What do we think about when we think about psychopathy?

CAPP validation by prototypicality analysis

Helge Andreas Hoff
Knut Rypdal
Mette Kreis (UK) & Hanna Heinzen (Ger)
PROTOTYPE
Best example
Abstract Idea
Standard

PROTOTYPE ANALYSIS
Similarity to best example
PROTOTYPE
BIRD
Wings Flyes feathers

PROTOTYPE ANALYSIS
Similarity to best example
PROTOTYPE BIRD
Wings Flyes feathers

PROTOTYPE ANALYSIS
Similarity to best example
PROTOTYPE BIRD
Wings Flyes feathers

PROTOTYPE ANALYSIS
Similarity to best example
PROTOTYPE
BIRD
Wings Flyes feathers

Good fit: Core feature

PROTOTYPE ANALYSIS
Similarity to best example
Prototype Bird
Wings Flyes feathers

Good fit: Core feature

Prototype Analysis
Similarity to best example
PROTOTYPE BIRD
Wings Flyes feathers

Good fit: Core feature

PROTOTYPE ANALYSIS
Similarity to best example

Poor fit Boundary Outs

THE EARLY BIRD
PROTOTYPE
PSYKOPATH

Self Domain
- Self-Centered
- Self-Aggrandizing
- Sense of Uniqueness
- Sense of Entitlement
- Sense of Invulnerability
- Self-Justifying
- Unstable Self-Concept

Attachment Domain
- Detached
- Uncommitted
- Unempathic
- Uncaring

Emotional Domain
- Lacks Anxiety
- Lacks Pleasure
- Lacks Emotional Depth
- Lacks Emotional Stability
- Lacks Remorse

Behavioural Domain
- Lacks Perseverance
- Unreliable
- Reckless
- Restless
- Disruptive
- Aggressive

Dominance Domain
- Antagonistic
- Domineering
- Deceitful
- Manipulative
- Insincere
- Garrulous

Cognitive Domain
- Suspicious
- Lacks Concentration
- Intolerant
- Inflexible
- Lacks Planfulness
PART 1:  
Typicality of a "best example psychopathic client"

PART 2:  
Typicality of a non-psychopath
PART 1: Typicality of a "best example psychopathic client"

PART 2: Typicality of a non-psychopath

PROTOTYPE PSYKOPATH

33 CAPP symptoms

High score: Good sensitivity

PROTOTYPICALITY QUESTIONNAIRE
PART 1: Typicality of a "best example psychopathic client"

PART 2: Typicality of a non-psychopath

High score: Good sensitivity

Low score: Good specificity

33 CAPP symptoms

PROTOTYPE PSYKOPATH

PROTOTYPICALITY QUESTIONNAIRE
Prototypicality studies

1. Kreis, Cooke, Michie, Hoff & Logan
   – in press. Journal of Personality Disorders
2. Hoff, Rypdal, Mykletun & Cooke
   – in press. Journal of Personality Disorders
3. Fittkauf, Heinzen, Kreis, & Huchzermeier
   – Unpublished Master Thesis?
Prototypicality studies

1. Kreis, Cooke, Michie, Hoff & Logan
   - in press. Journal of Personality Disorders
   - N=132
Prototypicality ratings by CAPP symptoms

Mean scale score (95% CI)

Expert ratings ‘Best example’ psychopathic client
Prototypicality ratings by CAPP symptoms

Mean scale score (95% CI)

Expert ratings ‘Best example’ psychopathic client
Prototypicality ratings by CAPP symptoms

- Self-centred (S)
- Manipulative (D)
- Lacks remorse (E)
- Self-justifying (S)
- Deceitful (D)
- Lacks emotional depth (E)
- Unempathic (A)
- Sense of entitlement (S)
- Domineering (D)
- Sense of uniqueness (S)
- Aggressive (B)
- Self-aggrandizing (S)
- Uncaring (A)
- Insincere (D)
- Reckless (B)
- Unreliable (B)
- Antagonistic (D)
- Sense of invulnerability (S)
- Intolerant (C)
- Detached (A)
- Uncommitted (A)
- Suspicious (C)
- Restless (B)
- Inflexible (C)
- Garrulous (D)
- Lacks emotional stability (E)
- Lacks planfulness (C)
- Lacks anxiety (E)
- Lacks perseverance (B)
- Unstable self-concept (S)
- Lacks pleasure (E)
- Lacks concentration (C)
- Strange (F)
- Self-conscious (F)
- Perfectionistic (F)
- Dependent (F)
- Restrained (F)
- Conscientious (F)
- Considerate (F)
- Cautious (F)
- Shy (F)

