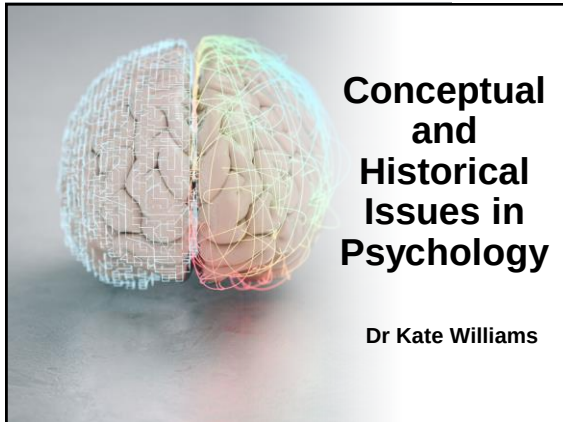




Conceptual and Historical Issues in Psychology

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Session Outline:

-  Overview of Individual Differences Psychology
-  Theoretical Perspectives
-  Personality and Individual Differences
-  Measures and Assessments
-  Intelligence and Cognitive Differences
-  Cultural/Social aspects of Intelligence Testing
-  Application and Implications

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Core Domain: Individual Differences

ONE OF THE BPS CORE AREAS!!!

SCIENTIFIC STUDY OF WAYS INDIVIDUALS DIFFER IN BEHAVIOUR AND PROCESSES UNDERLYING THOSE DIFFERENCES

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Individual Differences

Understanding unique characteristics that make each individual distinct.

- Encompasses:
 - Personality
 - Intelligence
 - Abilities
 - Interests



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Theoretical Perspectives



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Psychometric Approach

- **Measure Psychological traits and abilities.**
- Design, administer, interpret tests to quantify psychological attributes.
- **Early Influences (19th C):**
 - Galton: concept of correlation.
 - Binet: intelligence test to measure child's mental age vs. chronological age.
- **Introduction of IQ Testing (Early 20th C):**
 - Terman: adapted Binet's test for use in US (lead to Stanford -Binet Intelligence Scales and Intelligence Quotient (IQ)).
 - Wechsler Adult Intelligence Scale (WAIS) - broader understanding of intelligence (verbal and nonverbal).

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Psychometric Approach

- Statistical Method advances (Mid-20th C):
 - Factor analysis enabled identifying underlying factors influencing test performance
 - Item response theory improved precision and reliability of test scores.
- Computerisation/Modern Psychometrics (Late 20th C –Present):
 - More efficient/precise and personalised assessment based on individual responses.
- Involve range of tools with continued refinement

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Psychometric Approach: Strengths

Reliability: Produce consistent results over time and different situations, increasing confidence in accuracy of assessment.

Validity: Aim to measure what it purports (psychological construct). Types - content, criterion, construct = quality of measure.

Standardisation: Administered/scored in consistent way, for fair comparison across individuals/groups, enhancing generalisability.

Objectivity: Minimise subjective bias in scoring and interpretation, to increase reliability/fairness.

Quantification of Traits: Facilitates statistical analyses, making it possible to identify patterns and relationships in data.

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Psychometric Approach - Limitations



Cultural Bias: Not equally valid/reliable across different cultures - concerns of fairness and inclusivity.



Narrowness of Measurement: Limited perspective on complex psychological constructs.



Inflexibility: Follow fixed format not capturing dynamic/evolving nature of psychological phenomena - May not adapt well to individual differences/changes over time.



Situational Factors: test anxiety, motivation, fatigue can impact test completion, which may affect accuracy and reliability.



Ethical Concerns: Testing people in sensitive areas (employment, education) raises concerns. Privacy, consent, and potential misuse of assessment results.



Incomplete Picture: Provides snapshot of psychological characteristics at specific time, not capturing full complexity of personality or cognitive abilities.

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Trait Theories

- Psychological perspectives to understand and categorise human personality traits:
 - **Traits = Consistent patterns of thought, feeling, behaviour that are stable over time.**
- Assumes we have consistent characteristics that can be used to describe/predict behaviour.
- What we consider as personality



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The Big Five Personality Traits:

1. Openness to Experience:
 - Reflects imagination, creativity, and openness to new experiences.
2. Conscientiousness:
 - Degree of organisation, persistence, responsibility in behaviour.
3. Extraversion:
 - Extent to which individuals are outgoing, sociable, and assertive.
4. Agreeableness:
 - Tendency to be cooperative, compassionate, and trusting.
5. Neuroticism:
 - Relates to emotional stability, resilience to stress, and overall mood.

