

# Psychic Warfare (Threat or Illusion)

By  
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# PSYCHIC WARFARE:

THREAT  
OR  
ILLUSION?



# MARTIN EBON

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## 1 - Moscow June 11, 1977

On Saturday, June 11, 1977, Los Angeles Times correspondent Robert C. Toth left his Moscow apartment to buy a jar of sour cream, called smetana in Russian. The cream was to be served with caviar to celebrate his daughter's graduation from the eighth grade. Toth was carrying an empty jar, planning to have it filled at a nearby store. But he never got to the store, because his outing had a second aim: a rendezvous with a Soviet scientist, Valery G. Petukhov.

The events that followed were like the plot from the kind of movie that isn't made anymore. It would have been too corny for the sophisticates who write, produce, and view films today. But in real life, melodrama still happens. And it happened on a Moscow street that Saturday morning.

Correspondent Toth hadn't been at all keen on seeing Petukhov that day. He had first met the Russian biophysicist earlier in the year. While Petukhov seemed eager to show his scientific findings to Toth, the correspondent felt that his work was "only theory and far too complicated" for a newspaper story. Toth reported in his paper (June 12) that, as best he could recall, Petukhov asserted that certain particles of living cells "are emitted" when such cells divide, that they can be "detected and measured and that these radiating particles can carry information." Their function could "explain the basis for telepathy" and related phenomena.

To Toth, Valery Petukhov seemed "like a serious scientist."

According to a card he handed the reporter, he was Chief of the Laboratory of Bio-Physics at the State Control Institute of Medical and Biological Research. He had been recommended to Toth by a dissident Soviet scientist who later emigrated. At their first meeting, the Los Angeles Times man told Petukhov that, once the scientist had proved this theory, he would be interested in writing about it.

Months passed. In mid-June 1977 Petukhov phoned Toth. The biophysicist told Toth that his experiments had succeeded. He planned to describe them in a formal scientific paper; but, as Soviet authorities would certainly refuse to publish his work, he wanted to translate the paper into English and give it to Toth for publication in the West.

Toth wasn't very interested. A newspaper dispatch on a fairly obscure and highly technical series of experiments in cell function, even if linked to such a popular theme as telepathy, wasn't likely to excite either his Los Angeles editors or his readers. But when, on that fateful Saturday, Petukhov asked, with a note of urgency, to see Toth soon, the reporter offered to meet him the following Monday. No, said Petukhov, they should meet right then and there; he happened to be in the neighborhood. They made an appointment to meet "openly in the street," across from the apartment where the correspondent's family lived.

So, sour cream jar in hand, Toth crossed the street for a second meeting with the Soviet scientist. They talked about their mutual acquaintance, the man who had introduced them; then Petukhov took a manuscript from his briefcase. It consisted of over twenty typewritten sheets, complete with charts and photos of charts. It looked like a complex, comprehensive scientific paper, well-documented, appropriately technical.

Toth never managed to get a real look at the paper; it was then that the melodrama began. He had just left Petukhov and was walking back toward the dairy shop when a Soviet-made Fiat, the kind they call a Zhiguli, braked sharply at the curb. The car was filled with five plainclothesmen who jumped out and quite unceremoniously, as Toth put it, "pulled me and my empty smetana jar inside." Robert Toth's account continued:

"We took off, a man on each side pinioning my arms at the wrist. The man on the left, surprised and made uncomfortable by the jar, allowed me to put it on my lap. A half block down the street, Petukhov—a short, balding, nervous man in his middle 30s—turned at the sound of our car, saw a man trying to catch up to him, and began to walk faster. But a black Volga pulled up and he was hauled inside as we passed.

"Our car drove through red lights and down one-way streets the wrong way to a militia (police) station. My captors were firm and polite, offering me cigarettes once we got inside. I was ushered into a room with an inspector who declined my requests to phone the U.S. Embassy but said a Soviet Foreign Ministry official would be called."

Toth's situation was unique. The madcap ride through the city streets had given the incident an air of high urgency. Now he found himself in a minor police station on Moscow's Pushkin Street, isolated from diplomatic representatives of the United States, despite the fact that he had enjoyed the status of full-time correspondent of a major U.S. daily newspaper for a full three years.

He was, at least temporarily, in the position of an outlaw. But what, specifically, were the charges against him?

In addition to the Foreign Ministry official and a KGB agent, a man named Sparkin, the police inspector summoned a senior researcher of the USSR Academy of Sciences, Professor I. M. Mikhailov. Mikhailov was asked to provide expert testimony on the paper Petukhov had given Toth, which the police were now treating as "evidence." But evidence, Toth wondered, of what? It soon became clear that the correspondent was being 'detained' because he had obtained "state secrets."

Specifically, Professor Mikhailov stated:

The article beginning Petukhov, Valery G., from the words 'micro-organism self-radiation . . . ' to the words ' . . . by means of vacuum particles in space,' states that within the content of living cells are particles . . . and these particles are grounds for discussing the fundamental problems of biology in the context of biology and Parapsychology. There is also information about the uses of such particles. This material is secret and shows the kind of work done in some scientific institutes of our state."

It was this last sentence that raised eyebrows among observers of Soviet parapsychological studies throughout the world. Earlier, Moscow authorities on various levels had several times denied that parapsychology was being researched in the Soviet Union. A year before, Leningrad writer Vladimir Lvov had published an article in France's leading daily, *Le Monde* of Paris, in which he asserted categorically, "The truth is simple: parapsychology is not accepted as a legitimate and official branch within Soviet science. No institute or center of research in the Soviet Union is devoted to telepathy,

psychokinesis, etc." The Mikhailov testimony in the Toth incident directly contradicted the Lvov statement.

Robert Toth thus found himself in the incongruous position of being accused of receiving "state secrets" developed at a Soviet institute - secrets that, in the view of at least one authoritative spokesman, weren't being studied in such institutes at all. This incongruity didn't help Toth's extremely awkward position. He said later that the charge the Petukhov article contained secret information "was laughable, as if attempts to prove the earth is flat were classified as secret."

This sort of comment certainly doesn't put correspondent Toth in the category of True Believers in parapsychology, or among eager purveyors of parapsychological information, whether secret or open data. He did report that the subject "had its ups and downs" in Russia, and cited the English-language Moscow News as stating that, while charlatans and quacks were active in the field, "objective results can only come from rigorous scientific investigation of the phenomena whose causes are as yet unknown." Toth had interviewed Edward Naumov, the Russian parapsychologist with the most extensive contacts among foreigners, but "found the result not worth a story." Toth briefly abandoned his journalistic tough-guy pose after his forcible encounter with "secret" parapsychology material, and wondered out loud whether there might be something to it after all.

Professor Mikhailov's testimony on the Petukhov paper and Toth's police interrogation at the Pushkin Street Station lasted about two-and-a-half hours. At last, a representative of the U.S. Embassy, Vice Consul Lawrence C. Napper, was permitted to come to the station. The reporter's account of his meeting with Petukhov was read aloud and translated into Russian, but Toth refused to sign a handwritten Russian version of it. KGB man Sparkin then told him he was "free to go."

Toth's Moscow difficulties were not at an end. The following Tuesday, Toth had a telephone call from another U.S. Embassy official, Theodore McNamara, who asked him to come to the embassy immediately. The matter, he added, was "serious." At McNamara's office, Napper and two other officials were waiting. They handed Toth a Soviet note that had been delivered a half hour earlier; it contained these passages:

"The Ministry of Foreign Affairs is authorized to state the following to the American Embassy:

"On the 11th of June of this year Robert Charles Toth was apprehended at the moment of meeting a Soviet citizen, Petukhov Valery Georgiyevich, which took place under suspicious circumstances. When apprehended, the American journalist was found to have materials given to him by Petukhov, containing secret data.

"The Ministry of Foreign Affairs informs the American Embassy that in conformity with established procedure, Toth will be summoned for interrogation by the investigatory organs, in connection with which his departure from Moscow until the end of the investigation is not desired."

Toth didn't like the sound of the last sentence, which put a big questions mark on his travel plans. The incident had occurred just two weeks before Toth and his family were scheduled to return to the United States. He feared that the planned interrogation might involve an accusation of spying, and

who could tell what that might lead to? He telephoned his wife, Paula, to pick him up. She came, along with their seven-year-old son, John, and they went straight home.

Within the hour, a polite KGB agent, wearing a flowered shirt and a gray suit, arrived, asked Toth to identify himself, and told him to come to the State Security's Lefortovo center for interrogation. Toth described the KGB center as located in one of Moscow's seedier sections, with "leafy trees whitewashed several feet up the trunk, street car tracks running through loose cobbles in the streets."

His interrogator, Major O.A. Dobrovolsky, asked, "Do you know why you are here?" and Toth answered, "I assume it is in connection with Saturday's incident." To which the major replied, "Precisely," and warned him of his "rights" and "responsibilities." Dobrovolsky, as reported in a dispatch by Toth, also said,

"According to our law, you may be questioned about everything of interest to this organization [the KGB], and your statements should be real and show the whole picture of the situation. You are warned not to give unreal statements and not to refuse to answer, according to our law, Articles 108, 109 of the Criminal Code. As a witness, you may read the protocol [account of the questioning], make changes or give new statements in addition."

When Toth mentioned that under U.S. law he would be permitted to refuse to answer questions, he was told that this was not acceptable under Soviet law. He was also advised that he had no diplomatic immunity.

Toth then gave his account of the events that had led up to his Saturday encounter with Petukhov.

Dobrovolsky asked Toth how he gathered information, and the reporter said that it fell into three categories, among them "official" and "unofficial" news. He tried to make sure that the Russian translation of his words made a distinction between "unofficial" and "illegal" information, but his interrogator just "smiled and shrugged to indicate there was no difference to him." So Toth added:

"None of the information I have ever received here has been secret, military information. The information from dissidents is aimed solely at helping themselves get out of this country, or of changing it from the inside, as some of the human rights activists want. Besides, how can you possibly contend that parapsychology is secret?"