Expert ratings ‘Best example’ psychopathic client

Mean scale score (95% CI)
Prototypicality ratings by CAPP symptoms

Self-centred S
Manipulative D
Lacks remorse E
Self-justifying S
Deceitful D
Lacks emotional depth E
Unempathic A
Sense of entitlement S
Domineering D
Sense of uniqueness S
Aggressive B
Self-aggrandizing S
Uncaring A
Insincere D
Reckless B
Unreliable B
Antagonistic D
Sense of invulnerability S
Intolerant C
Detached A
Uncommitted A
Suspicious C
Restless B
Inflexible C
Garrulous D
Lacks emotional stability E
Lacks planfulness C
Lacks anxiety E
Lacks perseverance B
Unstable self-concept S
Lacks pleasure E
Lacks concentration C
Strange F
Self-conscious F
Perfectionistic F
Dependent F
Restrained F
Conscientious F
Considerate F
Cautious F
Shy F

Mean scale score (95% CI)

Expert ratings psychopathic client
Expert ratings non-psychopathic client
Prototypicality ratings by CAPP symptoms
Prototypicality studies

1. Kreis, Cooke, Michie, Hoff & Logan
   – in press. Journal of Personality Disorders

2. Hoff, Rypdal, Mykletun & Cooke
   – in press. Journal of Personality Disorders
Prototypicality ratings by CAPP symptoms
Prototypicality ratings by CAPP symptoms

Experts ratings psychopathic client

Experts ratings psychopathic client

Mean scale score (95% CI)
Prototypicality ratings by CAPP symptoms
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Prototypicality ratings by CAPP symptoms
The Expert's Mind

If only people were as smart as me.
“prototypical analysis of clinical constructs as a measure of validity is not constrained to mental health professionals” (Rogers et al, 1992)

In accord with the lexical approach to personality
"How characteristic is this trait of a person you think of as highly psychopathic?"
Prototypicality ratings by CAPP symptoms

Mean scale score (95% CI)

Experts ratings psychopathic client

Experts ratings psychopathic client
Prototypicality ratings by CAPP symptoms

- Experts ratings psychopathic client
- Lay ratings psychopathic person
Conclusions....

What (in the CAPP) do we think about when we think about psychopathy?
Conclusions....

What (in the CAPP) do we think about when we think about psychopathy?
Conclusions….

What do we **NOT** think about when we think about psychopathy?
Prototypicality limitations.....
By the way!
By the way!

"technical" definition = feathers

Good fit: Core feature

Prototype analysis
Similarity to best example

Poor fit Boundary Outside

The Early Bird
Tricky questions

Do a similar rating equal similar perception of the item – or construct?

MGCFA
Tricky question: Do similar ratings equal identical level of the underlying trait?

Do a similar rating equal similar perception of the item – or construct?

MGCFA

Experts ratings psychopathic client

Mean scale score (95% CI)
Tricky questions

Do similar ratings equal identical level of the underlying trait? IRT

Do a similar rating equal similar perception of the item – or construct? MGCFA

Mesurement invariance?

To come (hopefully):
Hoff et al: “Cross Language Preservation of the CAPP – lost (or found?) in translation?”
Thanks!

What do we think about when we think about psychopathy?

CAPP validation by prototypicality analysis

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Thanks!

CAPP validation by prototypicality analysis

Helge Andreas Hoff
Helge.Hoff@helse-bergen.no
• Cleckley sitat

• Impulsivity = a general reduction in the ability to control one’s behaviour (Jollife & Farrington, 2009)
  – low self control
  – hyperactivity
  – Inattention
  – Poor ability to delay gratification
  – Risk taking – sensation seeking
  – Not considering consequences before acting

• Direct link to violence: Less time and cognitive energy available for considering potential responses - > Select the option that provides the most immediate perceived benefit
• Indirect link to violence:
  – Impulsive child -> Challenge to parents - > poor parenting - > challenge to schools
  – Ie: Impulsivity indirectly influences peoples interaction with important people and institutions (Moffit, 1993) -> increased likelihood of offending due to reduced oppoprtunity to succeed in conventioanal ways.

