

Defining Intelligence

Most people have an intuitive notion of what intelligence is, and many words in the English language distinguish between different levels of intellectual skill: bright, dull, smart, stupid, clever, slow, and so on. Yet no universally accepted definition of intelligence exists, and people continue to debate what, exactly, it is. Fundamental questions remain: Is intelligence one general ability or several independent systems of abilities? Is intelligence a property of the brain, a characteristic of behavior, or a set of knowledge and skills?



The simplest definition proposed is that intelligence is whatever intelligence tests measure. But this definition does not characterize the ability well, and it has several problems. First, it is circular: The tests are assumed to verify the existence of intelligence, which in turn is measurable by the tests. Second, many different intelligence tests exist, and they do not all measure the same thing. In fact, the makers of the first intelligence tests did not begin with a precise idea of what they wanted to measure. Finally, the definition says very little about the specific nature of intelligence.

Whenever scientists are asked to define intelligence in terms of what causes it or what it actually is, almost every scientist comes up with a different definition. For example, in 1921 an academic journal asked 14 prominent psychologists and educators to define intelligence. The journal received 14 different definitions, although many experts emphasized the ability to learn from experience and the ability to adapt to one's environment. In 1986 researchers repeated the experiment by asking 25 experts for their definition of intelligence. The researchers received many different definitions: general adaptability to new problems in life; ability to engage in abstract thinking; adjustment to the environment; capacity for knowledge and knowledge possessed; general capacity for independence, originality, and productivity in thinking; capacity to acquire capacity; apprehension of relevant relationships; ability to judge, to understand, and to reason; deduction of relationships; and innate, general cognitive ability.

People in the general population have somewhat different conceptions of intelligence than do most experts. Laypersons and the popular press tend to emphasize cleverness, common sense, practical problem solving ability, verbal ability, and interest in learning. In addition, many people think social competence is an important component of intelligence.

Most intelligence researchers define intelligence as what is measured by intelligence tests, but some scholars argue that this definition is inadequate and that intelligence is whatever abilities are valued by one's culture. According to this perspective, conceptions of intelligence vary from culture to culture. For example, North Americans often associate verbal and mathematical skills with intelligence, but some seafaring cultures in the islands of the South Pacific view spatial memory and navigational skills as markers of intelligence. Those who believe intelligence is culturally relative dispute the idea that any one test could fairly measure intelligence across different cultures. Others, however, view intelligence as a basic cognitive ability independent of culture.

In recent years, a number of theorists have argued that standard intelligence tests measure only a portion of the human abilities that could be considered aspects of intelligence. Other scholars believe that such tests accurately measure intelligence and that the lack of agreement on a definition of intelligence does not invalidate its measurement. In their view, intelligence is much like many scientific concepts that are accurately measured well before scientists understand what the measurement actually means. Gravity, temperature, and radiation are all examples of concepts that were measured before they were understood.

Hmmmm... So where does that leave us?