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Selection and Transformation under the Influence of the Soviet Union: Formulation of the Regulations on Postgraduate Cultivation by Chinese Academy of Sciences in Its Early Stage

In 1953, due to needs of self-development and national construction, in view of experiences of Soviet Academy of Sciences, the Party Leadership Group of Chinese Academy of Sciences decided to take the cultivation of scientific cadres as one of the central tasks and the cultivation of postgraduates as one of the focal points, following which the formulation of *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* (hereinafter referred to as *Regulations*) was carried out. The *Regulations* was formulated in 1955 and issued in August, 1955. Its contents were obviously edified by the Soviet policies and systems for cultivating scientific cadres; however, to formulate regulations on postgraduate cultivation applicable for China's actual conditions, Chinese Academy of Sciences didn't indiscriminately imitate them, but made discreet screening and modification, with the absorption of many comments and suggestions from inside and outside of the Academy. The formulation of the *Regulations* laid momentous systematic foundation for Chinese Academy of Sciences to rapidly play an important role in China's postgraduate education in the next ten years since then. The *Regulations* also provided reference basis for China's institutions of higher learning to accumulate experiences on postgraduate education, and thus facilitated the development of postgraduate education towards the normalized direction.

Keywords: Chinese Academy of Sciences; Soviet Academy of Sciences; scientific cadres; postgraduate cultivation system; licentiate.

The Chinese Academy of Sciences (hereinafter referred to as "CAS") was established in the autumn of 1949, which was the People's Republic of China's supreme scientific institution and scientific research center. Due to needs of self-development and national construction, in view of experiences of Soviet Academy of Sciences, the Party Leadership Group of CAS decided to take the cultivation of scientific cadres as one of the central tasks and the cultivation of postgraduates as one of the focal points in 1953. On August 31, 1955, the State Council promulgated the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences*, which was the first formal ordinance stipulating the postgraduate cultivation. In September, 1955, CAS started the first enrollment of postgraduates, with the examination held in January, 1956, since when CAS had become an important training base for China's senior research personnel.

The academic circles had made some in-depth research on CAS's postgraduate education at its early stage. The *Educational phylogeny of Chinese Academy of Sciences* compiled by Zhang Li et al was a piece of representative works. However, there was no special probing on the formulation of the *Interim Regulations on Postgraduate Cultivation by Chinese Academy*

of Sciences. In fact, the study on the formulation process of the *Regulations* can help understand and know the specific operation process and influence factors during the first formal formulation of postgraduate cultivation system by CAS and promote the research for the history of postgraduate education in its early stage. In view of this, based on the archival data in CAS and related original documents, this study mainly investigated the formulation process of the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* with analysis on the influence of the *Regulations* formulated by CAS.

Part I. Internal Needs and Soviet Experiences: Origin of CAS' Postgraduate Education

The modern postgraduate cultivation system originated from Europe in the early 19th century, generally with the establishment of University of Berlin in Germany in 1810 as the symbol of its birth. In the 20th century, the postgraduate cultivation system was introduced to China proper. Till 1949, despite that the National Government's Academia Sinica which was the highest national academic research institution failed to establish the postgraduate cultivation system, the postgraduate education in colleges and universities had already begun to take shape and formed the normal master and postgraduate cultivation system. Since the foundation of New China in 1949, the people's government abandoned the academic degree system of the National Government, but also recognized the importance of postgraduate education in the national education system; therefore, the master and postgraduate education was still carried out in colleges and universities, with strict requirements imposed over the enrollment of postgraduates.

As the national highest scientific institution and scientific research center, CAS soon attracted and recruited many accomplished scientists after its establishment. Till 1953, there were more than 340 advanced research personnel, but the scientific research force in the research institution was unbalanced, moreover, many scientific research groups were still very weak, with some lack of research foundation. After the implementation of the first the Five-Year Plan, the construction work in various aspects were carried out in large scale, while due to the irreplaceable academic position in China, CAS undertook a lot of difficult national construction tasks. To meet the requirements for national construction and self-development, it was necessary for CAS to rapidly expand its scientific research team.

