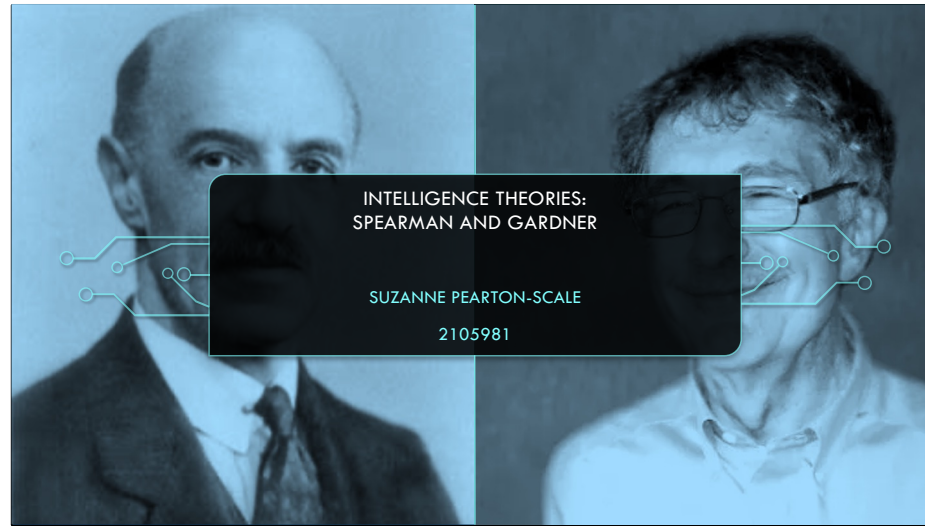






Dictionary/collective definitions

memory, knowledge, experience, adaptations, application

Cultural differences

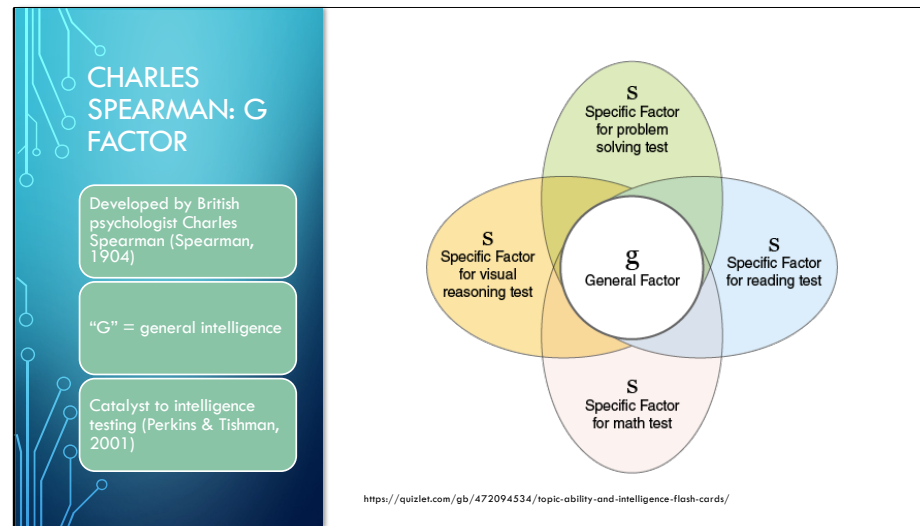
- **Western societies** academic achievements as indicators
- Eastern cultures prioritize broad range - character traits and perseverance.
- **Indigenous cultures** focus on a holistic -emotional and spiritual
- **African cultures** value practical skills and problem-solving abilities

within the context of communal learning.

- **Islamic societies** religious teachings and moral values.
- **challenge** and expand our own notions of intelligence and better appreciate the depths of human potential.

Psychological definitions

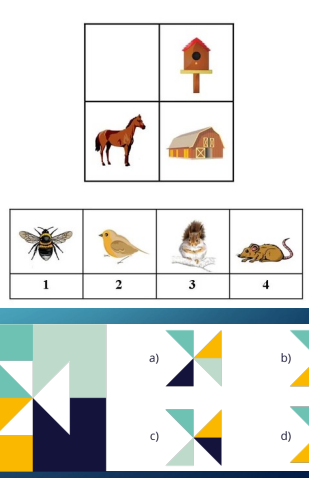
- Assimilation, schemata - Piaget
General factor – Jensen
Achievement of goals – Sternberg
Abstraction – Thurstone
Mental ability/behaviour/testing – Eysenck