To which Dobrovolsky replied,

"Parapsychology as a whole may not be secret information. But there could be fields of science within parapsychology that are secret. It is not for me, as it's a matter for experts, to say what is secret, and the scientist has stated that the materials you received are a secret. And you received them under circumstances where your behavior and the information seems to be a breach of our law."

He explained later that it didn't matter whether Toth himself knew that the information Petukhov handed him was secret, but that his "behavior" in the matter "may be regarded as spying." The major left the room, then returned and announced they would prepare a protocol of the interrogation. The

writing-up of the protocol took an hour, and arguments about its details lasted for another hour. One point Toth disputed was the allegation that he had told his interrogator that Petukhov once said, in the presence of two dissidents - one of them Anatoly Shcharansky, who was later sentenced for "treason" - that there was a theory "according to which it is possible to pass human thought at some distance." This, Toth maintained, he had never said, since it had never happened. The KGB people told him they would delete it from the protocol.

Eventually Toth signed the paper with this qualifying phrase: "This protocol has been translated for me, and with its essence I have no major objections." By that time, it was six P.M. He was told, "You are finished for today," but the major added with a smile, "until tomorrow; you are required to return at ten tomorrow morning."

The interrogation the next day, undertaken by three KGB officials, centered on Toth's relationship to Shcharansky, whose trial was then being prepared. Toth was told that he was not being questioned as an accused person, but as a witness. At one point, the reporter cut into the multiple queries and asked, 'Why am I here? Why can't the American consul be present? What am I charged with? What's the purpose of the investigation? Who is accused? Of what?' The reply was, in effect, that this was none of his business. His testimony would be used in whatever manner, and against whomever, the authorities chose.

After this second interrogation Toth was still unsure of his fate; he didn't even know whether there would be another such session the following day. But the next morning one of the interrogators, Major Vladimir Chernish, telephoned to say "You are no longer needed." The U.S. Embassy received a confirmation from the Foreign Ministry: "There is no obstacle to Mr. Toth's departure."

The Toths quickly arranged for a flight to the United States, abandoning earlier plans for a trip through Siberia and Japan. The incident ended on what Toth called "a ludicrous note." A Tass reporter at Moscow airport asked him whether he felt he had been "treated fairly," whether he might wish to return to the Soviet Union at a future date, and whether he might feel "nostalgia" for the country. Toth was simply relieved to get away relatively unscathed.

Robert Toth was quite bewildered by what had happened to him. His case had made waves in U.S.-Soviet relations. President Jimmy Carter expressed his government's "deep concern" about the interrogation and the implied threat to Toth's safety. The incident had taken place on the eve of the first anniversary of the Helsinki agreement, which had been designed to strengthen human rights.

Peter Osnos, the Washington Post's correspondent in Moscow, described Toth as "an experienced science writer," who dealt with research in Soviet genetics, linguistics, and sociology. In one article, whose contents were "openly credited to Shcharansky," Toth said that some Soviets who worked in seemingly ordinary institutions, such as a meteorological laboratory, had been refused permission to emigrate on grounds of secrecy. Toth suggested that there was some doubt, therefore, as to what really went on in those establishments. Osnos wrote that "this story particularly interested the Soviets."

Before leaving Moscow, Toth said that he expected that, after his departure, "there will be press articles pretending I was a spy or that I was collecting secret information from dissidents." He



regarded the whole incident as "a frameup, or worse." He said that his experience had convinced him Soviet authorities regarded "any information about science, not officially released, as secret."

Toth turned out to be right. The Soviet news agency Tass said on July 12, a month after the Toth incident, that "competent Soviet organs" had established that the Los Angeles Times reporter had worked on assignments from "American special agencies presumably intelligence agencies. The report asserted that Toth had sought the acquaintance of scientists, including dissidents, under the guise of legitimate journalism. Concerning Toth's contact with Petukhov and his parapsychology research, Tass alleged the correspondent had planned to turn the biophysicist into "a regular and clandestine source of secret material from the laboratory of an institute engaged in research of a secret character."

The New York Times (July 12) quoted dissident sources in Moscow as reporting that Petukhov had been released after only four days in custody, and that the director of the State Control Institute of Medical and Biological Research had been instructed to reinstate the biophysicist, because he had helped "the KGB expose an arch-intelligence agent from one of the imperialist countries."

The incident was re-examined later in the Moscow weekly Literaturnaya Gazeta (August 31, 1977) by V. Valentinov and B. Roshchin, in an article entitled "This Strange Parapsychology." The authors took issue with Toth's "passionate defenders." They said it had "transpired" that Mr. Toth's friend (presumably Petukhov whose name the magazine never mentioned) "is not merely an amateur of parapsychology," but actually "runs the laboratory of an institute." As a matter of fact, this had been clear from the very beginning, when the international press identified Petukhov from the business card he gave Toth. The Moscow weekly added:

"And it was no accident that the meetings with him were fixed conspiratorially in secluded corners. Toth, to use the bare language of the documents of the investigation, was striving to transform his acquaintance into a source for obtaining espionage information. And here he was extremely interested in the activity of one institution - the kind of institution whose affairs ought to be known to only a narrow circle of people.

"The correspondent of the Los Angeles newspaper also wanted to learn about these affairs; such was the 'small supplement' to the parapsychological dissertations which Toth had asked the Soviet scientist to bring along and which he forgot to mention in his homeland."

Valentinov and Roshchin, who had obviously been given access to the protocol of the KGB interrogation of Toth, then paraphrased from it to dramatize the "espionage" allegation. They said the correspondent had received information from "various kinds of renegades," who were "perfectly well aware of Mr. Toth's predilection for the sectors of science having a military application." Thus, the paper said, he was "supplied with information about specific projects of no journalistic interest to Toth."

The article concluded with quotations from private correspondence, apparently intercepted, to Toth from Robert Waters, whom the paper identified as "a former officer in the U.S. military attache's office in Moscow, now an official in the central military intelligence apparatus." The letter was cited as quoting Lieutenant General Samuel Wilson as speaking highly of Toth and saying he had been

"pleased that an opportunity to meet with you presented itself." The article identified Wilson as serving, at the time the letter was written, as "director of the U.S. Defense Intelligence Agency."

The Toth incident was the culmination of a campaign against major U.S. correspondents in Moscow, particularly those who had established personal contact with dissidents. Other reporters had been harassed by Soviet authorities before Toth, and still others had such experiences later on. Certainly the implied policy Toth cited, that "any information about science, not officially released, is secret," had more or less been an established attitude for decades. Exceptions to this rule occurred, but exceptions they remained.

When parapsychologists later asked Toth, who became a Los Angeles Times correspondent in Washington, what had actually been in the Petukhov paper, he confessed that during the half-minute the papers were in his hands, he had had no chance even to read a few lines. But the scattered phrases cited by Professor Mikhailov as proving the secret nature of the paper's content indicate that it dealt with areas of major concern to Soviet parapsychologists: the potential of cell particles, possibly photons, to be instrumental in information transfer. If the Petukhov papers actually contained data on efforts in telepathic experiments to channel such functions, and if methods that revealed military potential were discussed in detail, they could be highly intriguing. However, considering the cat-and-mouse nature of the Toth incident, the papers would seem to have been no more than bait - snatched away before the first nibble.

## 2 - Would Marx Approve?

"The Soviet Union is well aware of the benefits and applications of parapsychology research. The term parapsychology denotes a multi-disciplinary field consisting of the sciences of bionics, biophysics, psychophysics, psychology, physiology and neuropsychiatry. Many scientists, U.S. and Soviet, feel that parapsychology can be harnessed to create conditions where one can alter or manipulate the minds of others. The major impetus behind the Soviet drive to harness the possible capabilities of telepathic communication, telekinetics and bionics are said to come from the Soviet military and the KGB [Committee of State Security; Secret Police]."

The preceding paragraph appears in a report entitled "Controlled Offensive Behavior - USSR (U)," prepared by the U.S. Defense Intelligence Agency (DIA), Task Number T72-01-14. The report had originally been scheduled to be declassified on December 31, 1990, but was removed from classification in 1978. Russian efforts to harness telepathy (mind-to-mind communication), telekinesis (better known as psychokinesis, the influence of the human mind on matter), or any other psychic ability, must overcome strong ideological objections from Marxist theoreticians.

Pragmatists, even those highly placed in scientific or government circles, must justify their hopes for psychic experiments in acceptable ideological terms. Historically, parapsychology is rooted in nineteenth-century efforts to find scientific proof for such traditional religious beliefs as that of life after death. And as psychic phenomena retain the mysterious air of the unknown or unexplored, some Marxists accuse the protagonists of parapsychology of propagandizing religio-folkloric "superstition," of advocating soft-headed, "idealistic" concepts, in contrast to the strictly "materialistic" approach promulgated by Karl Marx and V. I. Lenin.

These criticisms have been voiced, on and off, for some twenty years in the Soviet Union. During the life of Mao Zedong, Chinese communist ideologues even accused the Soviet Union and the United States of using parapsychology to foster "religion without the cross" in order to distract their citizenry from economic difficulties. As we examine analyses of Soviet research, this continuing ideological conflict must be kept in mind.

The report of the Defense Intelligence Agency asserted that the Soviet Union enjoyed a "head start" in the field and had provided substantial financial backing; it concluded that "Soviet knowledge in this field is superior to that of the U.S." It said that Soviet researchers had explored "detrimental effects of subliminal perception techniques" that might even be "targeted against U.S. or allied personnel in nuclear missile silos" by "telepathic means." The report stated: "The potential applications of focusing mental influences on an enemy through hypnotic telepathy have surely occurred to the Soviets. ... Control and manipulation of the human consciousness must be considered a primary goal."

