

Handedness and Creativity : An Extension of Annett's Right Shift Theory

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Abstract

Efforts have always been made to investigate handedness differences in almost all the areas of human functioning. But the most prominent among these efforts have been the one that link various aspects of cognitive functioning and cognitive skills to differences between the handedness groups. It has been contended that there are differences in cognitive abilities among handedness groups. Annett presented a genetic model of handedness which is widely accepted. This model postulates two alleles at a single locus one leading to right shift(rs+) and one leading to a randomly determined lateralization(rs-) with a mean shift of zero, equal number of individuals being lateralized to left or right. This provides for three genotypes rs++, rs+ -, rs - -. It is claimed that there is a heterozygous advantage for rs+ - individuals over both rs++ and rs- - on measures of cognitive abilities. Present study attempted to examine if this model could be extended to creativity. Baqer Mehadi's non-verbal test of creative thinking was administered to 240 subjects (of both sexes,) selected out of 2645 subjects (initial sample) on the basis of hand preference inventory. Hand proficiency task battery (11 tasks) along with non-verbal test of creative thinking was administered to these subjects. The subjects were divided into handedness groups (rs++, rs+ -, rs - -) on the basis of laterality index. Two way ANOVA (sex and handedness) with Newman Keuls post hoc test was done along with analysis of trends through orthogonal polynomials. Results revealed that the heterozygotes (rs+ -) scored significantly better than both the homozygotes (rs++ and rs - -) on creativity (total scores) as well as on elaboration non-verbal and originality verbal. Main effect of sex was significant only for elaboration non-verbal and originality non-verbal. None of the interactive effects was significant. Findings are discussed in the light of right shift theory.

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