

V.M. Bekhterev and the beginnings of experimental psychology in Russia

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Abstract

The pattern of psychology's institutionalisation in Russia was as complex as in other countries. The institutionalisation was more than a single event or even a series of events: it was a manifold process that involved various actors, groups and political parties and took at least several decades. Psychology was taught within the subject of philosophy but as a separate course, at high schools, from the early nineteenth century. When, in the mid-century, philosophy was banned from universities for political reasons, logic and psychology still remained in the curriculum. Psychology became a contested area in the 1860s, with the rise of the radical movement which accompanied the abolition of serfdom and other reforms. The young radicals, or nihilists, favoured positive science and gave clear preference to physiology; at medical schools, psychology gradually became part of physiology and psychiatry teaching. Psychiatric clinics provided a venue for the first psychological experiments; the first courses in experimental psychology were also taught to psychiatry students.

The first laboratory – a special space for psychological experiments – was created by Vladimir Mikhailovich Bekhterev (1857-1927) in 1885. This followed the 1884 University Charter, which introduced separate chairs of neurology and psychiatry (previously there was only one professorship of mental and neurological diseases). Kazan' University invited Bekhterev to take the newly founded chair of mental illnesses. Bekhterev, at that time studying and working in Western clinics and laboratories, was reluctant to cut short his trip and accepted the offer on the condition that the chair came with a clinic and a laboratory equipped for physiological and psychological experiments. In Leipzig, he worked at Flechsig's clinic carrying on histological research and visited Wundt's laboratory. Eager to appoint Bekhterev, the university obtained funds from the Ministry of Education – a thousand roubles for the foundation and three hundred a year for the maintenance of the laboratory. Bekhterev purchased the standard physiological equipment and himself, with the help of his staff, constructed some devices: a large model of the brain, a pneumograph (for recording breathing movements), a reflexograph and reflexometer (for recording the knee reflex and measuring its force) and a device for measuring the volume of the brain. Psychological studies in the laboratory were relatively marginal and were conducted exclusively on the inmates of the psychiatric ward. A woman student, M.K. Valitskaia, did psychometric studies of patients with various diseases, E.A. Genik and B.I. Vorotynsky experimented with hypnosis, and P.A. Ostankov and M.M. Gran measured the speed of mental processes at different times of the day. Bekhterev summarised research results in his address, «Consciousness and its boundaries», which he gave at the annual university meeting in 1888. He emphasised the new methods for studying consciousness: «It would be absolutely fruitless to use, once again, self-observation. Only with the help of experiment can the issue be examined with sufficient precision and thoroughness».

The paper will examine the early experimental psychology in Russia associated with medical schools and the ambivalent response it received from both philosophical faculties and from lay public.

Keywords: History of Psychology, Bekhterev, Experimental Psychology, Russia.

The figure of Vladimir Mikhailovich Bekhterev (1857-1927) is interesting in many ways: one of the first Russian neuroscientists, he also made a significant contribution to psychology; physician to the court, he was a renowned liberal and opened the first independent university to train specialists in mental illnesses and psychologists; he held important posts under both the tsarist and the Bolshevik government; he developed both innovative research projects - like collective reflexology - or practical ones: of founding a Pantheon of the Brain or training pigeons and dolphins to carry war deterrents. Below we will trace some of the many sides of Bekhterev's activity to which Stalin put a violent end.

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Still in his twenties, Bekhterev had already made himself a name in the academic circles. He graduated from the prestigious Military-Medical Academy in Petersburg, arguably the best Russian medical school with a long-established tradition of teaching psychiatry and neurology courses. Through a number of years the psychiatry professors at the Academy bought several apparatus and acquainted their students with the idea of the psychological experiment. There was also a tradition to send the best graduates abroad to complete their training working with Western medical scientists. Trips were funded by the state. In the 1880s, the Academy graduates in psychiatry and neurology usually went to Germany and France, to study with J.-M. Charcot in Paris, L. Flechsig and W. Wundt in Leipzig.

