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"Soviet polygraph": metamorphoses and historical facts

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Abstract

This article explores the historical development of polygraphy in the Soviet Union, with particular attention to the activities of KGB's Laboratory No. 30. Drawing on declassified materials, eyewitness accounts, and professional reflections by former KGB personnel, the study reconstructs the evolution of Soviet polygraph practices from the late 1960s to the 1980s. It examines early scientific contributions, the influence of American methodologies, the adaptation of foreign technologies, and the creation of Soviet testing procedures such as the Mixed-Type Test. The article also highlights how Soviet ideological constraints shaped both the official discourse and cinematic portrayals of polygraphy. Special attention is given to the field practices of Laboratory No. 30, including unconventional assignments related to paranormal phenomena. The study concludes that, despite efforts to replicate or adapt Western polygraph techniques, Soviet developments did not result in uniquely innovative methods or technologies. These findings provide a contextual foundation for understanding contemporary polygraph practices in the post-Soviet space, particularly in Ukraine and russia.

Key words: Soviet polygraphy, Laboratory No. 30, KGB, lie detection, Mixed-Type Test, countermeasures, psychological diagnostics, parapsychology, USSR, intelligence services, polygraph history

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Gaining a thorough understanding of any professional field requires exploring its stages of development and the impact of key historical events on its formation. This approach is relevant to the study of polygraphy. Awareness of historical facts helps to prevent the spread of misunderstandings and can also challenge myths that have deliberately been created about the origins of the field, its methods, and the technical requirements for polygraph devices.

From the 1990s until the start of russia's* hybrid war against Ukraine and the annexation of Ukrainian territories in 2014, the development of polygraph examination in Ukraine was strongly influenced by russian specialists and training institutions. This influence was largely due to the geographical proximity of the two countries, the similarity of their languages, and the long-standing cultural and professional connections dating back to the Soviet period. Many Ukrainian polygraph examiners received their training in russia – particularly in institutions founded by former employees of the 30th KGB Laboratory.** Some studied at the Institute of Criminalistics of the Centre for Special Technology of the Federal Security Service of the russian Federation, while others were trained in the so-called "Krasnodar School", where the "Varlamov Method" was used.

Another factor that contributed to the influence of russian polygraphy was the early availability of specialist literature published in russia, beginning in the early 2000s. At that time, Ukraine was just starting to develop its own body of professional knowledge in the area, so russian publications became the main source of information for Ukrainian practitioners. Russian polygraph specialists – especially those from KGB's Laboratory No. 30 – were often considered holders of exclusive or "secret" knowledge. Their work became the subject of many stories and claims about unique methods and technologies.

However, a closer examination of available sources on russian polygraphy reveals a more complex picture. This article presents a chronological overview of historical facts gathered from publications, interviews, and seminar recordings featuring employees of KGB Laboratory No. 30. The aim is to provide readers with a clearer understanding of the true origins of russian polygraphy, to trace how Soviet specialists attempted to build an understanding of American polygraph technology based on

* Following the illegal and unprovoked russian invasion of Ukraine, it has become customary in Ukrainian writing to render "russia" and "russian" in lowercase. As the author has chosen to follow this practice, both the editors and proofreaders respect his decision."

** A covert KGB laboratory specialised in the development of poisons and biochemical substances for use in espionage and assassinations

limited information, and how they later presented their adaptations and copies of Western methods as original developments with "no global equivalents".

Pioneering Figures in the History of the Polygraph

The development of any scientific field typically begins with pioneers – individuals who propose bold hypotheses and work persistently to support them with empirical evidence. This pattern holds true for the field of lie detection. In the United States, early innovators such as William Marston, John Larson, and Leonard Keeler played a foundational role in shaping the trajectory of this emerging discipline. In the newly established Soviet Union, a comparable figure was Alexander Luria.

Alexander Luria (16 July 1902 –14 August 1977) was a Soviet psychologist and founder of the field of neuropsychology

Alexander Luria (16 July 1902 – 14 August 1977) was a Soviet psychologist who is widely recognised as one of the founders of neuropsychology. Early in his career, he worked in the experimental psychology laboratory at the Moscow Provincial Prosecutor's Office. There, he refined the associative method, which was widely used in experimental psychology at the time, and applied it to detect concealed information in individuals suspected of committing serious crimes (Kuznetsov, Petryuk, 2013: 97–103).

One of Luria's key contributions was the development of the "Combined Motor Method", a technique aimed at identifying suppressed emotional and cognitive

processes. This research gained international recognition and was published in the United States in 1932 under the title *The Nature of Human Conflicts*. The publication established Luria's reputation as one of the leading psychologists of Soviet russia. In 1937, he submitted a russian-language manuscript of his work and successfully earned his doctorate after defending it at the University of Tbilisi. It is worth noting that his manuscript had not been published in russian until 2002 (Luria, 1932).

