Personality and its Assessment

PSYC3302: Psychological Measurement and Its Applications

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Week 10
Learning Objectives

• What is personality?
• What is personality assessment?
• Uses and value of personality assessments
• Measurement methods:
  1. Projective tests
  2. Objective tests
     • Type-Based
     • Trait-Based
Lay Conceptions of Personality

• For lay people, personality refers to aspects of a person that elicit positive or negative reactions from others:
  • Someone who elicits positive reactions has a "good personality"
  • Someone who elicits negative reactions has a "negative personality"
• We also hear people described with adjectives like aggressive, warm, or cold
• For psychologists the terms tend to be better specified and more descriptive
Definitions in the Psychology Literature

The most adequate conceptualisation of a person’s behaviour in all its detail (McClelland, 1951, p.69)

The individual as a whole ... it means all that anyone is and is trying to become (Menninger 1953, p.23)

Personality is defined by the particular empirical concepts which are a part of the theory of personality employed (Hall and Lindzey, 1970, p.9)

An individual’s unique constellation of psychological traits—values, interests, attitudes, worldview, cognitive style—that is relatively stable and enduring over time
Personality assessment is the measurement and evaluation of psychological traits, states, values, interests, attitudes, worldview, cognitive style and related individual characteristics

- Methods of personality assessment we will consider today include:
  1. Projective tests
  2. Objective tests
- We first consider the distinction between personality traits, types, and states
Personality Traits

Any distinguishable, relatively enduring way in which one individual varies from another (Guildford, 1959, p.6)

- **Distinguishable** indicates that behaviours labelled with different trait terms are actually different from one another
- **Context** is important when applying trait terms to behaviours
- **Relatively enduring** implies that traits are relatively consistent across the lifespan but how they manifest is partly dependent on the situation
- A **trait** is a way in which one individual varies from another
- The attribution of a trait term is always a relative phenomenon
A constellation of traits that is similar in pattern to one identified category of personality within a taxonomy of personalities

- Traits are *characteristics* possessed by people, whereas types are *descriptions* of people
- Personality typologies are common:
  - Carl Jung (1923) and the Myers-Briggs Type Indicator (MBTI; Myers & Briggs, 1943/1962)
  - Holland’s six personality types (Holland, 1999): artistic, enterprising, investigative, social, realistic, or conventional
  - Type A personality vs. Type B personality (Freidman & Rosenman, 1974)
  - MMPI personality profiles (Dahlstrom, 1995)
Personality States

The transitory exhibition of some personality state

- Unlike a trait—which is a relatively enduring behavioural predisposition—a state is a relatively temporary predisposition
- For example, you may be in an anxious state before an exam but that does not mean you are an anxious person
- Measuring personality states is the search for traits that are relatively transitory or situation specific
- Personality inventories—like the State-Trait Anxiety Inventory (STAI)—have been developed to distinguish various states from traits
Uses of Personality Assessment

- Basic Research
  - Determine the number and nature of dimensions that make us unique
  - Stability of personality across time
- Clinical/Counselling
  - Vocational counselling
  - Personality disorders
- Personell Management
  - Recruitment and selection
  - Placement
- Threat Assessment
  - Judgements of dangerousness of persons of interest
Personality Assessment Methods

There are broadly two types of personality assessment methods:

1. Projective methods
2. Objective methods
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Projective Methods

- Some of the first personality tests to be used and investigated
- Usually consist of *ambiguous* stimuli
- A judgement of the assesses personality is made according to her ability to impose some *structure* on the unstructured stimuli—*projective method*
- The underlying theme is that you cannot rely upon people’s conscious awareness of themselves for the purposes of understanding their true nature
- The *projective hypothesis* states that an individual supplies structure to unstructured stimuli in a manner consistent with their underlying personality
Projective Methods