In February, 1953, in the fervor of learning from the Soviet Union nationwide, CAS dispatched the Soviet-visiting Delegation with the leadership of Qian Sanqiang to visit Soviet and learn how to organize and lead the scientific research work. The major institution that the Delegation visited was the Soviet Academy of Sciences (hereinafter referred to as SAS). On March 19, SAS held a symposium regarding the cultivation of scientific cadres for the Delegation. The Academic Secretary-general named A. В. Топчиев, Director of Scientific Cadre Cultivation Office named Novikoff, and Academician's Delegate Secretary of Department of History and Philosophy and Communication Academician named A. М. Pankratova all made speeches on the introduction of scientific cadre cultivation. A. В. Топчиев especially focused on the introduction of the importance that Soviet and SAS attached to the cultivation of scientific cadres and the significance of cultivating scientific cadres. He said:

Among the various measures of the communist party and the Soviet nation, the cultivation of scientific cadres has occupied an important position for all the times. We spared no money to cultivate scientific cadres and develop the cultivation network widely in Soviet. Till now, there are hundreds of institutions of higher learning and scientific research institutes engaged in the cultivation of postgraduates. In the realization of this glorious mission, SAS played a central role. Every year, there are thousands of scholars passing the thesis defense for candidate doctors and doctors who then joined the expert procession in the national economic and cultural departments and scientific institutions and became teachers of the institutions of higher learning, and staff of government offices.

Novikoff made a speech after A. В. Топчиев and mainly introduced the specific measures and methods that SAS adopted to cultivate the scientific cadres. A. М. Pankratova was a historian with high reputation in Soviet, who had instructed more than 20 postgraduates at that time. She introduced her experiences in cultivating the candidate doctors and doctors.

These introductions touched the Delegation of CAS greatly. After returning to China, every member of the Delegation mentioned “Cultivating talents is an extremely important task for SAS” in the report. The Delegation also stressed in the work report that: One of the major experiences for Soviet and SAS accomplishing huge achievements in a short span of 30 years was to take the cultivation of scientific cadres as the central link. At this time, CAS was seeking for good idea of rapidly expanding the scientific research team. The experiences of Soviet’s cultivation of scientific cadres deeply touched the leadership of CAS. From October 14, 1953 to November 7, 1953, CAS held the meeting of directors of institutes and decided to take largely cultivating scientific cadres as a long-term central task. On November 19, in the report submitted by the Party Leadership Group of CAS to Chairman Mao Zedong and CPC Central Committee, this central task was emphasized, with the proposal of adding the postgraduate office, formulating the drafted regulations on postgraduate cultivation, enrolling the first-year postgraduate in the 3rd quarter of 1954, and starting to plan the cultivation of scientific cadres.¹

On 28 January, 1954, Guo Moruo, President of CAS, made the speech of *Report on the Basic Situation of Chinese Academy of Sciences and the Future Work Tasks* in the 204th execution meeting of the Government Administration Council, stressed again the importance of cultivating scientific cadres, considered the cultivation of postgraduate as the basic link of scientific development, and proposed to start from the actual and present facts of China in combination with the Soviet experiences to “formulate practical systems and measures”. This report was approved in that meeting. On March 8, the CPC Central Committee approved the report submitted by the Party Leadership Group of CAS on 19 November, 1953 and pointed out that: “Vigorously cultivating the new scientific research strength and expanding the scientific research team are important links of developing our country’s scientific research career. CAS and institutions of higher education should seriously carry out the work of cultivating young scientific researchers and establish relevant systems to ensure that”. This means that the decision of establishing the postgraduate system by CAS was formally confirmed and supported by the CPC Central Committee.

¹ Report on Current Basic Situation and Future Work Tasks of Chinese Academy of Sciences by the Party Leadership Group of CAS and Written Instructions from CPC Central Committee (Zhong Ke Yuan Dang Zu Guan Yu Mu Qian Ben Yuan Gong Zuo Ji Ben Qing Kuang He Jin Hou Gong Zuo Ren Wu De Bao Gao Ji Zhong Yang Pi Shi). CAS Doc.: 1954-1-1.

Part II. Formulation Process of Regulations on Postgraduate Cultivation

In fact, at the previous day when the CPC Central Committee approved the report submitted on November 19, 1953, CAS already instructed the Academic Secretariat to carry out the preparation work for formulating the regulations on postgraduate cultivation. The Academic Secretariat was an organization set up in the executing meeting by imitating the organizational setting mode of SAS to strengthen the academic leadership. The Secretary-general named Qian Sanqiang, Deputy Secretary-general named Wu Heng, and Secretaries named Bei Shizhang, Liu Danian, Wang Zhihua, and Zhang Wenyong respectively were all the members of the Soviet-visiting Delegation. On March 6, 1954, the Academic Secretariat held the first meeting, mainly discussed the matters about formulating regulations on postgraduate cultivation. This meeting decided that the Academic Secretariat and Personnel Bureau would jointly undertake the basic preparation work and Wang Zhihua would take charge of the work in the Academic Secretariat and sort the materials. At the same time, the meeting proposed to establish the Drafting Committee for Postgraduate Regulations.

