International Journal of Yoga, Physiotherapy and Physical Education
ISSN: 2456-5067
Impact Factor: RJIF 5.24
www.sportsjournal.in
Volume 3; Issue 4; July 2018; Page No. 81-82

Effect of brain hemisphere domination upon intelligence of cast

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Abstract
The present study was aimed to see the effect of brain hemisphere domination upon Intelligence of Cast. For the present study, 100 boys from age group i.e. 12, 13, 14 and 15 years respectively were selected from various schools of Chhattisgarh. In all 400 adolescent boys were selected. To assess left, right and integrated dominance of brain, Brain Dominant Hemisphere Test (B.H.D.T), prepared by Agashe and Helode (2007) was used. Malhotra's (1984) Mixed Type Group Test of Intelligence (MGTI) was used. This has two parts i.e.verbal and nonverbal intelligence test. The results reveal that Intelligence of General Cast Boys with integrated brain hemisphere domination was found to significantly higher than the Intelligence of Other Cast Boys with left and right brain hemisphere domination. It was concluded that brain hemisphere domination influence the Intelligence of Cast.

Keywords: brain hemisphere domination, Intelligence, cast, adolescent

Introduction
The brain can be described as being divided into left and right cerebral hemisphere. In general the left and right hemisphere of our brain process information in different ways. Humans tend to process information using their dominant side. It was also found in studies that learning is enhanced when both sides of the brain is used while performing a work.

'Intelligence is not a single, unitary ability, but rather a composite of several functions. The term denotes that combination abilities required for survival and advancement within a particular culture' (anastasi,1992) ' An intelligence is the ability to solve problems, or to create products, that are valued within one or more cultural settings' (Gardner, 1993) [3].

Researchers such as Barlow (2001), Hunt (1997), Deiber (1997), Sakai *et al*. (1998), Planinsec J. (2006) [5], Belinda Ekornas *et al*. (2010) [1] etc. Researh shows that the speed with people are able to retrieve information is related to intelligence. In general people with higer IQ score react quickly on the information processing and perceptual task. Have conducted studies related with intelligence governing various aspects but so far, researchers have not studied the effect of brain hemisphere domination upon intelligence among Cast, Hence, the present study was planned to investigate the effect of brain hemisphere domination upon intelligence of Cast.

Hypothesis
It was hypothesized that intelligence of General Cast Boys with integrated brain dominance will be significant better as compared to intelligence of Other Cast Boys with left and right brain hemisphere domination.

Method and material
To test the abovementioned hypothesis. Following methodological steps were taken.

Sample
For the present study. 100 General Cast Boys and 100 Other Cast Boys from age group i.e. 12, 13, 14 and 15 years respectively were selected from various schools of Chhattisgarh. In all 400 adolescent Cast were served as sample for the present study.

Tools
To conduct the study following tools were used.
Brain Hemisphere Domination Test: To assess domination of left or right side of the brain. Brain Dominant Hemisphere Test (B. D. H. T.) prepared by Agashe and Helode (2007) was used.

Mixed type group test of intelligence (MGTI)
To measure intelligence, Malhotra's (1984) Mixed Type Group Test of Intelligence (MGTI) was used. This test has two parts i.e. verbal and nonverbal intelligence test. Both the parts have 50 statements. The test-retest reliability of the verbal test is 0.89, for nonverbal test. it is 0.82 while full test reliability coefficient is 0.86. The validity verbal test is.86 and for nonverbal test it is 0.72 while the overall validity of the test is 0.87 when it was correlated with teacher's ratings. (Appendix B)

Procedure
Selected boys between age group 12 to 15 from various school of Chhattisgarh state were subjected to the aforementioned tools in a laboratory like condition. First of all the Brain Hemisphere Domination test was administered to each subject And The Mixed Type Group test of Malhotra's (1984) was administered to each subject as per their convenience during school hours. The scoring was done as per the instruction manual provided with each test.

To find out the brain hemisphere dominance. I.e. left, right and integrated brain hemisphere dominance. The scores are

divided by 12, as suggested by the authors of the manual. Percentile norms for these BHDT scores were obtained and the scores while fall below 25th percentile were considered as right dominant brain hemisphere. The score between 25th and 75th percentile were considered as integrated brain hemisphere dominance. By this method brain hemisphere dominance of each subject was ascertained. The scored off as per the scoring key provided with the manual while used.

To find out the effect of brain hemisphere dominance (Left, Right and Integrated) upon intelligence, independent sample 'T' test was used.

Analysis and interpretation

Table 1: Comparison of Verbal Intelligence among Selected Subjects on the Basis of their Caste

Groups	Mean	S.D.	't'
General (N=70)	12.51	2.67	2.24 (NS)
Other Caste (N=330)	11.70	3.06	

*Significant at.05 level

From the analysis of entries reported in table 22, it is evident that verbal intelligence of subjects belonging to general caste (M=12.51) is significantly higher than the subjects of other caste (M=11.70). The reported t=2.24, which is statistically significant at.05 level, confirms this finding.

Discussion

The results of the present study is in line with the dynamic dominance hypothesis of intelligence control, which assumes that voluntary movements are controlled by two specialised brain hemisphere/limb systems. Each stabilising different of task performance (Sainburg & Kalakanis, 2000) [6]. The findings of the present study is consistent with the study of Planinsec J. (2006) [5] who found Verbal intelligence of subjects belonging to general caste is found to be significantly higher than the subjects of other caste. Hence, it is natural that when both sides of the brain is utilised equally and transfer of information between two hemispheres is good the person's intelligence is also good.

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