Or – 73% of offenders had low self-control compared to 50% of non offenders (at d value 0.47).

but: impulsivity measured retrospectively
• Perhaps a meaningful separation into categories of the impulsivity construct
  – Hyperactivity/Low attention (d=.26)
  – Concentration problems (d=34)
  – Restlessness (d=.40)
  – Risk taking (d=50)
  
  • (Hawkins et al 1998) review of longitudinal studies on the link to violence in youth
• Motor restlessness vs concentration problems?
• Satisfy immediate urges (and confuses want’s with needs) at the risk of later, uncertain and hypothetical consequences (Farrington & Welsch, 2007)

• Hva med å legge inn pcl:sv faktor 2 ledd inn som markør?
• If Hicks & patrick, 2006 are right in that PCL taps into to two distinct entities:
  – one corresponding phenotypically to low stress reaction and an agentic interpersonal style and genotypically to a core weakness in defensive (fear) reactivitet
  – The other phenotypically to an impulsive-aggressive behaviourstyle and genothypically to a basic weakness in inhibitory control systems

• Then reckless in peoples perception is more linked low fear than to inhibitory control-systems?

• That is is the psychopath no more ngry than the rest of us but control the emotion less effectively?
• Indicate that psychopaths in people's perception is more controlled (but still reckless and aggressive) than have hitherto been considered 'psychopathic'.
  – More "well socialized" (less cognitively impulsive?) variant of psychopaths than PCL-R F2?
• Impulsivity not among cleckley's criteria (Balckburn, 2005)
• Aggressive linked more to narcissistic traits high self-esteem, lack of anxiety (?)
Slides BCTP 2011
Grafer – alt sortert etter Mette

• Mettes data (English language version)
  – Graf 1: Proto-rating PP-client
  – Graf 2: PP-client + NPP-client

• Så: Våre data:
  – Graf 3: Mettes PP + vår PP-client
  – Graf 4: Mettes PP + NPP + vår PP-client + NPP-client
  – Graf 5: Mettes PP + våre PP-client + PP lay

• Så de tyske dataene:
  – Graf 6: Mette PP + Norsk PP-client + tysk PP-client
  – \textbf{HUSK}: Graf 7: Mette PP + Norsk PP lay + \textbf{Tysk PP lay}

• Så til slutt:
  – \textbf{HUSK}: Graf 8: prototypiskhet etter domener for alle tre samples for PP client (ikke NPP). TYSK MANGLER – DRIT I OM CI MANGLER
1: Prototypical psychopath ratings by Capp-items

Mette

![Graph showing mean scale scores and 95% confidence intervals for various traits related to psychopathy.](image-url)

- **Expert psychopath ratings**
2: Prototypical psychopath ratings by Capp-items
Mette

Mean scale score (95% CI)
3: Prototypical psychopath ratings by Capp-items
Mette+Helge

Mean scale score (95% CI)

- Self-centred
- Manipulative
- Insensitive
- Dishonest
- Unempathic
- Aggressive
- Self-aggrandizing
- Sense of entitlement
- Self-justifying
- Deceitful
- Lacks remorse
- Lack of emotional depth
- Unempathic
- Sense of entitlement
- Aggressive
- Self-aggrandizing
- Sense of uniqueness
- Aggressive
- Sense of invulnerability
- Intolerant
- Optimistic
- Garrulous
- Lacks emotional stability
- Lacks planfulness
- Lacks anxiety
- Lacks perseverance
- Lacks self-concept
- Lacks pleasure
- Lacks concentration
- Strange
- Self-conscious
- Perfectionistic
- Dependent
- Restrained
- Cautious
- Shy

Expert psychopath ratings UK
Expert psychopath ratings NOR
4: Prototypical psychopath ratings by Capp-items
Mette+Helge

Mean scale score (95% CI)
5: Prototypical psychopath ratings by Capp-items
Mette+Helge