Despite his scientific achievements, Luria did not receive the recognition he deserved within the USSR. His work faced significant criticism from officials in various branches of the Soviet government. For instance, Andrei Vyshinsky, who served as Prosecutor General from 1935 to 1939, described the use of psychological diagnostics in the judicial system as absurd and a serious violation of human rights (Mrakobesie). This position should be understood in the context of the time, when extrajudicial bodies known as "Troikas" were operating, and their methods were arguably much less humane than psychological assessments.*

In the years that followed, all attempts to develop and implement Luria's methods further in criminal investigations were dismissed as pseudoscientific. As a result, the application of these techniques in investigative practice was effectively blocked. Soviet criminology textbooks, up to the late 1980s, consistently portrayed lie detector tests as pseudoscientific tools used in capitalist societies to suppress the progressive working class.**

Early Research on the "Lie Detector". Issue within the KGB***

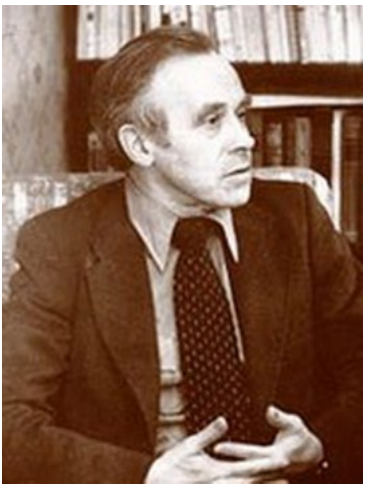
According to published accounts and interviews with former KGB personnel, the attitude of the Soviet leadership toward the use of the polygraph – or "lie detector" – began to shift following a series of operational failures involving intelligence agents from the German Democratic Republic (GDR). These agents, despite being

* The NKVD Troika or Special Troika (russian: *особая тройка*, russian: *особая тройка*) – in Soviet history – the People's Commissariat of Internal Affairs (NKVD, which would later become the beginning of the KGB), consisting of three officials who sentenced people after a simplified, expedited investigation and without a public trial. These three members were judges and jurors, although they did not themselves carry out the sentences they passed. These commissions were used as an instrument of extrajudicial punishment, introduced to supplement the Soviet legal system with means for quick and secret execution or imprisonment (NKVD_troika)

** Forty Years Ago, the KGB of the USSR Approved the Use of the Polygraph: An Interview with Yuri Kholodny, https://rg.ru/2015/06/25/holodnij.html (accessed: 26.05.2025).

*** The Committee for State Security.

highly trained, were exposed using polygraph testing. The GDR intelligence service informed the KGB about these incidents, prompting the Soviet leadership to reconsider its stance on the polygraph. As a result, by the late 1960s, the KGB had authorised the initiation of experimental research into the potential applications of polygraph technology.



Pavel Simonov (20 April 1926 – 6 July 2002) Soviet and russian psychophysiologist, biophysicist, and psychologist. Academician of the russian Academy of Sciences, Doctor of Medical Sciences, Professor

To conduct this research, a specialised group was established under the leadership of Colonel V. Naumov, an Honoured State Security Officer and Candidate of Medical Sciences. The head of the project was Albina Zanicheva and Senior Lieutenant Vladimir Noskov joined the team later to assist with experimental procedures. The research was carried out by KGB personnel at a Ministry of Defence research institute under strict secrecy and with scientific supervision provided by Professor Pavel Simonov (Kholodny, 2015).

Due to prohibitions on polygraph research within the USSR, there was a significant shortage of appropriate equipment. From the 1950s– to the 70s, polygraphs were manufactured exclusively in the United States, and export restrictions were in place, prohibiting their sale to Eastern Bloc countries. Nonetheless, intelligence agencies in countries such as the GDR, Yugoslavia, Poland, Hungary, and Bulgaria managed to acquire and use American-made polygraphs. By the late 1960s, the KGB had also succeeded in obtaining several such devices, apparently through circumvention of the embargo (Alekseev 2016; Korovin 2017; Kholodny 2015).