One of the best graduates, Bekhterev was granted a two-year fellowship and in 1883 he went to Germany and then to France. In Leipzig, he worked at Flechsig's clinic carrying on his-

tological research on embryos and visited Wundt's laboratory. In Paris, he showed his histological cuts to Charcot who, in his turn, demonstrated to Bekhterev a patient who developed under hypnosis muscular hypersensitivity to touch [Bekhterev, 16]. This was a significant episode in Bekhterev life: later he used to practice hypnosis as a medical method and also studied hypnotic phenomena. His speech, «Suggestion and its role in social life», at the annual meeting of the Military-Medical Academy in 1897, played a crucial part in lifting the official ban on the use of hypnosis in medical practice.

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After Bekhterev's laboratory in Kazan', many laboratories followed, but almost all in connection with medical facilities. We have already mentioned that the psychiatry department at the Military-Medical Academy possessed some psychological apparatus. When in 1895 Bekhterev was promoted to its psychiatry chair and moved to Petersburg, he expanded psychological experiments there. Another laboratory was established in Dorpat (formerly part of the Russian Empire, now in Estonia) by Emil Kraepelin, who was psychiatry professor there prior to 1891. He was succeeded by a Russian psychiatrist V.F. Chizh (1855-1922) who took over the experimental research published extensively his results and had a number of students specialising in psychology. In Moscow, the psychiatry professor S.S. Korsakov (1854-1900) sponsored organisation of a psychological laboratory at the Moscow University Mental Clinic, which he headed at the last decades of the nineteenth century.

By contrast to medical schools, the first psychological laboratory in a philosophical faculty founded by the experimental psychologist N.N. Lange (1858-1921) in Odessa in 1896. The climax of this process of institutionalisation of psychology was the foundation of the first Russian Institute of Psychology by Chelpanov in Moscow in 1912, one of the best equipped world institutes at that time.

After accepting the invitation from the Kazan' University, Bekhterev firmly established himself in Russia. Yet he did not cut completely his scientific ties to the West and for a number of years served on the editorial committee of the multi-volume *Traité international de psychologie pathologique*, for which edition he wrote several chapters. He also received an international acclaim for his work in physiology as a representative, together with I.P. Pavlov (1849-1936), of the Russian reflex theory.

Bekhterev and Pavlov's careers were similar in many respects. Both studied in Germany; both made discoveries in classical physiological and neurological fields: Pavlov received the Nobel prize for research into the function of the digestive glands and Bekhterev was the first to give a clinical explanation of what became known as Bekhterev's disease, or spondylarthritis. Both then began to study the relation between the organism and the environment: Pavlov described the crucial phenomenon of this field as the conditioned reflex; Bekhterev, as the associative reflex. At the outset, both considered this field a psychological one, but very different from traditional introspective psychology. Pavlov called it *experimental psychology* and Bekhterev, *objective psychology*, and both changed the name later, Bekhterev to *reflexology*, Pavlov to the *doctrine on higher nervous activity*. Although Bekhterev was an active public man and Pavlov rather avoided public life, both were Westernisers, critical of the Tsarist regime. The scientific research of both, especially of Pavlov on the conditioned reflex, influenced the development of psychology in Russia and around the world, including the behaviourism of John B. Watson [Joravsky, 153-154].

Although Bekhterev was a major spokesman for scientific psychiatry and psychology, he also, like many other Russians, was in love with literature. He often quoted works by Russian writers as the best models for psychological analysis. Thus, he praised Dostoevsky for «making mental illness comprehensible for a general audience». The writer, in his words, «demonstrated to everybody that ... the insane can be found not only amongst the inmates of asylums, but that they mix in everyday life together with sane people» [Belov, 139].

Bekhterev also stood at the beginnings of Russian social psychology carrying out research on mass psychosis under the influence of suggestion. Later, in his seminal work, *Collective Reflexology*, he explained changes in social consciousness as physiological changes. One positive outcome was that Bekhterev stimulated laboratory group experiments [Allport, 65].

