

The following ideas about creativity apply to designers of the environment. They were found in the 1993 text by Howard Gardner, entitled, Creating Minds - An Anatomy of Creativity Seen Through the Lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi.

CREATIVITY

The key idea in the conception of creativity is *divergent thinking*. By standard measures intelligent people are thought of as convergers - people who, given some data or a puzzle, can figure out the correct (or at any rate, the conventional) response. In contrast, when given a stimulus or a puzzle, creative people tend to come up with many different associations, at least some of which are idiosyncratic and possibly unique. Prototypical items on a creativity test ask for as many uses as possible for a brick, a range of titles for a story, or a slew of possible interpretations of an abstract line drawing: a creative individual can habitually issue a spectrum of divergent responses to such an item, at least some of which are rarely encountered in the responses of others.

After considerable debate and experimentation experts reached three conclusions. First, creativity is not the same as intelligence. While these two traits are correlated, an individual may be far more creative than he or she is intelligent, or far more intelligent than creative. Moreover, when talented individuals are examined, it is clear that creativity is independent of intelligence, once a threshold IQ has been reached.

BEHAVIORIST PERSPECTIVE

While the psychoanalytic tradition shares little else with the American behaviorist school, representatives of both perspectives agree that individuals engage in creative activity largely because of the material rewards they secure. In Freud's account, artists seek power and money find a haven in creative activities; or they attain indirectly from their creative work some of the pleasures they crave. In Skinner's behavioral terms, people engage in creative activity because of a previous history of rewards, or "positive reinforcements."

INTRINSIC MOTIVATION

In a series of illuminating experimental demonstrations, social psychologist Teresa Amabile has called attention to the importance of "intrinsic motivation." Contrary to what is predicted by classical accounts, Amabile has shown that creative solutions to problems occur more often when individuals engage in an activity for its sheer pleasure than when they do so for possible external rewards. Indeed, knowledge that one will be judged on some criterion of "creativity" or "originality" tends to narrow the scope of what one can produce (leading to products that are then judged as relatively conventional); in contrast, the absence of an evaluation seems to liberate creativity.