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PRE-CONFERENCE WORKSHOP
<u>Wednesday, April 15, 2009 at 8:00 am - Thursday, April 16, 2009 at 5:30pm</u>

Symposium on Psychopathy and the Law
Sponsored by the MacArthur Foundation Law and Neuroscience Project
(http://www.lawandneuroscienceproject.org/)

The workshop program and list of speakers are available at
<u>http://www.psychopathysociety.com/forms/sssp_law.pdf</u>.

Please contact Kent Kiehl (<u>kkiehl@unm.edu</u>) for further information.

CONFERENCE PROGRAM

<u>Conference Rooms</u>:
Poster Sessions and Buffets: DH Holmes Rooms AB&C
Regular conference sessions and Member Conversation Hour: Lafitte Rooms A&B
President-Student Conversation Hour and the Student Social Hour: Orleans Room A
Saturday night reception: Garden Courtyard

<u>**Thursday, April 16, 2009**</u> **(DH Holmes Rooms AB&C)**
5:00 – 7:00 PM   **Conference Registration**

6:00 – 7:00 PM   **Executive Board Meeting (Executive Board Members only)**
                Board Room

7:00 – 9:00 PM   **Welcome Reception (Buffet & Cash Bar) and** <u>Poster Session A</u>

<u>**Friday, April 17, 2009**</u> **(Lafitte Rooms A&B)**
8:00 – 8:30 AM   **Conference Registration**

8:30 – 9:00 AM   **Opening Remarks: Chris Patrick, President, SSSP**

9:00 – 10:30 AM   **Symposium:** *Neuro-cognitive Impairments in Adolescent Psychopathy* **(Chair: James Blair)**
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(1) *Neurocognitive and Physiological Correlates of Psychopathic Features in Adolescent Males*
Dustin Pardini, University of Pittsburgh Medical Center
Amy Byrd, University of Pittsburgh Medical Center
Becky McNamee, University of Pittsburgh Medical Center
Donald Lynam, Purdue University
Adrian Raine, University of Pennsylvania

(2) *Neurocognitive Deficits in Youth with Callous-Unemotional Traits: Preliminary Evidence for Consistency Across Ethnicity*
Eva R. Kimonis, University of South Florida
Elizabeth Cauffman, University of California, Irvine
Asha Goldweber, University of California, Irvine

(3) *Functional and Structural Brain Correlates of Callous-unemotional Antisocial Behaviour in Children*
Essi Viding, University College London

(4) *Brain Abnormalities in Incarcerated Youth with Psychopathic Traits*
Kent A Kiehl, University of New Mexico

(5) *Amygdala and Ventromedial Cortex Dysfunction in Adolescents with Conduct Disorder and Callous and Unemotional Traits*
Katherine Fowler, NIMH
James Blair, NIMH

(6) Discussant: James Blair, NIMH

10:30 – 10:50 AM   Coffee Break

10:50 – 11:50 AM   **Invited Speaker: Ahmad Hariri, University of Pittsburgh**
                      The Neurobiology of Individual Differences in Complex Emotional Traits

Abstract: Neuroimaging, especially BOLD fMRI, has begun to identify how variability in brain function contributes to individual differences in complex behavioral traits. In parallel, pharmacological fMRI and multimodal PET/fMRI is identifying how variability in molecular signaling pathways influences individual differences in brain function. Against this background, functional genetic polymorphisms are being utilized to understand the origins of variability in signaling pathways as well as to efficiently model how such emergent variability impacts behaviorally relevant brain function. In this talk I will present an overview of a research strategy seeking to integrate these complimentary technologies and utilize existing empirical data to illustrate its effectiveness in illuminating the neurobiology of individual differences in complex behavioral traits. I will also discuss how such efforts can contribute to the identification of predictive risk markers that interact with unique environmental factors to precipitate neuropsychiatric disease as well as develop more effective and individually tailored treatment regimes.

12:00 – 1:30 PM   Special Interest Lunches or Lunch on Own

1:30 – 3:00 PM   **Symposium:** *New Research on the Measurement of Psychopathy and Quantitative Approaches* **(Chair: Craig Neumann)**

(1) *Self-reported psychopathy and human mating strategies across 58 nations: Patterns and universals across genders, cultures, and local ecologies*
David P. Schmitt, Bradley University

(2) *Laboratory Studies with the Self-Report Psychopathy Scale*
Delroy L. Paulhus, University of British Columbia

(3) *Latent Variable Models of the Self-report of Psychopathy-III (SRP-III) Scale Across Three Large Diverse Samples and Replication in an Offender Sample*
Craig S. Neumann, University of North Texas
Frederic Declercq, Ghent University, Belgium

(4) *A network perspective on psychopathy*
Angélique O.J. Cramer, University of Amsterdam
Craig S. Neumann, University of North Texas
Denny Borsboom, University of Amsterdam

(5) *Examining Correlates of Competing Factor Models of the PPI-SF*
Shannon Toney Smith, Texas A&M University
John F. Edens, Texas A&M University
Michael G. Vaughn, Saint Louis University

(6) Discussant: Robert D. Hare

3:00 – 4:30 PM   **Paper Session:** *Comorbid Symptoms and Violence Correlates of Psychopathy*
                        (Chair: Randy Salekin)

(1) *Relations between Factors of Psychopathy and Dimensions of Internalizing and Externalizing Psychopathology: Clarifying the Role of Suppressor Effects and Method Variance*
Daniel M. Blonigen, Stanford University
Christopher J. Patrick, University of Minnesota
Kevin S. Douglas, Simon Fraser University
Norman G. Poythress, University of South Florida
Jennifer L. Skeem, Univesrity of California-Irvine
Scott O. Lilienfeld, Emory University
John F. Edens, Texas A&M University
Robert F. Krueger, Washington University

(2) *Carving Narcissism at its Joints: A study of narcissism subtypes and their relation to psychopathy*
Leonardo Bobadillo, West Carolina University

(3) *Validating Female Psychopathy Subtypes: Differences in Personality, Antisocial and Violent Behavior, Substance Abuse, Trauma, and Mental Health*
Brian M. Hicks, University of Minnesota
Uma Vaidyanathan, University of Minnesota
Christopher J. Patrick, University of Minnesota

(4) *The Role of Psychopathy in Sexual Aggression*
Raymond A. Knight, Brandeis University

(5) *Predictive Validity of Psychopathy as Measured via Self-report*
Martin Sellbom, Kent State University
Yossef S. Ben-Porath, Kent State University
Brian P. O'Reilly, Psycho-Diagnostic Clinic, Akron, Ohio
Kathleen P. Stafford, Kent State University, Psycho-Diagnostic Clinic, Akron, Ohio

4:30 – 5:00 PM   Coffee Break

5:00 – 6:00 PM   **R. D. Hare Lifetime Achievement Award Presentation**
Award Winner: Joseph P. Newman
Pursuing the uniqueness of psychopathy
(Chair: Christopher J. Patrick)

6:00 – 7:00 PM   **Conversation Hours**
Member Conversation Hour (Moderator: Paul Frick)
      (All members welcome to attend; Lafitte Rooms)

President-Student Conversation Hour (Moderator: Chris Patrick)
      (The SSSP President, Dr. Patrick, will meet with student members;
      Orleans Room A**)**

7:00 – 8:30   **Student Social Hour (Appetizers and Cash Bar)**
Orleans Room A

<u>**Saturday, April 18, 2009**</u> **(Lafitte Rooms A&B)**
8:30 – 10:00 AM   **Paper Session:** ***Applying Emotion and Personality Models to the Study of Psychopathy Across Youth and Adults*** **(Chair: Luna C. Muñoz)**

(1) ***High psychopathic students' and psychopaths' facial responsiveness***
Hedwig Eisenbarth, University of Regensburg
Antje B.M. Gerdes, University of Würzburg
Georg W. Alpers, University of Würzburg

(2) ***Double Trouble: Fear Recognition Deficits in Displays of Faces and Body Postures Are Related to Callous-Unemotional Traits***
Luna C. Muñoz, University of Central Lancashire, UK

(3) ***Fearless Dominance and Impulsive Antisociality in Adolescents***
Stephen D. Benning, Vanderbilt University
Karina M. Quevedo, University of Pittsburgh

(4) ***Interpersonal Antagonism as the Core Feature of Psychopathy***
Donald Lynam, Purdue University
Brianne Heyde, Purdue University
David Vachon, Purdue University
Eric Gaughan, University of Georgia
Joshua Miller, University of Georgia

(5) Defying or Refining a Construct: The Typology of Psychopathy among Females
Diana M. Falkenbach, John Jay College of Criminal Justice
Courtney J. Hughs, John Jay College of Criminal Justice
Trevor H. Barese, John Jay College of Criminal Justice

10:00 - 10:30 AM   Coffee Break

10:30 - 11:30 AM   **Presidential Address: Christopher J. Patrick**
What psychopathy encompasses: Something for each of us

(Chair: Edelyn Verona)

11:30 – 1:30 PM   **Reception (Lunch Buffet) and <u>Poster Session B</u>**
DH Holmes Rooms AB&C

1:30 – 2:30 PM   **SSSP Business Meeting** (SSSP Full and Associate Members only)

2:45 – 3:00 PM   **Cheryl Wynne Hare Award Presentation**
(Moderator: James Blair)

3:00 – 4:30 PM   **Paper Session:** *Genetic and environmental contributors to psychopathy* **(Chair: Edelyn Verona)**

(1) *Why Socioeconomic Status? Deconstructing Socioeconomic Status as a Risk Factor for Callous-Unemotional Traits among Youth with the Long Allele of the Serotonin Transporter Gene*
[SPECIAL STUDENT ORAL PAPER PRESENTATION]*
Naomi Sadeh, University of Illinois
Shabnam Javdani, University of Illinois
Edelyn Verona, University of Illinois
Carl Lejuez, University of Maryland
Sima Finy, University of Illinois
Liz Reynolds, University of Maryland
Frances Wang, University of Maryland

(2) *Exposure to Violence within Home and Community Environments and Psychopathic-like Tendencies: An Investigation of an Adolescent Population*
Cody V. Schraft, Rosalind Franklin University
David S. Kosson, Rosalind Franklin University
Cami K. McBride, Roosevelt University
Josh Greco, Rosalind Franklin University

(3) *Early Maternal and Paternal Bonding, Childhood Physical Abuse, and Adult Psychopathic Personality*
Yu Gao, Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania
Adrian Raine, Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania
Fiona Chan, Department of Communication, Journalism & Marketing, Massey University, New Zealand
Peter H. Venables, Department of Psychology, University of York, York, UK
Sarnoff A. Mednick, University of Southern California

(4) *The influence of ethnicity and neighborhood factors on the predictive power of psychopathy for violence: Social push or social potentiation?*
Zach Walsh, Brown Medical School

(5) Discussant: Ahmad Hariri, University of Pittsburgh

4:30 – 5:00 PM   Coffee Break

5:00 – 6:30 PM   **Paper Session:** *Neuro-biological approaches to the study of psychopathy*
(Chair: Essi Viding)

(1) *Dual pathways to psychopathy: Relations with Skin Conductance Reactivity*
Lilian Dindo, University of Iowa
Don Fowles, University of Iowa

(2) *Testosterone Moderates the Relationship between Cortisol Reactivity and Psychopathy*
[SPECIAL STUDENT ORAL PAPER PRESENTATION]*
Andrea L. Glenn, Department of Psychology, University of Pennsylvania
Robert A. Schug, Department of Psychology, University of Southern California
Adrian Raine, Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania

(3) *Structural brain deformations in successful and unsuccessful psychopaths*
Adrian Raine, Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania
Yaling Yang, Laboratory of Neuro Imaging, Department of Neurology, University of California, Los Angeles
Katherine Narr, Laboratory of Neuro Imaging, Department of Neurology, University of California, Los Angeles
Arthur Toga, Laboratory of Neuro Imaging, Department of Neurology, University of California, Los Angeles

(4) *Neurobehavioral Correlates of Moral Sensitivity in Adult and Adolescent Psychopathy*
Carla L. Harenski, The MIND Research Network, Albuquerque, NM
Keith A. Harenski, The MIND Research Network, Albuquerque, NM
Matthew S. Shane, The MIND Research Network, Albuquerque, NM
Kent A. Kiehl, Ph.D, The MIND Research Network, University of New Mexico, Albuquerque, NM

(5) *Functional Brain Correlates of Traits and Behaviors Related to Psychopathy in Adolescents*
[SPECIAL STUDENT ORAL PAPER PRESENTATION]*
Luke W. Hyde, Department of Psychology, University of Pittsburgh, Center for the Neural Basis of Cognition, University of Pittsburgh and Carnegie Mellon University
Karen E. Muñoz, Department of Psychology, University of Pittsburgh, Center for the Neural Basis of Cognition, University of Pittsburgh and Carnegie Mellon University.
Rene L. Olvera, Department of Psychiatry, University of Texas Health Science Center at San Antonio
Ahmad R. Hariri, Department of Psychiatry, University of Pittsburgh, Center for the Neural Basis of Cognition, University of Pittsburgh and Carnegie Mellon University
Douglas E. Williamson, Department of Psychiatry, University of Texas Health Science Center at San Antonio

6:30 – 6:45 PM   **Closing Remarks: Christopher J. Patrick, President, SSSP**

7:00 – 9:00 PM   **Farewell Reception (Dinner Buffet and Cash Bar)**
                        Garden Courtyard

* SPECIAL STUDENT ORAL PAPER PRESENTATIONS: Selected from over 55 student poster submissions, based on quality ratings made by the program committee and willingness to present orally

1. Psychopathic traits moderate electrophysiological activity and fear response
Arielle R. Baskin-Sommers, John J. Curtin, Jeremy Bertsch, and Joseph P. Newman
University of Wisconsin- Madison

Attentional mechanisms have been shown to moderate the emotion deficit present in psychopathy (Newman & Lorenz, 2003). Recently, Dvorak-Bertsch et al. (2008), reported that a particular psychopathic trait, Fearless Dominance (FD), is associated with a condition specific deficit in fear-potentiated startle (FPS). Specifically, FD is negatively correlated with FPS under conditions that require a participant to focus on a threat irrelevant dimension of stimuli, but unrelated to FPS under conditions that involve focusing on a threat-relevant dimension of the stimuli. In the current study, we seek to: (1) identify an electrophysiological (ERP) correlate of the cognitive-emotional effect found by Dvorak-Bertsch et al., and (2) examine the extent to which the observed cortical correlate is moderated by FD. Fifty-four undergraduate students (20 female) assessed on level of FD, performed the Dvorak-Bertsch et al. task as their ERP activity was recorded. Results revealed a significant relationship between a frontal negative slow wave (NSW) component and the emotion response (i.e. FPS) in the alternative focus condition (t=-3.29, p=.002, $r_{NSWpartial}$=-.42). This finding is consistent with others suggesting that NSW is associated with attentional selection (Baas et al., 2002). Furthermore, we found that the association between this NSW response and FPS was moderated by FD (t=1.94, p=.058, $r_{ZFSxNSWpartial}$=.27). Although this association was statistically significant in those in low FD individuals (R^2=.33, F_{change} =12.05, p=.002), it was weak and non-significant in high FD individuals (R^2=.03, F_{change} =.771, p=.41). One interpretation of these findings is that low FD individuals reallocate attention from their goal-directed focus on a threat-irrelevant dimension to process the threat-relevant information whereas those with high levels of FD do not.

