

Sensory keenness theory of intelligence by galton and cattell with cattell-horn-c...

[Psychology](#)



**ASSIGN
BUSTER**

The paper "Sensory Keenness Theory of Intelligence by Galton and Cattell with Cattell-Horn-Carroll Theory" is a wonderful example of an assignment on psychology. Sensory Keenness Theory of intelligence proposed by Sir Francis Galton and James McKeen Cattell has based on the conception that intelligence required keen sensory abilities and fast reaction time.

Measurement of intelligence was based on various physical measurements including reaction time (Cordon, 2005). Horn (2006) describes this as the keenness of sensory discrimination including acuity in seeing, hearing, tasting, smelling, and sensing touch. The Cattell-Horn-Carroll (CHC) Theory of Intelligence has based on the postulation that human cognitive abilities consist of three strata: general intelligence or g (stratum III), broad cognitive abilities (stratum II) and narrow cognitive abilities (stratum I). The broad cognitive abilities include fluid reasoning (Gf), comprehension-knowledge (Gc), Short-term memory (Gsm), Visual Processing (Gv), Auditory Processing (Ga), Long-term Retrieval (Glr), Processing Speed (Gs), Reading and Writing (Grw), Quantitative Knowledge (Gq), and Decision-reaction time or Speed (Gt) (Evans, Floyd, McGrew & Leforgee, 2001).

Horn's (2006) experiments depicted that several broad factors, as described in the CHC model are linked with several brain functions. Sensitivity to each type of stimulus elicited by the main sense organs of the body varies and depends upon one's ability to become aware or conscious of the stimuli present in the external and internal environment. These sensations form impressions of the world; in psychological terms, they form the perceptions as human beings tend to organize the sensory information into meaningful understanding (Mangal, 1988). This understanding shapes different cognitive

abilities such as reasoning, knowledge, memory, visual-spatial relationship, reading and writing, quantitative knowledge, etc. Deriving a definition from this concept, intelligence may be defined as the individual's extent of understanding of the internal and external world through impressions formed through cognitive abilities acquired through different forms of stimuli experienced by the human senses.