At this point, the reader should be cautioned that the ideological controversy about the study and use of psychic potentials in the USSR has created gaps in public knowledge that, inevitably, have led to rumors and unverifiable claims. "Hypnotic telepathy," of which the DIA report speaks, may well be one of the target areas of Soviet parapsychology research, but little current information on it is available. Russia has a long history of hypnosis studies in medicine, education, and psychiatry. Soviet literature reflects contemporary scientific interest in the stimulation of telepathy, clairvoyance, and

psychokinesis, either by drugs or electronic means. In the past, Russian researchers have experimented with telepathy-at-a-distance, a technique of intriguing potential.

All in all, then, two decades of Soviet studies in what the West calls extrasensory perception (ESP) have caused a mixture of irritatingly truncated Russian research reports, alarming claims on Soviet progress, talk about experiments in mind control, and the utilization of primitive Siberian shamanism that smacks of black magic, all superimposed on sophisticated mathematical and electronic research, within a cauldron of academic-governmental rivalries, stirred by East-West bluff and counter-bluff.

A calm overview of the field was given by Dr. Roger A. Beaumont, professor of history at Texas A&M University. Writing in the military journal *Signal* (January 1982), Dr. Beaumont noted a wave of "interest in the military potential of ESP," stimulated by the "search for reliable and jamming-free modes of communication." The author, who has written widely on military affairs and strategic studies, pointed to "the tantalizing advantages to be gained in harnessing ESP." He said that Western analysts feel the Soviet Union might well be engaged in far-reaching studies in the field, because they have shown that "their lines of thought and unorthodox military problem-solving techniques are unique and sometimes strange."

In the article, titled "Cnth?: On the Strategic Potential of ESP" - thereby implying that extrasensory perception might be used to its ultimate, or "nth degree" - Beaumont asserted that "nagging doubt about psychic phenomena is not evident in Eastern Europe and the Soviet Union." He added: "The Russians have long recognized that if ESP were an actual effect and could be harnessed, it would have great strategic potential." While evidence of overlap among parapsychology and biology, physics, and chemistry "falls short of the certainty for firm scientific conclusion," Beaumont concluded that this very uncertainty "poses a problem for defense policy makers."

The author asked whether Soviet reports on ESP studies are, perhaps, mere "disinformation," designed to cause Western nations to waste money and effort. Yet he felt that such cautions do not erase the need to ask such questions as

"Are the alignments of people or conditions only random or occasional? Is psi [psychic] ability a by-product of surrounding electromagnetic radiations, or of solar radiation or induced by terrestrial magnetism? Is it enhanceable through hypnotism or drugs? Is there means for testing for psi ability? Or for developing it? Can it be jammed? Is the effect simply explainable in terms of variation of radio-communications theory? Can 'information bits,' or code messages, really be transmitted by sending combinations of basic sensory images? Is foreknowledge and remote-sensing possible? Is it group enhanceable?"

Professor Beaumont's approach is appropriately cautious. He seems to overlook that some Eastern European countries, notably East Germany, reject parapsychology on grounds of rigid ideological materialism. The German Democratic Republic is probably the most firmly orthodox in its Marxist stance. In this, as in other cases, parapsychology provides a litmus test of ideological purity: The East German communists take orthodox positions, often differing from their comrades in Poland, Hungary, and Czechoslovakia, on topics ranging from telepathy to literature and economics.

Beaumont asks more questions than he answers, but he selects them wisely. Concerning the Soviet involvement and motives, he wonders whether they have actually moved their ESP research "into the first-line scientific establishments to conceal developments - or to heighten Western anxiety and uncertainty?" And: "Do they fear that the West may be active in this area - or even ahead?"

As in other fields, the peacetime uses of parapsychology may be adapted to wartime "psychic warfare." Some specialists have examined the inevitable interrelation between applications for peace or war.

The *Military Review*, (October 1980), professional journal of the U.S. Army, provided an analysis of this subject under the title "The New Mental Battlefield," by Lieutenant Colonel John B. Alexander. The author, a staff member of the Army's Inspector General Agency stationed in Washington, had served in Thailand and Vietnam with the Special Forces and had been chief of the Human Resources Division, a section of the Organizational Effectiveness Staff Office at Fort McPherson, Georgia.

Lt. Col. Alexander specifically dealt with "Psychotronics" or "bioenergetics," which he equated with the interaction of mind and matter. He noted that while these concepts "may stretch the imagination of many readers, research in this area has been underway for years, and the possibility for employment as weaponry has been explored." He said that there exist "weapons systems that operate on the power of the mind and whose lethal capacity has already been demonstrated.

"Mind-altering techniques designed to have an impact on an opponent" are "well-advanced," Alexander wrote. He added that "the procedures employed include manipulation of human behavior through use of psychological weapons affecting sight, sound, smell, temperature, electromagnetic energy or sensory deprivation." In addition, he listed as potential military tools such parapsychological phenomena as out-of-the-body experiences (OOBE), remote-viewing, extrasensory perception, and bio-information."

The article stated that "available unclassified data" yield the conclusion that it "has been demonstrated that certain persons appear to have the ability to mentally retrieve data from afar while physically remaining in a secure location," adding that the Soviet Union and its allies were "generally believed" to be "well in the lead in parapsychological research." He also wrote:

"The reality of paranormal events has been accepted by Soviet researchers, and theories have been developed to explain and study those events. The Soviets have further developed techniques to control and actively employ their knowledge of parapsychology. Included in the research has been investigation into areas such as telepathy (the mental awareness of information over distance), precognition (the knowledge of future events), telekinesis (movement of matter with the mind) and the transfer of bioenergy from one body to another."

As an example of potential uses of bioenergy, the author cited "the ability to heal or cause disease," which can be "transmitted over distance, thus inducing illness or death for no apparent cause," although "the present capacity for human death is still debated." In the category of telepathic behavior modification, he included "the ability to induce hypnotic states up to distances of 1,000 kilometers."

Research in the Soviet Union and the United States, Alexander said, suggests that mentally generated electromagnetic forces are "capable of distorting or rupturing the target object." He pointed to the "intelligence gathering capability" of remote-viewing and out-of-the-body travel. Describing "the strategic and tactical applications" of such techniques as "unlimited," he added: "When finally developed, this capability could ultimately allow an operator to enter an enemy headquarters at will to observe plans and dispositions. On the battlefield, one could reconnoiter an area from the physical safety of his own chosen location.

"The use of telepathic hypnosis also holds great potential. This capability could allow agents to be deeply planted, with no conscious knowledge of their programming," the author stated. And:

"Other mind-to-mind thought induction techniques are also being considered. If perfected, this ability could allow the direct transference of thought via telepathy from one mind, or group of minds, to a selected target audience. The unique factor is that the recipient will not be aware that thoughts have been implanted from an external source. He or she will believe that thoughts are original."

Lt. Col. Alexander emphasized "the need for more coordinated research in the realm of the paranormal." He called for trained personnel "at all levels," who would develop "a basic understanding of weapons systems they may encounter in the not too distant future."

The recent history of parapsychology in the Soviet Union suggests that a sophisticated appraisal must include a number of cautions. Among these is the need to guard against taking published Soviet research data too seriously or at face value. It is highly unlikely that readers and visiting scholars are given access to data from high-priority projects.

Although private and official attitudes toward parapsychology vary around the world, they fall into common categories. At government levels, both in the United States and the Soviet Union, reactions range from cold disdain to curiosity and fascination. As the quoted analyses suggest, there is a reeling that Soviet research is more advanced than its Western equivalent, certainly where official support is involved. In the United States, psychic studies are scattered through the private sector and are, on the whole, far more theoretical than the result-oriented Russian research.

On the other hand, built-in handicaps in the Soviet system tend to delay or hinder development. The Soviet secret police (KGB) have shown keen interest in parapsychology. This trend began after 1967, when that agency's far-flung operations came under the direction of Yuri Andropov, named General Secretary of the Soviet Communist Party in late 1982. But even the KGB, for all its experience, large staff, skills, and high-priority status, has not developed a clear-cut policy toward psychic experiments; conflicting attitudes within its leadership appear to have caused erratic actions. This was well illustrated when agents arrested Los Angeles Times correspondent Toth and thereby revealed that "secret" parapsychology tests were, in fact, taking place at government institutes.

U.S. government officials appear fearful that research in parapsychology might cause them to be accused of spending public funds on a science fiction project. When columnist Jack Anderson reported early in 1981 that a laboratory in the basement of the Pentagon was devoted to parapsychological experiments, his comments were heavy with ridicule and sarcasm. Anderson's

assistant, Ron McRae, alleged in an article on "Psychic Warfare" (The Investigator, October 1981) that "the Pentagon is spending millions on parapsychology in a crash program to end Russia's psycho-superiority."

McRae, who was doing research for a book on U.S. government projects in psychic studies, said the U.S. Secret Service had "commissioned studies on ways to protect the President from the Kremlin's mind control" and that its agents, as well as CIA staffers, had been "required to take courses in mind control" at universities in the Washington area, to "prevent them," as he put it, "from falling under the spell of Soviet psychics."

Beyond viewing-with-exaggerated-alarm and ridicule-cum-hyperbole lie the realities of psychic functions, for good or ill. To obtain the correct perspective, let us keep in mind that parapsychology can play only a supporting role in the Soviet Union's or any other military-scientific complex. It must, therefore be seen as one element within a large and diffuse defensive-offensive research apparatus. Psychic elements might well be integrated into, rather than operating separately from, other scientific or military projects.

A major attraction for planners is the promise of financial and organizational shortcuts: Why engage in high-cost armaments, for example, if one or several psychics might influence personnel in the enemy's missile silos, as the DIA report suggests? The cost of military hardware is a heavy burden on national economies, East as well as West; and ESP is cheap.

On the ideological battlefield of international Marxism, the controversy about parapsychology, by whatever name, has gone on for two decades; it shows no sign of abating. Typical of those who regard psychic studies as ideological heresy is Soviet mathematician-physicist Dr. Alexander Kitaygorodsky, who has categorized clairvoyance, precognition, and psychokinesis as "supernatural" and thus outside "the domain of the natural sciences."