2. Effect of a Psychopathy Diagnosis, Offender Gender, and Offender Age on Juror Decision Making
Julie Blais & Adelle Forth
Department of Psychology, Carleton University

The goal of the present research was to further explore the potential biasing effect a psychopathy diagnosis may have on juror decision making while exploring the mitigating or aggravating effects of factors such as age and gender of the offender. Mock jurors (*N* = 247) read a simulated trial transcript involving a case of aggravated assault. The transcript differed in terms of diagnosis (psychopathy vs. antisocial personality disorder/conduct disorder vs. no diagnosis), age (15 vs. 30), and gender (male vs. female) of the defendant. The effects of these variables on decisions regarding culpability, treatment, violence, and recidivism were investigated. Results indicated that defendants described as psychopaths or as having APD/CD were more likely to be found guilty, more likely to receive higher ratings of risk for future violence, and were perceived as an increased risk to society regardless of their age and gender. In addition, youth described as psychopathic or as having conduct disorder were believed to be at risk for adult criminality. Only two specific labeling/criterion effects of psychopathy were found: young male psychopaths and adult female psychopaths were given higher ratings of risk for future criminal behaviour compared to offenders with no diagnosis. Finally, in terms of treatment, female offenders were believed to be more amenable to treatment than male offenders regardless of diagnosis and age. Implications of the findings and future directions are discussed.

3. Psychopathy, Criminality, and Stop Signal Performance: Response Monitoring Mediates the Relationship between the Affective Facet and Violent Crime
Michael Brook & David S. Kosson
Rosalind Franklin University of Medicine and Science

Clinical descriptions of psychopathy have emphasized impulsivity, poor behavioral control, and persistent criminality. However, research findings regarding the relationship between psychopathy and behavioral measures of impulsivity and disinhibition are mixed, with several studies reporting modest relationships between scores on these measures and behavioral features of psychopathy. Moreover, the four facets of PCL-R assessed psychopathy (interpersonal, affective, behavioral, and antisocial) have shown differing relationships with indices of criminal offending. Further research is needed to clarify the association between psychopathy, disinhibition, and crime. The current investigation examined the relationships between PCL-R total and facet scores, performance on a behavioral measure of response inhibition and monitoring, and frequency of violent criminal offenses, in a sample of 90 male jail inmates. The Stop Signal task is a straightforward dual-task paradigm that involves a forced choice motor go response and an intermittent inhibition of that response following an auditory stop signal. The stop process is thought to reflect response inhibition, and the go process is thought to be reflective of response monitoring. Stop reaction time (SRT) and, to a lesser degree, go reaction time (GRT) have been associated with externalizing pathology such as ADHD and Axis II disorder symptoms. Recent brain imaging research has shown that the go and stop processes are subserved by distinct neural systems. Frequencies of violent and nonviolent offences were collected from probation and pretrial bond records. Zero-order correlations revealed that scores on the affective facet of psychopathy is significantly associated with slower GRT (r=.328, p=.003) and greater number of violent offences (r=.229, p=.032). The PCL-R total, interpersonal, behavioral, and antisocial facet scores evidenced nonsignificant relationships with SRT and the number of nonviolent offenses. Multiple regression analyses suggested that the direct effect of the affective features of psychopathy on violent criminal offences was partially mediated by GRT. Theoretical implications for relationships between affective traits, response monitoring, and violence are addressed.

4. The Dynamics and Dichotomies of Psychopath's Relationships
Sandra L. Brown
CEO, The Institute for Relational Harm Reduction & Public Psychopathy Education

Our most recent study of psychopath's relationships was documented in the book 'Women Who Love Psychopaths: Inside the Relationships of Inevitable Harm.' In our outcomes, we were able to identify unusually highly elevated temperament traits in the psychopath's victims, using the TCI. These trait elevations in her helped to explain unique relationship patterns, dynamics, and dichotomies unseen in other relationships. The luring stages of the relationship are camouflaged by these excessive, almost 'super traits,' in the victims. These super traits seem to balance out many of the emotional deficits that one would assume would be noticed by the victim in the psychopath. These super traits lend some relational stability in the beginning stages of the relationship. Are these super traits part of what a psychopath 'targets' in their victims? Middle stage of the relationship begins the dichotomous and inconsistent behaviors associated with the psychopath's impulse control and enjoyment of emotional control. What do these dichotomies look like and what themes do they consistently represent? What do the dichotomies do to the relationship dynamics? What are the sexual patterns and habits in the relationships of the psychopaths? Aftermath stage of the relationship leaves its wake of destruction. What is the ending pattern of relationships like in psychopathic situations? What is a normal profile of a victim emerging from a psychopath's relationship—their most compelling psychological problems, consistent diagnosis of the psychopath's love victim, and what do we need to know about the psychopath, their relationships, and their victims? Studying the psychopath's relationship dynamics and dichotomies offers us much in potentially understanding the motives and behaviors associated with psychopathy.

5. Exploring Psychopathic Variants and Putative Environmental Variables using a Biometric Twin Design
Marie D. Carlson, Brian M. Hicks, Dan M. Blonigen, and Christopher J. Patrick
University of Minnesota—Twin Cities

Using a twin design the present study examined the environmental correlates of the MPQ estimated factors of the Psychopathic Personality Inventory (PPI, Lilienfeld & Andrews, 1996): PPI-I: Fearless Dominance (FD) and PPI-II: Impulsive Antisociality (IA). Our primary aim was to examine whether the associations between FD and IA and putative environmental variables pertaining to family, peers, and school could be attributed to genetic or environmental factors. Our results showed that IA was associated with environmental adversity while FD was modestly associated with advantage. Our central finding was that the association between IA and the examined variables was due in large part to common genetic effects. Rather than environmental causation, these results show that the link between IA and environmental adversity are likely due to active or evocative gene-environment processes.

6. Voxel-based morphometry study of white matter differences in psychopathy
Lora M. Cope, Judith M. Segall, Matthew S. Shane, Prashanth K. Nyalakanti, & Kent A. Kiehl
The Mind Research Network, Albuquerque, NM, University of New Mexico

Functional neuroimaging studies of psychopathy have demonstrated abnormal functioning in several brain regions, including orbital frontal cortex, amygdala, anterior superior temporal gyrus, and anterior and posterior cingulate. However, investigations of the structural brain differences between psychopathic and non-psychopathic individuals are sparse. The neurobiological correlates of psychopathy are complex, and in addition to impaired functioning in the aforementioned regions, it is likely that functional connectivity is also abnormal. Here we investigated the relation between structural abnormalities and psychopathy using Voxel-Based Morphometry (VBM) and the Psychopathy Checklist-Revised (PCL-R). Eighty-one participants from a community sample were scanned using high-resolution structural magnetic resonance imaging and assessed for psychopathic personality using the PCL-R. Classic factor analyses of the PCL-R has revealed a two factor model. VBM was used to investigate density differences correlated with PCL-R total score, factor 1 (interpersonal/affective), and factor 2 (lifestyle/antisocial), controlling for total intracranial volume. Results showed a negative correlation between white matter (WM) concentration in the splenium of the corpus callosum and total PCL-R score. This effect appeared more strongly related to factor 1 than to factor 2. These results suggest that the etiology of psychopathy may be at least partially neurodevelopmental (Raine et al., 2003), and that aberrant functional connectivity may be one factor in this complex and serious mental disorder.

7. Characterising the neurocognitive profile of violent offenders with antisocial personality disorder and violent offenders with psychopathy
Stéphane A De Brito[1], Essi Viding[2], Nigel Blackwood[1] & Sheilagh Hodgins[1]
[1]Forensic Mental Health Science Department, Institute of Psychiatry, King's College London, [2] Division of Psychology and Language Sciences, University College London

To date, neuropsychological studies conducted on offenders have focussed largely on those with a diagnosis of psychopathy or offenders with a mixed profile of personality disorders. Consequently, little is known about those with Antisocial Personality Disorder (ASPD) who do not meet diagnostic criteria for psychopathy. Thus, it is not known if the neurocognitive impairments observed among offenders are associated with an early onset, life-long pattern of antisocial behaviour, as indexed by ASPD, or psychopathic traits, or both. Further, Dolan and Park (2002) have suggested that offenders with ASPD present more severe neurocognitive impairments than offenders with psychopathy. However, no study examining neurocognitive functioning has directly compared performances of offenders with psychopathy and offenders with ASPD. We examined performance on neuropsychological tasks indexing the functionality of the amygdala (passive avoidance learning), orbitofrontal (probabilistic response reversal learning and Cambridge gambling task) and dorsolateral prefrontal cortex (spatial and verbal working memory as measured by the spatial alternation task and the digit span backward). Three groups of men were compared: 19 violent offenders with psychopathy (PCL-R score of 25 or higher plus a diagnosis of ASPD [ASPD+P]); 18 violent offenders with ASPD and not psychopathy (PCL-R score of 24 or lower plus a diagnosis of ASPD [ASPD-P]); and 17 healthy volunteers (HV) who obtained PCL-R scores of

24 or less and who did not meet criteria for a diagnosis of ASPD nor had a criminal record or history of violent behaviour. All participants completed a diagnostic interview based on the Structured Clinical Interview for Diagnosis of Axis I and II disorders (SCID-I; First et al., 1996) and a detailed interview about aggressive behaviour, both incidents that led to prosecution and those that did not. The Psychopathy Checklist-Revised (PCL-R; Hare, 1991 was rated based on material from interview and files. On the days of testing, participants provided samples of urine and saliva to test for alcohol and drug use. The violent offenders (i.e., ASPD+P *and* ASPD-P groups together) performed more poorly on all of the neuropsychological tasks as compared to the HV. There were no statistically significant differences between the performance of the ASPD+P and the ASPD-P groups on any of the neuropsychological tasks. Regression analyses indicated that none of the PCL-R factors showed a unique association with performance on any of the neuropsychological tasks. These results indicate that violent offenders, as compared to healthy men, show marked impairment on neuropsychological tasks indexing the functional integrity of the amygdala, the orbitofrontal and dorsolateral prefrontal cortex. The results suggest that violent offenders with ASPD without psychopathy show similar levels of neurocognitive functioning as compared to offenders with ASPD and psychopathy.

8. Integrating the Deficits of Psychopathy: Relations to the FFM
Karen J. Derefinko & Donald R. Lynam
University of Kentucky, Purdue University

Psychopathy has been associated with a number of behavioral and physiological response deficits, including autonomic hypoarousal (Patrick, Bradley, & Lang 1993), maladaptive risk-taking (Hunt, Hopko, Bare, Lejuez, & Robinson, 2005), response modulation deficits (Newman & Wallace, 1993), and deficits in empathic responding (Blair, 1999). However, the number and divergence of proposed psychopathic deficits makes synthesis of alternative models difficult. Lynam (2002) and Lynam and Widiger (2007) have argued that the use of an overarching conceptualization of psychopathy can provide an integrative and parsimonious explanation of various psychopathic deficits. If psychopathy is understood as a constellation of traits, it is reasonable that many different deficits are found. The current study examined relations between several tasks used to explore psychopathic pathology and trait dimensions from the Five Factor Model of personality. Participants (n = 200) completed the NEO PI-R, a go/no-go task, the Balloon Analog Risk Task, an emotional morph task, and provided electrodermal and startle responses to arousing stimuli. Results indicate that these tasks relate to dimensions of personality most strongly associated with psychopathy, including impulsivity, assertiveness, and hostility. This provides further support that the FFM conceptualization of psychopathy offers utility in integrating a broad spectrum of information from the psychopathy field.

9. Psychopathy, substance abuse and ADHD: Utilizing neurocognitive task performance to explore variations in impulsivity
Samantha Glass, Jasmin Vassileva, Pavlina Petkova, Stefan Georgiev, Eileen M. Martin, Vladimir Velinov, & Peter Marinov
University of Illinois at Chicago; University Hospital of Neurology and Psychiatry, Sofia, Bulgaria

Impulsivity has been associated with a variety of disorders, but the term refers to a broad construct that may manifest in a variety of ways across different forms of psychopathology. For example, psychopathy, substance abuse and attention-deficit hyperactivity disorder (ADHD) have all been associated with impulsivity, but it is unclear whether individuals with these disorders display similar types and levels of impulsivity. Thus the current research examines the impact of these syndromes on several neurocognitive measures of impulsivity. Seventy-eight, currently abstinent male heroin addicts completed a passive avoidance task (PAT), a delayed reward discounting task (DRDT), and the Iowa Gambling Task (IGT). The Hare Psychopathy Checklist, Revised and the Wender-Utah Rating Scale were used to divide participants into four groups: "pure" substance dependent individuals (SDI), SDI+ADHD, SDI+psychopathy and SDI+ADHD+psychopathy. Group performance varied by task such that both the SDI+psychopathy and the

SDI+ADHD groups demonstrated worse decision making on the IGT and DRDT. Interestingly, the "pure" SDI group and the SDI+ADHD+psychopathy group exhibited the best performance on the IGT and DRDT. On the passive avoidance task, all groups except the SDI+ADHD group made more commission than omission errors. Further, the SDI+ADHD+psychopathy group made the most commission errors. Results indicate that the presence of ADHD and psychopathy symptoms have a unique impact on the level of impulsivity in SDIs and that the effects vary by task, highlighting the importance for exploring the different roles impulsivity may play in these clinical syndromes.