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Trait Theories

- Eysenck's Three-Factor Model:
 1. Extraversion-Introversion
 2. Neuroticism-Emotional Stability
 3. Psychoticism
- Cattell's 16 Personality Factors:
 - Describes source traits: underlying factors that influence observable behaviours.
 - E.g., warmth, reasoning, emotional stability, dominance.
- Allport's Trait Theory:
 - Cardinal traits: dominant, defining characteristics shaping behaviour
 - Central traits: general characteristics that form foundation of personality
 - Secondary traits: more specific and situational.
- However, traits may not fully capture complexity of human personality, and other factors (situation, personal experiences) must be considered.

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Trait Theories

Behaviour:	Cognition	Emotion
• Consistency: Traits contribute to consistency in behaviour across different situations. • Predictability: Traits help predict how individuals are likely to respond to various situations. • Social Interactions: Traits influence how individuals interact with others.	• Cognitive Styles: Traits are associated with certain cognitive styles and preferences. • Decision-Making: Traits can influence decisions. • Information Processing: Traits can affect how individuals process and interpret information.	• Emotional Stability: Traits influence emotional stability • Emotional Regulation: Traits contribute to individual differences in emotional regulation strategies. • Emotional Expression: Traits influence how individuals express and communicate their emotions.

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Biological Basis

• Genetics and DNA:

- Genetic Code: info determining traits encoded in DNA, inherited from biological parents.
- Gene Expression: segments of DNA code for specific proteins - expression influences behavioural traits.
- Many traits are polygenic: influenced by many genes, contributing to complexity of traits.



• Heritability:

- Proportion of observed variation in trait attributed to genetic factors within population.
- But Heritability does not imply fixed genetic determination - complex interactions between genes and environment occur.

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Personality and Individual Differences

Personality:

Consistent pattern of behaviour, thought, and emotion



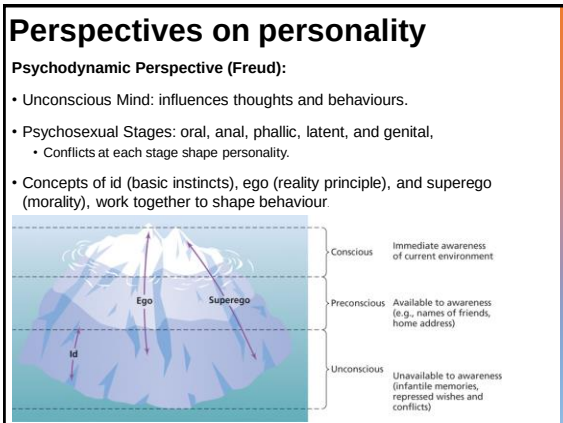
- Choice of method to understand personality depends on goals of assessment, population being studied, and available resources.
- Triangulating information from self-reports, projective tests, behavioural observations, and interviews provides comprehensive understanding of personality.

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Interactive Personality Assessment Task

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Perspectives on personality

Humanistic Perspective:

- **Self-Actualisation:** strive to fulfil potential and become best version self (**Maslow**)
- **Self-Concept:** how individuals perceive themselves with positive self-concept being crucial for psychological well-being (**Rogers**)
- **Unconditional Positive Regard:** individuals need acceptance and support from others without judgment to develop a healthy personality (**Rogers**).

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Perspectives on personality

Social-Cognitive Perspective - Bandura:

- **Reciprocal Determinism:** personality shaped by continual interaction between person, environment, and behaviour.
- **Observational Learning:** We learn by observing and imitating behaviours of others.
- **Self-Efficacy:** belief in ability to perform tasks and achieve goals.
 - High self-efficacy associated with greater resilience and persistence.