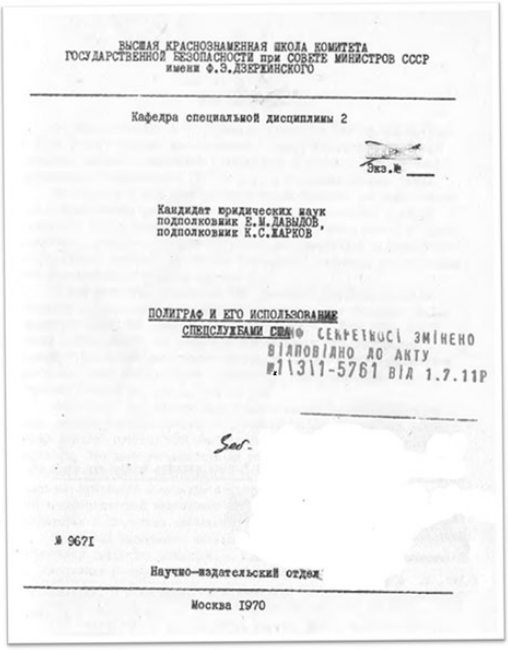
As noted by Yuri Kholodny in his article "For the 40th Anniversary of the Use of the Polygraph in russia", the initial experiments conducted by the Naumov–Zanicheva group revealed that conventional polygraphs, while suitable for field applications, were insufficient for scientific purposes. Specifically, they lacked the precision necessary for accurately measuring physiological indicators such as respiratory patterns, cardiovascular activity, and skin conductance. To address these limitations, researchers began using a stationary encephalograph of French manufacture, which was adapted with additional units and sensors for polygraph-related testing (see Figure 1). The author of the article suggests that the use of the French encephalograph might have been prompted by a shortage or lack of suitable equipment.

Figure 1. Experiments on detecting hidden information (Moscow, late 1960s) (Kholodny, 2015)

As Yuri Kholodny observed, the shortage of necessary equipment was eventually resolved. New polygraph devices produced by Associated Research Inc. and Stoelting became available to Soviet specialists. One of these polygraphs was transferred to the Central Research Institute of Special Equipment within the Operational and Technical Directorate of the KGB. Under the leadership of Captain Yuri Azarov, a Candidate of Technical Sciences and head of one of the institute's laboratories, work began on studying and developing technical tools designed to detect concealed information in individuals. These studies also involved the participation of Leonid Alekseev.

In addition to operational applications, the clinical polygraph began to be used by the Medical Directorate for psychological research, particularly in the context of personnel selection. Vladimir Noskov and Boris Huseynov contributed notably to this research (Kholodny 2015).

It is worth mentioning that as early as 1970, a classified booklet titled "The Polygraph and Its Use by U.S. Intelligence Services" was published for KGB personnel. This publication, marked "for official use only," reflects the growing institutional interest in the topic during that period (Davydov, Zharkov, 1970: 79).



ВЫСШАЯ КРАСНОЗНАМЕННАЯ ШКОЛА КОМИТЕТА
ГОСУДАРСТВЕННОЙ БЕЗОПАСНОСТИ при СОВЕТЕ МИНИСТРОВ СССР
имени Ф.Э.ДЗЕРЖИНСКОГО

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ПОЛИГРАФ И ЕГО ИСПОЛЬЗОВАНИЕ
СПЕЦСЛУЖБАМИ США

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Although published before the establishment of the KGB's specialised Laboratory No. 30 in 1975 – which would later focus specifically on polygraph-related issues – it already contained a range of relevant information. The booklet outlined the technical features of polygraphs available at the time, provided a general overview of procedures for conducting polygraph examinations, and briefly described the Peak of Tension (POT) technique and the Backster Method. These descriptions, however, were rather superficial, suggesting that there was limited understanding at the time of the underlying evaluation systems and the role of comparison questions.

The booklet also included a short section on countermeasures, offering recommendations for agents who might be required to undergo a polygraph examination. Overall, the content of this classified publication indicates that, by the late 1960s and early 70s, KGB personnel had already developed a basic awareness of polygraph technologies and methodologies used in the United States.

The Polygraph in Soviet Cinema of the 1960s

While the research group led by V. Naumov and A. Zanicheva was actively studying the application of the polygraph within the KGB (c. 1969), the production of the psychological spy film *The Secret Agent's Blunder* was also underway. The film explores the story of a professional intelligence officer Mikhail Tuliev, son of a russian emigrant. The film's creatives approached the Soviet KGB with a request for technical consultation for a scene involving a polygraph examination of a Soviet intelligence officer, portrayed by the well-known Soviet actor Mikhail Nozhkin. The KGB provided expert guidance to ensure the portrayal of the polygraph procedure was as accurate and authentic as possible within the cinematic context (see Figure 2).

Figure 2. *The Secret Agent's Blunder*, scene with the polygraphs
(Clip from *The Secret Agent's Blunder*, 1968)

The polygraph-related episode in the film served a clear propagandistic function. It was intended to convey the message that the use of the "lie detector" was sceptically looked down upon in the USSR and at the same time to promote the idea that a strong-willed, ideologically committed Soviet patriot could easily deceive such a "pseudoscientific device".

The polygraph examination, as depicted in the film, was significantly distorted. To reinforce the image of the fearless Soviet intelligence officer, the protagonist engages in bold behaviour prior to the test – he touches the equipment without permission and makes sarcastic remarks directed at the team of examiners and escorts. In actual polygraph procedures, such behaviour would likely hinder the accuracy and reliability of the results.