Mean scale score (95% CI)
Prototypical psychopath ratings by Capp-items
Mette+Helge-Hanna

![Graph showing mean scale scores with 95% CI for various traits rated as expert psychopaths in the UK, Norway, and Germany.](image-url)
5: Prototypical psychopath ratings by Capp-items
Mette+Helge+Hanna

Mean scale score (95% CI)

- Self-centred (S)
- Manipulative (D)
- Lacks remorse (E)
- Self-justifying (S)
- Deceitful (D)
- Lacks emotional depth (E)
- Unempathic (A)
- Sense of entitlement (S)
- Domineering (D)
- Sense of uniqueness (S)
- Aggressive (B)
- Self-aggrandizing (S)
- Uncaring (A)
- Self-aggrandizing (S)
- Unempathic (A)
- Insincere (D)
- Reckless (B)
- Disruptive (B)
- Unreliable (B)
- Antagonistic (D)
- Sense of invulnerability (S)
- Intolerant (C)
- Detached (A)
- Uncommitted (A)
- Suspicious (C)
- Restless (B)
- Inflexible (C)
- Garrulous (D)
- Lacks emotional stability (E)
- Lacks planfulness (C)
- Lacks anxiety (E)
- Lacks perseverance (B)
- Unstable self-concept (S)
- Lacks pleasure (E)
- Lacks concentration (C)

Expert psychopath ratings UK
Lay psychopath ratings NOR
Lay psychopath ratings GER
Domain Expert PP
Mette+Helge+Hanna

[Graph showing the comparison of Expert psychopath ratings for UK, NOR, and GER across different domains: Dominance, Self, Attachment, Behavioural, Emotional, Cognitive, Foils. The y-axis represents the ratings ranging from 1 to 7.]
Conclusions....

What do we think about when we think about psychopathy?
Conclusions: What do we think about when we think about psychopathy?
Conclusions: What do we think about when we think about psychopathy?
Takk og takk
BUT.....

Similar rating equals similar level of underlying trait? IRT

Similar rating equals similar perception of item? MGCFA

Mesurement invariance?
Expert psychopath ratings

- Unempathic A
- Manipulative D
- Lacks remorse E
- Domineering D
- Deceitful D
- Self-aggrandizing S
- Sense of invulnerability S
- Sense of entitlement S
- Uncaring A
- Insincere D
- Self-justifying S
- Self-centred S
- Aggressive B
- Uncommitted A
- Lacks emotional depth E
- Sense of uniqueness S
- Intolerant C
- Antagonistic D
- Detached A
- Unreliable B
- Inflexible C
- Suspicious C
- Lacks emotional stability E
- Lacks anxiety E
- Garrulous D
- Disruptive B
- Perfectionistic F
- Reckless B
- Strange F
- Unstable self-concept S
- Restless B
- Lacks pleasure E
- Lacks planfulness C
- Lacks perseverance B
- Lacks concentration C
- Restrained F
- Dependent F
- Self-conscious F
- Shy F
- Cautious F
- Conscientious F
- Considerate F

Lay psychopath ratings

- Mean scale score (95% CI)

BUT...

Similar rating equals similar perception of item?
BUT.....

• Are people across language versions and cultures thinking about the same thing when we think about the capp symptoms?
  – Similar perception of items in the CAPP?
  – Similar rating equal level of underlying trait?
Validation by CFA

Is each domain underpinned by undimensional constructs?

"Homogenous constructs improves clarity of clinical description" (Smith et al, 2009)
Validation by CFA

Is each domain underpinned by undimensional constructs?

"Homogenous constructs improves clarity of clinical description" (Smith et al, 2009)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Fit Statistics</th>
<th>Community sample</th>
<th>Forensic psychiatry sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\chi^2$</td>
<td>df</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>1.7$^{ns}$</td>
<td>2</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>10.1$^{ns}$</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>104.1***</td>
<td>5</td>
</tr>
<tr>
<td>C - C2</td>
<td></td>
<td>0.4$^{ns}$</td>
<td>2</td>
</tr>
<tr>
<td>C - C5</td>
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<td>1.7$^{ns}$</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>37.7***</td>
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</tr>
<tr>
<td>D - D1</td>
<td></td>
<td>12.1**</td>
<td>5</td>
</tr>
<tr>
<td>D - D1, D6</td>
<td></td>
<td>9.5*</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>8.6$^{ns}$</td>
<td>5</td>
</tr>
<tr>
<td>E - E2</td>
<td></td>
<td>2.8$^{ns}$</td>
<td>2</td>
</tr>
<tr>
<td>S</td>
<td></td>
<td>20.4$^{ns}$</td>
<td>14</td>
</tr>
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<td>S - S7</td>
<td></td>
<td>17.1*</td>
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</tr>
</tbody>
</table>
Validation by CFA

Is each domain underpinned by undimensional constructs?