10. Interview assessment of boldness: Construct validity and empirical links to psychopathy
Jason R. Hall, Noah V. Venables, Justin Jobelius, & Christopher J. Patrick
University of Minnesota

The triarchic model of psychopathy (Patrick et al., in press) conceptualizes psychopathy in terms of three separable phenotypic constructs: disinhibition, boldness, and meanness. Available data indicate that the boldness component of psychopathy is captured to some extent by the Interpersonal facet of Hare's (2003) PCL-R, and by the Fearless Dominance facet of Lilienfeld's (1990) Psychopathic Personality Inventory (PPI-FD). We have recently developed a direct measure of boldness in the domain of self-report, comprising distinct but interrelated scales assessing constructs such as Courage, Self-Confidence, Social Assurance, Glibness, Persuasiveness, and Intrepidness. The aim of the present study was to develop and validate an interview-based measure of boldness tapping the same content domains included in the Boldness Questionnaire. The construct validity of the Boldness Interview was evaluated in a sample of incarcerated adult male offenders (N = 156). Overall scores on the Boldness Interview demonstrated excellent inter-rater reliability and good convergent validity with Factor 1 of the PCL-R (assessed independently in a separate interview), and the Interpersonal Facet in particular. Boldness Interview scores also demonstrated excellent convergent validity with PPI-FD scores and with established self-report measures of narcissism, thrill-seeking, fearlessness, and low negative emotionality. In addition, scores on the Boldness Interview demonstrated discriminant validity in relation to interview and self-report measures of externalizing psychopathology, including antisocial behavior, aggression, and alcohol/substance abuse. Findings are discussed in terms of their implications for the neurobiology of psychopathy and for the assessment of psychopathic traits in non-forensic settings.

11. An investigation of the relationship between psychopathy factors, types of empathy and rape proclivity in male college students
Jessica D. Hegyi & Diana M. Falkenbach
John Jay College of Criminal Justice.

Lack of empathy is considered a key characteristic of psychopathy (Cleckley, 1941); however, it is typically associated with Primary rather than Secondary traits (Hare, 1991). Recent findings indicate that empathy in general differs from empathy specific to a victim (Young, Gudjohsson, Terry, & Bramham, 2008); for example, those who rape lack empathy for rape victims but do not lack other types of empathy (Deitz & Byrne, 1981; Fernandez & Marshall, 2003). Psychopathy and rape proclivity are often thought to overlap; however, Prentky & Knight's (1991) rapist classification system indicates that only the traits associated with Secondary psychopathy are predictive of rape proclivity. Acquaintance rape is a serious problem on college campuses where "an estimated 5% of college women experience a completed or attempted rape in a given year" (The National Center for Victims of Crime, 2004). Psychopathy has not been explored in relationship to rape proclivity in college students, and no research has considered the relationship between psychopathy, rape proclivity and victim empathy. Therefore, it was hypothesized that *Psychopathic Personality Inventory* (PPI ; Lilienfeld & Andrews, 1996) total scores would be negatively correlated with scores on cognitive and affective empathy (*Interpersonal Reactivity Index;* IRI; Davis, 1980) and victim empathy (*Modified Sexual Assault Empathy Scale;* SAES; Gerber, 2007). More specifically, the PPI-I would demonstrate a negative relationship with IRI scales, while PPI-II would

demonstrate a negative relationship with the SAES. The PPI-II, but not the PPI-I, would be positively related to rape proclivity (Bohner et al., 1998 rape scenarios), and rape proclivity would only be related to victim empathy. The interaction of these variables might suggest that victim empathy has a mediational effect on the relationship between PPI-I and rape proclivity. It is anticipated that the findings of the current study will add to the literature on psychopathy in a nonforensic population by identifying the role of different types of empathy in regards to psychopathic subtypes, particularly in reference to rape proclivity.

12. Assessing Psychopathic Traits among Lebanese College Students
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Most psychopathy research has been conducted using North American samples. Cross-cultural research on psychopathy has begun; however, it has yet to be conducted within the Arab world. The purpose of the current research is to assess psychopathic traits in a Lebanese college student sample using the Psychopathic Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005). The objectives of the research are threefold: a) to test the factor loadings of the PPI-R among the Lebanese students; b) to assess the frequency of psychopathic traits among the Lebanese college students compared to their American counterparts; and c) to investigate the validity of PPI-R assessed psychopathic traits by considering the relationship to aggression, antisocial personality traits, and anxiety. The reliability of the measure will also be assessed. The sample consists of 200 Lebanese undergraduate students from the American University of Beirut, who completed the PPI-R, the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983), the Aggression Questionnaire (AQ; Buss & Perry, 1992), and the ASPD scale of the Personality Diagnostic Questionnaire -4+ (PDQ-4+; Hyler, 1994). The Arab culture is regarded as collectivistic in nature, where people exhibit high interconnectedness and a strong connection to family and kinship. Arab people place considerable weight on values and norms, and therefore, engaging in behaviors that exhibit unconventionality, blatant aggression, and disregard for authority is not common. Thus, it is predicted that the Lebanese college students will score similarly to American college students on the PPI-I Factor, but will score less than the American students on the PPI-II Factor. As with American samples, it is predicted that psychopathy scores will be positively correlated with both aggression and ASPD scores, particularly PPI-II, and anxiety scores will be negatively correlated with the PPI-I but positively correlated with the PPI-II. The findings and implications of this research on the understanding of the psychopathy construct in general, and its cross-cultural significance in particular, will be discussed.

13. Reduced P300 Amplitude in Criminal Psychopathy is Related to Factor 2 of the PCL-R: Evidence from a Simulated Gambling Task
Justin L. Jobelius, Noah C. Venables, Christin K. Kingsley, Edward M. Bernat, and Christopher J. Patrick
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Reductions in P300 amplitude have been related to impulse dysregulation (externalizing) problems in community samples using oddball tasks. Recently, similar reductions in P300 were demonstrated to feedback stimuli in a simulated gambling task through use of time-frequency decomposition (Bernat et al., submitted). This was in contrast to the feedback-related negativity (FRN) response to the same stimuli, which showed no such reduction. The current study investigated whether reduced P300 amplitude to feedback stimuli in this gambling task would be observed as a function of higher externalizing tendencies, as indexed by Hare's PCL-R, in a sample of offenders. EEG data from 54 scalp sites were collected from male prisoners at a medium security state prison in Minnesota. Findings indicated that P300 reductions were related to higher scores on the PCL-R as a whole, indicating that psychopathy predicted P300 in the expected (negative) direction. Importantly, the behavioral deviance factor of the PCL-R (F2) was related to the P300 reduction whereas the affective-interpersonal factor (F1) was not. This further supports the idea that P300 reductions are related to elevated impulse dysregulation across a broad range of

individual variation. Findings for the FRN response to feedback stimuli paralleled the earlier work, evidencing no differences in amplitude for PCL-R total score or F2. This suggests that processes indexed by the FRN (exogenous monitoring) are operating similarly and robustly for individuals across levels of impulse dysregulation. Together, these findings support the idea that parallel neurobiological deviations may underlie externalizing psychopathology in community and incarcerated samples.

14. Dark Romance: Psychopathy, Machiavellianism, narcissism, mate selection and retention
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Members of the dark triad pursue different reproductive strategies, suggesting that the y may select different partners for ideal romantic encounters, and use different strategies to retain their partners once in a relationship. Participants filled out the Self-report psychopathy scale (SRP III), the MACH IV, and NPI-40, and then responded to questions assessing their interest in long-term romantic relationships, and short-term sexual relationships. Participants also indicated how many sexual and romantic partners their ideal romantic partner would have had prior to meeting. Of the dark triad, we have found that individuals who are psychopathic traits are especially likely to pursue exclusively short-term sexual interests and prefer more sexually experienced partners. Findings suggest that psychopathic individuals look for individuals who may be promiscuous both sexually and emotionally for short-term sexual encounters.

15. Reliability and Validity of the Psychopathy Checklist- Revised (PCL-R) among Taiwanese Male Offenders
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It has been argued that the PCL-R is a reliable and valid measure to assess psychopathy in various cultures (Grann, Langstrom, Tengstrom, and Kullgren, 1999; Flores-Mendoza, Alvarenga, Herrero, and Abad., 2008). However, cultural differences between individualistic and collectivistic societies may impact scores on the PCL-R, particularly in Asian populations (Cooke &Michel, 1998). Hypotheses are: 1. Good internal consistency will be demonstrated (Cronbach's alpha > .70, mean interitem correlations> .15). 2. The PCL-R Factor 1 score will predict instrumental violence, whereas F2 score will predict the reactive violence. 3. Item Response theory (IRT) analysis will identify better and worse functioning items of the PCL-R. The forensic reports were reviewed on 200 Taiwanese male criminal offenders. The PCL-R was independently scored by two raters. Cornell and his colleagues' (1996) six characteristics (planning, goal directed, provocation by victims, angry, victim injury, victim relationship) were used for classification of instrumental violence and reactive violence. Reliability: The results show high interrater reliability for two scorers (ICCs =.89) on the PCL-R. Cronbach's alpha were .68, 70, 66 for total, F1, and F2 scores, respectively and the mean corrected item-total correlation was .29. Validity: 1. The PCL-R total score and F1 significantly predicted instrumental violence (p=.001 for both). 2. The PCL-R total and both factor scores predicted reactive violence significantly (p<.0005, total score, p=.002, F1, p=.001, F2) IRT analysis: 1. Factor 1 items have similar information functions. Items 4 and 6 have the highest discrimination. 2. Factor 2 items 10 and 14 carried the most information. Items 18 and 19 have lowest value of discrimination. The results are consistent with previous research in terms of factor predictions of types of aggression. Internal consistency was less than ideal in this sample, and IRT found F1 is more stable than F2. The current results suggest that cultural influence may affect the reliability and validity of the PCL-R. Continued research is needed in this area.

16. General personality and the assessment of psychopathy: A comparison of the NEO PI-R and the MPQ
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Research with models of general personality has shown that these models can be used successfully to conceptualize psychopathy. The inclusion of general personality models in psychopathy research may be a particularly valuable enterprise, as they may be useful in helping to resolve long-standing questions in this field such as the factor structure of psychopathy, identification of a multitude of putative "core" psychopathic deficits, comorbidity of psychopathy with other personality disorders, and what "successful psychopathy" might look like. The current study examines the relations between the measures of two alternative models of general personality, the Five-Factor Model (i.e., NEO PI-R) and Tellegen's three-factor model (i.e., MPQ), and the three most widely used self-report measures of psychopathy in an undergraduate sample. Although several studies have been devoted to the study of psychopathy using either the NEO PI-R or the MPQ, no studies have used both measures simultaneously, making it difficult to directly compare the relations that each model bears to psychopathy components. The present study fills this void by examining the predictive and incremental validity of the NEO PI-R and MPQ in the context of psychopathy. In order to reduce the number of analyses, we conducted a principal component analysis of the three psychopathy scales, which yielded a four-factor structure. We then used the resultant factor scores in our subsequent analyses of the two personality measures. Both the NEO PI-R and MPQ accounted for substantial proportions of variance in psychopathy scores although the NEO PI-R domains accounted for larger proportions (NEO PI-R: mean adjusted R-squared: .50; MPQ: mean adjusted R-squared: .35) and manifested greater incremental validity when using the domains of each measure (NEO PI-R mean change in R-squared: .22; MPQ: mean change in R-squared: .06). These differences decreased when the narrower subscales were used. The results suggest that, while both measures assess psychopathy-related traits, the NEO PI-R provides a more complete description because of its assessment of interpersonal antagonism and the central role of this construct in psychopathy.

17. Relations Between Factors of Psychopathy and Components of Brain Response in a Picture-Viewing Paradigm
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Deficits in cognitive-executive functioning and affective reactivity are theorized to underlie characteristics associated with psychopathy. Previous studies have reported anomalies in physiological response, such as deficient startle potentiation during aversive cuing and reduced P300 brain response to task-related stimuli, among psychopathic individuals in a variety of auditory and visual tasks. The current study examined relations between measures of psychopathy and two components of brain reactivity to affective picture stimuli in a standard 6-s viewing paradigm: the P300, associated with earlier post-perceptual processing, and the LPP (late-positive potential), which has been shown to reflect more enduring elaborative processing and activation (Cuthbert et al., 2000). Male prisoners were assessed using two different measures of psychopathy, Hare's PCL-R and Lilienfeld's PPI, and in a later test session viewed pleasant, neutral, and unpleasant pictures selected from a large normed set (the IAPS). Higher scores on the antisocial deviance factor of the PCL-R (F2) and on the impulsive antisociality factor of the PPI (PPI-II) were associated with a general *decrease* in P300 response across all types of pictures. In addition, individuals scoring high on both factors of psychopathy (whether assessed by the PCL-R, or by the PPI) showed *increased* LPP response to pleasurable pictures relative to neutral pictures—in particular, scenes depicting thrilling, adventurous activities (e.g., ski diving, cliff jumping). This pattern of generally diminished P300 to picture stimuli among individuals high on the impulsivity/aggression factor of psychopathy suggests impairment of higher cognitive-elaborative processes that operate to moderate the impact of immediate affective events. The enhancement of LPP reactivity to thrilling scenes among high overall psychopathy scorers may reflect tendencies toward excitement-seeking associated with the syndrome as a whole.