No Later than May 12, Wang Zhihua and the Personnel Bureau drafted the initial regulations on postgraduate cultivation. On May 12, 14, and 17, the Academic Secretariat held three academic affairs meetings in succession to discuss and revise the draft, and finally completed the revised *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences (Draft)* (hereinafter referred to as *Regulations (Draft)*). The Academic Secretariat made large change for the initial regulations drafted by Wang Zhihua and the Personnel Bureau, mainly referring to Soviet policies and systems of cultivating scientific cadres, including the introductions made by Soviet Experts in the symposium for cultivation of scientific cadres held by Soviet Academy of Sciences for CAS on March 19, 1953 and the *Regulations on Cadre Cultivation of Soviet Institutions of Higher Learning and Scientific Research Agencies* brought back by the Delegation from Soviet.

The *Regulation (Draft)* was divided into the General Provisions, Enrollment of Postgraduates, Cultivation of Postgraduates, and Treatment of Postgraduates in turn, with each chapter including 27 articles, among which 16 articles were quoted from the Soviet policies and systems of cultivating scientific cadres, while some regulations were modified in combination with China's actual situation. For example, the length of schooling for Soviet off-job postgraduates was 3 years, and Wang Zhihua and the Personnel Bureau adopted this regulation in drafting the initial edition, but the Academic Secretariat revised it to 4 years. Meanwhile, the Academic Secretariat considered that Wang Zhihua and the Personnel Bureau set too high standards and requirements for the postgraduate cultivation in the initial edition and revised it to: "The scientific research cadres cultivated from the postgraduate system shall reach a certain Marxism-Leninism level, have solid theoretical foundation in his/her own scientific field, and independently carry out the professional and creative scientific research work."²

On June 12, 1954, CAS organized the establishment of the Postgraduate Cultivation and Scientific Incentive Regulation Drafting Committee (hereinafter referred to as Regulation Drafting Committee), with the Vice President of CAS named Zhu Kezhen as the Chairman

² Minutes and Work Plan of Academic Affairs Meeting in 1954 of the Academic Secretariat of Chinese Academy of Sciences (1st – 29th) (Zhong Ke Yuan Xue Shu Mi Shu Chu Yi Jiu Wu Si Nian Chu Wu Hui Yi Ji Yao Gong Zuo Ji Hua Yi Zhi Er Shi Jiu Ci). CAS Doc.: 1954-22-2.

of Committee, and the members mostly being the scientists and academic leaders with high domestic popularity. On July 3, the Regulation Drafting Committee decided to set up a group composed of Qian Sanqiang, Qian Weichang, Zhou Peiyuan, Zeng Yi, Bei Shizhang, Yin Da, and Shen Qiyi to review the postgraduate cultivation regulations. After the review, the 7-member group put forward the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences (2nd Draft)*, which was passed in the 29th Academic Affairs Meeting of CAS on July 29, 1954. After that, CAS asked for the comments from the relevant government departments and institutions of higher learning. On May 6, 1955, the Party Leadership of CAS submitted the revised draft which incorporated the comments from relevant departments to the Propaganda Department of the CPC Central Committee for review and asked for approval from the Secretariat of the Communist Party of China Central Committee.

In June, 1955, in the inaugurating meeting of the Academic Divisions of CAS, the members of the Academic Divisions ardently discussed the *Regulations (revised Draft)* and put forward many ideas and suggestions. Wang You proposed that the requirements of the *Regulations (revised Draft)* were too high and not practical, and thought that the postgraduate tutors' level were not possible to be raised suddenly, as well as the national scientific level and the postgraduate level. Huang Ziqing, Zhang Qinglian, and Wu Xuezhou pointed out that the learning term for postgraduates was too long and suggested changing it from 4 years to 3 years, which shall be so especially when our country was in urgent need of scientific cadres. Huang Ziqing, Zhang Qinglian, Zhao Chenggu, Zhao Zhongyao, Yu Ruihuang, and Qian Linzhao proposed to change the name of academic degree for postgraduates "Vice-Doctorate" to commonly-used "Candidate Doctor" or "Master". Huang Ziqing pointed out that the postgraduate degree was better to be awarded by CAS in a centralized way. The degree thesis of the institutions of higher learning can be decided via the review of the Faculty of CAS. Meanwhile, some members of the Academic Divisions thought that it would be hard to cultivate the postgraduates who are too old and recommended to change the age of the candidates from younger than 40 to younger than 30.³

CAS then amended the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences (revised Draft)* immediately. It can be known from the revised edition that some comments and suggestions, such as changing the period of schooling of postgraduates to 3 years, changing the "Vice-Doctorate" to Candidate Doctor or Master, and changing the age of candidates to younger than 30, were not adopted.