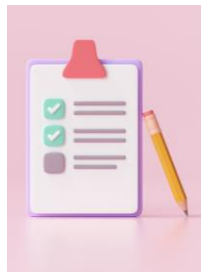


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Personality Assessment

Self-Report Measures – e.g., questionnaires:

- **Strengths:**
 - Efficient: quick/easy to administer.
 - Access to Inner Experience: thoughts, feelings, and perceptions.
 - Standardisation: Established norms, easier to compare individuals.
- **Limitations:**
 - Social Desirability: may provide answers believed are socially acceptable rather than accurate.
 - Honesty: may lack self-awareness or not entirely truthful in responses.
 - Limited Insight into Unconscious Processes.



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Personality Assessment

Projective Tests: interpretation of ambiguous shapes

- **Strengths:**
 - Access to Unconscious
 - Rich Qualitative Data
- **Limitations:**
 - Subjectivity: Interpretation of responses depend on clinician's judgment.
 - Lack of Reliability and Validity compared to structured assessments.
 - Limited Standardisation in administration and scoring.



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Personality Assessment

• Thematic Apperception Test (TAT)

- Instructed to write story about what is happening in presented pictures

- 10-20 pictures; analysed for recurrent themes

- Similar strengths and limitations to projective tests



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Personality Assessment

• Behavioural Observations:

• Strengths:

- Objective: Observe actual behaviour rather than rely on self-reports.
- Contextual Understanding: Observations made in natural settings = accurate context for behaviour.

• Limitations:

- Limited Access to Internal States: thoughts and feelings may not be apparent.
- Observer Bias and interpretations influence assessment.
- Ethics: Continuous observation problematic, especially if unaware of being observed.



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Personality Assessment

• Interviews (individual/group):

• Strengths:

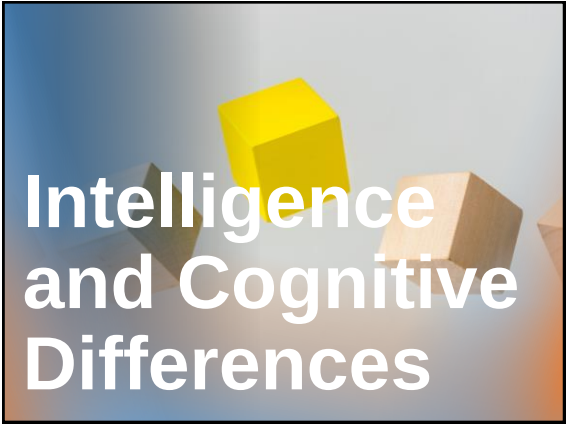
- In-Depth Exploration provides context to responses.
- Clarification: Interviewers can clarify ambiguous responses and adapt questions based on individual's answers.

• Limitations:

- Social Desirability.
- Interviewer Bias.
- Time-Consuming.



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Theoretical Perspectives

Spearman's Two-Factor Theory:

- General intelligence (**g factor**) underlies all cognitive abilities.
- Factors (**s factors**) are unique to specific tasks.
- Those who perform well on one type of task likely to perform well on others – i.e., presence of general cognitive ability (**g**) influencing overall intellectual functioning.

Gardner's Theory of Multiple Intelligences:

- Intelligence is not a single, unitary ability but a collection of distinct abilities or intelligences.
- Initially identified 7 intelligences and later included others.
- Linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal intelligences, plus naturalistic and existential intelligences.

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Theoretical Perspectives

Thurstone's Primary Mental Abilities:

- Proposed mental performance depends on seven distinct abilities

TABLE 10.3 Thurstone's Primary Mental Abilities

Ability Name	Description
S—Space	Reasoning about visual scenes
V—Verbal comprehension	Understanding verbal statements
W—Word fluency	Producing verbal statements
N—Number facility	Dealing with numbers
P—Perceptual speed	Recognizing visual patterns
M—Rote memory	Memorization
R—Reasoning	Dealing with novel problems

SOURCE: Thurstone, 1938.

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Theoretical Perspectives

Sternberg's Triarchic Theory:

- Intelligence can be divided into 3 components:
 1. **Analytical:** problem-solving, academic tasks.
 2. **Creative:** ability to generate novel ideas, solutions.
 3. **Practical:** applying to real-world situations and adapting to environment.

Cattell's Fluid and Crystallized Intelligence:

- Fluid: ability to solve novel problems, think abstractly, and adapt to new situations.
- Crystallized: Acquired knowledge and skills accumulated over time, through education and experience.



