## **History of Ophthalmology**

## Contribution to ophthalmology and jurisprudence made by the Filatov-Gernet family: formative years

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The paper presents the careers of outstanding representatives of the Filatov family, V.P. Filatov and M.M. Gernet, prominent scientists in the field of ophthalmology and law. It was shown that their personality development was influenced by the family, their parents, P.F. Filatov and N.A. Gernet, and other numerous family representatives. While studying at Moscow University, the young scientists demonstrated their talent, intelligence, and commitment to science, which helped them continue their career.

**Keywords:** Filatov V.P., Gernet M.M., biographical method, career, ophthalmology, jurisprudence

A revive of scientific interest in life paths of the distinguished figures in science makes this paper currently important. In such investigations, a biography of a certain person is outlined as a chronology of real events and subjective decisions influenced by various factors. Biographical research is a method for collecting the socially significant information and reflecting the relationship between historical processes and characteristics of a particular individual. Today, this scientific direction is being actively developed; there has been formed a system of methods for gathering the bibliographic information with its complex and often contradictory relationships. From this point of view, of great interest is the careers and contribution to science of outstanding representatives of the Filatov family, V.P. Filatov and M.M. Gernet, who significantly changed the theory, methodology and practice of such sciences as ophthalmology and jurisprudence.

It is reasonable to divide the analysis of publications into three groups. The first group comprises researches related to the peculiarities of the use of the biographical method which were carried out by A. P. Valevskii, G. V. Bykov, N.I. Liubovets, S. M. Liashko, V. I. Popik, T. M. Popova, L. P. Repina, and others. The second group comprises the publications on studying the life paths of V. P. Filatov and M. M. Gernet and includes scientific works of the scientist and narrative sources such as memoirs,

letters, articles in magazines and newspapers, etc. These include works by N.B. Kovalenko, V.A. Rukin, M. Baidan, S. Aidinian, E. Starodubtseva, S. Vasilyeva, D. Vedenieiev. M.M.Gernet's career has been reflected in works by O.V. Sokalskaia, M.D. Shargorodskaia, A.A. Gertsenzon, A.N. Blokhintsev, D.P. Zakharov, and P.O. Filipov. The third group comprises the research papers of the scientists including their manuscripts, scientific articles, textbooks, manuals and recommendations. Despite the presence of these papers, a comparative analysis of M.M. Gernet's and V.P. Filatov's biographies has not been carried out, so this issue requires a consideration.

The purpose of the paper was to establish a kinship between V.P. Filatov and M.M. Gernet and their contribution to ophthalmology and law.

To start with, it should be noted that in this work we used a biographical method which makes it possible to find the connection between the creative careers, historical events and political and social conditions which influenced the features and development of personalities. This approach can be realized practically on the example of the biography of such prominent scientists as V.P. Filatov (1875-1956) and M.M. Gernet (1874-1953), who were representatives of the Filatov family.

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At the first stage, it is necessary to describe in brief the life paths of these outstanding scientists and determine their family ties. Thus, Volodymyr Petrovich Filatov is a prominent Soviet scientist, ophthalmologist, surgeon, innovator, poet, artist, memoirist, academician, active member of the Academy of Science of the Ukrainian SSR (since 1939) and Academy of Medical Science of the USSR (since 1944), doctor of Medical Science, and professor. He initiated and founded the Ukrainian institute of experimental ophthalmology in Odesa in 1936. For his achievements in science and social and political life, V.P. Filatov received the title of Hero of Socialist Labor and was awarded the Stalin Prize (1944), the Order of Lenin and the Red Banner of Labor. The scientist published about 460 articles and books on the use of biostimulators and drugs in tissue therapy; he developed and realized into practice a unique method of donor corneal transplantation [3].

Another representative of the Filatovs was Mikhailo Mikolaievich Gernet, Honored Scientist of RSFSR, Doctor of Jurisprudence, professor, laureate of the Stalin Prize, holder of the Order of the Red Banner of Labor. The scientist took his place in the history of jurisprudence as a well-known specialist in the field of criminal law in the Russian Empire and the Soviet Union. M.M. Gernet's research interests were so broad that it is reasonable to categorize them as follows:

- 1) research on the theory and history of criminal law;
- 2) preparation of scientific and practical comments to criminal codes;
  - 3) research in the field of criminal law sociology;
- 4) developments in the field of criminal law statistics;
- 5) studies on the history of the movement for the abolition of the death penalty;
  - 6) studies on the Nazi crimes against humanity;
  - 7) juridical bibliographistics.

The main work of the scientist was a fundamental five-volume monograph called "History of the Tsarist Prison".

It is interesting to establish a kinship between these two prominent scientists; however, given the number of the Filatov family members, it is advisable to get a view only of the two branches of their genealogic tree. A founder of the family was V.P. Filatov's great-grandfather, Mykhailo Fedorovych Filatov (1868-1851), whose family comes from the Simbirsk province. He was a court counselor, corresponding to the rank of lieutenant colonel, and a sergeant of The Preobrazhensky Life-Guard Regiment, in which all members of the Romanov family served.

