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Behavioral Genetics

Behavioral Genetics: Heritability

The quantitative fields of genetics started from 1920 have followed demonstration of statistical data showed that traits are that are commonly distributed may arise by means of multiple gene's action and each one has relatively smaller effects. There are two ways of studying the methods of heritability and those are twin and adoption studies with respect to environmental factors. An environmental factor includes variance proportions explained by common or shared influences in the environment. For example a family member may be exposed to environmental disadvantages; furthermore the effects to the peculiar behavior may appear to be a non-shared factor different from genetic analysis.

The method commonly used for twin studies is Monozygotic which explains that, twins that came from the same fertilized egg have 100% common genes. The Dizygotic however has 50% similar genes. The studies of twins normally are based on several numbers of assumptions. The strength of this method is that assumptions of equal environment are always correct and can be measured by questionnaire. The weakness of this study is it ignores the possibilities of the role prenatal environment.

In Adoptions studies it involves the adoptive and biological relatives of an individual. If he individual and the parent are relatives or related by genes it is evident that traits are similar to that of the adopted parents, however environmental factors are also taken into consideration in terms of

influences. The weakness of this method can only examine limited range of issues such as psychosocial factors and not much of the genetic influences. The strength in this method which environment and genetic influence evidently shows working hand in hand makes a much generalized conclusion of hereditary measures.

References

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Web Retrieved on February 17, 2012 from [http://www. nuffieldbioethics. org/sites/default/files/files/Genetics%20and%20behaviour%20Chapter %204%20-%20Quantitative%20genetics. pdf](http://www.nuffieldbioethics.org/sites/default/files/files/Genetics%20and%20behaviour%20Chapter%204%20-%20Quantitative%20genetics.pdf)