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Theoretical Perspectives

Emotional Intelligence (EI): Goleman

- Ability to perceive, understand, manage, and use emotions effectively in oneself and others.
- Divided into four components:
 - self-awareness,
 - self-management,
 - social awareness,
 - relationship management.

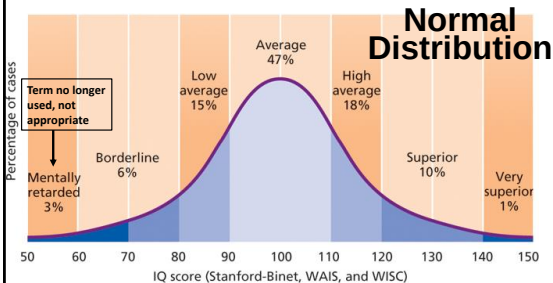


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Measurement of Intelligence

Binet-Simon Intelligence Scale (IQ):

- Intelligence Quotient (IQ) calculated as mental age divided by chronological age, multiplied by 100.

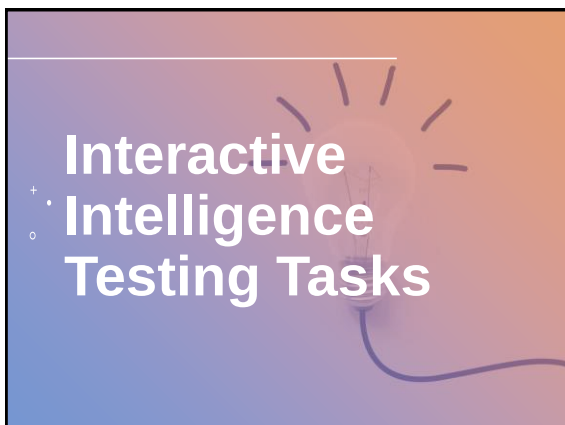


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Measurement of Intelligence

- **Weschler Tests:** Series of subtests in two classes
 - Verbal IQ
 - Performance IQ } Together = full-scale
- Also offers separate scores for several specific skills
- **Achievement Tests:** find out how much learned so far
 - Good predictor of future performance in a similar situation
 - Assumes all have had same opportunity to learn material being tested
- **Aptitude Tests:** novel puzzle-like problems
 - Go beyond prior learning
 - Measure potential for future learning and performance
 - Supposedly fairer (depends less on prior knowledge)
 - Difficult to construct independent of prior learning
 - May not be relevant to success in real-world situations

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Cultural and Social Implications of Intelligence Testing

Tests may be more favourable to certain cultural backgrounds - Content and language of questions may be more familiar to some putting others at disadvantage.

Those from lower socioeconomic background may have limited access to education resources and experiences, which can impact performance on tests and lead to perpetuation of social inequalities.

Tests may not capture full range of abilities or potential, leading to misinterpretations and potentially limiting opportunities for certain groups of students in educational settings.

Stereotype Threat – When those from stigmatised groups perform poorly due to anxiety about confirming negative stereotypes.

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Cultural and Social Implications of Intelligence Testing



Low scores may contribute to feelings of inadequacy or failure, particularly if unaware of potential biases in testing process.



Professionals administering tests need to be culturally competent to ensure fair and accurate evaluations.



Results can lead to the labelling, stigmatisation, and affect how individuals are perceived by others and opportunities available to them.



Concept of intelligence is culturally constructed, and different cultures have varying definitions and expectations of what constitutes intelligence

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The Intelligence Debate

- No universally agreed definition - Different researchers emphasise different aspects leading to diverse perspectives.
- Multiple Intelligences Theory Challenges traditional view of single measure of intelligence (often measured by IQ tests).
- Some explore neural networks, structures, and processes associated with cognitive functions, as well as genetics and environmental factors.
- AI and Machine Learning.
 - Raises questions about nature of machine intelligence and relationship to human intelligence.
- Some argue true intelligence involves self-awareness and consciousness, adding philosophical dimension.



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Application and Implications of Individual Differences - Interactive Group Task

Discuss the applications and implications of understanding individual differences in the following settings

1. Education
2. In the Workplace
3. Therapeutic Interventions

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