M.F. Filatov's son, Fedor Mykhailovysh was married to Anna Abramovna Shakhova and they had seven children: Mikhailo (director of salty copies), Abram (obstetrician), Nil (pediatrician), Petro (zemsky doctor, surgeon and ophthalmologist), Boris (lawyer), Fedor (zemsky doctor), and Mykola (doctor). Therefore, Petro Fedorovych was married to Vira Semenivna and they had a son, Volodymyr

Petrovych Filatov. Fedor Mykhailovych's blood brother, Mykola Mykhailovych Filatov had two children, a daughter Nadiya Mykolaivna Filatova and a son Mykyta Mykolayovych Filatov.

According to P.A. Filipov, Nadiya graduated from the Saint-Petersburg Elizabethan Institute for girls, received the title of a public teacher and began teaching German and French at Ardatov Women's School [7]. In 1873, N.M. Filatova got married to Mykola Oleksandrovych Gernet and they had a son, Mykhailo Mykolaiovych Gernet. In light of this, M.M. Gernet was V.P. Filatov's relative on his mother's side. As indicated by N.B. Kovalenko, another son of Mykola Mykhailovych Filatov, Mykyta, graduated from the Faculty of Law and served as a counselor-at-law in Simbirsk [1]. In this place but at the different times served V.P. Filatov's uncle, Mykola Mykolaievych Filatov, a magistrate and counselor-at-law, and V.P. Filatov's cousin, Borys Fedorovich Filatov. This fact suggests that the Filatov family was represented by a significant number of lawyers who achieved significant professional achievements in the legal industry.

At the second stage of the study, it is necessary to work through biographical materials, which are an important tool for studying social development through the prism of the careers of certain individuals. Today, there is a situation in the world where the process of globalization gives rise to theories of collective scientific research, which rejects the contribution of individuals. Such an approach does not reflect the actual situation because in any society, especially in the scientific community, there are processes of hierarchization based on the pyramidal division of the level of scientific research. In contrast, there is an increasing interest in biographical research, which provides an opportunity to show the role of the individual in the process of acquiring new knowledge. A biographical method is used through considering three levels that have an effect on the development of the scientist: social and political factors; family influence; and scientific community. Based on this, it makes sense to consider the biographies of V.P. Filatov and M.M. Gernet in view of each of three levels.

Thus, Volodymyr Petrovich Filatov was born on the 15 February in a village of Mikhailivka, Protasova volost, Saransk district, Penza province (now the Republic of Mordovia). Mykhailo Mykolaievych Gernet was born on the 12 July 1874 in a town of Ardatov in Simbirsk Province. So, both scientists worked during the same historical period which covered the difficult time of revolutions, World War I, Civil War, and World War II. Another similarity in their biographies was the fact that they both came from noble families, known in pre-Revolutionary Russia.

M.M. Gernet's ancestors were Livonian noblemen who got into military service during the reign of Peter I. V.P. Filatov's ancestors were nobles and military professionals who were awarded a land (1200 tithes or 1320 hectares) in the village of Mikhalivka for military service.

In terms of social and political factors, the end of the XIX century and the beginning of the XX century are characterized by the rise in the Russian economy, the intensive development of industry, financial system, and agriculture. This process influenced the development of science which had significant achievements thanks to research of such world-famous scientists as D.I. Mendeleev, I.M. Sechenov, M.M. Luzin, O.G. Stoletov, S.P. Botkin, V.I. Vernadskii and others. At the same time, in the Russian Empire, there was an acute question connected with the necessity to carry out the research in the field of ophthalmology since there were thousand hundreds of blind people and about a million trachoma patients in the country with only 209 ophthalmologists in the entire Russian Empire. The need to address this issue led to the appearance of scientific schools of ophthalmologists: A.N.Maklakov and A.A. Kriukov in Moscow University; E.V. Adamiuk in Kazan University; V.I. Dobrovolskii and L.G. Belliarminov in St.Peresburg Medical Surgical Academy; S.S. Golovin in Odesa. At the same time, this historical period in the Russian Empire is characterized by the intensive development of the legal science thanks to research of M.S. Tagantsev, I.Ia. Foinytskyi, P.I. Lublinskii, M.V. Dukhovskii, G.F. Shershenevich. The creative personality of V.P. Filatov was influenced by the practice of his father, Petro Fedorovych who was a zemsky doctor and ophthalmic surgeon. It was in his father's medical office where young Filatov did his internship and gained experience in treating patients as an ophthalmologist. According to P. Tsauder, P.F. Filatov was committed to medicine and sought to help people. Thus, during the Russian-Japanese war, Petro Fedorovych decided to go to Manchuria and work there as a doctor in the active army [4]. At his own expense, P.F. Filatov went to Mukden where he met with Prince Vasilchikov, a commander of the Red Cross of the Russian army, who appointed him a chief surgeon of one of the largest field hospitals. Similarly, V.P. Filatov's decision to become a physician was influenced by his uncle, Nil Fedorovych Filatov (1847-1902). The outstanding science was a founder of the Russian pediatrician school and Head of Pediatrics Department at Moscow University. His name was given to Moscow children hospital and Penza regional children clinical hospital. The third of the Filatov brothers, Fedor Fedorovich, received medical education and was a chief physician at the Moscow-Kazan railway.