- two-factor theory, analysed with various tests, that suggests intelligence can be measured and represented by a single factor, referred to as g or general intelligence
- Believed that he had captured the essence of intelligence to make it a scientific approach
- Was considered momentous event

STRENGTHS

- Simplicity
- Standardised framework
- G factor theory continues to be accepted and used (Jensen, 2000)
- Supported by empirical research (Sternberg, 2012)
- Can predict academic and work performance (Schneider & Newman, 2015)



- can be measured test like IQ test and is a good indication of school and workplace performance
- ability to summarize the complexity of human intelligence into a single measure.
- Modern researchers recognize that intelligence is a multifaceted concept that encompasses numerous cognitive abilities. Contemporary theories, such as Robert Sternberg's triarchic theory and Daniel Goleman's emotional intelligence framework, integrate various dimensions of intelligence, broadening our understanding

beyond Spearman's g factor.

STUDIES IN SUPPORT OF G FACTOR

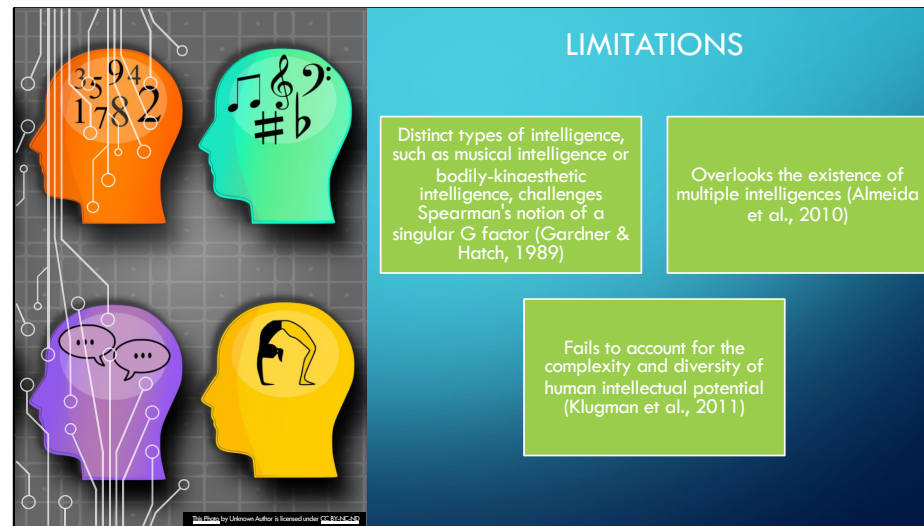
Warne & Burningham (2019)

- ✓ G factor universal phenomenon
- ✓ Large sample size (52k across 31 countries)
- ✓ Regardless of meaning of the word – G is present



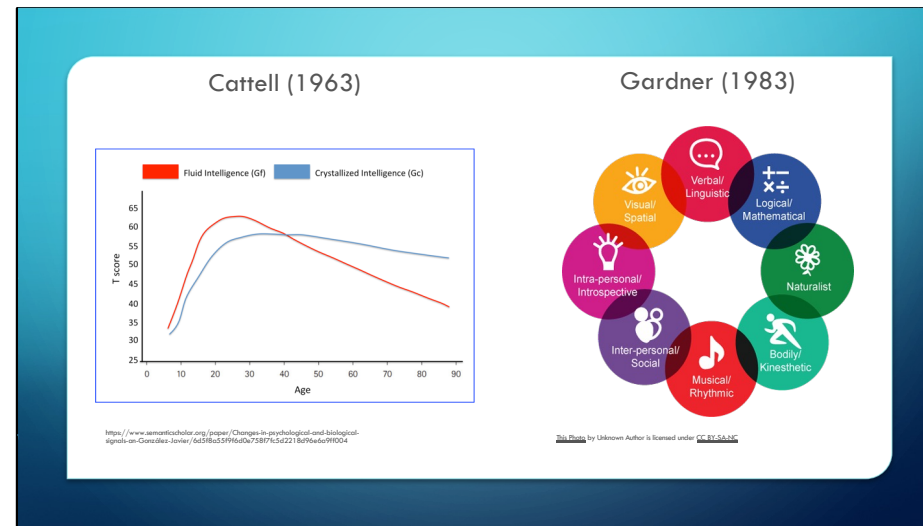
Hagmann-von Arx et al. (2018)

- ✓ German
- ✓ Children intelligence tests (age 6-11)
- ✓ Support notion of G factor
- x No SEN
- x Small age range



