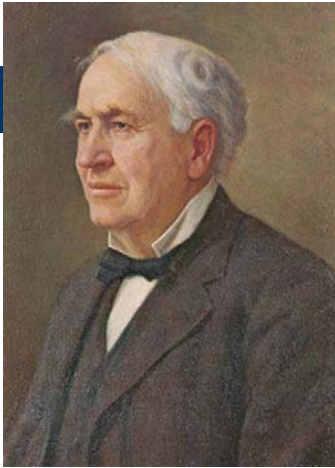


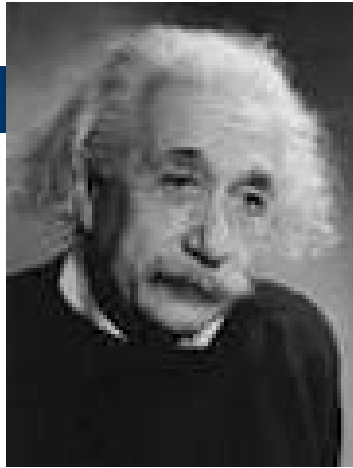
Controversy and challenges in diagnosis of ADHD with high and low IQ

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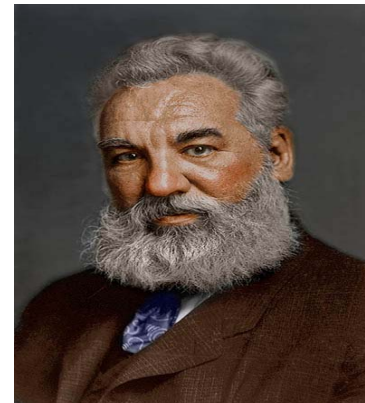
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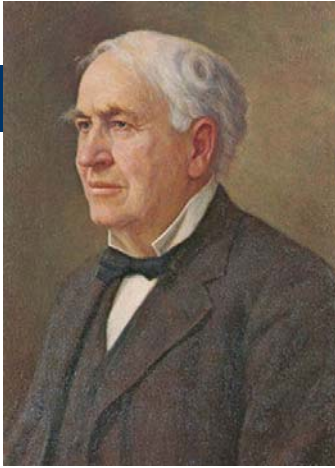


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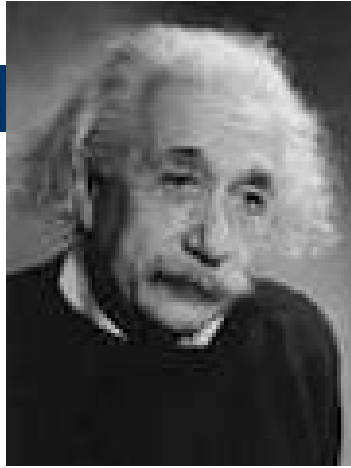


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Thomas Edison



Albert Einstein



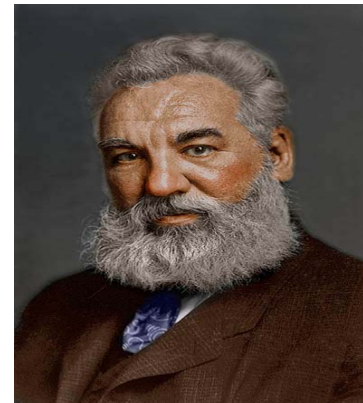
Steve McQueen



Beethoven



Woodrow Wilson



Graham Bell

Intelligence

- Intelligence is not an academic skill only, but rather is a broad construct that refers to the ability to reason, plan, solve problems, thinks abstractly, comprehend complex ideas, learn quickly and learn from experience.

Intelligence Quotient (IQ)