Writing in the Moscow periodical *Nauka i Religia* (Science and Religion), an atheistic magazine, Dr. Kitaygorodsky stated as long ago as March 1966: "To me, there is no doubt whatever that those who relate such fairy tales are frauds, mystifiers or, at best, grossly deceived. Men have believed in miracles for centuries, and for centuries there have existed charlatans and impostors, conscious or unconscious. And the struggle against such deception of the human mind has gone on for centuries, and in each century it has to begin anew."

In the same magazine, science writer Leonid Phillipov took the opposite view and cited Marxist gospel to prove his point. He asked, "Does Professor Kitaygorodsky seriously believe that the frontiers of physics have been reached?" He cited scientific breakthroughs in radioactivity, quantum theory, and lasers, and wrote: "What if telepathic phenomena conform to some new, as yet undiscovered laws which do not contradict already known rules governing electrons?" Phillipov added: "Rejecting a priori the possibilities of telepathy and other processes still unfamiliar to science amounts to rejecting Lenin's idea that, on any given level of scientific development, our knowledge of the world remains incomplete."

Marx and Lenin can and have been quoted by Marxist theoreticians to support opposing views. Thus,

when China's communists were accusing the Soviet Union and the United States of using psychic studies to distract the masses from economic crises, a writer in the Peking journal *Scientia Sinica* (July-August 1975) cited Lenin as having written in *To Maxim Gorky* (November 13 or 14, 1913) that parapsychology represented "the most inexpressible foulness" and "the most shameful 'infection.'" The Chinese writer, eager to make his point along then-dominant policy lines, failed to mention that Lenin's reference was not to parapsychology as such but against religio-superstitious practices in general.

Karl Marx is not actually on record as commenting on psychic phenomena; the reason is simple chronology. Marx, who was born in 1818 and died in 1883, published his magnum opus, *Das Kapital*, in 1867. Psychic studies were first organized by the Society for Psychical Research, London, in 1882, a year before Marx's death, and modern parapsychology did not emerge until decades later.

Would Marx have approved of today's interest in psychic potentials, as evidenced in the USSR and other communist-governed countries? The Chinese writer quoted above cited Marx's *Theses on Feuerbach*, lifting out the quotation that "the human essence is no abstraction inherent in each single individual," but is actually "the ensemble of the social relations." This, the writer asserted, ruled out individual extrasensory perception, because "man's reflection of external reality is conditioned by given social and class factors, always exhibiting the relationship of man to his surrounding world." The Chinese theoretician concluded that "all this points to the fact that only by way of the sense organs can external stimuli be transformed into conscious facts."

Along these lines, an East German writer in the party newspaper *Neues Deutschland* (February 8, 1975) wrote: "Human consciousness is decisively formed by material existence and economic-social conditions." He quoted Marx as stating in *The German Ideology* that "even foggy creations of the human mind are necessarily sublimates of life processes that are based on material, empirically conceivable and material conditions." The writer said that only "dialectical materialism" can protect science from standing "defenseless in the face of the vagaries of bourgeois ideology, including superstition disguised as science."

Marx might well have decided that pragmatism dictated an investigation of unknown and, so far, largely inexplicable phenomena. But, as the daring and imagination of science have gone far beyond the world Marx knew, today's communist theorists have to weave their own ideological nets with which to catch the elusive and unfathomable creatures of the psychic world. As of now, no single viewpoint is dominant. In the Soviet Union itself, bureaucratic and academic pragmatists are at odds with dogmatic ideologues, while popular fascination with mystical and folk beliefs remains strong. Within the Soviet bloc, positions range from the determinedly experimental in Czechoslovakia to the disdainfully hostile in East Germany.

Clearly, then, we are not dealing with a monolithic approach to parapsychology, either in the West or in the communist-governed countries. Personal and organizational rivalries often play a decisive part in whether one or another project is pursued. Decisions are also swayed by national characteristics, traditions, and ethnic conditioning, and bureaucratic or academic power struggles may override scientific or military considerations.



Let us discriminate between threat and delusion, reality and bluff, among the harmless, the beneficial, and the dangerous.

### 3 - The Great "Nautilus" Hoax

Did the world's first nuclear-powered submarine, the Nautilus, participate in unprecedented long-distance telepathy experiments, covering twelve thousand miles, while cruising under the Arctic's ice surface?

Today, the U.S.S. Nautilus is a venerable showpiece, but if any ship could have been the instrument for such a breakthrough, it was the Nautilus. Launched in 1954 at Croton, Connecticut, and christened by Mamie Eisenhower, wife of President Dwight D. Eisenhower, the Nautilus made its first voyage into waters below the North Pole in 1958. Soon afterward, French accounts claimed, while the ship was cruising deep in arctic waters, it received telepathic messages from a research center maintained by the Westinghouse Corporation at Friendship, Maryland.

These reports were published and republished in France, although recorded only briefly in the United States; they continue to fascinate observers in the Soviet Union to this day. While on the staff of the Parapsychology Foundation, I sought to obtain confirmation of the Nautilus experiments. The U.S. Navy denied that such a test had ever taken place, or that it was otherwise engaged in telepathy experiments. As the tests would have been secret, such a denial was all that could then be expected.

I analyzed the content of the French reports and tried to obtain independent confirmation or denial. The main source was an article in the Paris popular science magazine *Science et Vie* (February 1960), written by one of its editors, Gerald Messadie, titled "The Secret of the Nautilus." The tests were also reported in a bestselling book, *Le Matin de Magicien*, written jointly by Jacques Bergier and Louis Pauwels, editors of the magazine *Planete*. When their book appeared in the United States, the Nautilus story had been eliminated. As a result, allegations that the United States had conducted advanced research circulated abroad but were scarcely noted in the United States itself.

On paper, it all sounded solid enough. According to these sources, such major U.S. corporations as Westinghouse, General Electric in Schenectady, N.Y., and Bell Telephone in Boston had begun telepathy research in 1958. Their aim was to develop thought transmission by telepathy, to record and produce telepathic signals, and to determine the amplitude and frequencies on which telepathy operated.

President Eisenhower, according to these sources, had received a study prepared by the Rand Corporation of Los Angeles, a "think tank" under contract to the armed forces and other U.S. government agencies, which suggested the use of telepathy to establish communication with submarines, particularly those cruising in waters under the Polar Ice Cap; radio communications on such channels are particularly difficult.

Westinghouse's Friendship Laboratory allegedly undertook just such an experiment with the U.S.S. Nautilus, linking one person on land (the sender or inductor) with another person in the submarine (the recipient), while the vessel was submerged. Representatives of the U.S. Navy and Air Force were, according to these reports, present during the experiment.

The original reports fixed the starting date as July 25, 1959. The tests continued daily for a total of

sixteen days. The person in charge was identified as Colonel William H. Bowers, director of the Biological Department of the Air Force research institute and the man who directed the experiments at Friendship. Later accounts identified the sender or inductor as "Smith," a student at Duke University, who was confined in one of the Westing-house laboratory's buildings during the experimental period.

The procedure was designed to have Smith transmit "visual impressions" twice daily at specified times. Using methods developed by Dr. J.B. Rhine at the Parapsychology Laboratory, Duke University, Durham, N.C., a controlled timing device shuffled one thousand ESP cards in a revolving drum in such a manner as to drop five cards on a table, one at a time, at one-minute intervals. Smith picked each card up as it came out of the drum, looked at it, and sought to memorize the image. At the same time, he drew a picture of the symbol (square, cross, star, wavy lines, or circle) on a piece of paper before him.

Each test thus produced a sheet of paper covered with five symbols. Smith sealed each paper into an envelope, which Col. Bowers locked into a safe. At the same time, a Navy lieutenant, identified as "Jones," sat isolated in a stateroom on the Nautilus, functioning as the recipient of the images Smith sought to convey by telepathy.

Twice daily Jones drew five symbols on a sheet of paper, choosing from among the same symbols used by Smith. He placed the sheet inside an envelope, sealed it, and turned it over to his superior, Captain William R. Andersen. The captain wrote the time and date of the experiment on the envelope and put it into a safe in his own cabin. During the sixteen-day experimental period, Jones saw no one else except for one sailor who brought him meals and performed other routine services.

The final segment of these events, as reported in France, began with the arrival of the Nautilus at Croton, its cruise completed. The envelopes were removed from the commander's safe, sent by car under escort to the nearest military airfield, flown to Friendship Airport, near Baltimore, and then taken to Col. Bowers's laboratory. There the two sets of sheets were taken from their envelopes, dates and times matched with each other, and the results tabulated. In over 70 percent of the cases, the figures tallied: Jones had correctly "guessed" three-fourths of the images seen by Smith.

I was put off by these reports, particularly by the high score ascribed to these experimental subjects, and by their all-too-typical American names. On the other hand, the New York Herald Tribune had reported on November 3, 1958, that the Westinghouse Electric Corporation had begun to study ESP using specially designed apparatus. Dr. Peter A. Castruccio, director of the company's newly organized Astronautic Institute, had spoken of ESP studies as "very promising," with the caution that "a lot more work must be done before we can come up with anything practical."

I questioned W.D. Crawford, Staff Section, Air Arm Division of Westinghouse, on the project and he said that "while these studies have scientific value, any conclusions at this time would be premature and inconclusive." These statements were published in the Newsletter of the Parapsychology Foundation (January-February 1959), as was a report that Bell Telephone Laboratories had considered an ESP research project but had abandoned it.

Efforts to obtain confirmation of the French reports were unsuccessful. But in retrospect it must be

added that all these queries started with the premise that the telepathy experiments were made, specifically, by contact with the nuclear submarine Nautilus. The vessel's skipper, William R. Andersen, who retired a few years later, said that while his submarine had "engaged in a very wide variety of activities, certainly these did not include experiments in mental telepathy." Messadie, Pauwels, and Bergier had given July 24, 1959, as the date on which the experiments began, but Captain Andersen said the vessel was at that time "high and dry in dock at Portsmouth, N.H., undergoing her first major overhaul."

