

UNIVERSAL PROTOCOL FOR CONDUCTING PROTOTYPICALITY STUDIES WITH THE COMPREHENSIVE ASSESSMENT OF PSYCHOPATHIC PERSONALITY (CAPP)

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Prototypical analysis: Theoretical background

Prototypical analysis was developed from prototype theory as a way of evaluating what characteristics are central to different constructs (Broughton, 1990). A prototype is the best example of a category or concept; it has the most common features of the members of that category (Rosch, 1978). However, a prototype is a *theoretical ideal* - it is a measure of a category member's degree of 'goodness-of-fit' (prototypicality) of the category, not a description of discrete membership criteria (Broughton, 1990; Rosch, 1978). Category members must have at least some of the features of the prototype but will match it to varying degrees. The more a member resembles the prototype the more that member exemplifies the construct. It is, however, possible that no member will perfectly fit the prototype (Rosch, 1973).

For example, a prototypical bird has wings, feathers and can fly. A Robin is therefore a better example of the prototype bird than an Ostrich, which cannot fly but is still a bird.

Robin: a very typical bird



Ostrich: a less typical bird



Because the prototype model does not assume homogeneity of category members, it is very useful for psychiatric classification (Blashfield, Sprock, Haymaker, & Hodgin, 1989; Cantor, Smith, French, & Mezzich, 1980). It is especially useful in relation to personality disorders, which do not have clear boundaries and have a high degree of criterion overlap (Livesley, Reiffer, Sheldon, & West, 1987). Prototypical analysis assists in clarifying what features are specific to different disorders and helps improve the definition of diagnostic criteria and reliability of diagnoses.

For example, a bat also has wings and can fly but it is not a bird, yet it has some bird category criteria.

Bat: a bird?



Content validity

Prototypical analysis is especially useful in the content validation of diagnostic criteria (Broughton, 1990; Haynes, Richard, & Kunaby, 1995; Livesley et al., 1987). Content validity refers to the degree to which the diagnostic criteria adequately represent the construct (Haynes et al., 1995). In terms of assessment measures, this means how well the items on the measure represent the underlying construct being measured. Content validity is an essential and key part of the construct validation process; it helps define and refine the construct criteria and ensure that the measure is a correct and adequate representation of the target construct (Clark & Watson, 1995).

Prototypicality studies: Practical usage and analysis

In prototypicality studies researchers usually ask a sample of expert judges (e.g., mental health professionals) to evaluate the representativeness of the construct criteria and provide information about content validity. However, lay samples (non-experts) can also be used.

Participants are asked to rate the construct features (items on the measure) on a Likert scale, for example from 1 (*not prototypical*) to 7 (*very prototypical*). It is useful to include some construct irrelevant items (foils) which will then act as control items. Naturally, it would be expected that these foil items would be rated as low in prototypicality of the construct.

Prototypicality of items is found by calculating the mean score of all the prototypicality ratings. For example, on the above 7-point Likert scale, a mean score of 5 and above would indicate that the item is highly prototypical of the construct; a score of 3 and below that the item is low in prototypicality of the construct. Standard deviations should also be reported to provide information about degree of agreement across raters. Median and modal values are also useful indicators of the distribution of scores.

CAPP PROTOTYPICALITY STUDY: UNIVERSAL QUESTIONNAIRE FORMAT

1) General prototypicality ratings

Collecting information about how prototypical CAPP items are to psychopathy in general provides information about the content validity of the CAPP and the validity of the CAPP translations. It informs on how sensitive the CAPP is to psychopathy, meaning how well the CAPP items capture the psychopathy construct.

The following format should be used to collect information about the general prototypicality of CAPP items in relation to psychopathy:

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

How typical is this characteristic of psychopathy?

Not typical

Very typical

1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I am unsure what the characteristic refers to

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

A rating of 5 or above indicates that the item is highly prototypical of psychopathy; a rating of 3 and below indicates that the item is not prototypical of psychopathy.

2) Specific client ratings

Another way of collecting information about the relevance of CAPP items to psychopathy is by asking participants to rate a *specific* client/research participant/person, both one that is psychopathic and one that is not. Like with the general prototypicality ratings, this provides information about how well the CAPP items capture the psychopathy construct (sensitivity to psychopathy) but in addition it also provides information about whether the CAPP items are specific to psychopathy (specificity to psychopathy).

The following format should be used to collect prototypicality ratings in relation to specific clients/research participants/persons with and without psychopathy:

1) LACKS PLEASURE (<i>pessimistic, gloomy, unenthusiastic</i>)								
How typical is this characteristic of your <i>psychopathic/non-psychopathic</i> client?								
Not typical								Very typical
1	2	3	4	5	6	7		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unsure what the characteristic refers to <input type="checkbox"/>								
Please underline any of the words describing the characteristic you do not understand.								

Note that separate ratings must be collected for a psychopathic and non-psychopathic client. Adapt the above format by deleting either the word *psychopathic* or *non-psychopathic* depending on which type of client the rating is for.

