



13.2: INTELLIGENCE TESTING

VIEWS OF INTELLIGENCE

- Definition highly debated
- Intelligence = the ability to acquire new ideas/behaviour and adapt to new situations.
 - In what ways is Sheldon intelligent?
 - In what ways is he not intelligent?
- We will look at 5 theories of intelligence



1. TWO-FACTOR THEORY OF INTELLIGENCE

- Spearman, 1904
- Factor G = person's general intelligence
 - Problem solving
- Factor S = person's specific mental abilities
 - Verbal skills, math skills...
- Criticism: does not measure music, motor, creative...



2. THURSTONE'S THEORY OF INTELLIGENCE

- Opponent to Spearman's Two-Factor
- No evidence for general intelligence
- Seven primary mental abilities (p. 349)
 - Verbal comprehension
 - Numerical ability
 - Spatial relations
 - Perceptual speed
 - Word fluency
 - Memory
 - Inductive reasoning



3. GARDNER'S MULTIPLE INTELLIGENCES

- 1983, 1999
- 8 different and unrelated intelligences
 - Verbal ability
 - Logical-mathematical
 - Spatial ability
 - Musical ability
 - Body-kinesthetic ability
 - Interpersonal skills
 - Intra personal skills
 - Naturalist intelligence
- Criticism: are these intelligences or skills and talents?



4. STERNBERG'S TRIARCHIC THEORY OF INTELLIGENCE

- 1985
- Three ways of processing information
 - Analytical thinking skills
 - Creative thinking
 - Practical thinking
- Criticism: Difficult to measure
- Ms Aldcroft's criticism of the critics: does everything have to be measured? Is there truth in numbers? Even numbers have to be interpreted...



5. EMOTIONAL INTELLIGENCE

- IQ is not an indicator of success and fulfillment
- EQ has been found to better indicate success and happiness
- Four Aspects
 - Perceive and express emotions
 - Use emotions while thinking
 - Understand emotions and use info effectively
 - Regulate emotions and promote personal growth
- Critics: this is a measure of extraversion (how outgoing one is)



DEVELOPMENT OF INTELLIGENCE TESTS

- Stanford-Binet (traditional IQ test)
- P. 352 explains how it was created
- Mental age derived on test
- $\text{IQ} = \text{Mental age} \div \text{Chronological age} \times 100$
 - Mental age 15 \div Chronological age 10 \times 100 = IQ 150
- IQ 100 +/- 7 is average



USES AND MEANING OF IQ SCORES

- 95% are “average” and score between 70 and 130
- Bottom 2% = profound intellectual disability
- Top 2% = genius
- Useful for predicting academic success
- Critics: do they measure intelligence...is success in school a measure of intelligence?
 - Girls tend to experience more academic success
 - Boys tend to experience more career success



CONTROVERSY OVER IQ TESTING

- High degree of heritability
 - As degree of relationship increases, so does similarity in IQ
 - Bouchard: Up to 70% of IQ variance can be attributed to genetics
- Environmental factors: Head Start programs
- Cultural Bias: some questions favour certain groups
 - Edurado Tolentino