18. Estimating Psychopathy Subtypes with the PAI
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Although the possible existence of subtypes of psychopathy has been the focus of theory for decades (e.g., Karpman, 1941), only recently have researchers begun in earnest to investigate empirically the potential existence of such groups. Using a model-based cluster analysis approach in a sample of male offenders who met diagnostic criteria for ASPD (*n* = 691), Poythress, Skeem, Edens, Lilienfeld, Douglas, & Epstein (2008) recently identified three empirical subtypes of psychopathy (one "primary" and two "secondary" variants), as well as one non-psychopathic ASPD subgroup. Various external correlates were used to examine the construct validity of these putative subtypes and several findings were consistent with hypothesized group differences (e.g., higher borderline personality traits among secondary vs primary psychopaths). Because the subtypes of Poythress et al. (2008) initially were identified using subscales of the PCL-R and a diverse (albeit theoretically driven) combination of self-report measures of other constructs (e.g., anxiety, abuse history) as clustering variables, future research on these subtypes may be facilitated by the development of "proxies" derived from more streamlined assessment methods that do not require multiple instruments across more than one methodological domain. The present study will address this issue by using discriminant function analyses to predict cluster group membership based solely on one widely used multi-scale inventory that was administered to all participants in this research project, the Personality Assessment Inventory (PAI; Morey, 1991). Of primary interest will be analyses examining the extent to which theoretically relevant scales and subscales (e.g., Antisocial Features subscales; Borderline Features subscales; Anxiety-Related Disorders subscales; Dominance scale) may be useful for parsing out the "primary psychopath" subtype from the remaining clusters, although additional analyses will be reported on the extent to which the PAI can classify each of the subtypes identified by Poythress et al. (2008). Additionally, analyses will be reported that address the degree to which the PAI can differentiate between these subtypes and a large sample of offenders from this same research project (*n* = 517) who did not meet diagnostic criteria for ASPD.

19. Mapping Gray's BIS and BAS Constructs onto Factor 1 and Factor 2 of Hare's Psychopathy Checklist – Revised

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Reinforcement Sensitivity Theory (RST; Gray, 1987) has proven to be a valuable tool for understanding psychopathy (Fowles, 1980, 1988). Recent research has linked two RST constructs, the Behavioral Inhibition System (BIS) and the Behavioral Activation System (BAS), to individuals with primary psychopathy (low BIS reactivity) and secondary psychopathy (high BAS reactivity) (Lykken, 1995; Newman, MacCoon, Vaughn, & Sadeh, 2005). In this study, we examine the relationships between the Psychopathy Checklist – Revised (PCL-R) Factors 1 and 2 and the BIS/BAS constructs in a sample of 473 incarcerated male offenders. Paralleling their differential relationships to primary and secondary psychopathy, the BIS/BAS constructs were differentially related to the two PCL-R factors.

20. Investigation of the Violence Inhibition Mechanism model of psychopathy in a non-institutionalized sample

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Predictions of the Violence Inhibition Model of Psychopathy ("VIM"; Blair, 1995) were examined within a university student sample. 1,245 female and 756 male students completed a moral/conventional distinction task and self-report measures of psychopathy and empathy capacity over the internet. Endorsed psychopathic traits were used to predict performance on two outcome indices of VIM dysfunction: (1) the ability to distinguish moral from conventional transgressions and (2) the frequency of reference to the welfare of another as justification for not engaging in a moral transgression. Additionally, the role of empathy as a mediator of the relationship between VIM functioning and psychopathy was examined. Findings indicate VIM dysfunction may be associated with the affective,

interpersonal characteristics of psychopathy (primary psychopathy) in the general population, particularly among males. While both male and female participants with elevated levels of these characteristics were less likely to prohibit a moral transgression out of concern for the welfare of another, high primary psychopathic trait males also had more difficulty distinguishing moral from conventional transgressions.

21. Indexing the Disinhibitory (Externalizing) Facet of Psychopathy as a Multivariate Physiological Phenotype

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Externalizing (EXT) is a broad construct that has been linked to the disinhibitory (factor 2) component of psychopathy as indexed by the PCL-R in offenders (Patrick et al., 2005) and personality-based measures in community participants (Blonigen et al., 2005). Prior work has documented deficits in event-related brain potential (ERP) responses in individuals prone to EXT. Specifically, high externalizers show reduced amplitude of the error-related negativity (Hall et al., 2007), as well as the P300 to target and feedback stimuli (Bernat, et al., 2008a, 2008b). The present study evaluated relations among these three brain response measures, recorded in separate tasks administered to a non-offender sample (N = 92) along with a self-report EXT inventory, in order to examine their coherency as indicators of EXT. The three measures correlated with one another such that each loaded appreciably on a common factor when subjected to a factor analysis. This common factor, reflecting the shared variance across brain measures, correlated more strongly with EXT than any individual measures. The implication is that these ERP measures share something in common that may reflect a common neurobiological substrate of EXT. A further factor analysis of the three ERP measures together with scores on the EXT inventory likewise yielded a single factor on which all four variables loaded strongly—despite the fact that one measure (EXT) was based on self-report. These findings suggest that the EXT construct can be indexed as a composite (multivariate) physiological variable (phenotype). Given evidence for a close association between EXT and psychopathy factor 2, it will be valuable in future research to evaluate whether brain response indicators such as these can provide a physiological index of this component of psychopathy.

22. Latent Variable Item-level Analyses of the Psychopathic Personality Inventory (PPI) in an Offender Sample

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Researchers have relied upon classical test theory (CTT; Lord & Novick, 1968) to describe the measures they use to assess psychological phenomenon, such as internal consistency estimates of items. However, internal consistency informs us of how well a set of items 'hang together' but tells us nothing about the underlying dimensionality of a measure (Schmitt, 1996). Based on good internal consistency, researchers often aggregate across the items of a measure to form a summed score, suggesting that the measure, or sub-scales within a measure, are unidimensional (i.e., determined by a single underlying attribute or latent variable). Research with the PPI suggests some sub-scales may not be unidimensional (Neumann, Malterer, & Newman, 2008). Moreover, use of summed scores 'washes over' the items that make up a given measure which in essence represent the primary characteristics individuals endorse when completing self-reports. In contrast, a latent variable model-based approach (Embretson, 1996, Psych. Assessment, "The new rules of measurement") allows investigators to model both the underlying dimensionality of their measures, as well as specify how the items for a given measure are linked to their underlying dimensions. Also, with CTT, longer measures are often necessary for various reasons, but with model-based approaches, shorter measures can be as good, if not better than, their longer counter-parts. The current study used a large sample of offenders to examine latent item characteristics of the PPI. A split-half sample methodology was used to first conduct exploratory factor analysis of the PPI items, followed by confirmatory factor analysis of the EFA results. Findings to be presented indicate that five

items per PPI scale can be identified with no substantive loss in internal consistency, validity, or mean inter-item correlations. In addition, the latent PPI models from these analyses are related to the PCL-R dimensions and cognitive processes associated with psychopathy.

23. Reduced P300 Amplitude in Criminal Psychopathy is Related to Externalizing Tendencies Indexed by Hare's Psychopathy Checklist

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In contrast with research on community samples, which shows consistent evidence of reduced P300 brain response amplitude in individuals with externalizing problems, findings from studies of the association between P300 and psychopathy in incarcerated samples have been mixed. Psychopathy as measured by Hare's (2003) Psychopathy-Checklist-Revised (PCL-R) includes separable affective-interpersonal (Factor 1) and behavioral deviance (Factor 2) components, with recent research demonstrating a close selective link between the latter of these factors and externalizing psychopathology. The current study extended prior work by assessing differential relations between these two factors of PCL-R psychopathy and P300 response amplitude in a sample of male prisoners at a medium security state prison. EEG was recorded from 54 scalp sites in a visual oddball task in which schematic heads served as targets, simple ovals as non-targets, and emotional and neutral IAPS pictures as novel stimuli. P300 responses to novel, target, and non-target stimuli were reduced at anterior scalp sites in relation to scores on the behavioral deviance factor (Factor 2) of the PCL-R, but not the affective-interpersonal factor. Further, the association between PCL-R Factor 2 and reduced brain reactivity was strongest for the P300 response to non-target stimuli, followed by response to target and then novel stimuli. Additional analyses revealed that P300 amplitude reductions were stronger for the criminal deviance (Antisocial) facet of Factor 2 than for the impulsive-irresponsible (Lifestyle) facet. Findings are discussed in relation to a two-process model of psychopathy.

24. Psychopathic Personality Traits and Cortisol Response to Stress

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Previous research has indicated that blunted cortisol production is associated with the existence of psychopathic personality traits in men but not women. The current study explored whether prior null results for women were related to the latency of the cortisol stress response and/or whether low levels of progesterone contributed to null effects for women. A total of 73 participants (38 men, 35 women) were recruited based on preliminary responses to a brief measure of affective/interpersonal psychopathic personality traits administered during an IRB-approved mass screening of undergraduate psychology students enrolled at a large university in the southeastern United States. Participants were assigned to a performance-based stressor, and salivary hormone samples were taken just prior to task onset (baseline) and at 0, 20, 40, and 60 min post-stressor. Sex differences in the association between psychopathic traits and cortisol stress response were assessed, as well as whether low progesterone levels masked group differences between women high in psychopathic personality traits and control women. Results indicated that both men and women characterized by psychopathic personality traits exhibited blunted stress-induced cortisol to the performance-based task in comparison with controls at 20 min post-stressor. In addition, women were reasonably accurate with reporting their phase of menstrual cycle and thus, low progesterone levels did not mask group differences. The present study adds to a small but growing body of work that suggests that impaired functioning of the HPA axis might serve as another marker of neurobiological deficits associated with psychopathic personality.

25. Survivors of Psychopaths: An Investigation of Victimization Experiences, Coping Strategies, and Social Support

Melissa J. L. Pagliaro & Adelle Forth

Carleton University

This study will address the lack of victimcentric studies in psychopathy research and provide more insight about psychopaths in the community. Hypotheses on psychological consequences, deception, distress predictors, psychopathy severity, coping, and social support will be tested. A variety of mental and physical health consequences will be reported, with more posttraumatic stress disorder and depression symptoms for recent versus past survivors. Psychopaths, particularly ones high on affective, social deviance, and antisocial lifestyle traits, are hypothesized to take the shortcut route of deception; a direct path to distress of the victim through coercion. On the other hand, psychopaths high on interpersonal features are more likely to take the delayed deception path, which includes a cycle of impression management, coercion, and distress. Close relationships with perpetrators, chronic exposure, severe physical injury, and violent crime are expected to correlate with greater distress. Psychopathy severity will be positively related to distress, but negatively associated with social support. Problem-focused coping will be negatively correlated with distress, whereas emotion- and avoidance-oriented techniques will be positively associated. Social support will be positively related to problem-focused coping, but negatively associated with other coping strategies and distress. English-speaking adult participants will be recruited from researcher referrals and advertisements on psychopathy research websites and online support groups. A web-based interview protocol including questions and scales on demographics, relationship and experiences, PTSD, depression, coping, and social support will be administered. Knowledge of the victimization experiences of survivors of psychopaths can encourage ideas for preventative measures in the general public, and also improve the quality of medical, psychological, and legal services.

26. Psychopathy and traumatic stress among forensic patients

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It has been theorized that psychopaths present a fundamental emotional deficit (Cleckley, 1941). The literature also points to a low fear response, as measured by electrodermal activity (Hare, 1970; Patrick et al., 1993) and the startle reflex (Patrick, Bradley, & Lang, 1993; Levenston, Patrick, Bradley & Lang, 2000). The purpose of this two-part study was to examine the relationship between psychopathy and traumatic stress in this light. First, a sample of 48 male adult patients in a Belgian security hospital was assessed using the Hare Psychopathy Checklist (PCL-R: Hare, 2003) and the French version of the Stanford Acute Stress Reactions Questionnaire (SASRQ: Cardena, Classen, Koopman, & Spiegel, 1996). Results of stepwise linear regression analyses suggest that the affect deficit component of psychopathy is the best predictor of acute stress symptoms, particularly avoidance, dissociation, and re-experiencing. Second, the 13 highest-scoring individuals on the PCL-R were assigned to a "psychopath" group and the 13 lowest-scoring to a "non-psychopath" group. The two were comparable in terms of age, IQ, and major mental disorders, with the exception of drug dependence (Diagnostic Interview Schedule, Screening Interview; Robins & Marcus, 1987). Inter-group comparison results suggest that psychopaths differ from controls in terms of number but not type of traumatic events. They also obtained significantly lower SASRQ total scores, reflecting a lower level of traumatic symptomatology. The overall results are discussed in connection with the emotional deficit component of psychopathy.

27. Psychopathy and laboratory-based aggression: An examination of the differential predictive abilities of four self-report psychopathy factors.

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The goal of the current study was to examine which psychopathy factors are most predictive of aggressive behavior manifested in two different laboratory conditions. Undergraduate participants (n = 130) completed three prominent self-report measures of psychopathy (i.e., LSRP, PPI-R, SRP-III) and

participated in a laboratory aggression paradigm - the Response Choice Aggression Paradigm - wherein participants are given the option to shock a fictitious opponent during a competitive reaction-time task. Participants were randomly assigned to either an "equal" (EQ) or "differential" (DIF) condition. In the EQ condition, participants believed they had the same shock buttons (i.e., 1-10) as their opponent. In the DIF condition, participants believed that their opponent had an additional "Level 15" button that significantly exceeded the shock level that the participant could administer. Nine subscales from the psychopathy measures were submitted to a principal components analysis (2, 3, and 4 factor solutions were examined). A 4-factor structure, accounting for 80% of the variance was identified, which we labeled: Callous/Manipulation (CAL), Dysregulation/Disinhibition (DYS), Fearless Dominance (FD), and Antisocial Behavior (ASB). Across conditions, simultaneous regression analysis revealed that a model including all four psychopathy factors accounted for a significant amount of variance in general aggression (i.e., mean shock intensity (MSI), mean shock duration (MSD), and shock frequency (SF)). However, only CAL emerged as a significant predictor of MSI and MSD, whereas both the CAL and ASB factors significantly predicted SF. No differences emerged across the two experimental conditions. Results suggest that CAL, which maps on to the traditional conceptualization of Factor 1 psychopathy, may play more of a role in aggressive behavior than expected given the extant literature linking Factor 2 psychopathy and aggression.