To represent the polygraph device visually, the filmmakers used a modified piano crafted by a set designer. Ultimately, following the screenwriters' intentions and supporting the broader ideological narrative promoted by Soviet propaganda, the protagonist "successfully deceives" the polygraph before our eyes.

Establishment of Specialised Laboratory No. 30 within the KGB

It is difficult to determine with certainty what factors played the decisive role in the establishment of a specialised laboratory focused on polygraph research within the KGB. According to former employees of Laboratory No. 30, as reflected in their published articles and interviews, the creation of this unit was a complex and challenging process. One of the main obstacles was the deeply rooted scepticism toward polygraph use that had taken hold in Soviet legal and psychological sciences over the years.

Accounts provided by former KGB personnel differ slightly in details. However, it is likely that each version highlights particular events or perspectives which, collectively, contributed to the eventual establishment of the laboratory.

Yuri Kholodny. Since 1975, member of staff of the KGB Laboratory No. 30, later in the FSB of russia. Until 2008, he was the head of one of the departments of the Institute of Forensic Science of the Centre for Special Equipment of the russian FSB, colonel, candidate of psychological sciences (1990), doctor of law (2002), professor of the Department of Forensic Science of the Academy of the FSB of russia (2003)

Thus, in his article "On the 40th Anniversary of the Use of the Polygraph in russia," Yuri Kholodny refers to Professor Pavel Simonov's report of 26 June 1972 entitled "On the Current State of Lie Detection in the United States of America and the Expediency of Certain Measures". In the document, submitted to KGB Chairman Yuri Andropov, Professor Simonov provided a brief overview of how the polygraph was used in the United States and concluded:

> The facts show that the method of objectively recording involuntary emotional reactions continues to be developed and applied in the US. This gives reason to consider it advisable (...) to establish a dedicated laboratory within the KGB system to study this method (...) taking into account recent advances in psychophysiology, electronics, and computer technology.

According to Simonov, such a laboratory should include psychophysiological researchers experienced in instrumental measurement of physiological responses, as well as an engineer to handle the equipment, a computer specialist, and a programmer (Kholodny, 2015).

Leonid Alekseev. Employed in special psychophysiological research laboratories of the KGB in 1968–85

In a 2016 lecture, Leonid Alekseev offered another perspective on the origins of the laboratory dedicated to polygraph research. He recalled:

> Azarov has this box and he doesn't know what to do with it. In the end, he comes to Andropov* and declares that we have a contactless polygraph, why do we need to invent a polygraph, since there are American ones, he went and bought them through a third country,

* Yuri Andropov (2 [15] June 1914 – 9 February 1984) was a Soviet party leader and statesman. He was the head of the KGB in 1967–82.

> and we have a contactless one, what are we going to do? And Andropov gives the order to create a special laboratory for psychophysiological research, the same "thirty", from which our team came (Alekseev 2016).

Despite ideological resistance, on 25 June 1975, KGB Chairman Yuri Andropov signed the order "On the Creation of Laboratory No. 30 (Applied Psychophysiology) within the KGB under the Council of Ministers of the USSR, and on the Approval of the Temporary Regulations on Laboratory No. 30." The newly formed laboratory was tasked with conducting scientific and applied research related to the polygraph, developing methods to counteract polygraph testing, and, eventually, exploring topics related to parapsychology and paranormal phenomena (Korovin 2017; Kholodny 1994; Kholodny 2015a).

Yuriy Azarov. The first head of the special laboratory of applied psychophysiology (Laboratory No. 30) of the KGB

Laboratory No. 30 of the KGB was composed of a core team of specialists. It was headed by Yuri Azarov, with Volodymyr Noskov serving as his deputy. Senior researchers included V. Naumov and Albina Zanicheva. Leonid Alekseev and Yuri Kholodny also joined the group.

This is what Leonid Alekseev recalled in a 2016 lecture:

> I want to say that in those years, working in the 25th, 30th laboratory, these were the years of the rampant science, because no money was spared in the "Brezhnev times".* We went to

* The Brezhnev era is a period in the history of the Soviet Union when the country was led by Leonid Ilyich Brezhnev. He served as General Secretary of the Central Committee of the CPSU

> the shops then and saw nothing, and money for the "defence"* was given in any amount you wanted. We bought everything. The most interesting thing is that we sat in the "Leninka" (library)** for months, read books, wrote reports. But the point is that once I visited "Leninka", I dug up a book called Truth and Deception by Reed and Inbau (...) It describes all the signs of neurobehavioural states, that is, these are the changes in breathing that occur, which you need to pay attention to, GSR, heart, etc. And this book fell into the hands of Azarov, and in fact, this served as an impetus for developing these methods in our country (Alekseev 2016).

