

Aggression and Empathy as Genetic Differentiation Factors of Urban Population

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Abstract—Permanent residents of Kharkiv (637 men and 856 women at the age of 45–65 years) are tested on the level of aggression and empathy. The average aggression level (41.7 points) is higher in migrants (born outside Kharkiv) than in indigenous people (36.3 points); the average empathy level is lower in migrants (3.2 points) than in indigenous people (5.5 points). The average values of the aggression and empathy indices are not associated with ethnicity and degree of miscegenation. The correlation between spouses (r) by these personal features is within 0.20–0.31; the marriage conjugation index (K) is 0.13–0.18. Genotyping of the married couples for the *rs2235186* SNP of X-linked monoaminooxidase (*MAO-A*) gene detected a positive marriage assortativeness: the $C \times CC$ and $T \times TT$ pairs are developed more frequently than during panmixia; the $C \times TT$ and $T \times CC$ pairs, less frequently. The T allele is coupled with increased aggression level and decreased empathy level. The phenotypes of heterozygous women indicate the intermediate inheritance of these traits.

Keywords: marriage structure, aggression, empathy, *MAO-A rs2235186* SNP

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