POPULATION DISTRIBUTION OF AGRESSION TYPES AMONG UKRAINIANS

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The number of works devoted to biology of aggression in both animals and human is enormous. It has been recognized that a human in terms of his biological natures is an aggressive creature. This aggression has been evolving during evolution of *Homo sapiens* as of a biological species. It is believed that inherent for a human are both pro-social behavior with its utmost trait of altruism and antisocial behavior with its utmost form as aggression. Aggression of a human is a species characteristics which means that a human possesses physical, cognitive and emotional systems capable for inflicting intentional harm to others. In animals and in humans aggression is an inborn response to potential threat or provocation. This conclusion is based on the researches of outstanding ethologists, anthropologists and psychologists: C. Laurentz, E. Wilson, S. Freud, R. Baron, D. Richardson etc.

Apart from aggression which is typical to all the members of population antisocial behavior generally includes psychological disorders in particular psychopathy, antisocial personality disorders diagnosable in 5-10% of population as well as offensive patterns of behavior demonstrated by 20-30% of population. The variants of antisocial behavior interpretation by psychologists, psychiatrists and criminologists are highly inter-correlated. For this reason the behavioral genetics often most researches both antisocial behavior as it is and its individual components like aggression. Knowledge of the nature of aggression, genetic control of its physical and biochemical processes we can find a means of positive aggression control.

The aim of this research is to study population-related distribution of certain aggression types among the population of Ukraine in two successive generations.

The research covered 2305 people of Ukraine aged 14 to 72 from Kharkiv City and Kharkiv region mostly who gave informed consent for questionnaire survey.

The information was collected in compliance with ethical standards of communication. The questionnaire gave social and demographic information. The probands were 741 men and 1501 women. The researched population comprised 74 married couples, 105 couples of siblings and 352 parent-child couples, 1174 peoples were researched with no relative. The groups were formed depending on the task of research. One group included the persons aged under 35 with the youngest one being 14 years old. The second group included the people who are more than 35 with the oldest being 72 years of age. The average age of the examined from younger generation was 19.3±0.1 years old (s = 3.8), modal age was 17 years old and medial

age made 17 years old. Among the older generation respondents the average age was 43.8±0.3 years (s = 7.2), the modal age made 40 years and medial age was 42 years. The difference between the average ages of younger and older generations of respondents is 24.5 years which corresponds to the time segment equal to one generation in terms of genetics.

Different types of aggression were assessed under Buss-Durkey Inventory.

Verification of data for compliance with the law of normal distribution in big groups (n>30) was made by the method of Kolmogorov-Smirnov. The parameters of symmetry and excess with subsequent verification of zero hypothesis about their equaling to zero were calculated. Comparison of two groups arithmetic average was accomplished by Student method. The conclusion on statistical hypotheses was made at $p \leq 0.05$ level.

The database was formed with Microsoft Excel software. The calculations were made in Microsoft Excel и Biostat software.

Study of population distribution in terms of behavioral features is not only a means of behavior polymorphism assessment but rather an essential preliminary stage of genetic analysis, determination of population incidence, risks, etc. It was found that distribution of aggression is mostly normal. The signs of sexual dimorphism and cohort effect were revealed which are related to the disparities between generations. For example physical aggression is more common for men of both generations. There are signs of verbal aggression and negativism among older generation. On the whole in terms of the majority of aggression types the differences between generations are traceable among women only.

Some scholars explain aggression from the evolutionary point of view. According to this view the people having common genes tend to show less aggression towards each other.

The analysis of aggression types in terms of different population has shown that distribution of the most of these types correspond to Gauss' Law. Defining the character of behavioral features distribution will make it possible to select the proper methods for assessing heritability coefficients in the subsequent genetic analysis. The value of gender differences was in average 10% of the range of features deviation. More significant differences between representatives of different generations were fixed among females.