After the inaugurating meeting of the Academic Divisions, the executing meeting of CAS passed the revised edition of *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences (Draft)*. After that, CAS made technical modifications to some of the regulations, following which the whole regulations were divided into "General Provisions", "Enrollment of Postgraduates", "Cultivation of Postgraduates", "Treatment and Work Assignment of Postgraduates", together 4 chapters, with each chapter including 28 articles. On August 5, 1955, the 17th plenary meeting of State Council passed the revised edition of *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* which was issued on August 31 after being signed by Premier Zhou Enlai. The *Regulations* was the first formal postgraduate cultivation system in the People's Republic of China, whose issuance and implementation marked the initial establishment of the postgraduate system of CAS.

³ Manuscript of the All-round Comment Summarizing Materials in the Inaugurating Meeting of the Academic Divisions, of the Chinese Academy of Sciences (Zhong Ke Yuan Xue Bu Cheng Li Da Hui You Guan Ge Fang Mian Yi Jian Hui Zong Cai Liao De Di Gao), CAS Doc.: 1955-2-35.

Part III. Concluding Remarks

To sum up, the reason why CAS carried out the postgraduate education in the 1950s was mainly due to the needs of self-development and national construction as well as the influence of the Soviet experience. The *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* was formulated in 1955 and issued in August, 1955. Its content was obviously affected by Soviet policies and systems for cultivating scientific cadres. In particular, the requirements of the *Regulations* were basically consistent with those of SAS, which maintained high standard. This should be considered as one of the key points for CAS having good reputation in postgraduate education, as well as an un-ignorable factor for CAS having important position in national education system in the future. However, to formulate postgraduate cultivation regulations suitable for China's national conditions, CAS didn't indiscriminately imitate Soviet policies and systems for cultivating scientific cadres, but made discreet screening and modification.

On August 31, 1955, after being issued by the State Council, the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* soon aroused strong repercussions among colleges and universities. Some colleges even drafted the cultivation plans for postgraduates according to the *Regulations*. In view of these situations, on July 16, 1956, the Ministry of Higher Education issued the *Measures for Winding up and Further Improving Existing Postgraduates*, which stipulated: "The existing four-year postgraduates and three-year postgraduates majoring in clinic medicine have been cultivated according to the cultivation plan for Licentiate degree in the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences*, that is, they will study according to the original plan." This indicated that the formulation of *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* provided reference basis and accumulated experience for the institutions of higher learning to implement formal postgraduate education, and thus promoted the development of the postgraduate education toward the normalized direction.

Unfortunately, since 1957, the "Anti-Rightist Movement", "Great Leap Forward", "Four Clean-Ups", and other radical political movements occurred in new China in succession, and the implementation of the *Interim Regulations on Postgraduate Cultivation by Chinese Academy of Sciences* experienced many difficulties and challenges, which severely influenced its implementation effect. After the outbreak of the "Cultural Revolution" in 1966, the postgraduate education of CAS was forced to be suspended, and soon the *Regulations* had been completely abolished. Moreover, as there were no issuance and enforcement of the supporting regulations on academic degrees, CAS wasn't able to grant the vice-doctorate degree to the graduated postgraduates.

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Debate on Work Guideline of Chinese Academy of Sciences in 1981–1983

“Focusing on fundamental research and improvement, and serving for national economy and defense construction” was formally put forward by the Chinese Academy of Sciences as work guideline in 1981. Soon it was questioned by central leaders of China. And it brought about a debate on whether the work guideline of the Chinese Academy of Sciences needed to modify. The paper tries to hackle the specific process of the controversy and explore its significance.

Keywords: Chinese Academy of Sciences; work guideline; debate; fundamental research; applied research.

“Focusing on fundamental research and improvement, and serving for national economy and defense construction” was formally put forward by the Chinese Academy of Sciences (CAS) as work guideline in 1981. Soon it was questioned by central leaders of China. And it brought about a debate on whether the work guideline of the CAS needed to modify. Whether to modify or not, is a sticky subject for CAS at that time.