- Doesn't consider other various activities such as motor abilities, perception and musical abilities
- Critics argue that Spearman's reliance on psychometric testing as the primary means to measure intelligence ignores creativity, emotional intelligence, and practical problem-solving skills.
- fails to capture the entirety of human intelligence.
- research suggesting the existence of distinct types of intelligence, such as musical intelligence or bodily-kinaesthetic intelligence, challenges Spearman's notion of a singular g factor. These studies

propose that specific areas of expertise can exist independently of a general cognitive ability



Ph.D. student of Spearman

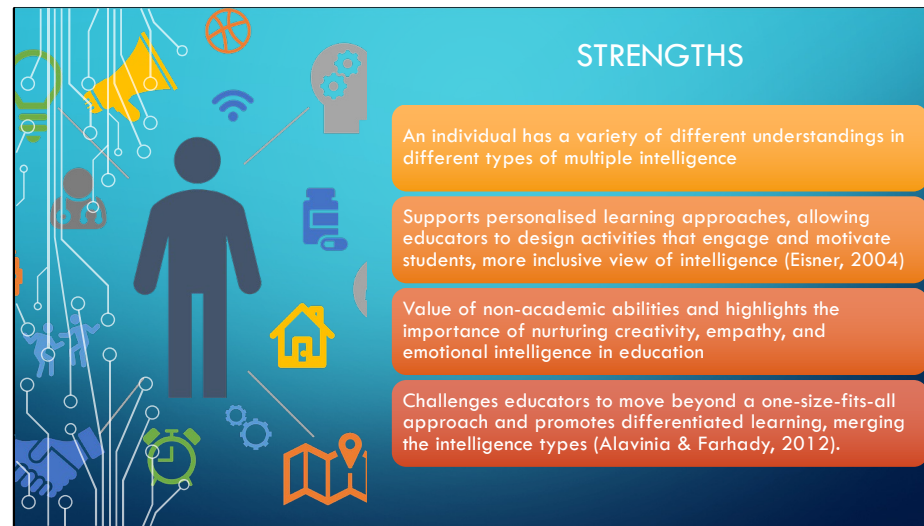
Divided G into 2 intelligences

Fluid – solve problems without drawing upon past experience - declines with age

Crystallised – prior learning and knowledge



Existential
Could we add more?
Emotional?
Spiritual?



- activities that **engage each intelligence, creating a balanced learning environment**. E.g. - incorporate music and movement in lessons to engage those with musical and bodily-kinaesthetic intelligence.
- **Impacts on Student Wellbeing and Motivation**
acknowledges the importance of individuals' self-esteem and psychological well-being
- **offering opportunities for success** in various intelligences, students' motivation and self-confidence can flourish.
- This aspect of the theory promotes student well-being as they perceive their **unique abilities being valued and nurtured**.
- shift from a standardized curriculum to a more **student-centered approach**.

STUDIES IN SUPPORT OF MULTIPLE INTELLIGENCE THEORY



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Calik (2013)

- ✓ Gifted learners
- ✓ Science subjects
- x Lack of empirical data

Treffert, D. A. (2014)

- ✓ Savant syndrome
- ✓ Profound ability v disability
- ✓ IQ testing inappropriate

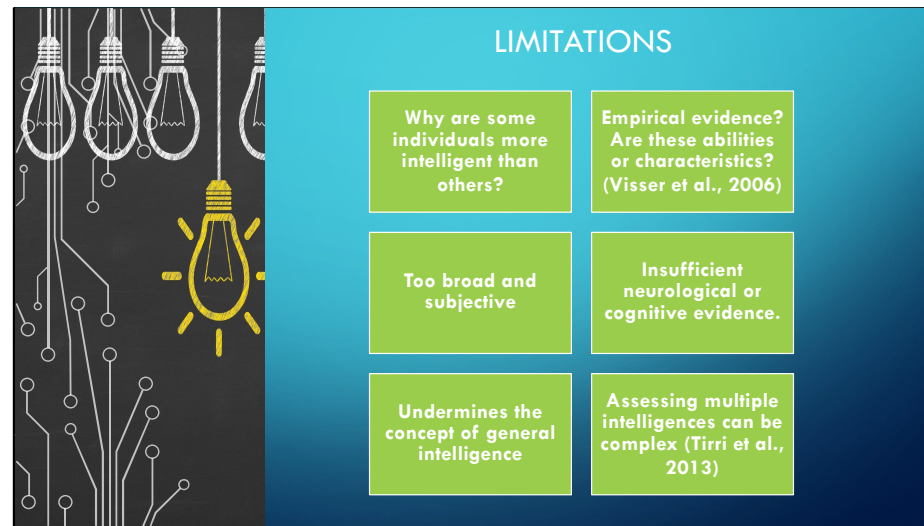


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Vasal et al. (2017)

- ✓ Identifies strengths
- ✓ Inclusive differentiated curriculum
- ✓ Self esteem = success
- x Small sample size
- x Just Autism





lack of empirical evidence supporting the independent existence of these intelligences.

the concept of multiple intelligences is too broad and subjective, with insufficient neurological or cognitive evidence.

undermines the concept of general intelligence and may make it more challenging to gauge overall intellectual abilities.

