

Theory of Multiple Intelligences (Gardner's Theory)

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Arguing that "reason, intelligence, logic, knowledge are not synonymous...", Howard Gardner (1983) proposed a new view of intelligence that is rapidly being incorporated in school curricula. In his Theory of Multiple Intelligences, Gardner expanded the concept of intelligence to also include such areas as music, spacial relations, and interpersonal knowledge in addition to mathematical and linguistic ability.

Seven Intelligences

Gardner defines intelligence as "the capacity to solve problems or to fashion product that are valued in one or more cultural setting". Using biological as well as cultural research, he formulated a list of seven intelligences. This new outlook on intelligence differs greatly from the traditional view which usually recognizes only two intelligences, verbal and computational. The seven intelligences Gardner defines are:

1. Linguistic Intelligence (or verbal-linguistic) is the ability to use with clarity the core operations of language. It involves having a mastery of language. This intelligence includes the ability to effectively manipulate language to express oneself rhetorically or poetically. It also allows one to use language as a means to remember information. People with linguistic intelligence have a sensitivity to the meaning of words--the capacity to follow rules of grammar, and, on carefully selected occasions, to violate them. At a somewhat more sensory level--a sensitivity to the sounds, rhythms, inflections, and meters of words--that ability which can make even poetry in a foreign tongue beautiful to hear. And a sensitivity to the different functions of language--its potential to excite, convince, stimulate, convey information, or simply to please. People such as poets, authors, reporters, speakers, attorneys, talk-show hosts, politicians, lecturers, and teachers may exhibit developed linguistic intelligence.

2. Logical-Mathematical Intelligence is logical and mathematical ability as well as scientific ability. It consists of the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking. Abstraction is fundamental, reasoning is complex, and problem-solution is natural. Order and sequence are significant. There is a drive to know causality as well as the explication of existence. People such as mathematicians, engineers, physicists, researchers, astronomers, and scientists may exhibit developed logical-mathematical intelligence.

3. Intra-Personal Intelligence is the ability to form an accurate model of oneself, and to use that model to operate effectively in life. At a basic level, it is the capacity to distinguish feelings of pleasure from emotional pain and, on the basis of such discrimination, to become more involved in or to withdraw from a situation. At the most advanced level, interpersonal intelligence is the capacity to detect and to symbolize complex and high differentiated sets of feelings. People such as some novelists, therapists, sages, psychologists, and philosophers may exhibit developed intra-personal intelligence.

4. Inter-Personal Intelligence is the ability to notice and make distinctions among other individuals and, in particular, among their moods, temperaments, motivations, and intentions. Examined in its most elementary form, the inter-personal intelligence entails the capacity of the young child to detect and discriminate the various moods of those around them. In an advanced form, it permits a skilled adult to read the intentions and desires--even when those desires have been hidden--of many other individuals and, potentially, act upon this knowledge. People such as politicians, religious leaders, and those in the helping professions may exhibit developed inter-personal intelligence. The last two intelligences are separate from each other. Nevertheless, because of their close association in most cultures, they are often linked together.

5. Musical Intelligence (or Musical-rhythmic) is the ability to use the core set of musical elements--pitch, rhythm, and timbre (understanding the characteristic qualities of a tone). Auditory functions are required for a person to develop this intelligence in relation to pitch and tone, but it is not needed for the knowledge of rhythm. There may be a hierarchy of difficulty involved in various roles--composition, performance, listening. People such as singers, composers, instrumentalists, conductors, and those who enjoy, understand, use, create, perform, and appreciate music and/or elements of music may exhibit developed musical intelligence.

6. Spatial Intelligence (or visual-spatial) is the capacity to perceive the world accurately, and to be able to recreate one's visual experience. It gives one the ability to manipulate and create mental images in order to solve problems. This intelligence is not limited to visual domains--Gardner notes that spatial intelligence is also formed in blind children. It entails a number of loosely related capacities: the ability to recognize instances of the same element; the ability to recognize transformations of one element in another; the capacity to conjure up mental imagery and then to transform that imagery; the ability to produce a graphic likeness of spatial information; and the like. A person with a good sense of direction or the ability to move and operate well in the world would indicate spatial intelligence. People such as sailors, engineers, surgeons, sculptors, painters, cartographers, and architects may exhibit developed spatial intelligence.

7. Bodily-Kinesthetic Intelligence is the ability to use one's mental abilities to coordinate one's own bodily movements and the ability to handle objects skillfully. This intelligence challenges the popular belief that mental and physical activity are unrelated. People such as actors, dancers, swimmers, acrobats, athletes, jugglers, instrumentalists and artisans may exhibit developed bodily-kinesthetic intelligence.

Naturalistic Intelligence. The following definition is an abbreviation and adaptation by J. Keith Rogers and based upon his study of Howard Gardner's theory: Naturalistic intelligence is the ability to understand, relate to, categorize, classify, comprehend, and explain the things encountered in the world of nature. People such as farmers, ranchers, hunters, gardeners, and animal handlers may exhibit developed naturalistic intelligence.

Although the intelligences are anatomically separated from each other, Gardner claims that the seven intelligences very rarely operate independently. Rather, the intelligences are used concurrently and typically complement each other as individuals develop skills or solve problems. For example, a dancer can excel in his art only if he has 1) strong musical intelligence to understand the rhythm and variations of the music, 2) interpersonal intelligence to understand how he can inspire or emotionally move his audience through his movements, as well as 3) bodily-kinesthetic intelligence to provide him with the agility and coordination to complete the movements successfully.

In addition to biology, Gardner (1983) argues that culture also plays a large role in the development of the intelligences. All societies value different types of intelligences.

The cultural value placed upon the ability to perform certain tasks provides the motivation to become skilled in those areas. Thus, while particular intelligences might be highly evolved in many people of one culture, those same intelligences might not be as developed in the individuals of another.

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