- Projective tests are *indirect* methods of personality assessment—assesses are not asked to disclose information about themselves.
- Their task is to talk about something else (e.g., inkblots, pictures, sounds).
- Through such indirect responses, the assessor draws inferences about the personality of assesses.
- The ability and inclination to "fake" is minimised.
- So too is proficiency in the English language—increases cross-cultural utility.
- Assumed to tap *conscious* as well as *unconscious* material.
Inkblots as Projective Stimuli

- Hermann Rorschach (1921) developed what he called a "form interpretation test"
- It has since come to be known as The **Rorschach Test**
- 10 bilaterally symmetrical inkblots printed on white cards
  - Five are achromatic
  - Two are black, white, and red
  - Three are multicoloured
- Inkblots used to incite the testtaker to free-associate
- Responses are then coded according to guidelines
Inkblots as Projective Stimuli

Stage 1
- The cards are presented in numbered order from 1–10
- Testtaker initially asked "What might this be?"
- Examiner records testtaker’s verbatim responses, nonverbal gestures, first response time, position of card etc.
- Examiner does not engage in any discussion at this stage
- Focus is on allowing testtaker to *project*, free from distraction
Inkblots as Projective Stimuli

Stage 2

- The cards are re-administered in a second stage known as the inquiry
- Examiner attempts to determine what features of the inkblot played a role in the formulation of the testtaker’s percept
- Examiner asks questions such as "What made it look like [whatever]?" to clarify what was seen
- Goal is to identify which aspects of the inkblot were most influential in forming the perception
- Provides opportunity to detect whether any new responses are perceived
**Stage 3**

- In a final stage, known as **testing the limits** the examiner asks specific questions.
- Testtaker asked to elaborate on aspects of the inkblot.
- The examiner might say "sometimes people use a part of the blot to see something" or "what does this look like?"
- Goal is to obtain additional information concerning personality functioning.
Rorschach Scoring Protocols

• Responses scored according to several categories:

1. **Location**
   - part of the inkblot used to form the percept

2. **Determinants**
   - qualities of the inkblot (form, colour, movement) important to a testtaker’s percept

3. **Content**
   - content category (human, animal, anatomical figures) of responses

4. **Popularity**
   - frequency with which a response to part of an inkblot has been observed

5. **Form**
   - how well the individuals percept matches the corresponding part of the inkblot
Scoring Categories and Personality

- The number of whole responses (using the entire inkblot) is associated with *conceptual thought processes*.
- Form level is associated with *reality testing*.
- Accordingly, psychotic patients are expected to achieve low scores for form level.
- Human movement has been associated with *creative imagination*.
- Colour responses have been associated with *emotional reactivity*. 
Rorschach Test: Reliability

- Very difficult to calculate internal consistency reliability
- Test-retest reliability has been observed to be high
- Inter-rater reliability is fairly high (.80)
- So far so good ...
Rorschach Test: Validity

- Accuracy of predictions of future behaviour based on Rorschach scores has been found to be low.
- Some of the research has tried to find correlations with self-report personality questionnaires.
  - Correlations are very low.
  - But is the Rorschach trying to measure conventional personality?
- Criterion group validity studies would be especially useful.
  - For example, compare responses from clinically depressed and non-depressed individuals.
  - Are there any differences in typical responses?
Rorschach Test: Criticisms

- Sensitive to rater’s beliefs
- Suffers from lack of objectivity in scoring
- Absence of adequate norms
- Relation between responses and personality is as ambiguous as the inkblots themselves
- Poor predictive validity

*The rate of scientific progress in clinical psychology might well be measured by the speed and thoroughness with which it gets over the Rorschach* (Jensen, 1965, p.509)
Other Types of Projective Tests

- Pictures as projective stimuli
  - Thematic Apperception Test
- Words as projective stimuli
  - Word Association Test
  - Sentence Completion Test
- Sounds as projective stimuli
  - Like auditory inkblots (Skinner, 1979)
  - Rarely used and little supporting evidence

I like to ____________________________________________
Someday, I will _______________________________________
I will always remember the time _________________________
I worry about _________________________________________
I am most frightened when _____________________________
My feelings are hurt ___________________________________
My mother ___________________________________________
I wish my parents ___________________________________
Projective Tests Today

