

**The capacity to bring together knowledge and imagination is called "creativity". Creativity can be defined as many ways as it can be conceived.**

As its simplest, creativity could be described as the ability to create products or ideas which are original and which possess a strong social usefulness. This definition, however, is not the whole answer. Frank Barron, one of the most important researchers in this field, offers a more articulate description of creativity. First creativity is considered in terms of the characteristics of the creative product and the social acknowledgement obtained. A criterion of usefulness is implied in, although not essential to, this definition. Secondly the creative product can be considered in its own context: the difficulty of the problem resolved or identified, the elegance of the solution proposed, the impact of the product itself. Thirdly creativity can be conceived on the basis of the abilities that favor it, id est as skill or aptitude.

Creativity, in fact, can be properly conceived as a cognitive capability separate from other mental functions. It appears increasingly independent from the complex of abilities grouped under the word "intelligence", although it has a strong interrelation with these mental abilities. Generally, creatively gifted individuals tend to score higher than the mean of the general population in tests measuring "intelligence", and are also evaluated as more intelligent than the mean of their peers by independent observers. Elevated performances in IQ tests, however, do not guarantee a proper utterance of creativity. The most complete studies on this topic (the Terman study on a group of gifted children followed through their lives, and the McKinnon study on a wide group of architects indicated as cleverer than the mean by their colleagues) showed that intelligence gifted people have better social skills and health than the mean of people of their own age, although with higher suicide rates, but are no more creative than the general population. So, as indicated by the study of McKinnon, there is no correlation, above an IQ level of 120, between IQ scores and creative ability, however measured. Intelligence and creativity, hence, seem independent of the other cognitive capabilities which identify an individual.

## GENIUS AND MADNESS

The Italian psychiatrist and criminologist Cesare Lombroso has over the past century been the most consistent supporter of this hypothesis. In one of his best known books, "The Man of Genius", Lombroso illustrates his thesis in a circumstantial way referring to the genius and the lunatic, extreme types related by a shared genetic basis, which taints the descendants of the most gifted families. Lombroso was not the first to assert that there is a tight link between mental illness and creative achievement.

More than two millennia earlier, in the fragment known as "Problemata XXX", Aristotle, or a disciple of his, raised the question as to why the vast majority of the eminent people are afflicted by "melancholy", i. e. suffer from a mental disorder. The text, now accepted as part of the

Aristotelian canon, is surprising in its modernity and accurately describes those characteristics peculiar to one of the most diffuse mental disorders, manic-depressive psychosis. The author of the *Problemata XXX* indicates many behavioural characteristics as attributes of the more eminent people of his time, attributes such as mood instability, proneness to depressive withdrawal, impulsiveness, tendency to alcohol and drug abuse, high risk of suicide, all of which are peculiar to patients suffering from manic-depressive illnesses. In the *Problemata XXX* there are also illustrative stories taken from myth and literature, with a gallery of examples mixing excellence and bizarreness, often with a tragic outcome.

Cesare Lombroso was among the first to apply a less anecdotal method to the investigation of the relationship between the creative gift and the risk of a mental illness, offering an answer that is nevertheless the positivistic version of the romantic myth

The two principal studies performed in the era preceding the systematic ordering of the more recent classifications (DSM III, and now IV, and ICD 9, and now 10), show among both artists and scientists a prevalence of severe mental disorders significantly higher than among the general population, with a strong familial association between creativity, psychopathology, and higher suicide rates. In a study performed in Germany from 1927 to 1943 on 5000 individuals, Adele Juda, at that time researcher at the Institute for Psychiatry of Munich, evaluated frequency and distribution of psychiatric disorders in a well selected sample of eminent artists, scientists and their relatives. The study shows a significantly higher prevalence of mental illnesses among eminent people and their families compared to the general population. Among artists disorders of the schizophrenic spectrum and psychopaties were most common. Among scientists, instead, disorders of the cyclothimic type, in particular manic-depressive psychoses, were more frequent. In both groups there was a high suicide rate and a strong familial heredity in the transmission of the psychopathological trait and of creative talent.