In 1908, he succeeded in establishing the first university to train specialist in mental medicine, including neurologists, psychologists and psychiatrists, – the Psychoneurological Institute. The Institute was sponsored from private sources and was therefore relatively free from political censure of the tsarist state; it employed many progressive teachers and professors [Valsiner, 3-4]. As an outlet, he created a Pedological Institute with a kindergarten attached to it, where psychologists studied the development of children from an early age.

During the First World War, Bekhterev was instrumental in organising psychiatric service in the acting army. He was a diplomatic mediator between the several actors involved in the complicated business of establishing psychiatric facilities at the front: the Ministry of Defence bureaucracy, the National Union of Psychiatrists and the Russian Red Cross [Hutchinson, 133-135]. His mission was successful: although imperfect, the system of collecting mentally

ill soldiers in the front, evacuating them to the rear and caring for them in both military and civilian hospitals was finally established.

In 1917 Bekhterev welcomed the Revolution and even was positive in relation to the Bolsheviks. In his *General Principles of Human Reflexology*, he tried to show that the basic principles of reflexology were close to Marxism. In exchange, his Psychoneurological Institute received support from the new regime. As well as Pavlov's reflex theory, his materialist approach to the human being was favoured by the Bolshevik ideologists, and he had opportunities to develop new projects.

One of them was the so-called *Pantheon of the Brain* – the idea to collect outstanding people's brains and study them in a kind of research institute. Bekhterev's Pantheon was to accommodate Vladimir Lenin's brain (Lenin died in 1924, and in 1925 the German neurologist Oskar Vogt was invited to study his brain) among the brains of other dignitaries – famous poets and writers, outstanding scientists and physicians. Yet the project, which was discussed by the Party apparatchiks in 1927, has never materialised, in part because of Bekhterev's death. It followed in a few month time at the circumstances which made Bekhterev's contemporaries suspect a political murder [Spivak, 39-48].

Due to his feverish energy, administrative skills and diplomatic talents, Bekhterev became highly instrumental to the institutionalisation of psychology in Russia. Unlike Pavlov, who had put a boundary between his own research and psychology, Bekhterev, beginning with the first decade of the twentieth century, positioned himself as a leading *psychologist*. Although his main intellectual output – his reflexology – was from early on criticised and subsequently abandoned, he left an indelible mark in the years when psychology's development was the most prolific.

References

- ALLPORT, G. W. (1968): «The Historical Background of Modern Social Psychology», in Gardner Lindzey, Elliot Aronson (eds.): *The Handbook of Social Psychology*, vol. 1. Reading, Addison-Wesley.
- BELOV, S. and N. AGITOVA (1962): «V. M. Bekhterev o Dostoevskom», *Russkaia literatura*, 4, pp. 134-141.
- BEKHTEREV, V. M. (1928): *Avtobiografiia*. Moscow.
- BUDILOVA E. A. (1983): *Sotsial'no-psikhologicheskie problemy v russkoi nauke*. Moscow, Nauka.
- HUTCHINSON J. F. (1990): *Politics and public health in revolutionary Russia, 1890-1918*. Baltimore, Johns Hopkins University Press.
- JORAVSKY, David (1989): *Russian Psychology: A Critical History*. Oxford, Basil Blackwell.
- LOMOV, B. F., V. A. KOL'TSOVA and E. I. STEPANOVA (1991): «Ocherk zhizni i nauchnoi deiatel'nosti Vladimira Mikhailovicha Bekhtereva (1857-1927)», in V.M. Bekhterev. *Ob'ektivnaia psikhologiya*. Ed. by V.A. Kol'tsova. Moscow, Nauka, 424-444.
- MERZHEVSKY, I. P. (1902): «Pamiati Balinskogo», in *Ivan Mikhailovich Balinsky, otets russkoi psikhiatrii, po vospominaniyam ego uchenikov*. Kiev, pp. 1-16.

SPIVAK M. L. (2001): *Posmertnaia diagnostika genial'nosti*. Moscow.

VALSINER, Jaan (2001): «From energy to collectivity: A commentary on the development of Bekhterev's theoretical views», in V. M. Bekhterev: *Collective Reflexology*. Ed. by Lloyd H. Strickland. New Brunswick: Transaction Publs., pp. 1-14.