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Gardner's Multiple Intelligences



By the Mind Tools Editorial Team

Distinguishing Individual Profiles of Intelligence



Gardner argued that people are intelligent in different ways.

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IQ tests work better for some people than others — and this is not simply for the obvious reason that some people are "smarter". If you're good with words and logic, then the typical IQ test probably works well for you.

do? Here, traditional IQ scores do not seem to be reflecting your true intelligence.

A Brief History of Intelligence Testing

The study of intelligence began in Paris in the late 1890s with Alfred Binet, who developed a test designed to identify children with special educational needs.

His approach of quantifying intelligence was then readily accepted in the United States and worldwide. Schools began testing children and adopting curricula that would help students improve their IQs. Getting into the right college or university is still often dependent on IQ, and on tests like the SAT (Scholastic Achievement Test) that are derived from IQ tests.

In the 1970s, Howard Gardner, a professor of education at Harvard University, started questioning the traditional definition of intelligence on which such tests were based. Gardner worked with talented children and adults who had brain damage. He found that people had many other gifts and talents that weren't necessarily reflected in the traditional ideals of intelligence. He used a variety of sources – including neurophysiological research and studies with autistic people, geniuses, and protégés – to support his model that various parts of the brain provide different types of intelligence.

In 1983, Gardner published the book "Frames of Mind," which outlined seven different types of intelligence. Ten years later, he added an eighth type. This multiple intelligences (MI) theory became a popular model for understanding the many ways in which human intelligence exists.

The Multiple Intelligences

The multiple intelligences theory (MI theory) claims that all humans have eight intelligences, to a lesser or greater extent, and that we each have a different intelligence profile. This profile is based on our genetics and our experiences, and it makes us unique from others. The intelligences are as follows:

- **Linguistic intelligence** This is the ability to use spoken and written language effectively to express yourself. Lawyers, writers, and speakers tend to have high linguistic intelligence.
- **Logical-mathematical intelligence** This is the ability to analyze problems logically, work effectively with mathematical operations, and investigate issues using the scientific method. Finding patterns and deductive reasoning are other capabilities associated with this

intelligence. People working in the scientific and mathematical communities tend to be high in this type of intelligence.

- **Musical intelligence** This is the ability to perform, compose, and appreciate musical patterns, including changes in pitch, tone, and rhythm. Successful musicians, composers, and people involved in music production have high levels of musical intelligence.
- **Bodily-kinesthetic intelligence** This is the ability to use the body for expression. People high in this intelligence use their physical coordination to master problems. Professional dancers and athletes are good examples of this.
- Spatial intelligence This is the ability to recognize, use, and interpret images and patterns
 and to reproduce objects in three dimensions. Successful architects, sculptors and
 designers are likely to have high spatial intelligence.
- Interpersonal intelligence This is the ability to understand people's intentions, motivations, and desires. This intelligence allows individuals to work well with others.
 Professions like therapy, teaching, and sales attract individuals with high interpersonal intelligence.
- Intrapersonal intelligence This is the ability to understand yourself, and to interpret and appreciate your own feelings and motivations. Therapists, actors, caregivers, and writers are all people who can bring high levels of personal awareness to their work.
- **Naturalist intelligence** This is the ability to recognize and appreciate our relationship with the natural world. Astronomers, biologists, and zoologists are examples of professions with a high level of naturalist intelligence. (This is the eighth intelligence that Gardner added, after first publication of his model.)

Spiritual and Existential (asking the big questions) intelligence are two other areas that have been proposed, but these haven't been confirmed as "official" intelligence types.

Testing Multiple Intelligences

As interest in Gardner's multiple intelligences increased, interest in testing for the various intelligence types developed too. Gardner and his colleagues looked at this issue and concluded that it was too difficult to create a valid test. To do so, he argued, you would have to include several performance measures. As an example, Gardner said, "Spatial intelligence would be a product of one's performances in such activities as finding one's way around an unfamiliar terrain, playing chess, reading blueprints, and remembering the arrangement of objects in a recently vacated room."

Gardner criticized the tests for two key reasons:

1. They don't measure performance. The auestions are designed to find out a person's https://www.mindtools.com/pages/article/newISS_85.htm

preferences, skills, interests, and abilities.

2. The self-reporting nature of these tests relies on having high self-awareness. Gardner's model says that not everyone has the necessary level of intrapersonal intelligence to answer test questions accurately.

For more detailed information on Gardner's thoughts and perspectives on his model, go to **www.howardgardner.com** and read the FAQ section..

Limitations and Criticisms of Multiple Intelligences Theory

While the idea of multiple intelligences seems intuitively attractive, a key criticism is that no valid measurement tool is available. This has made MI difficult to prove. It is therefore accused of being ambiguous and subjective, instead of objective. To further complicate the issue, proposed assessments are complex and expensive to design.

Some people believe that the eight intelligences are not necessarily distinct, but that they're simply subsets of a general intelligence (often known as "g") – although the existence of general intelligence is, itself, the subject of controversy. Some also argue that Gardner's intelligences are better understood as cognitive styles, or ways of thinking, rather than distinct types of intelligence.

Using the Idea

So if this is Gardner's theory, how do we use it?

- It encourages us to respect and value more in people than the results given by a single dimension IQ test. In some roles, areas, and professions, standard IQ measurements may not be of much use at all. (In many areas, standard intelligence *genuinely does* matter be careful not to "throw the baby out with the bath water" here!)
- It encourages us to treat the results of standard IQ tests with care, and to supplement or replace them with tests more directly related to the job at hand. (See our article on <u>Inbox</u>
 <u>Assessment</u> of for one approach to this, and our articles on <u>Performance Testing</u> of for many more.)

Key Points

Howard Gardner's theory of multiple intelligences has created a new understanding of intelligence. It also emphasizes the importance of understanding what intelligence really is, and it's forced us to question the way we perceive intelligence.

By breaking free of the limits of logical and linguistic intelligence, the MI model introduces a broader perspective and better appreciation for all the ways that people can deliver value. And while multiple intelligences theory has its critics, it's provided a much-needed opportunity to look at the various ways in which we can express our different talents, abilities, and preferences.

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