Abstract

Handedness is one of the most distinct asymmetries of the human body. There is approximately 90 % of right-handers in the population, which is the strongest bias in handedness among all primates. Handedness is connected with lateralization of brain for language and is determined both genetically and by the environment. Genetic determination of the handedness has not been yet figured out, although there are many candidate genes and regions. In addition to candidate genes, the genetic determination is shaped by the epigenetic mechanisms and the role of testosterone. Handedness occurred alongside the beginning of the human population development, approximately in the Middle Pleistocene, with the same percentage of left-handers as today. Handedness polymorphism is maintained in the population based on the frequency-dependent model because of the advantages and disadvantages associated with left-handedness.