28. Cognitive deficits in subtypes of psychopathic offenders
Rebecca Riser & David Kosson
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The empirical and clinical literatures provide concurrent support for two meaningful subtypes of psychopathy: primary and secondary psychopaths (Blackburn, 1994; Karpman 1941; Lykken, 1957; Schmauk, 1970). Subtypes appear to identify more homogenous groups within psychopathy and may clarify some of the inconsistencies regarding correlates. Recent studies using cluster analytic methods have obtained direct evidence for four distinct subgroups, which have replicated across samples (Swogger & Kosson, 2007; Vassileva et al., 2005). However, validation of subtypes has largely been limited to identifying differences in antisocial behavior and symptoms of externalizing disorders. Recently, Bagley, Abramowitz, and Kosson (in press) showed that both primary and secondary psychopaths were characterized by emotional processing deficits. Still, no prior studies have examined whether clusters differentially predict cognitive deficits associated with psychopathy. The present study identified four subgroups of offenders among 265 inmates via cluster analyses and compared these groups on a global-local processing task. Kosson et al. (2007) used this task to evaluate both the left hemisphere activation (LHA) hypothesis and the response modulation (RM) hypothesis and reported that psychopathic offenders exhibited a pattern of deficits consistent with LHA but not RM hypothesis. Similar to prior studies (Vassileva et. al., 2005), subtypes were derived based on PCL-R Factor 1, and Factor 2 scores, Interpersonal Measure of Psychopathy scores, Structured Clinical Interview for DSM-IV Axis I Disorders ratings of alcohol and substance use disorders, and State-Trait Anxiety Inventory Scale, Trait Scale scores. Planned comparisons revealed that primary psychopaths classified global targets more slowly that nonpsychopathic controls only in responding to global targets in a local bias condition, a deficit predicted by both the LHA and RM hypotheses. No deficits and smaller effect sizes in the other conditions predicted by one but not both hypotheses appear to suggest that a combination of LHA and demands for RM best specify the cognitive deficits of primary psychopaths. Finally, small to moderate effects sizes among secondary psychopaths suggest that secondary psychopaths also exhibit deficits related to conditions that differentially activate LH attention and motor systems. Discussion will address whether an interaction between LHA and RM may account for state dependent deficits.

29. Trait Variations in Fear and Fearlessness: Relations with DSM-IV Personality Disorder Symptoms
Siri A. Scott, Melanie J. Fuhrmann, Uma Vaidyanathan, Mark D. Kramer, and Christopher J. Patrick
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A longstanding idea in the psychopathy literature is that the disorder reflects a deficiency in the capacity for fear. In order to clarify the role of individual differences in fear as a contributor to psychopathy and other personality disorders, we developed a unidimensional, bipolar index of dispositional fear—the 55-item Trait Fear (TF-55) inventory—by drawing on items from existing self-report scales that assess constructs related to fear and fearlessness. Here, we report findings from a large mixed-gender community sample in which we examined relations between scores on the TF-55 and symptoms of DSM-IV Axis II disorders assessed via the SCID-II questionnaire (Clusters A, B, & C) and SCID-I interview (Cluster B). Within this sample, lower scores on the TF-55 strongly predicted scores on the first ("Fearless Dominance") factor of Lilienfeld's (1990) Psychopathic Personality Inventory. With regard to DSM personality disorder symptoms assessed via questionnaire, lower levels of dispositional fear were associated in particular with reduced symptoms of Cluster C (anxious/fearful) disorders. The strongest association was with symptoms of Avoidant Personality disorders. In addition, lower trait fear predicted *greater* reported symptoms of Cluster B antisocial and histrionic personality disorders, and *fewer* reported symptoms of Cluster B borderline and Cluster C paranoid and schizotypal personality disorders. Interview-based assessments of Cluster B disorder symptoms yielded similar findings to those based on questionnaire. The results of this research support the idea that low dispositional fear is associated with reduced vulnerability to distress-related disorders as well as increased susceptibility to psychopathy-related syndromes.

30. The Effect of Alcohol and Substance Dependence on Cognitive and Emotional Functioning among Psychopathic and Non-psychopathic Individuals
Woojin Song & David Kosson
Rosalind Franklin University of Medicine and Science

Psychopathy is often associated with antisocial behaviors; hence the participants in psychopathy research are usually recruited from prisons or jails. However, these confined populations have higher prevalence of alcohol and substance use disorders than community samples. This high comorbidity may pose a problem due to well-documented detrimental effects of alcohol and substance dependence on cognitive and emotional functioning. Researchers previously found significant impairments on vocal affect recognition and executive tasks in psychopathic individuals. In the current study, the performance of the participants in previous studies was re-examined in regard to the impact of alcohol and substance dependence. On the vocal affect task, analyses indicated a main effect for Psychopathy group and a Psychopathy group X Alcohol Dependence History interaction. The psychopathic individuals generally performed worse at identifying emotions in the semantic condition than the nonpsychopathic individuals, and the effect size for this group difference was large when both groups had a history of alcohol dependence (d = 1.08) but small for individuals without a history of alcohol dependence (d= 0.23). In addition, there was a trend toward psychopathic individuals with no alcohol dependence history performing better than those with such a history (p = 0.09, d = 0.6). On the executive task, a main effect for psychopathy group was observed. The psychopathic participants made more errors than the nonpsychopathic participants in the left-hemisphere activation executive task. In conclusion, although taking alcohol and substance dependence history into account did not eliminate main effects for psychopathy group, the results provide evidence that, in some cases, a history of alcohol dependence may amplify impairments in cognitive and emotional functioning for psychopathic individuals.

31. Differentiating Self-Directed and Outwardly-Directed Violent Behavior: The roles of Anger and Psychopathic Traits
 Marc T. Swogger,[1] Zach Walsh,[2] Kenneth R. Conner[1]
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Violence is a multidimensional construct, and individuals who engage in different forms of violent behavior may be characterized by distinct characterological profiles. An important distinction involves

the direction of violence towards others or the self. Although these categories of violence have distinct features, there is considerable evidence for positive relationships between self and other violence, and this relationship may reflect common personality traits. Specifically, psychopathic characteristics and trait anger have been identified as predictors of both self and other violence. However, there is a paucity of data on whether or not anger and psychopathic traits distinguish among individuals who engage exclusively in violence toward self, toward others, or in both types of violent behavior. Given the co-occurrence of self and other violence, such an examination may help to specify the extent to which anger and psychopathy are related to these distinct classes of violence. Using data from the MacArthur Violence Risk Assessment Study, we examined a sample of 693 adult civil psychiatric patients to compare levels of psychopathy and anger in a nonviolent group (reference), a suicide attempt group (suicidal), an interpersonal violence group (violent), and a group who reported both suicide attempts and interpersonal violence (violent and suicidal). Psychopathy and anger were associated with group membership, such that relative to the *nonviolent reference* group, the *violent and suicidal* group evidenced elevations in psychopathy anger and Factor 2, whereas the *violent* group demonstrated elevations in anger, Factor 1, and Factor 2. The *suicidal* group did not differ from the *nonviolent reference* group. These findings replicate established relationship between anger, psychopathy factors, and violence. Findings also suggest that relationships among these traits and self violence may reflect a common relationship with interpersonal violence.

32. The specificity of the emotional deficiency in criminal and non-criminal psychopathy
K. Uzieblo, B. Verschuere, A. De Clercq, & G. Crombez
Ghent University

Both criminal and non-criminal psychopathy has been associated with an impaired emotional modulation of the startle blink reflex during negative stimuli. To assess the specificity of the emotional deficiency in psychopathy, we examined the effects of self-reported psychopathy on the emotional modulation of the startle blink reflex during distinct emotional events (erotic, thrill, love, threat, victim, disgust, anger, and sad) in both non-criminal and criminal populations. It was expected that psychopathic traits would be related to a deviant startle reflex modulation. However, no solid evidence for a deviant startle modulation was found in any of these studies. Only distinct associations between self-report ratings and psychopathic traits were established. The authors propose that not all operationalizations for psychopathy may be related to similar emotional deviances in psychopathy.

33. Predicting Psychopathy across the Lifespan: A Five-Factor Model Approach
David D. Vachon, Donald R. Lynam, Thomas A. Widiger, Joshua D. Miller, Robert R. McCrae, & Paul T. Costa
Purdue University, University of Kentucky, University of Georgia, National Institute on Aging

Although psychopathy is assumed to persist across much of the lifespan, evidence suggests that psychopaths show consistent decreases in overt criminal activities as they age. Similarly, although relatively stable across long periods of time, personality traits also show age-related changes in absolute levels. The current investigation examines whether age-related changes in basic traits can account for age-related changes in psychopathy. Using data from the NEO-PI-R in a large sample spanning ages 15 to 70, predictions about mean psychopathy levels are derived as a function of age. These predictions are tested against observed levels of psychopathy at various ages. Further, this study tests whether the differential declines across mean Factor 1 and Factor 2 psychopathy scores are due to differential declines in the specific traits associated with each factor. The current study adds to a body of research suggesting that psychopathy can be understood as a constellation of maladaptive personality traits.

34. Refining Measurement of the Boldness ("Fearless Dominance") Component of Psychopathy
Uma Vaidyanathan, Christopher J. Patrick, Stephen Benning, Brian Hicks, and Mark Kramer
University of Minnesota

The triarchic model of psychopathy (Patrick et al., in press) conceptualizes psychopathy in terms of three separable phenotypic constructs: disinhibition, boldness, and meanness. Krueger et al. (2007) recently employed an iterative scale development approach (including use of IRT and factor analytic methods) to operationalize the disinhibition component of psychopathy in terms of an inventory of externalizing behaviors and traits. Here, we used a similar methodologic strategy to develop a new measure to index the boldness component. We began by identifying items from existing inventories that evidenced associations with the Fearless Dominance (PPI-I) factor of Lilienfeld's (1990) Psychopathic Personality Inventory, but not with its Impulsive Antisociality (PPI-II) factor. We then: (1) formulated new items to capture distinct thematic domains evident in the content of items associated with PPI-I, and (2) refined these items across successive waves of data collection/analysis with undergraduate samples to develop a set of interrelated unidimensional subscales. A confirmatory factor analysis of the resultant subscales (Courage, Self-Confidence, Social Assurance, Glibness, Persuasiveness, Intrepidness, etc.) verified that a single common factor, labeled "Boldness," accounted for a substantial portion of the variance in each. The findings of this work provide a foundation for investigating the boldness component of psychopathy as a coherent but multifaceted phenotypic construct.

35. Scores on PCL-R Factor 1 Uniquely Predict Affective Modulation of Startle Blink and Post-auricular Reflexes
Jennifer Cermak, Uma Vaidyanathan, Edward Bernat, Jason Hall, Christopher J. Patrick
University of Minnesota

Previous research has shown that psychopaths, relative to non-psychopaths, exhibit reduced startle blink potentiation during viewing of aversive stimuli (Patrick, Bradley & Lang, 1993; Patrick, 1994). Available data indicate that this deviation is related more to scores on Factor 1 (i.e., interpersonal-affective features) of the Psychopathy Checklist – Revised (PCL-R; Hare, 1991) than Factor 2 (i.e., impulsive antisociality). The goals of the current study were: (1) to evaluate these effects in relation to continuous PCL-R scores rather than discrete participant subgroups, and (2) to test for psychopathy-related effects in emotional modulation of the post-auricular (PA) reflex to the same startle probe. To accomplish this, we administered a picture-startle paradigm entailing delivery of noise probes during presentation of pleasant, neutral and unpleasant pictures to a sample of incarcerated male offenders, and recorded both startle blink and PA reflex responses to probes. For both the startle and the PA measure, higher overall scores on the PCL-R were associated with deviant reflex modulation for unpleasant but not pleasant pictures. Further analyses confirmed that deviant affect-modulation effects for both reflex measures were related more to scores on Factor 1 of the PCL-R than to scores on Factor 2. Implications for our understanding of emotional processing deficits in psychopathy will be discussed.

36. Relations between the Disinhibitory (Externalizing) Component of Psychopathy and DSM Personality Disorder Symptoms
Saaraa Ameri, Uma Vaidyanathan, Corinne Harrison, Jennifer Cermak, & Christopher J. Patrick
University of Minnesota

Previous studies have shown that scores on the behavioral deviance factor of Hare's PCL-R (Factor 2) are indicative of disinhibitory (externalizing) tendencies (Patrick et al., 2005). In the current work, we sought to examine relations between externalizing tendencies and personality disorders defined within the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994) in a large-scale community-based twin sample. Subjects were administered the self-report and the interview versions of the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Gibbon, Spitzer, Williams & Benjamin, 1997) and a 100-item version of the Externalizing Inventory (Krueger, Markon, Patrick, Benning & Kramer, 2007). Symptoms of all personality disorders were assessed via the SCID-II questionnaire, and Cluster B disorders were assessed specifically via the SCID-II interview. Results indicated that externalizing tendencies showed robust positive correlations with

symptoms of all Cluster B personality disorders (i.e. Histrionic, Narcissistic, Borderline and Antisocial), with the association especially strong for antisocial personality disorder symptoms whether assessed by questionnaire or interview. Externalizing scores also showed modest positive associations with symptoms of Cluster A personality disorders (Paranoid, Schizoid and Schizotypal) assessed via self-report. In contrast, relations with reported symptoms of Cluster C disorders (Avoidant, Dependent, Obsessive-Compulsive) were negligible. Implications for understanding the interconnections between psychopathic tendencies and personality pathology will be discussed.

37. PPI and PCL:SV Factors Both Predict Insensitivity to Contextual Information
Joshua D. Zeier, Melanie B. Malterer, & Joseph P. Newman
University of Wisconsin – Madison

Investigators use both interview and self-report measures to assess psychopathy and its sub-factors, but it is unclear whether results employing these alternative methods address the same clinical construct. Thus, it is important to evaluate the equivalence of these methods by examining their association with etiologically relevant measures. Toward this end, we administered the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996), the PCL-SV (Hart et al., 1995), and a laboratory task theorized to assess psychopathic individuals' insensitivity to contextual information to 121 Caucasian male offenders. For both methods, there was a significant interaction of the two factors, such that high scores on both factors demonstrated the predicted deficit. Notably, this effect of the PPI factors remained significant after controlling for the effects of the PCL: SV factors. In demonstrating comparable results across assessment methods, this study provides support for the generality of psychopaths' insensitivity to contextual information and preliminary evidence of construct equivalence.