On September 8, 1963, the Sunday newspaper supplement *This Week* published excerpts from the Pauwels-Bergier book, but added that the two authors admitted they had "elaborated on reports they had heard, but not verified." Among other things, they had "given the submarine a name." Pauwels was quoted, "It couldn't be just an 'atomic submarine,' but the Nautilus, which is best known to the French public."

If it wasn't the Nautilus, the captain could not have been Andersen. If the Nautilus was not the recipient, but some other vessel, how authentic was the information on the set-up at the Westinghouse laboratory in Maryland? Colonel William H. Bowers, U.S. Air Force, was quoted in *This Week* as stating that "the experiment in which I was alleged to have participated never took place."

All these details and explanations came several years after publication of the "Nautilus experiments" had started a chain of events in the Soviet Union that created a renaissance in parapsychology, influenced the lives of countless men and women, and caused expenditures that are now supposed to amount to \$500 million annually. In Paris, a prominent member of the Institut Metapsychique International, Raphael Kherumian, collected articles on the Nautilus story and mailed them to a long-time professional friend, Professor Leonid L. Vasiliev, Chief of the Department of Physiology at the University of Leningrad. While Vasiliev noted in his book *Experiments in Distant Influence*, which first appeared in Moscow in 1962, that official denials of the shore-to-submarine experiment suggested "a certain caution," he also made these comments:

"This experiment showed - and herein resides its principal value - that telepathic information can be transmitted without loss through a thickness of water, and through the sealed metal covering of a submarine - that is, through substances which greatly interfere with radio communication. Such materials completely absorb short waves and partly absorb medium waves, the latter being considerably attenuated, whereas the factor (still unknown to us) which transmits suggestion penetrates them without difficulties."

Vasiliev welcomed the Nautilus experiment as a "totally unexpected foreign confirmation" of tests he had conducted twenty-five years earlier. He wrote that "the only improvements of the American experiments over ours were that the telepathic influencing spanned longer distances and overcame greater physical obstacles." The Leningrad physiologist, who had kept his parapsychological interests under wraps during much of the Stalin regime, used the Nautilus story as a lever to obtain official support, or at least tolerance, for a revival and expansion of psychic studies.

Born in 1891, Vasiliev had been a student of Leningrad physiologist Vladimir M. Bekhterev (whose granddaughter, Natalia P. Bekhtereva, today directs the Leningrad Brain Institute) and had joined his

Brain Research Institute in 1921. Vasiliev became a member of the Committee for the Study of Mental Suggestion the following year. "Mental suggestion," or hypnosis, became central to his interests. He visited Paris, as well as other Western European cities, in 1928. Vasiliev spoke and wrote French fluently, and the Paris IMI remained his major contact with Western psychical research throughout his life.

Keeping this in mind, and aware that Vasiliev was just waiting for parapsychology to come out of the closet to which Stalin-ism had banished it, it is understandable that he seized upon the "Nautilus experiment" regardless of whether it was fact or invention, or some of both. Vasiliev established an ideological basis for parapsychological studies in several books, lectures, and articles. His basic thesis was that the experimental facts of telepathy, for example, should be examined from a physiological (or material) viewpoint, so that they could not be exploited by advocates of "religious superstition" (or an idealistic viewpoint). He was criticized as providing a pseudo-scientific framework for a return to idealism under the mantle of Marxist dialectical materialism.

This ideological controversy continues. Individuals and groups seek to use doctrinal arguments to defend their own political and professional positions and to undermine those of their antagonists. In order to strengthen their own status, Soviet parapsychologists have increasingly used electronic devices to amplify human capabilities; this has involved such intriguing experiments as using a human telepathist in tandem with a radio wave corresponding to brain wave levels.

Vasiliev's views were echoed by Bernard B. Kazhinsky, a Ukrainian electrical engineer, who compared the alleged Nautilus experiment with Russian research along related lines. His book *Biological Radio Communication* was published in Kiev by the Ukrainian Academy of Science in 1962. The author expressed regret that "several years have passed since those American experiments involving the Nautilus, but nothing is as yet known about any new achievements in this direction."

Looking back on the Nautilus account, Kazhinsky concluded that it provided the U.S. armed forces with "experimental confirmation of the fact that communication between two people, separated by long distances, can be carried out through water, over the air and across metal barriers by means of cerebral radiation in the course of thinking, and without conventional communication facilities." He added:

"One important feature of the above-mentioned experiment is worthy of attention. The electromagnetic waves accompanying the thought-formation process (visual perceptions) in the inductor's brain reached the cells of the indicator's cortex after having traveled a long distance, not only in the air and through water but also through the hull of the submarine. This would justify the following conclusions: 1) these electromagnetic waves were propagated spheroidally, not in a narrow directed beam; 2) these waves penetrated through the submarine hull, which did not block them, that is, it did not act as a 'Faraday cage.'"

Kazhinsky noted that a radio receiver in the marine laboratory of the Soviet scientific research vessel *Vityaz* had been unsuccessful in intercepting electric waves emitted in the water by the torpedo fish. He added that

"the radio receivers in the submarines did not intercept these waves. This prompts the conclusion that some electromagnetic waves of a biological origin possess yet another, still unknown, characteristic which distinguishes them from conventional radio waves. It is possible that our ignorance of that particular characteristic impedes further development of research work in that field."

Soviet participants at international conferences have repeatedly asked their American counterparts for details on the alleged Nautilus experiments. U.S. visitors to the USSR have encountered undisguised curiosity about the alleged Navy telepathy experiment. When the U.S. parapsychologists confessed to lack of knowledge about the submarine test and voiced doubts as to whether it had, in fact, taken place at all, they encountered a mixture of disappointment and disbelief. It may be assumed that the very fact that the Americans professed ignorance concerning the alleged Nautilus experiment prompted Soviet authorities to assume that it had, indeed, taken place, had been successful, had been followed up - but that a blanket of security silence had been placed over the entire research area of which they assumed it to be a part.

To complete the circle of doubt and counter-doubt: Some Americans have entertained the hypothesis that the whole Nautilus story was a "Soviet plant," a piece of "disinformation," launched in France to provide a reason for a start-up of Soviet psychic studies.

In order to arrive at a definitive answer to the question "Did the Nautilus experiment actually take place?" I visited the author of the original *Science et Vie* article in his Paris office in the summer of 1980. From a young and somewhat credulous young writer, Gerald Messadie had advanced to the position of editor-in-chief of the monthly science magazine. Basically, his view now is that the whole thing was probably a hoax; he regretted ever having published the story, but had originally assumed that his source was beyond questioning.

That source had been Jacques Bergier, born in the Ukrainian port city of Odessa, a versatile, imaginative writer-researcher who served as editorial adviser and idea man for the science magazine. His judgment was highly respected by the periodical's editor-in-chief at the time, Daniel Vincendon.

Mr. Messadie, talking animatedly in his office on the Rue de Baume, recalled Bergier as always avidly searching through mountains of literature from all parts of the world, reading "night and day." His office near the Champs Elysees, at the Edition de Retz, was crowded with books and magazines from all over the world: "He sat, as on a throne, in a hole he had dug inside that mass of paper, spurting out a hash of fact and half-baked ideas, and sometimes genuine pearls."

Was the Nautilus story such a genuine pearl, or the result of Bergier's fertile imagination? Messadie recalled his reaction as a young editor-writer: "I was indeed fascinated by him, and when he came in one day, uttering in a most affirmative tone that the U.S. Navy had engaged in telepathic research aboard the Nautilus, Vincendon and I did not resist his authority." Looking back, more in sorrow than in anger, Mr. Messadie said:

"Maybe I was a little gullible, but then I also knew for sure that the Soviets had undertaken extensive research in ESP. Well, if the Soviets ventured into that kind of research, why not, after all, the Americans? I decided to 'publish and be damned'! I published, and I nearly damned myself when,

afterward, I had to face the ruckus that Bergier had raised for Science et Vie and myself. I regretted that a large chunk of my reputation had gone down with the article. After this, my relationship with Bergier cooled more and more, although we met occasionally on friendly terms. He once expressed gentle regret that I had 'walked out' on him."

It was Jacques Bergier, then, who concocted the hoax of the telepathy experiment with the Nautilus. But who was this man? Why would he engage in such an elaborate piece of flimflam?

Bergier was born in 1912 and died in 1978. His official biography states that he studied chemistry at the Sorbonne and the Ecole Nationale Supérieure de Chimie. From 1934 to 1939 he specialized in laboratory research on nuclear physics. He served as one of the editors of a three-volume work on science and technology, the *Encyclopédie des Sciences et des Techniques* (1961). A biographical note in this encyclopedia, presumably supplied by Bergier himself, stated that he had "discovered the first utilization of heavy water for a reactor technique providing a synthesis of polonium through bismuth and heavy hydro-gen."

The image Bergier had created of himself was reflected in an obituary the *New York Times* published on November 24, 1978, under a Paris dateline. In it, Jacques Bergier was described as the man "who headed one of France's most efficient resistance networks during World War II," as "one of the founders of a network code-named Marco Polo, for which he established the first effective radio liaison with Charles de Gaulle's Free French in London early in 1941."

The obituary said that Bergier had developed "gadgets for sabotage and commando operations, including the original letter bomb, so flat that it could be slipped under a door, and a device for shooting miniature syringes loaded with poison." It also credited him with providing the Allied powers with "intelligence on the revolutionary German V-2 rocket," and said: "A network he organized obtained information from the Lyons area, where parts of the rockets were being produced for assembly at the German test center and wharf at Peenemunde on the Baltic [coast]." It was on the basis of this information, the obituary continued, that the British Royal Air Force launched a bombing raid on Peenemunde in July 1943.

Later that year, according to this account, Bergier was "arrested and tortured by the German Gestapo" and sent to the Mauthausen concentration camp "where he remained until the end of the war." The obituary added that, after the war, he "became a part-time consultant for French intelligence, wrote several books on espionage and popular books on scientific subjects."