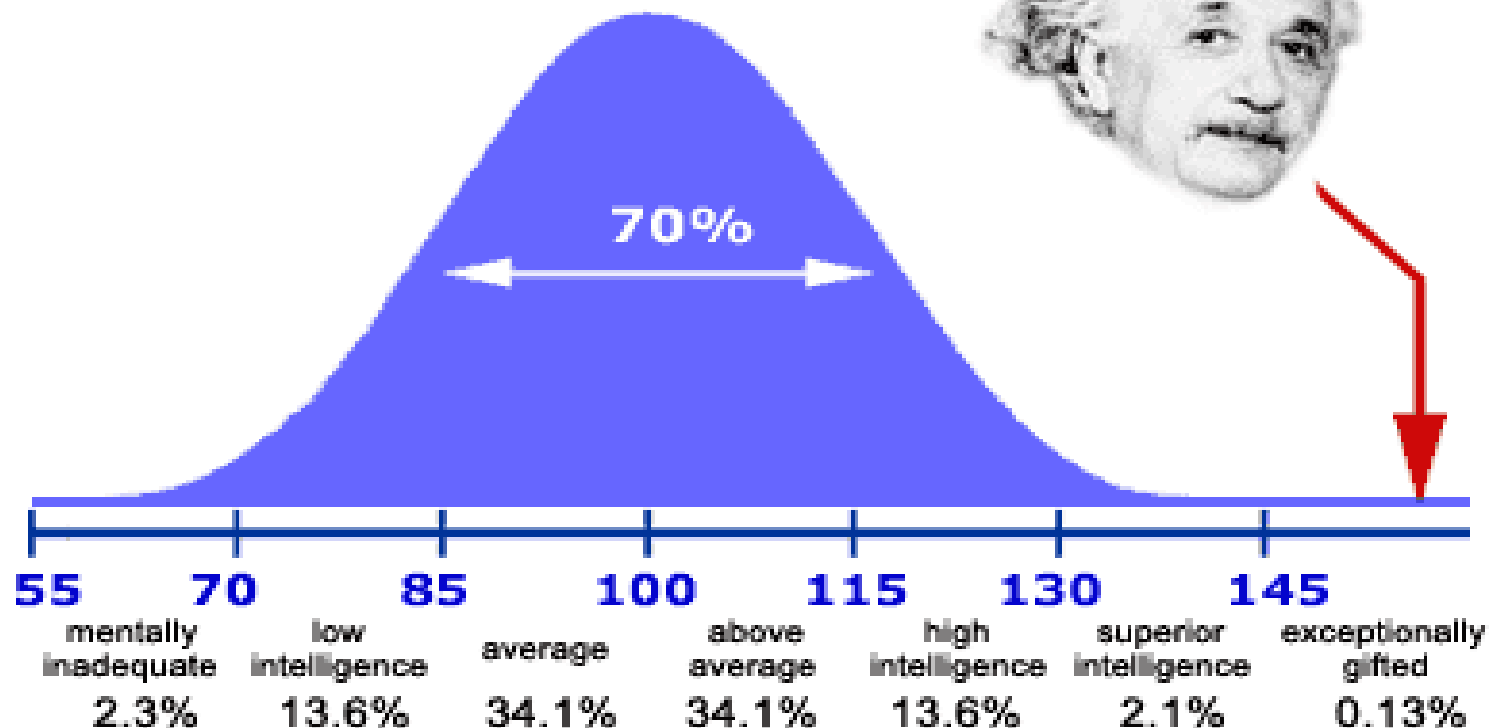
- IQ is a measure of relative intelligence determined by a standardized test.
- $\text{Mental Age} / \text{Chronological Age} \times 100 = \text{Intelligence Quotient}.$

So is IQ = Intelligence

- IQ is not a synonym of the term "intelligence."
- IQ is a mathematically-derived sum of numbers; nothing else.
- While it may be true that more intelligent people usually score higher on IQ tests, the IQ score itself is not a valid indication of intelligence.

So what is your IQ ?

Einstein's IQ = 160+
What about yours ?



Controversy in diagnosis of ADHD with high IQ

- The diagnosis of ADHD in children with a high (IQ) is controversial with many options existing on both sides of the debate.
- Most of the cases of ADHD had average IQ. We know much less about ADHD with high IQ.
- Most of the debates have focused on the symptomatic overlap between ADHD and high IQ ADHD.

Theories

- Individuals with high IQ>120 are vulnerable to be over diagnosed as having ADHD .
- 10% of the ADHD population have an IQ > 120

Theory of positive disintegration

Dabrowski's

- Children with high IQ have “overexcitabilities” in 5 general areas: psychomotor, sensual, intellectual , imagination and emotion
- Psychomotor “overexcitabilities” may be rapid speech, excessive movement, fidgeting and impulsive actions.