38. Using NEO-estimated PPI and PCL-R scores in the assessment of psychopathy: Further examining the validity of the personality approach
Sarah L. Bryan, Elizabeth A. Sullivan, Michael Brook, & David S. Kosson
Rosalind Franklin University of Medicine and Science

A burgeoning literature suggests the utility of self-report personality measures for indexing and assessing psychopathic traits. One approach has utilized normal personality measures, such as the Multidimensional Personality Questionnaire (MPQ) and Neuroticism-Extroversion-Openness Five Factor Inventory (NEO-FFI), to estimate factor scores on the Psychopathic Personality Inventory (PPI), which is itself a self-report measure of psychopathy. Despite concerns about the validity of assessing psychopathic traits via self-report measures, these studies have demonstrated that self-report and normal personality-estimated self-report psychopathy scores can be used to reliably assess traits associated with psychopathy by demonstrating consistent patterns of relationships between estimated Fearless Dominance (FD) and Impulsive Antisociality (IA) scores and scores on measures of psychopathology. In the current study, PPI scores were estimated using NEO-FFI scores, following the methodology of Ross and colleagues (2008), in a sample of 238 adult male inmates at a county jail in Northern Illinois. The relationships between these scores, PCL-R factor scores, and external correlates were then examined with the goal of further elucidating the validity of this method for assessing psychopathy. Analyses indicated that NEO-estimated PPI (NEO-ePPI) factor scores for FD and IA exhibited a pattern of correlations with psychopathology criteria (i.e., depression, anxiety, conduct and antisocial personality disorder symptoms, alcohol and drug use) similar to that reported for MPQ-estimated PPI factor scores (Benning et al., 2005). Also consistent with Benning et al., NEO-ePPI IA scores demonstrated the expected positive correlations with PCL-R Factor 2 and behavioral facet scores, at both the bivariate and partial correlation levels. However, in contrast to Benning et al. (2005), NEO-ePPI FD factor scores were not significantly correlated with PCL-R Factor 1 or interpersonal or affective facet scores. Moreover, PCL-R factor scores correlated differently with external measures than did NEO-ePPI factor scores. In particular, NEO-ePPI FD scores correlated negatively with indices of negative affectivity, depression, and alcohol dependence problems, whereas PCL-R Factor 1 scores did not. These findings demonstrate that relationships with external

correlates are similar when different self-report personality scales are used to estimate psychopathy scores, but they raise questions about whether the personality scale approach taps into the same aspects of psychopathy assessed by the PCL-R. Implications are discussed.

39. Isolating Neural Abnormalities Core to Psychopathy from those Related to Comorbid Substance Abuse

Matthew S. Shane, Carla L. Harenski, Prashanth Nyalakanti, & Kent A. Kiehl
The MIND Research Network, University of New Mexico

Research into the neural underpinnings of the psychopathic disorder represents a burgeoning field of study. Over twenty reports now demonstrate broad abnormality across a diverse range of cortical (e.g. orbitofrontal, inferior and superior frontal, middle and superior temporal, fusiform, occipital) and subcortical (e.g. hippocampus, amygdala, insula, subgenual cingulate, ventral striatum, posterior cingulate, parahippocampal gyrus) regions. While representing crucial progress for the field, the diverse nature of these neural abnormalities contradicts somewhat the relative subtlety of the psychopath's behavioral, cognitive and affective symptomatology. Indeed, perhaps more than any other clinical disorder, psychopathy appears characterized by a subtlety of dysfunction that researchers have often found challenging to access reliably. Next generation neuroimaging research may then find it useful to pare down these regions of potential abnormality into a more focused list of particularly core regions of dysfunction. One critical factor to consider is the extent to which comorbid disorders, such as substance abuse, may underlie some of the neural abnormalities previously reported in the psychopathic literature. Our burgeoning field has undertaken relatively little control of comorbid disorders to date; however, the fact that these comorbidities exist is well documented. Substance abuse, in particular, shows high comorbidity with psychopathy (Smith & Newman, 1990; Alterman et al., 1993), shares significant overlap of behavioral and cognitive symptomatology, and shows substantial intersection of apparent neural disintegrity. Thus, the extent to which reported neural abnormalities are core to the psychopathic disorder, or instead represent the influence of dysfunction associated with comorbid increases in substance use, is thus a critical issue to consider. The present poster outlines several recent investigations that have sought to isolate neural abnormalities core to the psychopathic disorder, from those more closely related to substance abuse issues. Identified regions of abnormality are consistent with previous reports, but point to a substantially more focused list of implicated regions. These results may be critical for establishing additional control and refinement of our research efforts, and may provide a new platform for interpreting future neuroimaging studies of psychopathy.

40. Towards an Integrated Understanding of Psychopathy: Seven Components Bias Psychopaths' Decision-Making

David Nussbaum, Stephanie Bass, Kimia Honarmand, & Martina Kalahani-Bargis
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Psychopathy has been a most important construct in forensic and correctional psychology. Hare's PCL in its various editions has stimulated an extensive empirical literature providing increased refinement and understanding of description and classification, cognitive, emotional, and psychobiological aspects of this group of externalizing and often criminal individuals. Based on a motivational decision-making model, this talk will present an integrative psychobiological theory for explaining psychopaths' focus on immediate rewards at the expense of their long-term interests, inability to learn from negative consequences, social dominance, co-morbidity with a number of addictive behaviors, apparent facility with lying when describing future intentions for desisting from criminal behaviors, and, in typical criminal psychopaths, a lack of anxiety and fear. The model consists of seven components arranged into competing "Immediate Approach" and "Stop and Consider Long-Term Consequence" axes. Empirical evidence from our recently completed studies with a) student samples classified on Levenson et al.'s (1995) PSPS and Lilienfeld's PPI-R, b) predatory and irritable violent offenders versus non-violent

offenders and c) predatory versus irritable and delusional forensic psychiatric inpatients will be presented. Finally, implications for both psychologically and pharmacologically based interventions will be discussed.

Poster Session B, Saturday

41. Gender Differences in Links Between Borderline Personality Disorder and Psychopathy Across Samples and Measures of Psychopathy

Jenessa Sprague, Naomi Sadeh, & Edelyn Verona
University of Illinois at Urbana-Champaign

Borderline personality disorder (BPD) and psychopathy are associated with a number of overlapping characteristics, including impulsivity, risk-taking, and aggression. Despite these similarities, BPD is diagnosed more often in women (APA, 2000), while psychopathy is diagnosed more often in men (Salekin, Rogers, & Lewell, 1997), suggesting that BPD is a gender-specific behavioral manifestation of psychopathy, or at least the social deviance features of psychopathy (i.e., Factor 2; F2). To test this hypothesis, we measured BPD characteristics and psychopathic traits in a sample of (a) undergraduates and (b) community members recruited from criminal justice and substance abuse agencies. We hypothesized that gender would moderate the relationship between psychopathic characteristics and BPD features, such that psychopathic traits, particularly F2, would correlate more strongly with BPD characteristics in females than males. Findings were consistent with our hypotheses in that F2 predicted BPD characteristics more strongly for women than men across samples and measures of psychopathic traits. Furthermore, primary psychopathic traits (i.e., Factor 1; F1) moderated the relationship between F2 and BPD characteristics. Specifically, for men, the association between F2 and BPD features was similar regardless of F1 scores. However, the relationship between F2 and BPD was stronger for women who also scored high on F1. In particular, the combination of affective/interpersonal deficits (F1) and impulsive/antisocial traits (F2) seems predictive of BPD in women, but not men. This suggests that psychopathy (which is typically defined as being high on both F1 and F2) is manifested as BPD in women.

42. Gender differences in psychopathic traits: The result of rater and record bias?

Chantal L. van Reeuwyk, Craig E. Henderson, & Holly A. Miller
Sam Houston State University

The Psychopathy Checklist (PCL-R; Hare, 1991; 2003) has been noted for revolutionizing research in the field of psychopathy by reliably assessing psychopathic traits. Recent efforts have examined whether the PCL-R, though initially developed in male samples, can be extended to women. These results are largely mixed (Forouzan & Cook, 2005) but suggest that there may be some differences in the expression of psychopathic traits in women (Vitale, Smith, Brinkley, & Newman, 2002), levels of traits (Vitale et al., 2002; Salekin, Rogers, & Sewell, 1997; Warren, Burnette, South, Chauhan, Bale, Friend, and Van Patten, 2003), and factor structure though a three factor model, which excludes antisocial behaviors, appears to provide the best fit (Jackson, Rogers, Neumann, & Lambert, 2002; Warren et al., 2003; Strand and Henrik, 2005). Recent work using Item Response Theory has found significant gender bias in several of the PCL-R's items, in particular those measuring antisocial features. The present study used a civil psychiatric sample of over 600 males and 400 females to explore gender differences in the PCL-SV. Examinations of differential item functioning suggested significant differences in two of the interpersonal and two of the antisocial items of the PCL-SV. Self-report items drawn from the Psychopathic Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005) assessing similar interpersonal traits were identified in a sample of over 300 male and 300 female undergraduate students. When assessed via self-report, items addressing the same personality traits did not display any differential item functioning. The PPI-R does not assess antisocial behaviors however there are no significant differences between males and females in

self-reported frequencies of juvenile and adult criminal behaviors. These results may suggest that rater bias or bias in official records of antisocial play a role when psychopathic traits are assessed.

43. Does Adolescent Interpersonal Callousness Predict Adult Antisocial Outcomes Beyond Disruptive Behavior Disorder Symptoms?
Amy Byrd, Rebecca McNamee, & Dustin Pardini
University of Pittsburgh

Evidence within the adolescent literature suggests that the interpersonal (e.g., deceitful, manipulative, grandiose) and affective (e.g., callous, unemotional) features of psychopathy can be reliably distinguished from behaviors consistent with ODD, CD, and ADHD (Frick et al., 2000; Pardini et al., 2006). Studies with adolescents also indicate that these features predict persistent forms of delinquency (Loeber et al., 2007; Pardini et al., 2006) and psychopathic personality characteristics (Burke et al. 2007; Lynam et al., 2007) in young adulthood. However, it remains unclear if the interpersonal and affective features of psychopathy in adolescence significantly predict adult antisocial outcomes after controlling for co-occurring symptoms of ODD, CD, and ADHD. This current study will examine this issue using data from the youngest cohort of the Pittsburgh Youth Study (PYS), a comprehensive longitudinal investigation of boys (n = 503). At age 14, symptoms of ADHD, ODD, and CD were assessed using the parent-reported Diagnostic Interview Schedule for Children, Revised (Costello, 1987). The interpersonal and affective features of psychopathy were assessed using the 8-item parent-reported interpersonal callousness (IC) scale (Pardini et al., 2006). This scale has previously been shown to be highly correlated (r =.78) with Factor 1 features assessed using the Child Psychopathy Scale (Pardini & Loeber, 2008). Antisocial outcomes were assessed in early adulthood (i.e., age 26) using several different measures, including the Self-Report of Delinquency (Elliot et al., 1985), Self-Report of Psychopathy-III (SRP-III; Paulhus et al., in press), and the Adult Self Report (Achenbach & Rescorla, 2003). Correlation analyses indicate that higher levels of IC in adolescence are significantly associated with higher levels of self-reported delinquency, as well as antisocial and psychopathic personality features in young adulthood. While the magnitude of these associations was relatively small (i.e. $rs < .20$), they remained statistically significant after controlling for CD, ODD, and ADHD symptoms in adolescence. These findings support the incremental predictive utility of the interpersonal and affective features of psychopathy beyond current definitions of disruptive behavior disorders.

44. A distinction between not feeling and not caring about others' feelings: Implications for conceptualizing youth psychopathy.
Lisa L. Ansel & Christopher T. Barry
The University of Southern Mississippi

Callous-unemotional traits have been associated with proactive and reactive aggression (Frick, Cornell, Barry, Dane, & Bodin, 2003) and poor response to punishment cues (O'Brien & Frick, 1996) in youth. Recent research, however, has found only weak associations between callous-unemotional traits and aggression (Barry et al., 2007). This study investigates the correlates of callous-unemotional traits when assessed multidimensionally in a sample of adolescents attending a residential program. Results show clear differentiation among the components of self-reported callous-unemotional traits based on their correlates. Callousness and Uncaring from the Inventory of Callous-Unemotional Traits (ICU; Essau, Sagasawea, & Frick, 2006) were significantly and consistently related to different forms of self-reported aggression, as well as self-reported delinquency. Callousness was significantly related to self-reported internalizing problems. Uncaring was significantly related to parent-reported conduct problems and aggression, as well as disciplinary citations at the residential program. In contrast, the Unemotional scale from the ICU was not related to internalizing or externalizing problems. Unemotionality was associated with parent-reported social skills deficits as was the Uncaring scale, but only the Uncaring scale predicted unique variance in social skills. These findings suggest that lack of affect may not be an important indicator of behavioral problems or psychological functioning, at least among this sample of adolescents.

Instead, callous disregard for others and lack of concern for societal norms or conventions may place a young person at particular risk for the variety of behavioral and social problems associated with psychopathy. Implications for assessment, conceptualization, and intervention will be included.

45. Examining the Impact of Childhood Neglect on the Development of the Affective and Interpersonal Constructs of Psychopathy

Maria T. Daversa
Private Practice

Recent evidence offered from non-human models (Gunnar, 2003; Gunnar & Cheatham, 2003; Levine, 1957; Nelson, 2003; Pikoher et al., 1993; Pollak, 2005; Pryce et al., 2004; Sanchez et al., 2001), and prior research (Daversa & Knight, 2005; Daversa & Knight, 2006; Larsson et al., 2006), has shown it is possible to hypothesize that early chronic and harsh stress results in irreversible brain abnormalities in the amygdala in humans (Benes, 1994; Gunnar, 2003; Nelson, 2003; Manly et al., 2001; Meaney et al.,1988; Meaney et al., 1991; Nelson & Carver, 1998; Cicchetti, Toth, Bush, & Gillespie, 1988; Weiss & Wagner, 1998). Additionally, previous research supports the significant contributory role of Emotional Abuse (i.e., neglect and antipathy) to the development of the latent variable Psychopathy (Daversa & Knight, 2007) and more specifically the affective and interpersonal deficits of psychopathy in both adult and adolescent sexual offending populations (Daversa, 2008; Daversa & Knight, 2006; Larsson et al., 2006). Such data suggest that parental deprivation and childhood neglect as a risk contributor to psychopathy deserves further examination. The present study attempts to delineate specific variations within these developmental experiences that may play a role in the psychopath's use of instrumental aggression. Using a structural equation model the significance of neglect and caretaker deprivation is investigated in a sample of both sexual and non-sexual offending adolescents in the development of the affective and interpersonal traits of psychopathy. Implications for modification of child rearing practices of parents of at-risk youth, better evaluation of the consequences of environmental risk, and future research and treatment recommendations with psychopathic individuals is also explored.