Valery Korovin. In 1979–95, employee of the KGB and later the FSB, special laboratory for psychophysiological research, lieutenant colonel

In turn, Valery Korovin recalls that:

> In this laboratory, before my arrival (1979), a methodology for training in countering the polygraph had already been practically developed by Albina Aleksandrovna Zanicheva, Boris Ivanovich Huseynov, and Vladimir Konstantinovich Noskov. At the time when I arrived, Zanicheva, Noskov, Yuri Ivanovich Kholodny, and Boris Ivanovich Huseynov had already been working there (...) they were already conducting not only experimental research, but

from 1964 to 1982. This period was characterised by a certain stability in the economy and foreign policy, but also by stagnation, particularly in culture, science, and public life. This period is also popularly called "Stagnation" due to the lack of significant changes and reforms.

* The word "defence" is often used figuratively to refer to the defence-industrial complex, that is, the sector of the economy engaged in the production of weapons, military equipment, and other products used to defend the country.

** "Leninka" is the unofficial name of the russian State Library (RSL), formerly known as the Lenin Library. It is one of the largest libraries in the world, founded in 1862. From 1925 to 1992, it bore the name of Lenin, and is now known as the russian State Library.

also the first real practical tests related to solving certain intelligence and counterintelligence tasks (Vystuplenie Korovina NSHDL, 30th laboratory, America, Korovin 2018).

Equipment of Specialised Laboratory No. 30

Soviet specialists were unable to acquire polygraphs manufactured in the United States legally due to the embargo. Nevertheless, devices eventually reached the staff of Laboratory No. 30 through indirect channels – acquired via agents operating in Europe and other countries where polygraph technology was in use. Additionally, to address the shortage of necessary equipment and meet the laboratory's operational needs, KGB specialists adapted electroencephalographs produced in France and Italy for use in polygraph research.

According to Yuri Kholodny, by the late 1970s, computers had also been employed to process and quantify the data recorded during polygraph examinations (see: Figure 3).

Figure 3. Computing complex for processing polygraph testing data (Laboratory No. 30, late 1970s)

Yuri Kholodny also notes that as early as 1986, a significant breakthrough occurred in the development of new devices. In the span of just one year, a computing complex – essentially a prototype of a computerised polygraph – was created. It may be worth noting that the monitor for this system was adapted from a domestic television set, the Yunist (see: Figure 4).

However, considering the level of computer development in the 1970s and 80s – particularly in the USSR – it is difficult to assess how effective and reliable the research and development efforts truly were. Open-source information about the equipment used in Laboratory No. 30 most often references foreign technology. Relevant arguments on this topic are outlined below.

As Yuri Kholodny notes, to expand the laboratory's technical capabilities (Kholodny 2015a), portable encephalographs produced by the Italian company Biomedica, known for their high reliability, were acquired and subsequently adapted for use in polygraph research. In an interview for the Next Level programme, Valery Korovin recalls:

> Our craftsmen converted a foreign, Italian-made electroencephalograph into a polygraph, and so our first polygraph based on the Italian electroencephalograph was born. Our conversion was complete. But, back in the period when there were no computers or languages, the brilliant Yuri Kostyantynovich Azarov immediately set the task for the technicians to create a device that would not only record physiological reactions and processes, but also measure them (Korovin 2017).

Figure 4. Working with a prototype of a computer polygraph (Moscow, 1987. The "subject" is B. Fedorov, an employee of laboratory No. 30, while Y. Kholodny is operating the device)

Polygraph techniques in Laboratory No. 30

The staff of Laboratory No. 30 developed their own methods, including the "Mixed-Type Test", "Assessment of the Significance of Versions", and the "Methodology of Situationally Significant Stimuli".

As Leonid Alekseev recalled in his lecture (2016):

> And we, working in the 30th laboratory, used elementary techniques that we found in this book (Truth and Deception). In particular, we tried to create our own questionnaire format,

> there was such a period, it was called "Mixed-type question test". In general, it had a fairly simple appearance. We believed that questions should be asked in triads, that is, the test should have several such triads (three, four), and in each triad there had to be a "neutral", a "control", and a "verification" question, [that's why] this was a mixed-type test. We used such a test, and in principle everything worked out for us. That is, we somehow thoughtlessly, perhaps, not fully understanding what we were doing, still performing our work, orders, and working on counteraction – preparing our employees to pass polygraph tests abroad, and run the verification of our agents, which means, the work was moving." (Alekseev 2016)

The "Mixed-Type Test" (MTT) mentioned by Leonid Alekseev was developed by KGB specialists in the late 1970s, based on the principles of the zone comparison test. This test bears some resemblance to certain modern tests employing comparison questions but differs significantly in key aspects. Its format consisted of an equal number of neutral, control (an analogue of comparison questions – VS), and verification (an analogue of relevant questions – VS) questions organised into two or three triads. The test always concluded with a control question, referred to by the developers as a "control question outside the research topic". This question was posed in one of two versions: "In this test, did you lie to at least one question?" or "When answering the questions of this test, did you lie to me at least once?".*

The MTT allowed the use of any type of control questions, while the verification questions generally focused on a single topic. The number of test presentations ranged from three to six (Ogloblin 2004: 464).

