

# Sternberg's Triarchic Theory of Intelligence

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[Overview of Sternberg's Triarchic Theory of Intelligence](#)

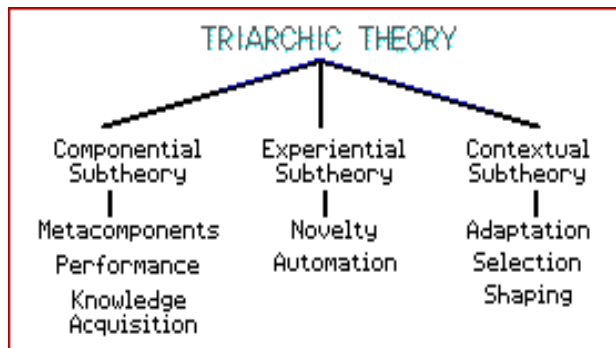
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## Overview of Sternberg's Triarchic Theory of Intelligence



Sternberg's Triarchic Theory of Human Intelligence (1977, 1985, 1995) subsumes both Spearman's  $g$  and underlying information processing components. His triarchic theory includes three facets or subtheories:

- Analytical (componential)
- Creative (experiential)
- Practical (contextual)

Sternberg's theory builds on his earlier componential approach to reasoning. His theory is mostly based on observing Yale graduate students. Sternberg believes that if intelligence is properly defined & measured it will translate to real-life success.

Sternberg's Triarchic Theory is an important effort to synthesize the various theories of intelligence.

## **Analytical (componential) Facet (or Subtheory)**

Analytical Intelligence similar to the standard psychometric definition of intelligence e.g. as measured by Academic problem solving: analogies and puzzles, and corresponds to his earlier componential intelligence. Sternberg considers this reflects how an individual relates to his internal world.

Sternberg believes that Analytical Intelligence (Academic problem-solving skills) is based on the joint operations of metacomponents and performance components and knowledge acquisition components of intelligence

Metacomponents: control, monitor and evaluate cognitive processing. These are the *executive* functions to order and organise performance and knowledge acquisition components. They are the higher-order processes that order and organise the performance components. Used to analyze problems and pick a strategy for solving them. They decide what to do and the performance components actually do it.

Performance Components: execute strategies assembled by the metacomponents. They are the basic operations involved in any cognitive act. They are the cognitive processes that enable us to encode stimuli, hold information in short-term memory, make calculations, perform mental calculations, mentally compare different stimuli, retrieve information from long-term memory.

Knowledge acquisition components: are the processes used in gaining and storing new knowledge - i.e. capacity for learning. The strategies you use to help memorize things exemplify the processes that fall into this category.

Sternberg feels that IDs in intelligence are related to IDs in the use of these cognitive processes. He feels that people with better reasoning ability generally spend more time understanding the problem but reach their solution faster than those who are less skilled at the task.

### **Creative (experiential) Facet (or Subtheory)**

Creative Intelligence: this involves insights, synthesis and the ability to react to novel situations and stimuli. This he considers the Experiential aspect of intelligence and reflects how an individual connects the internal world to external reality.

Sternberg considers the Creative facet to consist of the ability which allows people to think creatively and that which allows people to adjust creatively and effectively to new situations.

Sternberg believes that more intelligent individuals will also move from consciously learning in a novel situation to automating the new learning so that they can attend to other tasks.

### **Two-Facet Subtheory (Novelty & Automatization)**

Basic assumption: That there are two broad classes of abilities associated with intelligence: novelty skills and automatization skills. A task measures intelligence if it requires the ability to deal with novel demands or the ability to automatize information processing (two ends of a continuum).

Novel tasks or situations are good measures of intellectual ability because they assess an individual's ability to apply existing knowledge to new problems.

### **Practical (contextual) Facet (or Subtheory)**

Practical Intelligence: this involves the ability to grasp, understand and deal with everyday tasks. This is the Contextual aspect of intelligence and reflects how the individual relates to the external world about him or her.

Sternberg states that Intelligence is: "Purposive adaptation to, shaping of, and selection of real-world environments relevant to one's life" (Sternberg, 1984, p.271)

Purposive means that intelligence is directed towards goals, however vague or subconscious they may be. This means that intelligence is indicated by one's

attempts to adapt to one's environment.

Practical Intelligence can be said to be intelligence that operates in the real world. People with this type of intelligence can adapt to, or shape their environment. It might also be called ♦Street-smarts♦. In measuring this facet, not only mental skills but attitudes and emotional factors that can influence intelligence are measured.

So this practical intelligence is a combination of:

- (a) adaptation to the environment in order to have goals met
- (b) changing the environment in order to have goals met
- (c) or, if (a) and (b) don't work moving to a new environment in which goals can be met

Sternberg believes that individuals considered intelligent in one culture may be looked on as unintelligent in another.

An important asset of this theory is to avoid defining intelligence in terms of intelligence tests rather than performance in the everyday world (which is, after all, what intelligence tests try to predict!).

Measuring practical intelligence:

- Sternberg Multidimensional Abilities Test measures all 3 intelligences, on separate scales
- Sternberg and Wagner♦s test of Practical Managerial Intelligence measures:
  - ability to write effective memos
  - ability to motivate people
  - knowledge of when to delegate
  - ability to ♦read♦ people

When measuring practical intelligence Sternberg looks at things such as how people decode nonverbal messages e.g. can you tell who are the real couples?

### **Sternberg: Why Intelligent people fail**

Sternberg (1986) believes that conventional intelligence tests tell us little about performance in everyday life and suggest a number of reasons why so-called intelligent people fail:

- lack of motivation
- lack of impulse control
- lack of perseverance
- fear of failure
- procrastination
- inability to delay gratification
- too little/too much self-confidence

Remember Sternberg suggests that if intelligence properly defined and measured it MUST translate into real-life success (Sternberg, 1986)