46. Inconsistent Versus Harsh Parenting: Callous-Unemotional Traits Moderate the Relation between Specific Parenting Styles and Child Externalizing

M. Catherine Dodson & Renee McDonald
Southern Methodist University

The role that Callous-Unemotional (CU) traits play in the development of children's externalizing problems has been the focus of a growing body of research. Emerging evidence suggests that CU traits moderate the relation between parenting and children's externalizing problems, with a stronger relation for children low in CU traits, and a weaker relation for children high in CU traits (e.g., Wootton, Frick, Shelton, and Silverthorn, 1997). In general, research addressing parenting and CU traits has focused on poor parenting practices such as harsh and inconsistent parenting. Emerging evidence suggests that the moderating effect of CU traits on the relation between parenting and children's externalizing problems may differ depending on which aspect of parenting is considered. The current research examines the moderating influence of CU traits on the relation of two forms of parenting -- harsh parenting and inconsistent parenting -- on children's externalizing problems. The sample consists of 83 mothers and their 3- to 8-year-old children. All children met DSM-III diagnostic criteria for Oppositional/Defiant Disorder or Conduct Disorder. We hypothesized that harsh parenting and inconsistent parenting would both be associated with children's externalizing problems. In addition, we hypothesized that CU traits would moderate the association between harsh parenting and child externalizing problems. Specifically, we expected the relation between harsh parenting and children's externalizing problems to be stronger for low-CU children than high-CU children. As hypothesized, CU traits moderated the relation between inconsistent parenting and children's externalizing problems. Inconsistent parenting was associated with externalizing problems for low-CU children, simple slope = .64, p = .06, but not for high-CU children, simple slope = .16, p = .39. However, CU traits did not moderate the association between harsh parenting

and children's externalizing problems. Results indicate that the relation of inconsistent parenting to children's externalizing problems is attenuated for children with high levels of CU traits. These results provide additional evidence that high-CU children respond differently to common discipline strategies used by parents. The observed differences for inconsistent vs. harsh parenting suggest that particular classes of poor parenting behaviors (e.g., harsh, inconsistent) may be differentially related to externalizing problems among high-CU children.

47. Relationship between different types of aggression and executive (frontal lobe) functioning and the influence of CU-traits in adolescents at risk for developing psychopathy as compared to healthy controls
J. Feilhauer & M. Cima
Maastricht University

Relationship between different types of aggression and executive (frontal lobe) functioning and the influence of CU-traits in adolescents at risk for developing psychopathy as compared to healthy controls. Psychopathy is a complex personality disorder, which is often associated with a criminal or socially deviant life style (Hart & Hare, 1997). More recently, it has been suggested that the presence of callous-unemotional (CU)-traits, especially in children and adolescents with conduct disorder (CD), designates a subgroup of antisocial youth, that shows a particularly severe, violent, and stable pattern of behaviour (e.g., (Frick, Cornell, Barry, Bodin, & Dane, 2003a; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007). Consequently, CU-traits and different types of aggression, esp. proactive aggression, have been suggested to be risk factors for the development of psychopathy. Furthermore, antisocial behaviour in children and adolescents has often been associated with the occurrence of severe executive functioning deficits (Henry & Moffitt, 1997; Raine et al., 2005). However, their specific associations with suggested CD subtypes remain unclear. Therefore, the present study investigates differences in neurocognitive functioning and their relation to reactive and proactive aggression as well as CU-traits in different CD subgroups as compared to a healthy control group. In addition, ADHD symptoms and verbal ability, which might be specific to subgroups showing no CU-traits (Nigg & Huang-Pollock, 2003), are taken into account. Sixty male adolescents (age 15-17) from detention centres who met the criteria for CD were compared with sixty healthy controls from the same age range. Participants completed a neuropsychological test battery measuring executive functions, the Test of Attentional Performance (TAP, (Zimmermann & Fimm, 2006), the Inventory of Callous-Unemotional traits (Frick, 2003; Frick et al., 2003b) as well as the Reactive-Proactive Aggression Questionnaire (Raine et al., 2006). It is hypothesized that reactive aggression will be related to neurocognitive impairments in adolescents low on CU-traits. Furthermore, we expect that adolescents with CD who are high on CU-traits will demonstrate high levels of proactive aggression and good frontal lobe functioning. Results will be discussed for early- and adolescent-onset CD and control subjects.

48. Predictors and outcomes of joint trajectories of callous-unemotional traits and conduct problems in childhood
Nathalie Fontaine, Essi Viding, Eamon McCrory, & Robert Plomin
University of Alabama, University College London, King's College London

Callous-unemotional traits in children have been found to be associated with antisocial and delinquent behaviors, and to be a potential risk for adult psychopathy. However, there is little longitudinal research on the development of these traits, how they relate to the development of conduct problems, and what are the predictors and outcomes. To describe the joint developmental trajectories of callous-unemotional traits and conduct problems during childhood and to examine the predictors and the concomitant outcomes associated with the trajectories. Over 10,000 children from the Twins Early Development Study were followed longitudinally. The developmental trajectories were described using teachers' ratings of callous-unemotional traits and conduct problems at ages 7, 9 and 12. Family-level predictors at 4 years old included family chaos, parental feelings, and parental discipline. Child-level predictors at 4 years old

included conduct problems, hyperactivity, emotional problems, and cognitive abilities. Family-level outcomes at 12 years old included family chaos, parental feelings, and parental discipline. Child-level outcomes at 12 years included conduct problems, hyperactivity, emotional problems, and cognitive abilities. Using general growth mixture modelling, we identified four trajectories of callous-unemotional traits (stable high, increasing, decreasing, and stable low), and two trajectories of conduct problems (high and low). Compared to all the other children, the ones who followed a high trajectory of callous-unemotional traits and conduct problems had the most negative family- and child-level background at 4 years old. Children with high or increasing levels of callous-unemotional traits and concomitant high levels of conduct problems presented the most negative outcomes at 12 years old. These data add to the evidence that stable combination of callous-unemotional traits and conduct problems indexes a particularly high risk developmental pathway. Children on this risk trajectory should be targeted for intervention programs.

49. Neuroendocrine Correlates of Psychopathy and Callous/Unemotional Traits

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Recent mechanisms to explain psychopathic behavior have included attenuated arousal systems (Susman, 2006; Raine 2003) in which psychopathic individuals are characterized by a reduced reactivity to arousing situations and consequently may pursue high-arousal antisocial behavior. The present study explored this hypoarousal model in a pilot group of 12 (expected N = 40) incarcerated adolescent males. Specifically, we examined whether multiple stress responsive hormones, DHEA, and cortisol, were associated with measures of psychopathy (APSD, Frick & Hare 2001). Additional measures, including the PCL-YV and ICU, have been collected are currently being scored (Forth, Kosson & Hare 2003; Frick, 1998). Basal measures of each hormone were averaged over 5 samples during the day on 2 separate days within the first two weeks of facility admission to control for participants' situational variation; the diurnal slope was also calculated based on collection times, centered on the first morning value. We found flattened diurnal DHEA slopes were related to high APSD scores, ($r= .84$, $p= .02$), especially to impulsivity/conduct problems ($r= .74$, $p= .05$). This was true for both days of collection, suggestive of moderate stability in the DHEA slope. Though DHEA is generally considered a protective hormone, this finding is consistent with other work illustrating that higher DHEA levels and flattened diurnal slopes in adolescents are related to mental health problems and likely signal dysregulation (Shirtcliff et al, 2007). High levels of basal cortisol were related to high APSD scores ($r=.71$, $p=.03$), specifically to narcissism ($r=.72$, $p=.03$) and impulsivity/conduct problems ($r=.59$, $p=.09$). This finding is in agreement with recent work finding high cortisol was associated with mental health problems during times of life transitions (Shirtcliff & Essex, 2008). It is likely that participants' recent transition to the correctional facility destabilized cortisol levels from their normally low levels. The findings suggest that psychobiological correlates of antisocial behavior may be different in adolescents than adults, likely due to developmental shifts rather than symptom severity. Examining hormones may shed light on a developmental etiology of antisocial behavior that may be amenable to biological intervention.

50. BASC-2 moderators of the relation between callous-unemotional traits and aggression in youths

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Callous/unemotional traits (i.e., lack of empathy or remorse) have been found to be one of the primary factors that distinguish psychopathy (Frick, Bodin, & Barry, 2000). Research has found that CU traits are uniquely associated with aggression and problem behavior (see Frick & White, 2008 for review). Social stress has also been previously found to be positively related to psychopathy and aggression (Sontag,

Graber, Brooks-Gunn, & Warren, 2008). Little evidence is available at this time regarding the relation between an individual's sense of adequacy, aggression, and psychopathy.

374 at-risk participants (86% males), aged 15 to 17 years (M = 15.75), from a military-style intervention program completed the Inventory of Callous-Unemotional traits (ICU; Frick, 2004), the Behavioral Assessment System for Children-2 (BASC-2; Reynolds & Kamphaus, 2004), and the Peer Conflict Scale-Youth version (PCS-Y; Marsee & Frick, 2004). Significant positive correlations were found among predictor (i.e., CU traits), moderating (i.e., sense of inadequacy, social stress) and criterion variables (i.e., aggression). Hierarchical multiple regressions found that the relation between CU traits and aggression is moderated by sense of inadequacy and social stress. Post-hoc analysis showed that high CU traits were related to high aggression especially at low of level of inadequacy or social stress. These results further reinforce CU traits as an important factor in the relationship of psychopathy to problem behaviors. Consistent with previous research, CU traits was positively correlated with aggression. There were positive relations between moderating variables and aggression as well. However, low sense of inadequacy and low perceived levels of stress appear to be inadequate defense mechanisms in the presence of CU traits and may not be effective in that case to ward off aggressive behavior

51. Emotion-processing and empathy in children with Callous-Unemotional traits: evidence for a double dissociation

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Early-onset antisocial behaviour (AB) coupled with Callous-Unemotional (CU) traits designates a subgroup of children with a specific neurocognitive profile indicative of abnormal processing of distress emotions and deficient empathic experience. Another developmental disorder thought to be characterised by 'empathy deficit' is autism spectrum disorder (ASD). Recent theoretical and empirical work has suggested that children with AB+CU and ASD may show different forms of empathy deficit. AB+CU may be more closely related to the deficit in affective empathy (e.g. processing of distress emotions), whereas ASD is characterised by deficit in cognitive empathy (e.g. Theory of Mind; ToM). **Objectives**: 1) Is abnormal processing of distress emotions unique to AB+CU? 2) Are deficits in ToM unique to ASD or shared with one or both AB groups? 3) Do AB+CU and ASD groups show a double dissociation with respect to the type of empathy deficits they present with? 85 10-15 year old boys recruited from schools divided into four groups based on teacher ratings of AB and CU or diagnosis (ASD) : AB+CU (n=22); AB-CU (n=20), ASD (n=20) and typically developing (TD; n=23). *Affective processing/empathy* were testing using the 'Outcome Values Task' assessing values associated with the consequences of reactive and proactive aggressive acts and a task examining attributions of Guilt, Fear, Disgust and Embarrassment to self. *Cognitive empathy* was tested using a First and Second Order ToM Test and a task using animated geometric shapes to assess higher order ToM abilities. The results from this study suggest that AB+CU and ASD show a double dissociation with respect to the type of empathy deficits they present with. AB+CU had difficulties with tasks indexing empathy and feelings of guilt and fear. ASD had difficulties in the ToM tasks. Children with AB-CU did not have difficulties in either domain.

52. The Relation Between Psychopathy and Emotional Intelligence in Incarcerated Youth

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Psychopathy is a pervasive personality disorder thought to be associated with abnormalities in emotional processing in both adults and adolescents. However, relatively little work has been done examining this in incarcerated youth. This study utilized the Mayer-Salovey-Caruso Emotional Intelligence Test Youth Version (MSCEIT-YV; Mayer, Salovey & Caruso, 2004), an ability based measure of emotional intelligence, and the Hare Psychopathy Checklist - Youth Version (PCL-YV; Forth, Kosson, & Hare, 2003), the gold-standard measure of psychopathy in adolescents, to examine the relation between these factors in a

sample of incarcerated adolescents. Since very limited work has investigated either psychopathy or emotional intelligence in incarcerated female adolescent samples, a secondary goal of this study was to examine the relation between these factors across genders. We predicted that psychopathy and EI would be negatively correlated. More specifically, we expected that PCL-YV Factors 1 and 2 (reflecting the interpersonal and affective components of the disorder) would show stronger associations to EI than would PCL-YV Factors 3 and 4 (the behavioral and social deviance components). Furthermore, we also hypothesized that all four branches of the MSCEIT-YV would correlate negatively with psychopathy. Lastly, we predicted that female adolescents would score lower on psychopathy and higher on emotional intelligence than male offenders, but that the relationship between EI and Psychopathy would remain stable across both genders. A comparison of male and female adolescent offenders revealed no significant difference in psychopathy or EI scores between the two groups. However, the relation between psychopathy and EI did vary across these groups. In males, PCL-YV total scores and Factors 2 and 3 displayed a negative association with EI branch 1 (Perceiving Emotion) and branch 2 (Facilitating Thoughts). In contrast, analysis of the female sample revealed strong positive correlations between PCL-YV Factor 1 and EI Total score, branch 2 and branch 4 (Managing Emotions). This suggests that higher-scoring female adolescent offenders use their emotions during cognitive processes in a more sophisticated fashion than do lower-scoring female offenders. Conversely, high scoring male adolescent offenders showed deficits, as measured by the MSCEIT-YV in their ability to perceive emotion and use their emotions to facilitate thought. These results lend support to the theory that interpersonal and affective components of psychopathy are expressed differently across genders. In addition, these results could have implications in legal and mental health settings including risk assessments of incarcerated female adolescents and may influence treatment recommendations for females in correctional settings.