The assessment of the significance of the test questions for the examinee was determined by comparing their physiological reactions to these questions with the strongest reaction elicited by the control question.

Example of the "Mixed Type Test" MTT (three triads)

0. (N) Is your full name Kalinin Viktor Sergeevich?

1. (N) Were you born and raised in Petropavlovsk-Kamchatsky?

2. (C) Have you ever participated in a conspiracy to steal government vehicles?

* This type of question is not considered a comparison question in valid modern methods. In the tradition of conducting a test of relevant / neutral questions (Relevant / Irrelevant Screening Test), this type of question was called "overall truth question", that is, "a question of general truth", and was used to register the general ability of the subject to respond. But it should be noted that the responses to these questions were not compared with the responses to the relevant questions in order to prepare a categorical conclusion about truth or deception.

3. (R) Do you know for certain that after the robbery from the jewellery store, one of its participants was killed by X.?

4. (N) Did you work at a private car service in Irkutsk?

5. (C) Did you participate in the contract theft of a red "ten" with a state license plate?

6. (R) Regarding the aforementioned murder, do you know for sure that it took place?

7. (N) Are you currently serving a sentence in institution No. ...?

8. (C) Have you ever been involved in the illegal trade in gold products?

9. (R) Did you personally witness the murder of one of the participants in the theft?

10. (N) In establishment No. ..., do you work in logging?

11. (C) When answering these questions, have you lied to me at least once?

Obviously, the construction of both control questions and verification (relevant) questions in this test looks quite strange, especially against the background of US methods of the time.

Field Practice of Laboratory No. 30 Staff

Since its establishment, Laboratory No. 30 continuously expanded both the number of polygraph examinations conducted and the geographical scope of their application. According to the information provided by Y. Kholodny, the laboratory staff first conducted research using a polygraph in Georgia and Latvia in 1976, in Armenia and Ukraine in 1978, and in the early 1980s in Kazakhstan, Kyrgyzstan and other republics. In 1977, the laboratory staff first conducted testing using a polygraph outside the USSR, and later such work continued in the territories of European, Asian, and African countries. At that time, the function of polygraph examiners was performed by Yuri Azarov, Albina Zanicheva, Volodymyr Noskov, Yuri Kholodny, Boris Huseynov, Valery Korovin, and B. Fedorov. Although the volume and geography of polygraph application were increasing, the needs of the state security agencies, taking into account rotation, were met by a group of only five or six specialists (Kholodny 2015).

The field practice of the staff of Laboratory No. 30 also includes the study of paranormal phenomena. One such case is known from Yuri Kholodny's article "The Mysterious Sphere in the Basements of the Lubyanka"* (Kholodny 1994) and his speech at a meeting entitled "From the Experience of Studying Anomalous Phenomena. Siegel's Readings. No. 49" (Kholodny 2015a).

The author of the article considers it appropriate to provide a brief description of this story not only because it is an interesting historical fact from the life of the employees of Laboratory No. 30, but also because it reflects the workload on the specialists of this laboratory, especially when the limited number of its personell is considered. The story itself looks highly incredible, but it is recorded from a speech by a famous employee and later head of KGB Laboratory No. 30, Yuri Kholodny.

"Operation Sphere"

According to the information provided by Yuri Kholodny in his speech at the conference The End of the 20th Century. From the Experience of Studying Anomalous Phenomena. Zygel's Readings. No. 49 and the article "The Mysterious Sphere in the Basements of the Lubyanka", the Military-Industrial Commission of the Presidium of the Council of Ministers of the USSR** received information that some "researchers" brought to Moscow an unknown object in the shape of a ball, found during clay mining at a depth of 8 meters in Western Ukraine in 1975. The "researchers" in possession of the "Sphere" suggested that this object was a container with antimatter, and concluded that an alien vehicle visited the earth in prehistoric times about 10 million years ago. These "researchers" also claimed that if the "Sphere" was handled carelessly, then only a crater could remain from the city of Moscow. As Yuri Kholodny explains in his speech, this was the reason why state security officers were involved in the study of this object. It is important that the "Sphere" had to be found and intercepted before the start of the 26th Congress of the Communist Party, which was to begin on 23 February 1981. Already on 20 February, the "Sphere" was seized by employees of the cen-

* The State Security Service Building on Lubyanka was the main building of the state security agencies of the RSFSR and the USSR from 1919 to 1991. It is now part of the complex of buildings of the Federal Security Service of russia on Lubyanka Square.

