = 1.37 (SD = 0.95).
- Psychopathic traits were not related to dot probe performance in the full sample.

Correlations Between Attentional Bias and Psychopathy Scores

<table>
<thead>
<tr>
<th></th>
<th>PCL-YV</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td>Younger Adolescents</td>
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</tr>
<tr>
<td>Positive Stimuli</td>
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<tr>
<td>Negative Stimuli</td>
<td>.13</td>
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<td></td>
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<tr>
<td>Older Adolescents</td>
<td>PCL-YV</td>
<td></td>
<td></td>
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<tr>
<td>Positive Stimuli</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Negative Stimuli</td>
<td>-.32**</td>
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</tbody>
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* $p < .05$; ** $p \leq .01$

Is it possible that any relationships between attentional bias and psychopathic traits simply reflect the antisocial lifestyle components of psychopathy?

Correlations Between Attentional Bias and Psychopathy Facet Scores

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<tr>
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<td>.10</td>
<td>.13</td>
<td>.03</td>
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</tr>
<tr>
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<td>-.22*</td>
<td>-.30*</td>
<td>.19</td>
<td>-.21</td>
</tr>
</tbody>
</table>

* $p < .10$; * $p < .05$; ** $p \leq .01$

Partial Correlations with PCL-YV Total and Facet Scores after Controlling for TMAS Scores

<table>
<thead>
<tr>
<th></th>
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<th>INT</th>
<th>AFF</th>
<th>LIF</th>
<th>ANT</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>Negative Stimuli</td>
<td>.03</td>
<td>.07</td>
<td>.06</td>
<td>.00</td>
<td>.09</td>
</tr>
<tr>
<td>Older Adolescents</td>
<td>TOT</td>
<td>INT</td>
<td>AFF</td>
<td>LIF</td>
<td>ANT</td>
</tr>
<tr>
<td>Negative Stimuli</td>
<td>-.34*</td>
<td>-.25*</td>
<td>-.28*</td>
<td>-.22*</td>
<td>-.24*</td>
</tr>
</tbody>
</table>

* $p \leq .10$; * $p < .05$; ** $p \leq .01$
Are Attentional Bias and Anger Expression Scores Related?

In the absence of theory, it does not seem they should be:
• One reflects laboratory task behavior; one is self-report
• One is receptive (attentional); the other is expressive
• One is related to anger; the other is related to sadness

If anything, we might expect that greater NA would lead to greater anger and greater attention to negative affective stimuli.

Are Attentional Bias and Anger Expression Scores Related?

The affect dysregulation theory predicts almost the opposite:

Any positive relationship with NA is likely to obscure the true negative relationship. Controlling for NA may help to reveal the negative relationship.

Younger Adolescents  
Attention to Negative Stimuli  
Anger Out  
.39**  

Older Adolescents  
Attention to Negative Stimuli  
Anger Out  
-.20

* p < .10; **p < .05; ***p < .01

Partial Correlations Controlling for TMAS Scores

Younger Adolescents  
Attention to Negative Stimuli  
Anger Out  
.29*

Older Adolescents  
Attention to Negative Stimuli  
Anger Out  
-.24*

* p < .10; **p < .05; ***p < .01

Juvenile Justice and Mental Health Implications of Psychopathic Traits in Youth

• Treatment of Youth with Psychopathic Features
• Treatment of Family Members and Relationship Partners of Youth with Psychopathic Features
**Treatment (of Adults)**
*Olver, Lewis, Wong, 2012*

- Sample of federally incarcerated adult offenders.
  - Intervention = 6- to 8-month, high-intensity violence reduction program based on cognitive-behavioral principles
- Positive therapeutic change correlated negatively with the PCL-R, particularly Factor 1 and the Affective facet
- Positive therapeutic change was significantly associated with reductions in violent recidivism after controlling for psychopathy.

**Implication**
- It is possible to treat young adults high in psychopathic traits with a treatment program designed for high-risk adult offenders.
- The core features of psychopathy do appear to make effective treatment more difficult.
- Positive therapeutic change correlated negatively with the PCL-R, particularly Factor 1 and the Affective facet.

**Treatment of Youth with Psychopathic Traits**
*Caldwell, McCormick, Umstead & Van Rybroek, 2007*

- Incarcerated youth at secure treatment facility in the Midwest
- Mean PCL-YV score = 30.2; mean age =
- Psychopathy ratings predicted behavior ratings.
- Time in treatment predicted recidivism 4 years later
- This was true for youth high and for youth low in psychopathic traits.

**Implication**
- As we continue to understand more about the mechanisms operating in youth with psychopathic traits, we will become more effective at treating such youth and, ultimately, at preventing the development of psychopathic traits.