Bergier was decorated for "exceptional services" by Field Marshal Bernard Montgomery as well as by General Dwight D. Eisenhower. He was also awarded the Medal of the Resistance and was a Chevalier de la Légion d'Honneur. After the war, he published about a dozen books, of which he regarded his co-authorship of *Le Matin de Magicien* as the most notable.

According to Mr. Messadie, Bergier was fond of recalling that he had been "a good friend" of Frederic Joliot-Curie, who received the 1935 Nobel Prize for chemistry for the artificial production of radioactive elements and who was a member of the French Atomic Energy Commission after World War II. He was dismissed from the commission because of communist sympathies. And, as Messadie

recalls it, Bergier "took an impish pride in being a member of the New York Academy of Sciences."

In other words, the image of the man who planted the Nautilus hoax is a complex one. Gerald Messadie remembers Bergier as "an elf of a chubby small man, with a shrill, improbable voice, peppered with a strong Russian accent." He wasn't fastidious in his dress, usually wearing "shirts at least two sizes too big, while displaying a fascinating tuft of long black hair that protruded from his loose collar under a chicken neck."

Why did Messadie, who even as a young man was nobody's fool, fall for the Bergier-concocted Nautilus yarn?

Messadie remembers that Jacques Bergier's reputation for

reliability had been "untarnished" until the submarine-telepathy story. Moreover, Messadie says, "his self-proclaimed credentials as a secret agent stopped short any suspicions I might have had about his reports." Today, the urbane science editor, who is equally at ease in French, English, and Italian, sums the whole thing up by recalling that Bergier had claimed to have, "somehow mysteriously if not surreptitiously, extracted his information from intelligence sources." Messadie added: "Bergier, who had a brilliant mind, was sometimes prone to elaborations that verged on pranks, not to say hoaxes, and I don't believe I was then critical enough to judge such information."



## 4 - Amplified Mind Power

Whether the Nautilus experiment was fact or fancy did not actually matter to Soviet parapsychologists. They were ready to accept it as truth because it perfectly fitted their preconceived ideas. For years, Russian neurologists and psychologists had treated the human mind as little more than a complex electro-chemical apparatus. As such, they felt, it could function as the "recipient" of information or as an "inducer" of energies. With skill, these faculties might be manipulated: made more sensitive, more powerful, more responsive to outside influence.

This view of the human mind identified it with the brain as a biological entity. From the Marxist viewpoint, psychological or spiritual speculations about the human mind are idealistic and run counter to the approved materialistic approach. In practical terms, Soviet science views the brain as an apparatus available for probing and manipulation.

The use of the mind as a conveyor of shore-to-ship, base-to-submarine information fitted smoothly into Professor Vasiliev's pattern of ideas, as well as those of his colleague, Bernard Kazhinsky. The latter's book *Biological Radio Communications*, mentioned in the preceding chapter, arrived in my office at the Parapsychology Foundation in New York two years after the Nautilus report. Indicating a further "thaw" in Soviet attitudes toward parapsychology, it dealt in still greater detail than Vasiliev's work with the phenomena of telepathy.

Kazhinsky used the term "biological radio communication" to categorize what had "long been known as telepathy." He traced four decades of research and theories on the subject; but I confess that our office, and I personally, initially failed to give the work the full attention it deserved. One reason for this neglect was the fact that the author had obviously taken an old manuscript, grown outdated during the Stalin period, and updated it in line with Vasiliev's breakthrough. Its central ideas dated back to Kazhinsky's experiments in 1919.

Another reason for placing the book relatively far down on the scale of importance was its emphasis on electromagnetic means of telepathy - a hypothesis parapsychologists had pretty much discarded in the intervening years. One of Kazhinsky's sources was Italian researcher Ferdinando Cazzamali, who attributed telepathy to brain radiations, a theory apparently thoroughly disproved by tests that unsuccessfully sought to screen telepathy by means of copper cages (Faraday cages); if measurable waves were involved, copper should have blocked the waves.

In retrospect, the Kazhinsky work has gained significance because Soviet science has now again focused on electromagnetism as an energy factor in parapsychological phenomena. His work provides us with a view of the foundations of today's Soviet experiments and scientific attitudes. Edward Naumov, the Moscow parapsychologist whose activities are described in greater detail elsewhere in this book, speaks of Kazhinsky as one of his teachers. Naumov has told visitors that "after much effort," he was instrumental in convincing the Ukrainian Academy of Science to publish his teacher's work.

As a young man, Kazhinsky had a striking experience, something psychic researchers might categorize as "crisis telepathy," when he heard as a "silvery sound," a message from "the nervous system of a

dying friend." This started him on a lifetime of "studying the minutest details of the human auditory neural apparatus." He found "an analogy between the natural purpose of the individual elements of the nervous system and the possible function of these elements as parts of a biological radio communication apparatus."

His concepts suited the materialist view of science advanced after the 1917 Bolshevik Revolution. On February 16, 1922, the All-Russian Congress of the Association of Naturalists underwrote Kazhinsky's project and promised to publicize it.

A lecture he gave three days later bore the title "Human Thought: Electricity." More research followed. By August of that year, he had completed the manuscript of a book to be called Thought Transference. Kazhinsky concluded that the human nervous system incorporates the elements of its own historic evolution. He wrote:

"Like all other parts of the living organism, nerve elements and nerve circuits perform adaptive and protective functions; that is, they adapt the organism to the influence of the environment, as well as to the influence of environmental factors. They have undergone changes and improvements for many thousands of years. Nature took care to equip all living matter with highly delicate nerve structures that have resulted in great improvement of all vital functions. Electromagnetic transmission of mental information over a distance is a vital function of the nervous system.

"This leads to a logically justified idea: the human central nervous system (including the brain) is a repository of highly sophisticated instruments of biological radio communication, in construction far superior to the latest instruments of technical radio communication. There may exist 'living' instruments of biological communication still unknown to contemporary radio engineering. A thorough and original laboratory study of such 'living' instruments may help us raise radio communication to an unprecedentedly high level, placing entirely new and vastly improved radio facilities at its disposal."

Kazhinsky disagreed with those who regarded the telepathic ability as a remnant from man's earlier stages of evolution. Instead, he maintained that "the phenomenal capacity of a person to exert a mental influence over others from a distance is still in an embryonic stage." He added:

"Those who believe that this brain capacity is moribund, degenerating, etc., are wrong. On the contrary, it is the beginning of a new and higher stage of development of the human mind, on a new and firmer foundation, based on biological radio communication. This hypothesis is confirmed by a simple law of nature: the more a capacity is exercised, the keener it will become and the greater man's power over nature will be."

Kazhinsky interpreted an incident of crisis telepathy in neurological terms. He cited the case recorded by a literary critic in Baku, Azerbaidjan, who reported that his aunt, E.G. Varlanova of Kokand, suffered from "a sharp pain in her left chest area," although medical examination could not establish a cause. Later she heard from her married daughter, who lived in the town of Batumi, that the young woman had "undergone a very serious and painful mastitis operation in the left part of the chest," just at the time her mother felt a pain in the identical body area.

This "telepathema," as Kazhinsky and other Soviet researchers called this type of communication, was transmitted over a distance of twenty-seven hundred kilometers by a

"bio-electromagnetic wave emitted by the brain of the sick daughter in Batumi, with a frequency corresponding to the sensation of sharp pain in the left chest, and reached Kokand, where the mother lived at the time. The ganglion cell of the mother's cortex, functioning as a detector, intercepted that wave and produced an oscillation action current of a similar frequency in the closed nerve-circuit of her left chest. The result was a vibration of these cells at the same nerve-end area in the left chest of the mother as it was in the daughter. This vibration in the mother produced the same bio-electric 'painful' irritation of the sensitive analyzer in her brain as in the daughter's brain. The brain then analyzed and synthesized the morbid sensation of 'her own' sharp pain in the left chest."

Kazhinsky's concepts are, in several ways, a prototype of some Soviet thinking in this field. He notes the "insignificantly low energy emitted by the brain of the 'biological radio transmitter' in the transference of sensations and experiences over distance." He urged that efforts be made to develop instruments that can duplicate the "remarkably delicate and perfect natural instrument" that the brain represents in functioning as such a transmitter. Kazhinsky bolsters his argument with a quotation from V. I. Lenin, "Sensation is the resulting effect of matter on our sensory organs" (Materialism and Empirio-Criticism, Moscow, 1953).

Linking his ideas of human memory, thought associations, and conditioned reflexes to the pioneering work of Ivan P. Pavlov (1849-1936), the great Russian physiologist, Kazhinsky also drew on the findings of a leading Canadian authority, Wilder Penfield, best known for reviving buried memories by stimulating specific brain areas. He also cited the work of Dr. Milan Ryzl, an internationally known parapsychologist, because he "succeeded in obtaining experimental proof of the fact that it is possible to educate, train and develop the 'telepathic' faculty of the human brain."

Dr. Ryzl, who now resides in the United States and is a member of the faculty of John F. Kennedy University in Orinda, California, pioneered the use of hypnosis to heighten psychic ability. While in his native Czechoslovakia, Ryzl undertook a series of experiments with Prague psychic Pavel Stepanek. The psychic normally achieved positive results in clairvoyance and telepathy tests; these effects were heightened when he was placed in a hypnotic state.

Today's Soviet experiments show a strong link with traditional thinking. When Vasiliev reopened the discussion of parapsychology in 1960, he linked hypnosis studies to pre-revolutionary experiments and to the impact of Anton Mesmer (1734-1815), whose dramatic demonstrations of "mesmerism" had fascinated Europe.

During the heyday of spiritualism in the nineteenth century, the hypnotic trance and the mediumistic trance were at times used interchangeably. Often mediums were placed into trance by hypnosis; in turn, hypnosis was used to try to reinforce psychic ability. Vasiliev's experiments and those of his successors can be seen as a continuation of such efforts.