** The Commission of the Presidium of the Council of Ministers of the USSR on Military-Industrial Issues (MIC of the Republic of the USSR) was a permanent special body established under the Presidium of the Council of Ministers of the USSR in 1957 to coordinate the activities of the USSR defense industry.

tral apparatus and the Moscow department of the KGB from the famous Moscow parapsychologist Alexander Geyev, who had built this "Sphere" into a homemade device for obtaining unknown "cosmic energy".

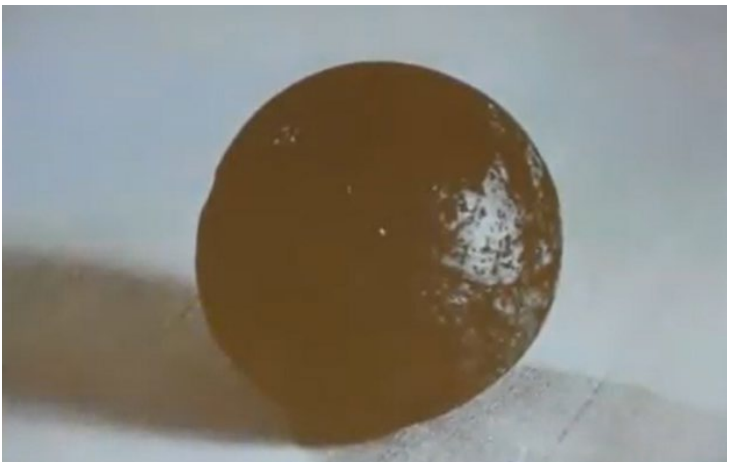

Figure 5. Photo of "Sphere" from the presentation by Yuri Kholodny

KGB officers began to study the "Sphere" in the laboratory and found out that it consisted of dark glass with a high content of strontium and no antimatter. And that could have been the end of it, but the leadership of the military-industrial commission set the task of finding out what kind of object it was and where it came from. Yuri Kholodny was instructed to go on a business trip to western Ukraine where "Sphere" was found. He arrived in the city of Lviv and, thanks to the advice of one of the local operatives of the KGB, turned to the Museum of Ethnography and Handicrafts of the Academy of Sciences of the Ukrainian SSR, where glass expert Faina Petryakov worked. Seeing the fragments of the "Sphere" that Yuri Kholodny brought, she immediately reported that it was a Halo. Halo was an object popular among Ukrainian peasants from the 17th to the 19th centuries, as it was used for ironing fabrics. When put into boiling water, Halo accumulated thermal energy, and could then be rolled into the sleeves to smooth out the Ukrainian *vyshyvanka* embroidered shirts.* Halos were made in the *gutah*: glass workshops, common in the forested areas of Ukraine in the past. The unusual chemical composition of Halo was explained by the fact that it was made from the remains of poor-quality glass. Since the glass-making furnace in the *gutah* worked for several days, sodium as a light element and an integral component of any glass went with good products,

* Vyshyvanka is the name of a folk Ukrainian shirt decorated with ornamented embroidery.

and, gradually burning out in the furnace, its concentration in the alloy decreased. In a similar way, the percentage composition of the heavy element – strontium – that accumulated in the slag formations of the melt increased. According to the materials received during the business trip, Yuri Kholodny prepared a final report for the leadership in Moscow and the case with "Sphere" was closed.

Figure 6. Yuri Kholodny reporting at The End of the 20th Century. russia. From the Experience of Studying Anomalous Phenomena. Siegel Readings. No. 49

As Yuri Kholodny explained in his speech, alluding to the investigation into "Sphere" from Ukraine:

> I want to disappoint you right away that the KGB never had any top-secret laboratory that was engaged in parapsychological research, the development of some kind of weapon, and so on. The main direction of the laboratory's work was the development of lie detection methods. But we read about it in the newspapers, had fun, watched how they imagined us to be big, that we had a real crowd of people there, a lot of equipment. In fact, we were a small group of officers who were still being taken away from their main work, they still had to do this...

According to the information provided by Yuri Kholodny, a very small team was supposed to conduct field research at long distances in the countries that were part of the USSR, while also engaging in scientific methodological and research work, developing devices and measures to counter the polygraph, and as mentioned ear-

lier, in addition to the polygraph, the employees of Laboratory No. 30 were also supposed to study paranormal phenomena. Such a number of tasks and the workload on the laboratory specialists calls into question their effectiveness in any of the above areas.

Based on the available materials, there is no substantial evidence to suggest that KGB officers developed polygraph methods, devices, or technologies that were truly unique or without analogues elsewhere in the world. Even modern russian computer-based polygraphs generally adhere to the standard configuration of sensors, often lack validated computer algorithms for data analysis, and, in some cases, developers have entirely abandoned the use of the cardio cuff.