Therefore, a professional choice of M.M. Gernet was influenced by his father, Mykola Oleksandrovych Gernet, who carried out socialist propaganda, was accused groundlessly of assassinating Alexander II, and imprisoned in the Peter and Paul Fortress. That is why M.M. Gernet believed that a diploma of a lower could help people and protect them from arbitrariness of the authorities. It should be noted that, according to O.M. Blokhintsev, a researcher of the Gernets' genealogy, the family had a huge library with a significant number of books on jurisprudence,

acquaintance with which influenced the worldview and scientific directions of the scientist [5].

The next factor which influenced the personalities of both scientists was a period of education in Simbirsk Gymnasium, headed by Fedor Aleksandrovich Kerenskii, A father of Aleksandr Fedorovich Kerenskii. At different times, this educational institution was attended by Oleksandr Ulyanov; Volodymyr Ulyanov (Lenin); A.F. Kerenskii, Head of Provisional Government; M.A. Malinovskii, a lower and politician, friend of A.V. Kolchak, Minister of Justice in the government; O.O. Motovilov, a Russian public person and politician, State Duma member, friend of Chairman of the All-Russian National Union; M.D. Ruzskii, Honored Scientist of the RSFSR, zoologist, ornithologist, professor of Tomsk University, founder of the Siberian Scientific School of Zoology; K.X. Orlov, Russian ophthalmologist, Honored Scientist, Doctor of Medical sciences, professor; A.I. Iakovlev, Doctor of Sciences, professor, Soviet historian, corresponding member of AS of the USSR. Another similarity in the pathways of both scientists was Moscow University as a place of their further education. Thus, in 1892 V.P. Filatov entered the Medical Faculty which was the center of medicine and a place of work of M.V. Sklifasovskii, A.A. Bobrov, outstanding surgeons; G.A. Zakharin, A.A. Ostroumov, specialists in internal medicine; A.M. Maklakov, A.A. Kriukov, ophthalmologists; I.M. Sechenov, physiologist; D.M. Zernov, anatomy teacher; N.F. Filatov, pediatrics teacher and V.P. Filatov's uncle. According to N.B. Kovalenko, on graduation from university in 1897, V.P. Filatov, as suggested by prof. A.A. Kryukov, was left as an intern at the eye clinic of Moscow University [2]. Working there, young Filatov was really interested in leukoma-associated vision loss and, then, an idea about a corneal transplant came to him.

Furthermore, in 1893, M.M. Gernet started studying at the Faculty of Law at Moscow University, where among the teachers were such prominent scientists as B.N. Chicherin, K.D. Kavelin, M.M. Kovalevskii, P.I. Novgorodtsev and others. In that historical period, M.M. Gernet began to work on issues of child care and regulatory support of the legal status of their existence. For that reason, M.M. Gernet's diploma dissertation was a paper on Influence of a Young Age on Criminal Responsibility, for which the young scientist received the Gold Medal of Moscow University. During the student years, the scientist became an active member of the illegal student organization and initiated a student magazine called Free Voice, where he published some of his articles and performed editorial work. According to Sokalska O.V., on the graduation from university, M.M. Gernet together with his coursemate A.I. Iakovlev returned to Symbirsk where young lowers started working as assistants of a counselor-at-law in the person of Mykyta Mykolaiovych Filatov, a blood brother of M.M. Gernet's mother [6].

Scientific work of M.M. Gernet was noticed by university teachers and, in January 1898, the scientist was

returned to the Law Faculty where he started his preparing for Master's exams. In 1900, M.M. Gernet demonstrated the results of his work at the Congress of Representatives of Russian Correctional Institutions where he made a presentation *On the Organization of Special Shelters for Incorrigible Criminals who Have Reached the Age of 18.* 

Based on this study, the following conclusions can be drawn. Firstly, V.P. Filatov and M.M. Gernet had a close kinship relationship since M.M. Gernet's mother was V.P. Filatov's aunt. Secondly, A biographical method made it possible to demonstrate the process of forming the creative personality of two outstanding scientists at the micro and macro levels and to prove the influence of the family on the formation of their creative personalities. Finally, it was proved that the careers of the scientists took place in the same historical period; they both studied at Simbirsk gymnasium, got the high education at Moscow University, which, at that time, was a center of knowledge and in which a number of world-famous scientists worked.

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