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## **THE FOURTH GENERATION OF HUMAN RIGHTS: GENERAL THEORETICAL ASPECT**

**Introduction.** Today, humanity is at a qualitatively new stage of evolutionary development. The scientific and technological revolution of the late XX – early XXI centuries, accompanied by incredible discoveries in medicine, biology, genetics, the rapid development of information and communication technologies and the popularization of digital space have led to significant changes in human consciousness and a new generation of people called "generation Z". This led to the modernization of social relations, including legal ones. So, issues related to the use of the Internet, virtual reality, euthanasia, sex change, organ transplantation, artificial insemination, cloning, etc. have become increasingly popular. The need for regulation of new social phenomena gave rise to the fourth generation of human rights (next – FGHR).

Today in scientific circles there is an argument about the feasibility of research and further consolidation of the modern generation, however, it should be mentioned that opportune regulation of human rights, bringing them into line with modernity is one of the most important aspects of improving the legal systems of all countries, contributes to the harmonious existence of society at all.

**Review of recent publications.** It should be noted that the following scientists have devoted their scientific works to the issue of research of the general theoretical aspect of FGHR: O.O. Barabash, S.B. Buletska, A.B. Vengerova, Y.A. Dmitrieva, M.V. Koval, O.G. Kushnirenko, A.P. Semitko, M.P. Tyrina, D.M. Shebanitz, etc.

However, taking into the account the young nature of the modern generation of rights, its study raises a number of new questions for scholars regarding its concept, characteristics, classification and feasibility of regulation. This necessitates further study of FGHR.

**Objectives of the paper** is to analyze the general theoretical aspect of the fourth generation of human rights (concepts, essence, characteristics, meaning and approaches to classification).

**Results of research.** The traditional classification of human rights, developed by the french scholar Karel Vasac, consists of three generations: the first consists of civil and political rights, the second – socio-economic and cultural rights, the third – collective rights, or the rights of “solidarity”. Such a division is a fundamental base for human rights defenders, and the rights themselves are a key object of legal protection [1: 214]. However, considering the processes taking place in the world today, it is difficult to disagree with N.B. Mushak, who believes that the concept of human rights is dynamic and therefore constantly evolving [2: 298].

O. Tereshkun warns that “anyone who has ever thought about the problems of the future of human nature, the consequences of genetic manipulation, understands what dangerous risks can be brought to humanity by uncontrolled science and technology [3: 129]. This means that the research, recognition, acceptance and further realization of the rights of the fourth generation is not just a whim of the XXI century or fashionable trends, and the need to establish legal control over new social phenomena. The lack of proper regulation can lead to an imbalance in the entire legal system.

It should be noted that in the scientific literature there is no exact definition of FGHR. However, the analysis of its characteristics allows us to interpret the modern generation as generated by the evolution of social processes, especially the results of the scientific and technological explosion of the late XX - early XXI century, a range of human rights, including the right to sex change, organ transplantation, cloning, same-sex marriage, artificial fertilization, euthanasia, a child-free family and independent of government interference in religious, moral, and the right to virtual reality and access to the Internet [3: 129].

As for the classification of the modern generation, the opinions of scientists are divided into three camps: one to the fourth generation proposes to assign only somatic rights, the second – only informational, and the third – both somatic and informational. Proponents of the first approach to FGHR includes the right to die, the human right to its organs, reproductive rights (positive – artificial insemination, and negative – abortion, sterilization), the right to change sex, the right to clone the whole body and individual organs, transplantation, euthanasia [4: 15-18]. They are also defined as “the protection of human rights in the field of bioethics” or “the protection of human beings from the threats posed by experiments in the field of genetic inheritance.” M.P. Tyrina offers as the fourth generation of rights to distinguish biological rights – those that are determined by the biological structure of the human body, its biological needs [5: 730-731].

Another position is taken by scientists who call FGHR information rights and link them with the informatization, technology and development of virtual reality in general, in particular I Diorditsa [6], Y. Dmitriev [1]. Information law as a branch of law is defined as a set of rights directly related to the development of information and communication technologies and the formation of the information society [7: 156], which is relevant in the modern development of legal doctrine, and information rights as a measure of possible behavior in the information sphere; as state-guaranteed human capabilities to meet their needs in obtaining, using, disseminating, protecting and protecting the amount of information necessary for life [6: 117].

However, scientists such as D. Shebanitz [8], M. Koval [3], D. Krylova [9] do not agree that these two groups of rights should be separated and propose to refer to the fourth generation as the right to sex change, organ transplantation, cloning, same-sex marriage, artificial insemination, euthanasia, a child-free family and independent of state interference in religious and moral matters, as well as the right to virtual reality and access to Internet, to include in the list of FGHR and somatic, and information rights. This concept is the most appropriate, because both groups of rights correspond to the essence of the modern generation. In addition, this classification is most often used in the scientific literature.

An independent group of scientists consists of foreign scientists, who refer to the fourth generation of rights related to genetic engineering and space exploration (for example, the Romanian researcher A. Cornescu) [10: 20-21].

Therefore, among the list of fourth generation rights, two groups of rights were formed: somatic and informational. However, such a division is conditional, as FGHR is in its infancy and therefore their list may be expanded. In addition, it is quite difficult to talk about a specific number of rights that belong to the modern generation, because there is no regulation.

**Conclusion.** Consequently, the main problem of FGHR today is the lack of scientific validity and lack of legal enshrinement, which causes a collapse in the perception and proper interpretation of the essence of this phenomenon.

Taking into the account all mentioned above it follows that FGHR – is generated by the evolution of social processes, especially the results of the scientific and technological explosion of the late XX – early XXI century, a range of human rights, including somatic and information rights, which are dynamic in nature (prone to constant modernization) and require immediate attention of the legislator for a more accurate interpretation.

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## **EFFECT OF OXIDATIVE ACTION OF POTASSIUM HEXACYANOPHERATE (III) ON HEMOGLOBIN**

**Introduction.** Hemoglobins are structurally related proteins in the erythrocytes of vertebrates. They perform two important biological functions: they transfer O<sub>2</sub> from the lungs to peripheral tissues and CO<sub>2</sub> and protons from peripheral tissues to the respiratory organs for further excretion from the body [1: 55]. The interaction of hemoglobin (Hb) with the oxygen molecule is a complex process that includes changing the spin state of the iron ion, increasing the size of the porphyrin cycle nucleus, changing the tertiary structure of the corresponding subunit, rearranging the quaternary structure of the whole Hb molecule. Under certain conditions, equilibrium oxygen binding can switch to an irreversible autooxidation reaction to methemoglobin (metHb). This process is the main source of oxygen free radicals in the erythrocyte, namely superoxide radicals (O<sub>2</sub><sup>·-</sup>) [2: 42-48].

Despite the fact that hemoglobin has been studied quite well, there are still many unresolved issues related to its functioning. Some of them are of interest for general and theoretical biology; others are relevant for practical medicine. The first group includes the study of molecular mechanisms of signal transmission from hemoglobin to other components of the cell, which is closely related to the study of mechanisms of erythrocyte adaptation, damage and resistance, the second – the development of