In his book *Experiments in Distant Influence*, Vasiliev provided examples of his technique. The chronology of his work remains unclear, probably because hypnosis as such was anathema in the

Soviet Union during much of the Stalin regime. Three years after Stalin's death, the Soviet Encyclopedia still called telepathy an anti-social, idealist fiction about man's supernatural power to perceive phenomena which, considering the time and the place, cannot be perceived."

By 1961, however, Vasiliev's psychiatric colleague Professor K-I. Platonov was able to address a Kharkov meeting on telepathy and recall experiments he had conducted in 1924 at the All-Russian Congress of Psychoneurologists, Psychologists and Teachers in Leningrad. Vasiliev, who was present during the original Congress, published Platonov's account in his book. During a meeting of the Congress's Hypnological Section, a female subject, M., sat at the presidential table, facing the audience, while Platonov stood behind a blackboard that hid him from M., although he could be seen by the audience.

Platonov had told the audience earlier that, when he silently covered his face with his hands, he would try to put the subject to sleep hypnotically. His report continued:

"Having covered my face I formed a mental image of the subject M. falling asleep while talking to Prof. G. [who sat next to her on the dais]. I strenuously concentrated my attention on this for about one minute. The result was perfect: M. fell asleep within a few seconds. Awakening was effected in the same way. This was repeated several times."

Platonov's observations included the finding that, when he gave the subject the actual mental suggestion of saying "Go to sleep" or just "Sleep!" he didn't get any results. But when he "visualized the image" of her asleep - or awake, when he wanted to conclude the experiment - he had positive results. He noted that the subject woke up suddenly, "within a few seconds after I had started mentally visualizing her awakening." Platonov emphasized that the subject was "entirely unaware of the nature of the experiment."

Platonov said that his tests should prompt scientists to take these phenomena "extremely seriously." He concluded that his findings give researchers "the right to search for means of finding a scientific, materialistic grounding, not only for the phenomena of telepathically inducing sleep, but for many other telepathic phenomena as well."

Vasiliev elaborated on this experiment between 1926 and 1960. Two questions arise: Is putting people to sleep, at a distance, a scientific marriage of hypnosis and telepathy? And are Russian researchers currently engaged in perfecting the results obtainable from a combination of the two phenomena?

Dr. J.G. Pratt, a prominent U.S. parapsychologist, was surprised when, on visiting the Vasiliev laboratory in Leningrad in 1961, he was told that its members had abandoned experiments in hypnosis-at-a-distance in favor of more promising fields of research. Yet it is likely that the pioneer work done by Russian scholars in this field has led to more intensive and wider studies. Soviet long-distance telepathy experiments are a matter of record; we may assume that the "reinforcement," by hypnosis or drugs, of telepathic senders (inducers) and receivers has been attempted in all types of telepathy tests.

The crucial question is whether hypnosis/telepathy can influence men or women who are unaware of being targets. Many cases have been reported, similar to Platonov's mental influence on the subject M.,

which seem to prove that the subject can be hypnotized while unaware of the experiment. On the other hand, a U.S. authority on hypnosis, Martin T. Orne, M.D., Director of the Philadelphia Hospital's Unit for Experimental Psychiatry, maintains that the subject must have a conscious or unconscious desire to participate in the hypnosis session if results are to be satisfactory.

In a paper on "The Potential Uses of Hypnosis in Interrogation," Orne noted that hypnosis has gained the reputation of an "almost magical means of influencing others, curative, mystical, bordering on the supernatural." He addressed himself specifically to the problem of using hypnosis in interrogation - which could include use by the police, on captured espionage agents, on soldiers captured in warfare - and noted that "the initial problem in utilizing hypnosis for interrogation is to induce trance." Dr. Orne added:

"It is to be expected that if the subject wishes to withhold information, he will not wish to enter hypnosis. Therefore, hypnosis must either be induced against the subject's will or without his awareness. A common conception of hypnosis holds that it may be induced without any prior relationship between subject and hypnotist and regardless of the subject's need in the situation, with only the hypnotist suddenly gazing at his victim and commanding him to fall asleep. A motivational view of hypnosis would hold that trance induction depends upon the subject's needs of the moment and his expectation that the hypnotic relationship is to fulfill them."

Basing his views on personal experiences as a hypnotist, and drawing on the fairly extensive literature on the subject, Dr. Orne concluded that, "despite many apparent indications that hypnosis can be induced without the subject's knowledge or consent, all these situations seem to depend upon a positive relationship between subject and hypnotist." That conclusion contrasts with Platonov's observation that he was able to induce hypnotic sleep while his subject was quite unaware of his attempt.

One notable factor is the use of hypnosis to exploit mixtures of fear and guilt. A prisoner of war, for example, may be tempted to ease his condition by imparting information, but feels guilty about doing so. Facing a hypnotist, he may tell himself that he is unable to resist the hypnotist's powers. He can then blame the psycho-physiological setting for doing something he had really wanted to do, at least unconsciously. In such a case, the motivation and the hypnotist-subject relationship of which Dr. Orne speaks exist, although in a camouflaged manner.

Dr. Orne's concept of the common ground between hypnotist and subject is in conflict with the longstanding Soviet view of hypnotic trance as essentially mechanical-materialistic. Russian researchers have experimented with devices that would automate the procedure, removing it from the fluctuating area of human reactions. A report by the AiResearch Manufacturing Company of Torrance, California, prepared for the Central Intelligence Agency observed, "Russian interest in hypnosis has led to many attempts at automating hypnosis," adding: "Typical techniques are tape-recordings, rotating discs in the visual field, and application of pulsating electrical current through the head."

The report listed as "the latest Soviet attempt in this area" a device with the acronymic name "Lida," which received a U.S. patent in 1973; it incorporates a pulsating light, heat, sound, very-high-frequency and electromagnetic radiation. While the inventors of the device claim that it induces "the desired biorhythm," the accompanying literature does not define the biorhythm rate. The AiResearch

report suggested that an "alternative use" of the device may lie in "changing the subjective psychological state of the subjects." It compared "Lida" to biofeedback machines that promote feelings of wellbeing, openness, and transference to the therapist.

If an interrogator is substituted for the therapist, such a device could make a subject more amenable to questions or more malleable in other ways. Such a mood-machine has aspects of mind-control and mind-manipulation: admittedly, the image of a machine making a subject alternately defiant, submissive, taciturn or talkative looks like a piece of science fiction - still, any number of well-known drugs can be used to achieve these among other effects.

The best-publicized hypnotist in the Soviet Union is Vladimir L. Raikov, M.D. His unique method consists of placing subjects under hypnosis in varying degrees, some into a sleeping state, others into a seemingly waking state which nevertheless permits hypnotic control. By suggesting to the entranced subjects that they were, for example, able to play the violin as well as the late Fritz Kreisler, or paint like the late Henri Matisse, he has induced them to achieve artistic feats beyond their everyday capacity.

Raikov's method has been called "artificial reincarnation," although one might, with equal justification, call it "induced possession." At any rate, the subjects often behave as if they actually were, for example, the Queen of England. Subjects who receive Raikov's "treatment" later hear tape-recordings of their musical performances - as they do not remember them, because of hypnosis amnesia - and are often stunned and delighted to discover their own capabilities.

The Raikov method of heightening human performance can be adapted to sports, to intelligence-gathering, and military purposes. This type of application is, of course, not mentioned in either scholarly or popular Soviet journals. However, Russian sport defectors have testified that their intensive training included not only specialized physical exercises, but carefully programmed psychological conditioning of their personalities and skills.

One instance of Soviet use of hypnosis in an international setting was the 1978 world chess championship at Baguio, the Philippines. The challenger, Victor Korchnoi, tried unsuccessfully to unseat the champion, Anatoly Karpov. Korchnoi had defected from the Soviet Union, while Karpov lived in Russia and was one of the major sports assets of the Soviet state.

The match had moments of high drama when Korchnoi accused his opponent of benefiting from the distracting influence of a Russian hypnotist. Among the champion's entourage of twenty aides was Dr. Vladimir Zoukhar, whom Korchnoi identified as a hypnotist and parapsychologist.

Did Dr. Zoukhar's hypnotic skills actually contribute to Korchnoi's defeat? Or did Korchnoi's fear of hypnosis hamper his self-assurance, and thereby contribute to his failure?

The championship match paid \$350,000 to Karpov, the winner, and \$200,000 to Korchnoi, the loser. Both men, natives of Leningrad, had grown up in the highly competitive Russian chess tradition. Korchnoi left the USSR in 1976. His wife, Bella, and his son, Igor, remained behind; on November 13, 1979, Igor was arrested as a draft-dodger and served thirty months in a labor camp. Mother and son

were permitted to leave the country in June, 1982.

At the very outset, Korchnoi protested that Dr. Zoukhar, whose official role was that of Karpov's "personal psychologist" - certainly an unusual companion to a Soviet chess champion - was concentrating his hypnotic gaze on him. Bernard Wildeman, reporting from Baguio in the Washington Post (October 18, 1978), noted that Zoukhar sat in the fourth row, where "his unblinking stare, framed by sunken cheeks and long black hair" added to the mystery surrounding the psychologist, as he "seemed to be leaning forward as if to encourage Korchnoi's stated fear that he is the target of a psychic whammy."

According to the Paris weekly *Nouvel Observateur* (September 12, 1978), the Baguio championship match represented a transition "from psychological warfare to parapsychological warfare" in a sports setting. Correspondent Pierre Pauchard wrote that the encounter placed Dr. Zoukhar in a crucial position, enabling him to exercise hypnosis-at-a-distance against Korchnoi.

Pauchard asked Korchnoi whether some decisive error had resulted from his feeling pressed for time. The challenger answered bluntly, "No, it was Zoukhar!" The reporter observed that, at Baguio, it had seemed for a while that neither Korchnoi nor Karpov mattered, "but the challenge posted by Zoukhar and by parapsychology." Clearly, the presence of the hypnotist had an impact on Victor Korchnoi, who confessed, "This man troubles me. Particularly when I am pressed for time, he uses his hypnotic powers. It's that man, Vladimir Zoukhar."