- Though controversial, they are still used in clinical and forensic settings
- There are many contemporary publications advocating the use of the Rorschach
- Responses on the Rorschach are accepted by the courts
- "The rate of scientific progress in clinical psychology" has evidently been a crawl
Personality Assessment Methods

- There are broadly two types of personality assessment methods
  1. Projective methods
  2. Objective methods
There are broadly two types of personality assessment methods:

1. Projective methods
2. Objective methods
Objective Methods

- Objective methods of personality assessment contain short-answer items
- Individuals respond to items, usually on a scale (e.g., agree / disagree)
- May also be complemented with acquaintance-report
- They are objective in the sense that they employ short answer (typically multiple choice) format—provides no room for discretion in scoring
- The most common method of personality assessment by far
Type-Based vs. Trait-Based Approaches

Type-Based
- People can be sorted into categories
- More popular in commercial settings

Trait-Based
- People differ based on stable attributes
- Characteristics lie on a continuum
- Very popular in research settings
What is Personality?

Personality Assessment
- Traits
- Types
- States

Uses of Personality Assessment

Personality Assessment Methods
- Projective Methods
- Objective Methods
- Type-Based
- Trait-Based

Next Week

Type-Based Approach
Type-Based Approach

- Group people according to a combination of personality characteristics
- Places emphasis on similarities between people to categorise them
  - e.g., I’m an ENFP, therefore I am similar to other ENFP’s
Type-Based Approach

- The Myers-Briggs Type Inventory (MBTI; Myers & Briggs, 1943/1962)

- Based on the idea that people exhibit *stable* preferences in the way they take in information and make decisions

- Widely popular:
  - Taken by more than 2.5 million people a year
  - Used by 89 of Fortune 100 companies
Criticisms of The MBTI

- Very serious concerns have been raised about the psychometric soundness of the MBTI
- The test lacks reliability—specifically test-retest reliability
- It also lacks predictive validity
- Regardless of such criticism, the test (regrettably) remains very popular
Trait-Based Approach

- Examines individual characteristics, each measured separately and more precisely
- Emphasis placed on differences between people
- Subtle differences may be important
- Each person comprises a unique constellation of traits
Trait-Based Approach: How Many Traits?

- There are thousands of personality descriptive adjectives in the English dictionary (e.g., affable, agreeable, charming, polite, likeable, arrogant, self-centred, cynical, boastful, pompous, patronising)
- Often there are too many to use, and there is a lot of overlap
- Thus, there is a need to categorise these traits into a smaller number of groups
- This can be done using data reduction methods like factor analysis or cluster analysis
- Permits identification of the minimum number of variables or factors that account for the inter-correlations in observed phenomena
Trait-Based Approach: The Big Five

- Based on a five-dimension (or factor) model of personality
- The NEO PI-R (Costa & McCrae, 1992) is a measure of five major dimensions (or "domains") of personality and a total of 30 elements or *facets* that define each domain
- It is easily the most dominant model of personality (especially in research)
- **Lexical Approach**: Based on a factor analysis of adjectives in the English dictionary
Trait-Based Approach: The Big Five

1. **Openness to experience**
   - preference for variety, intellectual curiosity

2. **Conscientiousness**
   - planning, organising, and following through

3. **Extraversion**
   - assertiveness and proactivity in seeking out others

4. **Agreeableness**
   - altruism, friendliness, sympathy toward others

5. **Neuroticism**
   - emotional stability, coping in times of emotional turmoil
Big Five Facts (NEO PI-R)

**NEUROTICISM**
- Anxiety
- Angry Hostility
- Depression
- Self-Consciousness
- Impulsiveness
- Vulnerability

**EXTRAVERSION**
- Warmth
- Gregariousness
- Assertiveness
- Activity
- Excitement-Seeking
- Positive Emotions

**OPENNESS**
- Fantasy
- Aesthetics
- Feelings
- Actions
- Ideas
- Values

**AGREEABLENESS**
- Trust
- Straightforwardness
- Altruism
- Compliance
- Modesty
- Tender-Mindedness

**CONSCIENTIOUSNESS**
- Competence
- Order
- Dutifulness
- Achievement Striving
- Self-Discipline
- Deliberation
NEO PI-R Characteristics