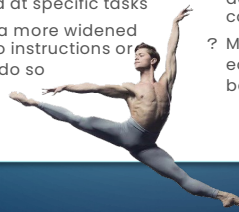
CRITICS

Klein (1997)

- ? Is it just a specific intelligence?
Dance = kinaesthetic and musical ability
- ? If the elements overlap – why are they separate? this weakens the theory
- ? Is genius environmentally enhanced
- ? Savants are good at specific tasks
- ? Gives educators a more widened curriculum but no instructions or depth on how to do so

Waterhouse (2023)

- ? MI is a 'neuromyth'
- ? no evidence supporting independent brain-based intelligences for different types of cognitive abilities
- ? Neuroscience in last 40 yrs. has shown that the brain is not organised into separate modules dedicated to specific forms of cognition
- ? MI should be rejected and educators to turn to evidence-based teaching strategies.



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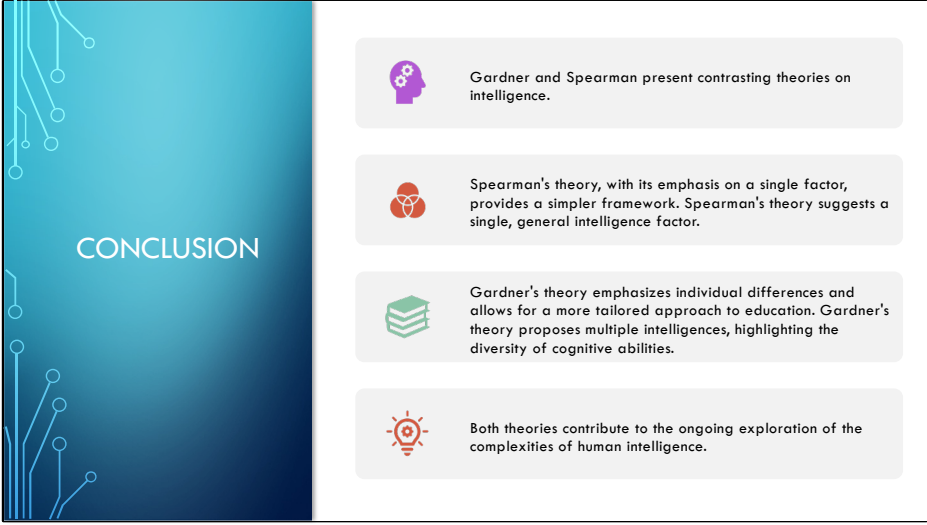
FINAL NOTE: WHAT IS INTELLIGENCE?



General intelligence that can be measured with cognitive tests (Spearman, 1904)



"Intelligence is a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (Gardner, 2000)



CONCLUSION

-  Gardner and Spearman present contrasting theories on intelligence.
-  Spearman's theory, with its emphasis on a single factor, provides a simpler framework. Spearman's theory suggests a single, general intelligence factor.
-  Gardner's theory emphasizes individual differences and allows for a more tailored approach to education. Gardner's theory proposes multiple intelligences, highlighting the diversity of cognitive abilities.
-  Both theories contribute to the ongoing exploration of the complexities of human intelligence.

- Gardner and Spearman present contrasting theories on intelligence
- Are they truly distinct, or are they heavily intertwined?
- Spearman's theory, with its emphasis on a single factor, provides a simpler framework and avoids such complexities.
- Gardner's theory proposes multiple intelligences, highlighting the diversity of cognitive abilities, whereas Spearman's theory suggests a single, general intelligence factor.
- While Gardner's theory emphasizes individual differences and allows for a more tailored approach to education, Spearman's theory simplifies intelligence by focusing on a common underlying factor.
- Despite their differences, both theories contribute to the ongoing exploration of the complexities of human intelligence. As researchers continue to investigate and refine these theories, a more comprehensive understanding of intelligence may emerge.
- Perhaps the presence and awareness of different cultures has had an impact on what intelligence really is? Challenges the traditional western view of intelligence.

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