"Homogenous constructs improves clarity of clinical description" (Smith et al, 2009)
Validation by CFA
Overall conclusion

Good content validity!
Takk for meg! (Thanks!)

Helge.hoff@helse-bergen.no
## Sample characteristics of raters

<table>
<thead>
<tr>
<th></th>
<th>Community</th>
<th>Forensic psychiatry</th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>553</td>
<td>211</td>
<td>32</td>
</tr>
<tr>
<td>Men</td>
<td>180 (32.5)</td>
<td>104 (51.2)</td>
<td>16 (50.0)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 or below</td>
<td>281 (50.8)</td>
<td>10 (5.0)</td>
<td>4 (13.3)</td>
</tr>
<tr>
<td>26-35</td>
<td>167 (30.2)</td>
<td>47 (23.5)</td>
<td>12 (40.0)</td>
</tr>
<tr>
<td>36-50</td>
<td>74 (13.4)</td>
<td>97 (48.5)</td>
<td>11 (36.7)</td>
</tr>
<tr>
<td>Above 50</td>
<td>23 (4.2)</td>
<td>46 (23.0)</td>
<td>3 (10.0)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or less</td>
<td>110 (19.9)</td>
<td>27 (13.2)</td>
<td>11 (36.7)</td>
</tr>
<tr>
<td>Bachelor or equivalent</td>
<td>367 (66.4)</td>
<td>104 (51.0)</td>
<td>18 (60.0)</td>
</tr>
<tr>
<td>Master or equivalent</td>
<td>73 (13.2)</td>
<td>73 (35.8)</td>
<td>1 (3.3)</td>
</tr>
<tr>
<td>Victim history*</td>
<td>120 (21.7)</td>
<td>37 (25.9)</td>
<td>6 (19.7)</td>
</tr>
<tr>
<td>Native language Norwegian</td>
<td>533 (97.1)</td>
<td>197 (95.2)</td>
<td>29 (93.5)</td>
</tr>
</tbody>
</table>

Note. * "Have you in your personal life ever been victim of a harmful act or acts by someone you consider a psychopath?
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<td>S - S7</td>
<td>17.1&lt;sup&gt;*&lt;/sup&gt;</td>
<td>9</td>
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*Note.* A = Attachment domain, B = Behavioral domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain; C2 = Lacks concentration, C5 = Lacks planfulness, D1 = Antagonistic, D6 = Garrulous, E2 = Lacks pleasure, S7 = Unstable self-concept; ns = non-significant, * = \( p < .05 \), ** = \( p < .01 \), *** = \( p < .0001 \)
CAPP Prototypical Questionnaire

While thinking of the most psychopathic patient/person you can think of….

1) LACKS PLEASURE (*pessimistic, gloomy, unenthusiastic*)
How typical is this characteristic of psychopathy?

Not typical

1  2  3  4  5  6  7

Very typical

I am unsure what the characteristic refers to

Please underline any of the words describing the characteristic you do not understand.

• 42 items: 33 CAPP symptoms – 9 foils
CAPP Prototypical Questionnaire

While thinking of someone you know who definitely is not a psychopath….

1) **LACKS PLEASURE** (*pessimistic, gloomy, unenthusiastic*)

How typical is this characteristic of a non-psychopath?

<table>
<thead>
<tr>
<th>Not typical</th>
<th>Very typical</th>
</tr>
</thead>
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<td>1 2 3 4 5 6 7</td>
<td></td>
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☐ I am unsure what the characteristic refers to

Please underline any of the words describing the characteristic you do not understand.

• 42 items: 33 CAPP symptoms – 9 foils