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Poster Presentation

Memory and Talent

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Abstract

A person, who is talented, performs in a certain capacity above the norm. Talent is different from intelligence which is a response to a circumstance using knowledge and skill. The attributes of talent are exceptional memory, rapid processing speed, and high motivation, an affinity for learning, creativity and optimal cognition. There is some proof suggests that certain aspects of talent are related with heritable code. Heritability of talent could be detected by structural and functional neuroimaging and genetics. Genetic studies provide evidence that some cortical areas like the corpus callosum, frontal parietal cortices, bilateral temporal cortices, insular cortex, and the dorsolateral performance cortex provide the structural basis of optimal intellectual talent. In contrast, brain structures that work for learning like hippocampus are more influenced by environment and experience. A study that investigates phenotypic, genetic and environmental relationship between talent and intelligence, reports that there are phenotypic relationships between self-report ability scores and measured intelligence scores; and these two scores have significant correlation at the genetic level. It also has been reported that phenotypic correlation are generally low between memory and heritability. When the brain is influenced by environment and individual experience, the levels of synapse and individual neuron change, and these changes are brain plasticity. Anatomical organization and functional algorithm are influenced by endogenous enrichment or atypical development in plasticity. Learning is a kind of plasticity that occurs between brain neurons and environmental factors; when these interactions cause an extraordinary performance in a person, we could observe talent. It could be concluded that talent is memory with an extraordinary performance. This high quality in performance is due to some genes which have different expression in different people. People are able to change their memory with different manner in getting input factors from environment, but talent is hereditary and could not be improve by personal attempt.

Key words: Aptitude, Intelligence, Hippocampus, Memory.

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