An analysis of historical data suggests that the current level of expertise among russian security service personnel in the field of polygraphy should be neither overestimated nor underestimated. Following the dissolution of the USSR in 1991, russian specialists gained the opportunity to travel abroad, invite foreign polygraph examiners to russia, and engage in open professional dialogue. These developments undoubtedly contributed to a better understanding of polygraph methodologies originally developed in the United States.

In contrast, the field practice of Ukrainian polygraph examiners has revealed new trends since the onset of russia's full-scale military invasion of Ukraine. Notably, there has been a documented increase in the use of countermeasures during polygraph examinations. These cases often demonstrate a subject's awareness not only of the testing methodology but also of specific techniques employed both prior to and during the examination.

Accordingly, it is imperative for all practitioners to remain vigilant, enhance their ability to detect and prevent countermeasures, and continuously advance their professional qualifications.

References

Alexander Luria, *Wikipedia*, https://en.wikipedia.org/wiki/Alexander_Luria (accessed: 26.05.2025).

Alekseev, L.G. (2016), *History of the 25th and 30th laboratories of the KGB. Courses promotions qualifications.*

Davydov, E.M. & Zharkov, K.S. (1970), *The polygraph and its use by the US special services*. Higher committee's red label school State Security at the Council of Ministers of the USSR named after F.E. Dzerzhinsky, Special Department disciplines 2, Scientific and Publishing Department.

Clip from *The Secret Agent's Blunder* (1968) [in russia: Ошибка Резидента. *Soviet-movies*, 13.05.2011], https://www.youtube.com/watch?v=Ix5UvgN0Js8 (accessed: 26.05.2025).

Kholodny, Y.I. (1994), Mysterious layer in the basements of Lubyanka. *Interesting Newspaper*, (10)14, https://www.sceptik.net/ufo/lubanka.htm (accessed: 26.05.2025).

Kholodny, Y.I. (2015), To the 40th anniversary of polygraph application in russia. *Herald of the Academy of the Investigative Committee of the russian federation*, (4).

Kholodny, Y.I. (2015a), The end of the 20th century. russia. From the experience of studying abnormal phenomena. Zigelevsky Readings, (49) [in russia: Ю. Холодный (КГБ/ФСБ). Из опыта изучения аномальных явлений | 49 Зигелевские чтения. *Музей уфологии*, 25.11.2019], https://youtu.be/-JWAdPNhWTY?t=8 (accessed: 26.05.2025).

Korovin, V.V. (2017), "Secrets of the KGB: Lie detector", *Next Level programme* [in russia: Тайны КГБ: детектор лжи • полковник ФСБ в отставке Валерий Коровин. *Мужские Игрушки*, 20.02.2017], https://www.youtube.com/watch?v=CJ9UWtxoe2w&pp=ygUPI9Cx0LDRgtGO0YjQuNC9 (accessed: 26.05.2025).

Korovin V.V. (2018), Vystuplenie Korovina NSHDL, 30th Laboratory, America. Comments on the performance by A.B. Pelenitsyna at the ECP-12 (2018) [in russia: Выступление Коровина НШДЛ, 30я лаборатория, Америка Средний. *Сергей Поповичев*, 5.12.2018], https://youtu.be/lqfcNng1NCI (accessed: 26.05.2025).

Kuznetsov, V.N. & Petryuk, P.T. (2013), A word about Academic Alexandre Romanovich Luria (on the 110th anniversary of his birth). *Mental Health*, (1), 97–103, [in russia: В.Н. Кузнецов, П.Т. Петрюк, Слово об академике Александре Романовиче Лурии (к 110-летию со дня рождения). *Психічне здоров'я*, 2013, вип. 1, с. 97–103], http://www.psychiatry.ua/articles/paper422.htm (accessed: 26.05.2025).

Luria, A.R. (1932), *The nature of human conflicts – or emotion, conflict, and will: An objective study of disorganization and control of human behaviour*. Liveright Publishers.

Mrakobesie, [in russia: Мракобесие»: почему в СССР отказались от применения детектора лжи. *Русская семерка*, 21.04.2024], https://russian7.ru/post/mrakobesie-pochemu-v-sssr-otkazalis (accessed: 26.05.2025).

NKVD troika. *Wikipedia*, https://en.wikipedia.org/wiki/NKVD_troika (accessed: 26.05.2025).

Ogloblin, S.I. & Molchanov, A.Yu. (2004). *Instrumental detection of lies: Academic course*. Nuance.

Yuri Kholodny, [in russia: А. Корольков, М. Фалалеев, 40 лет назад дали "зеленый свет" применению полиграфа в КГБ СССР. *Редакция «Российской газеты»*, 25.06.2015], https://rg.ru/2015/06/25/holodnij.html (accessed: 26.05.2025).