

# **STATEMENT OF OPINION**

**By D.Sc. Rumen Ivanov Stamatov**

**Varna Free University "Chernorizets Hrabar"**

concerning a dissertation for awarding the educational and scientific degree "doctor" by:  
field of higher education 4. Natural sciences, mathematics and informatics; professional direction  
4.3. Biological Sciences; PhD program Genetics

**author: Stanislav Ivanov Ivanov**

**topic: "Human phenotypical diversity in a complex  
of descriptive and behavioral characteristics"**

**scientific supervisor: Prof. D.Sc. Evgeniya N. Ivanova**

## **1. General description of the materials presented**

I have been appointed by an order No. RD-22-215/28.01.2025 of the Rector of the University of Plovdiv "Paisiy Hilendarski", as a member of the scientific jury to ensure a procedure for the defense of Stanislav Ivanov Ivanov's dissertation work on the topic "Human phenotypical diversity in a complex of descriptive and behavioral characteristics" for the acquisition of the educational and scientific degree "doctor" in the field of higher education 4. Natural sciences, mathematics and informatics; professional direction 4.3. Biological sciences; doctoral program Genetics. Stanislav Ivanov is a doctoral student in the Department of Developmental Biology of the Paisii Hilendarski University. The set of materials presented by Stanislav Ivanov complies with the requirements of the Act on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the relevant Regulations of the "Paisii Hilendarski" University. It includes a dissertation, an abstract and attached publications and other documents.

## **2. Relevance of the topic and appropriateness of the set goals and objectives**

The debates surrounding personality and its unique manifestations have a long history. In this space, different approaches are found in the attempt to understand it, and one of these approaches is related to personality traits. The theories that describe personality through traits are very diverse, and among these theories, the theory known as the "Big Five" stands out. Personality traits reflect characteristic patterns of behavior and thinking. In these approaches, differences are sought in the place they occupy and the constancy of their prominence over time in different situations. What gives value to the presented dissertation research is the attempt to

trace the genetic presences in understanding these constructs, which from a psychological point of view enriches the understanding of the individual characteristics of personality, conceptualized through this approach. Thus, research searches are focused on revealing connections between genetic and psychological constructs, which assigns a special place to the dissertation work in the field of interdisciplinary research and testifies to its value.

### **3. Knowing the problem**

The presented study is interdisciplinary and structured in two parts. The first part is theoretical and includes a detailed analysis of the studied constructs in the field of genetics and psychology. I will focus on the analysis of the constructs that are in the field of psychology. Research on personality is united around different approaches and theories. In this study, personality is considered in the context of theories of personality traits. The choice of the theory, known as (The Big 5), is extremely good for the purposes of the study, as it operationalizes individual traits in a way that provides different opportunities for tracing the connections between social and genetic factors. The individual traits that construct the structure of personality are presented in a meaningful way, the connections with cognitive processes and behaviors are traced, as well as their development in an ontogenetic plan. The analysis is supported by various empirical studies that outline the problem areas and complement the grounds for formulating the research tasks.

The idea of applying an interdisciplinary approach is extremely heuristic, as evidenced by some of the results, which are novel for the Bulgarian population.

The empirical part covers goals, objectives, hypotheses, research methods and analysis of the results. The results obtained are relevant to the research design.

### **4. Research methodology**

The empirical study was carried out using the following methods: data collection through expert assessment of descriptive traits (monogenic and polygenic), as well as data on blood type and surveying - collecting data on prominent traits with genetic predisposition (multifactorial diseases diagnosed by a doctor - myopia and astigmatism, high blood pressure, migraine and allergies, and musical and other talents); assessment of personality traits through the questionnaire "Big 5" - "Markers for the Big Five Factors" in its adapted version for the Bulgarian population (Alexandrova-Karamanova, 2016).

The research methods are relevant to the research design and the personality trait assessment questionnaire has good psychometric properties.

### **5. Characterization and evaluation of the dissertation work and contributions**

The dissertation has a volume of 202 pages in the main text, which includes 38 figures and 37 tables. The structure includes an introduction as an introduction to the research topic, followed by a literature review of the main constructs, goal, tasks, methods, analysis of the results, discussion of the results, conclusion and literature. The bibliography has 456 titles, of which 5 are in Bulgarian and 451 in English.

The study itself is structured in two parts: The first is dedicated to the investigation of the main constructs of morphogenetic genetic traits, diseases with a genetic component, musical talents and creative characteristics and basic personal characteristics, among which stands out a complex of traits designated as the "Big Five" and their distributions by individual traits. The second part is dedicated to the empirical investigation and is a continuation of the theoretical analyses presented in the first part. It includes goals, tasks, hypotheses, research methodology and analysis of the results and discussions. In this way, two areas have been identified in which the analyses are carried out.

## **6. Contributions and significance of the development for science and practice**

Stanislav Ivanov's contributions are comprehensively summarized and correspond to the research conducted. In general, I would like to note the following positive points:

- an original understanding of the research problem is presented in the context of an integrative approach with opportunities for enriching knowledge about the influences of genetic factors on personality traits;

- a statistically significant relationship between the Rh blood group factor and emotional stability is outlined;

- a comparative characteristic of creative potential and its connections with basic personality characteristics in the Bulgarian population is presented;

- a systematized interdisciplinary approach is used to examine the population-level phenotypic diversity in a representative sample of the Bulgarian population, as monogenic, polygenic and multifactorial traits are studied in a complex, including descriptive, immunological, genetic predisposition and basic personality characteristics;

- contributions to the knowledge of polymorphism in the Bulgarian population are outlined through the prepared complex phenotypic profile with an emphasis on the established trends and statistically significant dependencies between psychological, on the one hand, and descriptive, immunological and multifactorial signs, on the other.

The results obtained from the empirical study are relevant to research in this area and provide additional understanding of the studied constructs.

## **7. Evaluation of the publications and personal contribution**

The publications on the topic of the dissertation are in the form of articles and reports presented at scientific forums and meet the requirements. The articles and reports are 4 and 6, respectively, and are published mainly in scientific journals with a quartile (Q4, Q3). Three additional (Q4, Q3) publications are presented, which also outline the research in the researched issue.

## **8. Personal participation of the PhD student**

Stanislav Ivanov has independently completed the entire dissertation research. The text, the results obtained and the contributions are his personal work.

## **9. Abstract**

The abstract contains the main statements in the dissertation work, the results and their analysis. I believe that it is adequate to the dissertation work and objectively reflects the theoretical analyses and the main results presented in the content of the study.

## **CONCLUSION**

*The dissertation shows that PhD student Stanislav Ivanov possesses in-depth knowledge on the topic.*

*I believe that the candidate meets the conditions and procedure for awarding the educational and scientific degree "doctor" meet the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the relevant Regulations of PU "Paisiy Hilendarski".*

*After the arguments presented, as well as based on the overall positive assessment of the completed dissertation research, I propose to the scientific jury to vote positively and award the educational and scientific degree "doctor" to Stanislav Ivanov Ivanov, for which I also cast my affirmative vote.*

20. 02. 2025

Prepared the opinion:  
(Prof. Rumen Stamatov)