

What *the experts* think intelligence is . . .

- What the tests test (Boring, 1923)
- Proficiency (or competence) and intellectual cognitive performance (Glaser, 1986)
- Mental self-government (Sternberg, 1986)
- The power of good responses from the point of view of truth or facts (E.L. Thorndike, 1921)

What *the experts* think intelligence is . . .

- A general factor obtained from factoring an intercorrelation matrix of a large number of diverse mental tests (Jensen, 1986)
- The ability to carry on abstract thinking (Terman, 1921)
- A hodgepodge of cognitive capacities (Horn, 1986)
- The capacity to acquire capacity (Woodrow, 1921)

Educational Implications

(Why do you need to know about Intelligence?)

- Because important curriculum and testing decisions are made based upon competing theories
- Because all educators have implicit theories of intelligence that affect how they teach, interact with students, and create policy that affects student learning
- Because it's interesting! A forever debated topic with multiple perspectives

Perkin's 3 Intelligence theories:

- *Neural theory*
 - Intelligence is determined by a person's hardware; neural efficiency
- *Experiential theory*
 - Intelligence is determined by knowledge gained through practice; expertise in a particular domain
- *Reflective theory*
 - Intelligence is metacognitive and strategic; general intelligence

The Neural theory

- Cognitive speed and working memory are the foundations of the neural theory

What is general intelligence?

- General ability typically measured via standardized tests--symbolized as g
- Predictive power strongest when facing novel tasks or beginning competence
- Considered to be reasoning ability (typically inductive) that is highly dependent upon working memory--making transformations in your head

The Experiential theory

- Based primarily on studies of expertise
- Built upon the premise of intelligence as reflected by deep, intricate, and connected domain knowledge
- *Domain Specific Knowledge*--Knowledge that individuals have about a particular field of study. High predictor of expertise in a given area.

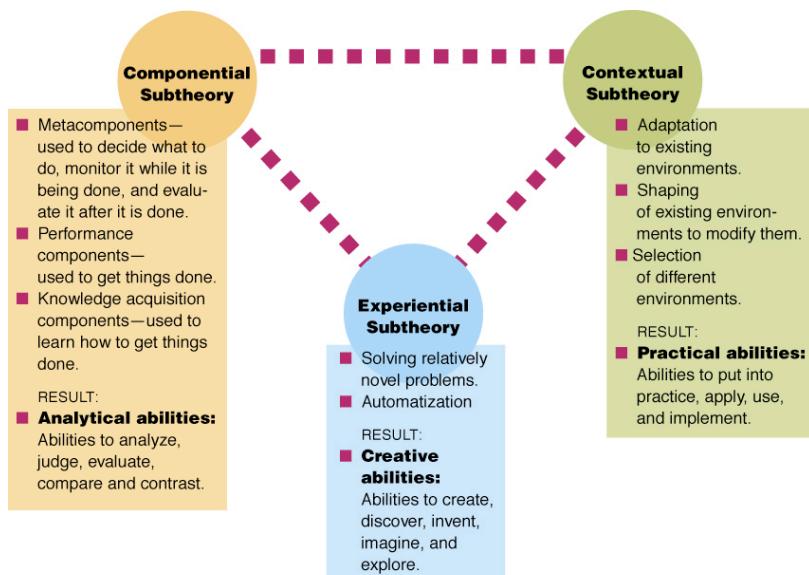
The Reflective theory

- The metacognitive aspect of intelligence
- Involves strategy use, flexible thinking, monitoring, and planning across domains

Specific theories of importance:

- Spearman vs. Thurstone
- Crystallized & Fluid intelligence
- Sternberg's triarchic theory
- Gardner's multiple intelligences

Sternberg's Theory of Triarchic Intelligence



What MI offers:

- **Hope/Self Esteem.** Educators now see more possibilities for every student to be considered intelligent
- **Excitement.** A new curriculum that invigorates teachers and students alike
- **Has offered an explanation of academic failure in which the blame lies with the method of measurement and not the student**

Why educators should be wary of MI:

- **Emphasis upon preprogrammed/genetic determinance**
- **Lack of empirical support only descriptive**
- **All “intelligences” are given equal importance**
- **The theory is greatly misused**
- **The theory does not account for any general intelligence or reflective intelligence that cuts across “intelligences”**

Why educators should be wary of MI:

- The “intelligences” correlate with one another
- The “intelligences” are broad domains
- Pigeonholing and stereotyping all over again
- “intelligence” or “talent” rather than knowledge supports innate origins
- Long-term effects of MI curriculum???