53. Psychopathic Traits and Their Relation to Subtypes of Aggression in an Adolescent Sample
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Research indicates that psychopathic traits often designate a distinct subgroup of antisocial youth who show a more severe and aggressive pattern of behavior (see Frick & Dickens, 2006). The three dimensions that characterize these traits (i.e., narcissism, impulsivity, and callous-unemotional traits) are similar across community (Frick, Bodin, & Barry, 2000) and incarcerated samples of youth (Neumann, Kosson, Forth, & Hare, 2006). Several studies have examined the association between the three dimensions of psychopathy and aggression, and results indicate that psychopathic traits are associated with four important aggressive subtypes: reactive (Barry et al., 2007), proactive (Frick et al., 2003; Marsee & Frick, 2007), physical (Caputo, Frick, & Brodsky, 1999), and relational (Marsee, Silverthorn, & Frick, 2005). With a couple of exceptions (e.g., Marsee & Frick, 2007; Ostrov & Houston, 2008), very little research has focused on the association between psychopathic traits and the cross-products of these aggressive subtypes (i.e., reactive physical, reactive relational, proactive physical, proactive relational), especially with regard to the relational aggression subtypes. It is critical to assess factors associated with these subtypes as they have important implications for intervention. The current study investigated the association between self-reported psychopathic traits and four aggressive subtypes (reactive and proactive relational, reactive and proactive physical) in a sample of 166 14 to 18 year-old youth. To test the unique associations among the dimensions of psychopathic traits and aggression, three separate regression analyses were conducted using the four aggressive subtypes as predictors and the three dimensions of psychopathic traits as the criterion variables. Results indicated that reactive physical aggression was uniquely associated with both CU traits ($\beta = .36$, $p < .001$) and impulsivity ($\beta = .53$, $p < .001$) and reactive relational aggression was uniquely associated with narcissism ($\beta = .25$, $p < .05$) after controlling for gender and the other three aggressive subtypes. These results highlight the differential associations between aggressive subtypes and psychopathic traits in adolescents and could have important implications for intervention with antisocial youth.

54. The Influence of Parental Warmth on the Relation between Callous-Unemotional Traits and Aggression in Youths

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CU traits (i.e., lack of empathy, remorse, or emotion) are primary factors that distinguish psychopathy (Frick et al., 2000). CU traits are uniquely associated with stable, aggressive, and severe problem behavior (Frick & White, 2008). Underlying dimensions of CU traits, namely callousness, have been found to be predictive of such behaviors (Essau et al., 2006). Parental attitude (e.g., warmth and acceptance) are negatively correlated with aggression (Sutton et al., 1999) and lack of parental warmth may be related to the development of reactive aggression (Brendgen, 2001). This study examined the effect of parental warmth on aggression in youths with CU traits. One hundred ninety-eight participants (85% males; 70% Caucasian and 30% minorities), ages 15 to 17, were recruited from a military-style intervention for youth who have dropped out of school. Participants reported on demographics, CU traits (Inventory of Callous-Unemotional traits; Frick, 2004), parental warmth (Beliefs About Parents; Lamborn et al., 1991), and aggression (Peer Conflict Scale-Youth version; Marsee & Frick, 2004). Significant correlations were found in the expected directions among predictors (i.e., CU traits and subscales) and criterion variables (i.e., aggression and subtypes). Hierarchical multiple regressions revealed a significant interaction between CU traits and parental warmth for predicting relational reactive (RR) aggression; and a significant interaction between callousness and parental warmth for predicting overt reactive (OR) aggression. Post-hoc regressions showed that high CU traits increases RR regardless of parental warmth; lower CU traits with low parental warmth increases RR. Last, a combination of high callousness and low parental warmth increases levels of OR, while high callousness and high parental warmth decreases OR. Results revealed parental warmth moderates the relation between CU traits and RR, and callousness and OR. This reinforces previous findings that CU traits, generally and individually, related to higher levels of aggression. Specifically, it was found that parental warmth influences the relation between CU traits and different forms of reactive aggression. Such findings highlight the importance of distinguishing between forms of aggression when investigating the potential moderating factors.

55. The validity of the Psychopathic Personality Inventory-Revised: Findings from a sample of drug- and alcohol dependent patients

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The Psychopathic Personality Inventory-Revised (PPI-R; Lilienfeld & Widows, 2005) is a self-report measure for psychopathy. The PPI-R consists of three factors, Fearless-Dominance (PPI-R-I), Self-Centred Impulsivity (PPI-R-II), and Coldheartedness (PPI-R-III). Up to date, the PPI-R validity has mainly been examined in inmate and undergraduate samples, but barely in clinical samples. The present study examined the validity of the PPI-R factors in a clinical sample of drug and alcohol addicts (N=112). The relations of the PPI-R factors with three other self-report measures for psychopathy, the Levenson's Self-Report of Psychopathy (LSRP; Levenson, Kiehl, & Fitzpatrick, 1995), the Youth Psychopathic Traits Inventory (YPI; Andershed, Kerr, Stattin, & Levander, 2002) and the Self-Report Psychopathy Scale-III (SRP-III; Paulhus, Hemphill, & Hare, in press), were examined. We also explored the associations of the PPI-R factors with social desirability, institutional conduct and empathy. Results are discussed in terms of the use of the PPI-R in clinical settings.

56. Facets of PCL-R Psychopathy: Relations with Disinhibitory, Callous-Aggression ('Meanness'), and Addictions Factors of the Externalizing Spectrum Model

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Psychopathy as assessed by Hare's PCL-R comprises correlated Affective (Aff), Interpersonal (Int), Lifestyle (Lif), and Antisocial (Ant) facets. Here, we examined the PCL-R facets in relation to the externalizing spectrum model (ESM), which conceptualizes externalizing problems in terms of a broad disinhibitory (EXT) factor along with distinctive callous-aggression and addiction-proneness subfactors. Patrick et al. (2005) reported a close link between Factor 2 of the PCL-R (encompassing Lif and Ant facets) and scores on the general EXT factor estimated from diagnostic variables. We extended this work by examining relations between the 4 PCL-R facets and distinctive disinhibitory, callous-aggression ('meanness'), and addictions components of the ESM in a sample of male prisoners assessed for psychopathy using the PCL-R and for externalizing behaviors and traits using the ESM inventory (Krueger et al., 2007). The PCL-R Aff facet showed a robust positive association with the ESM meanness factor, but was unrelated to the disinhibitory or addictions factors. PCL-R Int showed more modest positive relations with the meanness factor and the disinhibitory factor, but no association with the addictions factor. PCL-R Lif showed a strong relation with the ESM disinhibitory factor and a secondary association with the addictions factor, but no relation with the meanness subfactor. PCL-R Ant showed its strongest association with ESM meanness, but was correlated also (more modestly) with the disinhibitory and addictions factors. Results provide further evidence that psychopathy as indexed by the PCL-R encompasses separable phenotypic constructs that intersect with distinctive components of the externalizing spectrum.

57. Who to Ask About What? An Investigation of Discrepant Predictive Utility between Parent-Report and Self-Report Forms of the ICU

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Callous-Unemotional (CU) traits are central to theoretical conceptualizations of psychopathy and have been found to play an important role in designating a more severe, more violent subgroup of offenders in adolescents. The Inventory of Callous-Unemotional Traits (ICU; Frick, 2004), in its self-report format, has been associated with aggression, delinquency, and other important external criteria in both non-referred and forensic samples. However, the ICU also has a parent-report format that has not been tested to date. An analysis of parent and self-report ratings on the ICU in a sample of adolescent male sex offenders in secure care will be conducted. Preliminary data from 71 youth indicate a correlation of .337 (p=.004) between ICU parent and self report. Additionally, moderate correlations were found between self-report ICU scores and level of aggression present in the index offense (r=.305, p=.01), history of Conduct Disorder before age 10 (r=.284, p=.017) and a history of legal charges of multiple offense types (r=.350, p=.003). Parent-report data was only correlated with history of offending before age 10 (r=.393, p=.001). Preliminary regression analysis indicates that parent-report ICU data predicts history of Conduct Disorder before age 10 beyond self-report ICU data (ΔR^2= .10, p=.005). Also, preliminary correlations between the self- and parent-report ICU and the Youth Level of Service/Case Management Inventory (Hoge & Andrews, 1996) were run for the 62 youth with complete data across all 3 measures. Significant correlations (p < .05) were found for both parent (r=.259 to .391) and self-report (.261 to .426) on a number of subscales. Parent report added incremental validity over self-report for the YLS total score (ΔR^2=.076, p=.021). Overall, the ICU self-report seems to be more consistently related to measures of aggression, delinquency, and other risk factors to offending, although parent scores do provide some incremental validity for a few measures.

58. Psychopathy and the relationship between parental affect and child problem behavior

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Previous studies have found that ineffective parenting is positively correlated with conduct problems in children low on psychopathic traits, whereas children high on psychopathic traits generally show consistent levels of problem behavior regardless of the level of ineffective parenting they receive. These studies have focused on discipline and monitoring and it is unknown whether the same unique relationships with psychopathy are found for more affective, positive aspects of parenting behavior, which have been identified as protective factors against child problem behavior. In a large community sample of 9- and 10- year olds from the University of Southern California Twin Study, we examined moderating effects of psychopathic traits (measured by the Childhood Psychopathy Scale) on relationships involving negative and positive parent-to-child affect (PCA) with child conduct disorder symptoms (CDS) and aggression. In all analyses, main effects for both parental affect and psychopathy were found; aggression and CDS were positively predicted by both negative PCA and psychopathic traits, and negatively predicted by positive PCA. Moderation was found for positive PCA; children low on psychopathic traits showed decreasing levels of reactive aggression and conduct disorder symptoms as positive PCA increased, but children high on psychopathic traits showed elevated levels of reactive aggression and CDS regardless of level of positive PCA. This interaction was not found for negative PCA. These results imply that negative parenting detrimentally affects children's aggressive and problem behavior regardless of psychopathy, whereas children high on psychopathic traits may be less responsive to the protective benefits of positive parenting than children low on psychopathic traits.

59. Patterns of Aggression and their Associations with Callous-Unemotional Traits in a Community Sample of Boys and Girls

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The current study was designed to test several specific research questions related to the forms of aggression displayed by youth and their association with callous-unemotional (CU) traits, one important component to the construct of psychopathy. First, we studied aggression in a non-referred school-based sample of 282 youth in the 4th through 7th grades to determine whether the profiles documented in past samples (i.e., low aggression, high on reactive aggression, high on both proactive and reactive aggression) could be found in both boys and girls and for both physical and relational aggression. Results of cluster analyses indicated that for overt aggression in the full sample and for relational aggression in girls only, a three cluster solution consistently emerged. Each solution revealed a low aggression group, a high reactive aggression group, and combined proactive and reactive group. Next, we compared the resulting aggression groups on cognitive and emotional variables that have shown to differentiate aggressive subtypes in past research (i.e., emotional dysregulation, impulsivity, CU traits, thrill and adventure seeking, positive outcome expectances for aggression). Importantly, we tested whether group differences supported a distinct typology model (i.e., qualitative differences among aggressive groups) or a severity model in which the differences were mainly due to differences in the level of risk. Much of the data seemed to be supportive of a severity model. The combined proactive/reactive group exhibited the highest levels of aggressive behavior and highest rate of most risk factors followed by the reactive only group which different from the low aggression group. However, one exception was a higher level of CU traits which seemed to be exclusive to the combined proactive/reactive group. Finally, we compared subgroups of aggressive youth on their level of bullying, using both self-report and peer-report of bullying, and we found that the combined group with the highest level of CU traits also had the highest levels of self-report and peer-report of bullying behavior.

60. The Affective Features of Psychopathy in Incarcerated Women

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Assessments of psychopathy are often used to predict criminally-relevant behaviors such as institutional infractions, likelihood to re-offend, and instrumental violence (Hare & Hart, 1993). Some postulate that

the affective component of psychopathy makes these people especially dangerous, more so than the normal criminal (Cleckley, 1941). The affective facet (Facet 2) of psychopathy has four features: shallow affect, a lack of empathy, a lack of remorse or guilt, and failure to take responsibility for one's actions (Hare, 2004). Women tend to exhibit stronger affect (Larsen & Diener, 1987), be more empathetic (Hoffman, 1977), experience more guilt, and take more responsibility for their actions (Ferguson, Miller, & Olsen, 1999) than men. A lack of these affective components would be a marked difference from normative female tendencies. Violent female offenders (N=71) were assessed to examine whether an in-depth evaluation of these affective features contributes to the prediction of institutional infractions, recidivism, and use of instrumental violence, over and above scores from the Psychopathy Checklist-Revised (PCL-R; Hare, 2004). To measure psychopathy-related dimensions of affect, participants completed the Affect Intensity measure (Larsen, 1984), Test of Self-Conscious Affect - Social Deviant Populations (Dearing, Stuewig, & Tangney, 2005), Guilt inventory (Jones & Kugler, 1993), Interpersonal Reactivity Index (Davis, 1980), and the Criminal Attributions Inventory (Kroner & Mills, 2004). Independent file reviews were performed to determine number of convictions and institutional infractions. The Impulsive/Premeditated Aggression Scale (Stanford et al., 2003) was used to measure instrumental violence. Results indicated a lack of support for the hypotheses. The PCL-R scores were predictive of recidivism and institutional infractions in this population, but not a tendency to use instrumental aggression. There was no improvement in prediction when the affective measures were entered into the regression. The results did show that Facet 2 was better able to predict recidivism, especially violent recidivism than the PCL-R, possibly indicating that it is the affective deficiencies alone that are related to problem behaviors such as recidivism in incarcerated adult women. Other supplemental results and suggestions for future research are discussed.