- 5 traits × 6 facets × 8 items = 240 items total
- Items are all very face valid
- Anchored by *strongly disagree* (1) to *strongly agree* (5)
- Norms provided for adults (21 and up) and college age individuals (17-20)
- Norms come from 500 men and 500 women (U.S.)
Big Five Validity: Job Performance

- There is a lot of validity for the Big Five personality factors
- Barrick and Mount (1991) examined whether the Big Five could predict job performance across a range of occupations (professional, police, managers, sales, skilled, semi-skilled)
  - Openness to experience = .04
  - Conscientiousness = .22
  - Extraversion = .13
  - Agreeableness = .07
  - Neuroticism = .08
### Correlations Between FFM Scales, Intelligence, and Academic Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>k</th>
<th>N</th>
<th>r</th>
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<th>Grade diff</th>
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**Note.** All estimates of r, ρ, and Q are significant at p < .001. FFM = five-factor model; k = number of samples; N = aggregate sample; r = sample-weighted correlation; p = sample-weighted correlation corrected for scale reliability; d = Cohen’s d; Grade diff. = d expressed as grade difference; Q = Cochran’s measure of homogeneity; $F^2$ = Higgins and Thompson’s (2002) measure of heterogeneity; $p_g = ρ$ as partial correlation, controlled for intelligence.

**Source:** Poropat (2009)
Big Five Validity: Academic Performance

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Source: Poropat (2009)
Rater-Report: Reliability  Validity

- Multiple raters of the same person tend to provide similar ratings for the same person
- Inter-rater reliabilities for the Big Five dimensions range from .69 to .81
- Consensual validity: correlation between self-report ratings and rater-report ratings for the Big Five dimensions range from .46 to .62
Are Five Factors Enough?

- According to Ashton and Lee (2012) lexical studies got it wrong when they chose five factors

- They found 6 factors → HEXACO
  - Honesty-Humility
  - Emotionality
  - extraversion
  - Agreeableness
  - Conscientiousness
  - Openness to experience
The H Factor of Personality

- The "H" in the H factor stands for "Honesty-Humility"
- Includes the facets: Sincerity, Fairness, Greed Avoidance, Modesty
- People who have high levels of H are sincere and modest
- People who have low levels of H are deceitful and pretentious
The H Factor of Personality

- H factors shows predictive validity for:
  - Anti-social behaviour at work
  - Academic dishonest behaviour
  - Likelihood to sexually harass women
  - Delinquency and unethical decisions
  - "Dark Triad" personality (narcissism, Machiavellianism, psychopathy)
  - Bullying and aggression
  - Selfish behaviour in games of cooperation
Low Honesty-Humility: A Paradecase?
Summary: Type-Based vs Trait-Based

- **Type-Based:**
  - Credits: Simple, attractive
  - Debits: Poor predictors, questionable validity, unreliable
  - Example: MBTI

- **Trait-Based:**
  - Credits: Comprehensive, valid descriptions, valid predictions, reliable
  - Debits: Complex
  - Example: NEO PI-R, HEXACO
Self-Report Caveats

- Social desirability bias
- Faking
- Careless responding
- Can be time-consuming
Remember ...

- Validity is *arguably* the most important issue in evaluating a test’s psychometric quality.
- We need to be very careful of what we are trying to measure or ascertain when administering a personality test.
- For example, the MBTI does not have strong predictive validity in relation to workplace performance, therefore it should not be administered as a recruitment tool.
- By contrast, the Openness to experience dimension of the Big Five could justifiably be used for such purposes.
Extra Resources

- Take the HEXACO here:
  - http://hexaco.org/hexaco-online
- Get someone to rate you on the Big Five here:
Next Week ...

- SPSS Lab Exam (yikes ...)
- Final Exam revision