- Argue that these behaviors (overexcitibilities), which may be common in children with high IQ , are misinterpreted by teachers and caregivers as hyperactivity.

Harnett, Nelson & Rinn (2004)

Webb & Latimer (1993)

- asserted that inattention or inability to stay on task in children with high IQ may be the result of boredom rather than an underlying impairment.
- Off task behavior in these children may be the result of their self amusement due to poorly matched curriculum or boredom.

Barum, Olechak & Owen (1998)

- Misdiagnosis/over identification of ADHD in children with high IQ.
- increase in number of children with high IQ diagnosed as ADHD
- why these children may struggle with inattention and hyperactivity in a traditional education setting.
- “psychomotor over excitabilities” that may be the result of boredom or excitement about new ideas.

So is it only high IQ ?

- Majority of critics against the validation of ADHD in high IQ population argue that large symptom overlap leads to misinterpretation about the cause of behavior.
- They argue that on the surface , the behavior of individuals with a high IQ may look very alike to that of ADHD and may lead to a misdiagnosis.

Is ADHD a valid diagnosis in the presence of high IQ?

- Although IQs are somewhat lower in ADHD samples and the association between ADHD symptoms and IQ is moderate in strength, the literature suggests that it is possible to have both ADHD and high IQ.

How can someone be really smart and yet have ADHD ?

- Some have been mystified as to how could a very bright student suffer from ADHD. They assume that being smart protects a person from the difficulties associated with ADHD.
- However, ADHD has nothing to do with how smart a person is; some score well above average in IQ tests, many score in the average range while some score low.
- ***Thomas' study in 2011*** is a study of 117 high IQ (>120) children and adolescent with ADHD - all of these bright students were struggling in school and social relationships because of their ADHD related problem.

Kevin et al 2007

- 1. High IQ children with ADHD would have higher levels of functional impairment relative to IQ-matched children who do not have ADHD.
- 2. Clinical correlates in the children with ADHD and high IQ would mirror those reported in the average IQ ADHD population.

Kevin et al 2007 Contd.

- 3. High IQ children with ADHD would have a higher rate of familial ADHD in first-degree relatives than IQ-matched children who do not have ADHD.
- 4. the rate of familial ADHD in first-degree relatives was strikingly similar (23%) in both groups of children with ADHD and much higher than the rate in the high IQ control sample (5%).
- 5. children with ADHD and a high IQ repeated grades more often, needed more academic supports.

Kevin et al 2007 Conclusion

- children with a high IQ and ADHD show a pattern of features consistent with the diagnosis of ADHD documented in children of average IQ.
- This Supports the study hypothesis that the diagnosis of ADHD is valid among high IQ children and not simply an expression of boredom with easy school work.

Controversy of diagnosing ADHD in low IQ

- children with intellectual disability are at a higher risk of ADHD.
- whether ADHD diagnosis has the same meaning in the presence of ID as it does in children with normal IQ.
- Some have argued that the apparent risk of ADHD in children with ID is simply due to their developmental delay, researches show that ADHD symptoms are characteristic of individuals with low cognitive functioning (Reiss and Valenti 1994, Gjaerum 2003).

Is ADHD a valid diagnosis for children with ID (Intellectual Disability)?

- Other studies provide support for ADHD as a valid psychiatric diagnosis for children with ID.
- **Handin 1998** examined a sample of children with ID ,with and without elevated level of ADHD symptoms, and found differences in term of activity level and attention difficulties.

Pearson et al 2000

- Studied 47 cases with MR, 48 cases with MR and ADHD.
- He found in the later more symptoms of depression, family conflict, no compliant, anxiety, hyperactivity and inadequate social skills.
- So results are strongly suggestive of significant behavioral and emotional problems in children with ADHD and MR. thus, mirroring the pattern associated with ADHD in general school-age population.

Is ADHD a valid diagnosis in low IQ

- **(Hastings 2005)** did an exciting research suggest that children with ID (MR, down syndrome, autism, fragile x, etc) are at increasing risk for ADHD.
- **(Antshel 2006)** There is preliminary evidence to suggest that ADHD is a valid psychiatric condition in children with mental retardation.

Conclusion

- Although the debate still continues, most of the recent studies support the validity of the diagnosis of ADHD in both children with high and low IQ.