3) Gender ratings

More information about potential gender differences in the psychopathy construct is much needed. Researchers are encouraged to collect information about prototypical male and female psychopathy using one of the following formats:

- a) Use the 7-point scale above (1 = not typical; 7 = very typical) and ask people to rate the symptoms twice, first asking “How typical is this characteristic of psychopathy *in men*?” and then “How typical is this characteristic of psychopathy *in women*?” This format provides separate prototypicality ratings across gender, which are analysed like general prototypicality ratings (finding the mean value).
- b) Use the below rating scale, where a score of 1 indicates the symptom is more prototypical of psychopathy in men; a score of 7 that it is more prototypical of psychopathy in women, and a score of 4 that it is equally prototypical of psychopathy across gender. Gender differences in items are found using a one-sample t-test with the mean level set to 4.

One possible format for collecting information about gender differences in prototypical psychopathy:

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

Is this symptom more typical of psychopathy...

In MEN

Equally typical

In WOMEN

1

2

3

4

5

6

7

I am unsure what the characteristic refers to

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

4) Order of items in the questionnaire

CAPP prototypicality studies should use the below universal list of 42 items in the order presented. The order of items has been randomized. Items include the 33 CAPP items (with adjective descriptors for explanatory purposes) plus 9 foil items theoretically irrelevant to psychopathy:

1. **Lacks pleasure** (pessimistic, gloomy, unenthusiastic)
2. **Garrulous** (glib, verbose, pretentious)
3. **Dependent** (needy, helpless, vulnerable)
4. **Domineering** (arrogant, overbearing, controlling)
5. **Antagonistic** (hostile, disagreeable, contemptuous)
6. **Lacks emotional depth** (unemotional, indifferent, inexpressive)
7. **Perfectionist** (fussy, precise, meticulous)
8. **Inflexible** (stubborn, rigid, uncompromising)
9. **Disruptive** (disobedient, unruly, unmanageable)
10. **Restless** (overactive, fidgety, energetic)
11. **Self-justifying** (minimizing, denying, blaming)
12. **Sense of uniqueness** (sense of being: extraordinary, exceptional, special)
13. **Lacks planfulness** (aimless, unsystematic, disorganised)
14. **Detached** (remote, distant, cold)
15. **Suspicious** (distrustful, guarded, hypervigilant)
16. **Insincere** (superficial, slick, evasive)
17. **Conscientious** (careful, reliable, diligent)
18. **Lacks emotional stability** (temperamental, moody, irritable)
19. **Unreliable** (undependable, untrustworthy, irresponsible)
20. **Considerate** (thoughtful, kind, understanding)
21. **Lacks concentration** (distractible, inattentive, unfocused)
22. **Strange** (bizarre, eccentric, odd)
23. **Reckless** (rash, impetuous, risk-taking)
24. **Restrained** (calm, reserved, inhibited)
25. **Shy** (introverted, timid, withdrawn)
26. **Self-aggrandizing** (self-important, conceited, condescending)
27. **Intolerant** (narrow-minded, bigoted, hypercritical)
28. **Sense of invulnerability** (sense of being: invincible, indestructible, unbeatable)
29. **Cautious** (hesitant, uncertain, unsure)
30. **Unempathic** (uncompassionate, cruel, callous)
31. **Lacks perseverance** (idle, undisciplined, unconscientious)
32. **Lacks anxiety** (unconcerned, unworried, fearless)
33. **Lacks remorse** (unrepentant, unapologetic, unashamed)
34. **Manipulative** (devious, exploitative, calculating)
35. **Unstable self-concept** (labile, incomplete, and chaotic sense of self)
36. **Sense of entitlement** (demanding, insistent, sense of being deserving)
37. **Uncommitted** (unfaithful, undevoted, disloyal)
38. **Uncaring** (inconsiderate, thoughtless, neglectful)
39. **Deceitful** (dishonest, deceptive, duplicitous)
40. **Self-conscious** (embarrassed, bashful, awkward)
41. **Aggressive** (threatening, violent, bullying)
42. **Self-centred** (egocentric, selfish, self-absorbed)

QUESTIONNAIRE ITEM LIST KEY

CAPP domain items and foil items. Number in bracket is the item list number.

ATTACHMENT DOMAIN

Detached (14)
Uncommitted (37)
Unempathic (30)
Uncaring (38)

COGNITIVE DOMAIN

Suspicious (15)
Lacks concentration (21)
Intolerant (27)
Inflexible (8)
Lacks planfulness (13)

EMOTIONAL DOMAIN

Lacks anxiety (32)
Lacks pleasure (1)
Lacks emotional depth (6)
Lacks emotional stability (18)
Lacks remorse (33)

FOIL ITEMS

Self-conscious (40)
Shy (25)
Considerate (20)
Strange (22)
Perfectionist (7)
Restrained (24)
Conscientious (17)
Cautious (29)
Dependent (3)

BEHAVIOURAL DOMAIN

Lacks perseverance (31)
Unreliable (19)
Reckless (23)
Restless (10)
Disruptive (9)
Aggressive (41)

DOMINANCE DOMAIN

Antagonistic (5)
Domineering (4)
Deceitful (39)
Manipulative (34)
Insincere (16)
Garrulous (2)

SELF DOMAIN

Self-centred (42)
Self-aggrandizing (26)
Sense of uniqueness (12)
Sense of entitlement (36)
Sense of invulnerability (28)
Self-justifying (11)
Unstable self-concept (35)

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