Korchnoi's style included long waiting periods, while he stared at the chess board, considering a variety of alternative moves. It was during those tense periods - he felt, that Zoukhar concentrated his hypnotic eyes on him. When the Korchnoi camp asked that the Soviet hypnotist move to the rear of the hall, the Soviet group demanded that he remain within the first seven rows; the championship organizers agreed to this arrangement.

Pauchard cornered the chief of the Soviet group in the corridor of the site. He asked, "Is Vladimir Zoukhar a member of the Soviet delegation?" The delegation chief, Victor Baturinsky, answered, "Yes." Pauchard asked, "A member of the official delegation?" The answer was, "No."

"Then, what is he?" the French reporter asked.

"A doctor."

"But Karpov already has a physician, in addition to his personal doctor, Mikhail Guerchanovich. Then what is he?"

"He is Karpov's second-line physician."

"The Korchnoi camp alleges that he is a parapsychologist."

"I am not a specialist on psychiatric questions."

"But, just the same: he concentrates on Korchnoi. Odd, if his patient is supposed to be Karpov."

In international sports circles, the use of hypnosis in support of Soviet soccer teams has long been accepted as a curious, but established, practice. Chess champions, often highly strung individuals, regularly exchange emotionally charged accusations and counter-accusations at international matches. Efforts to put opponents at a disadvantage by dramatic actions or outbursts, contemptuous slurs or boasts, are also part of the psychological buildup for boxing matches and other sports events. Various tricks, including the doping of athletes and horses, have been revealed over and over. But, as Nouvel Observateur commented, "this was the first time that this type of scientific technique has been introduced into a world championship of chess."

Hypnosis at the distance of a few spectator rows in a chess game illustrates the potential roles hypnosis could be called upon to play: to strengthen one individual or weaken another;

extract or implant information; to induce sleep or wakefulness; to manipulate moods, actions, memories, amnesia - the potential is seemingly unlimited, for good or ill.

In the military field, various forms of "motivational training" can contain elements of hypnosis and suggestion, designed to enhance specific skills. While such training is far from universal in the Soviet armed forces, sophisticated preparations may well be applied to high military echelons, including hypnotic and autogenic techniques. Soviet cosmonauts, commando units, intelligence agents, submarine crews and other specialized forces could be targeted for just such sophisticated training.

While the number of men and women in the armed forces of the USSR is high, available staff and facilities for something as novel and specialized as hypnosis permits only selective training. Dr. Raikov's method - hypnosis, as he put it - permits the subject who is "in a state of hypnosis" to remain "conscious, as well as active to the degree that he can perform some actions he could not perform while awake." However, "habits adopted and abilities manifested under hypnosis tend to be strengthened and to remain even when wakefulness is restored."



## 5 - The Tragedy Of Edward Naumov

One sure way of giving a man international prominence is to put him in jail. That happened to Edward K. Naumov, the Soviet Union's best-known parapsychologist, when he was sentenced to two years at hard labor. On March 26, 1974, a Moscow court found Naumov guilty of violating currency regulation and illegally accepting lecture fees. But the Associated Press reported that his real violation had been a refusal to break his contacts with "Western colleagues."

As soon as the sentence took effect, friends and supporters of the Moscow parapsychologist rallied to his defense. The idea that a man could be sent to a labor camp for any of these either real or trumped-up reasons outraged those who knew Naumov as a zealous, stubborn and diligent man. What had he really been guilty of? Edward Naumov had clearly aroused the ire of some Soviet authorities, because of his all-too-enthusiastic dedication to a world-wide exchange of parapsychological information, of a self-endangering refusal to tone down or cease his activities, even under increasingly strong government pressure.

The next question must be: Why did any Soviet government agency want Edward Naumov to restrict his research in parapsychology? And, finally: Why had they permitted him to emerge as an active liaison man between Soviet and foreign parapsychologists in the first place?

By the usual standards of Soviet scientific liaison with the outside world, Naumov's first efforts at contacting parapsychologists abroad suggested that he had official blessings. Once Professor Vasiliev's writings had met ideological objections to parapsychological research, providing it with a foundation of Marxist dialectical materialism, Soviet studies in the field obviously needed to fill the huge data gap created during the Stalin years. What could be more obvious than opening the doors to the writings and visits of foreign scholars - the better to duplicate their work, and develop studies on the basis of findings made over some three decades?

Quite frankly, people like me looked at Naumov's letterhead, which placed him and the meetings he organized in Moscow's "Friendship House," and we quietly assumed that the responsible Soviet authorities - whoever they might be - had given him the green light to act as an enthusiastic conduit, organizer and catalyst of a new two-way contact between researchers sharing a fascination with certain frontiers of science.

This may have been a correct view at the time - except that Naumov eventually became so identified with his work that he let enthusiasm get the better of him. By the end of the decade, from the nineteen-sixties to the nineteen-seventies, Soviet authorities apparently decided that internal and external publicity about parapsychological studies should be muted or terminated. It can be argued that, by the year 1970, Russian scientists had been able to bring themselves up to date, to study intensively, to find out as much as possible about Western research in the field.

In truth, the decade of Naumov's concentrated work was never a two-way street of information between East and West. Dozens of Western experts visited the Soviet Union, bearing academic literature and speaking freely about their work, hopes and plans. Their Soviet counterparts provided eager eyes and ears, showed them some examples of local work, such as the ever-colorful psychokinetic performances of Leningrad's Nina Kulagina. But they did not convey much, if anything,

about more far-reaching experiments. Of course, they themselves may have been kept in ignorance on tests taking place at research institutes with names that concealed the presence of parapsychology departments.

But if it was only a matter of Naumov's inability or unwillingness to slow down or shut up, when covert research began to outweigh overt studies in the 1970s, why did he have to be sent to a labor camp? One point in this case is purely ideological, almost a matter of vocabulary. People who became identified with the Naumov "group" (which soon fell apart) were accused of an "idealistic" rather than a proper Marxist "materialistic" approach to their studies.

Particularly in their talks, people like Naumov at times let their enthusiasm about the potential of parapsychology run away with them. On the formal side, Naumov strongly plugged mind-over-matter research, or favored telekinesis (psychokinesis, or PK, in the West), and publicly criticized his scientific superior, Prof. Hyppolite Kogan, for devoting himself too exclusively to work in telepathy.

Does the secret Soviet work, by any chance, include a good deal of telekinesis research, and had it become embarrassing to have Naumov talk publicly about a field of study that become the subject of secret experiments? If so, Naumov seems to have been the last one to realize this. As far as he could see, telekinesis was being ignored. He had spent so much time and effort on the publicizing of parapsychological experiments, on writing about, publishing, tape-recording, and filming of tests, that the concept of keeping ongoing or successfully completed experiments under wraps must have appeared totally alien to him.

In a way, Edward Naumov belongs to a segment of Soviet parapsychologists who fought so hard to make this research known that they were not equipped to comprehend the new secrecy for what it may well be: a most sincere form of official acceptance. Some cynics abroad have viewed the enthusiastic Naumov as a channel of "disinformation," as a man who provided the "misdirection" a stage magician uses when he wants to distract his audience from a particular sleight-of-hand. If so, I suggest, Naumov only unknowingly became a personification of the "misdirection" technique - a slightly battered figure who stood in the limelight, center stage, while more significant activities continued in a darkness or semi-darkness that our vision cannot penetrate.

I do not believe that Edward Naumov sees himself in such a role, or that he is fully aware that such subtle ploys exist. His career and interests have been too single-minded for such subtleties. In fact, Naumov's overriding interest in psychic phenomena appears to have prevented him from obtaining a doctorate in an established scientific discipline.

In a remarkable letter addressed to the Department of Science of the Central Committee of the Soviet Communist Party, dated May 11, 1974 (full text in Appendix), Naumov recalled that he had given ten years of his life to the study of parapsychology, hoping to follow in the footsteps of Professor Vasiliev and Dr. Kazhinsky. Naumov was instrumental in getting Kazhinsky's main work, *Biological Radio Communication*, published by the Ukraine Academy of Sciences, when Moscow publishing houses refused to issue it. He apparently helped Kazhinsky to update the book with new material, and it is within the realm of the possible that "the authorities" even used Naumov for a while to keep an eye on Kazhinsky.

A case can be made for Naumov's having been, at first, a relatively detached outsider to parapsychology, who became a semi-official "liaison" man, but finally identified himself with the subject so completely that he could not detach himself from it. In his letter to the Communist Party, he referred obliquely to the military potential of parapsychology, noting that its development "abroad" makes acquiring such information desirable, especially at a time "when every scientific discovery can be used in many different ways."

At all times, Naumov wrote, "in my contacts with foreign scientists, I publicized the achievements of Soviet research, defending the competence of Soviet science. I saw this as my patriotic duty." Naumov wrote that he had accumulated files, addresses, and printed material to use in his defense. This material was seized and became part of the prosecution's case. Naumov found himself "accused by investigative organs of the MVD [Ministry of Internal Affairs] of unlawful lecturing (that has been characterized as criminal), of illegally publicizing parapsychology, and of engaging in criminal activities." He added: "To this day, I do not understand why my scientific-practical activities are considered in the least criminal."

Naumov was particularly bitter about A.V. Snezhnevsky, Director of the Institute of Psychiatry of the Academy of Sciences, whom he categorized as a prejudiced "opponent of para-psychology" and other border areas of science, including medicine.

He noted that Snezhnevsky's expert testimony was accompanied by a second opinion, "provided by the Department of Technical Control of the KGB, Council of Ministers, USSR, which showed that the films illustrating my lectures were documentary and original, and that they contained no tricks, no mystification, and no fiction." Among his other misfortunes, Naumov apparently was caught up in contradictory actions and views between the Interior Ministry and the KGB - another point that illustrates his own delicate position, and that of parapsychology in the USSR generally.

The fact that he neither held a doctorate nor could be accepted for a teaching or research position at a university or state research institute did not restrain Edward Naumov; if anything, he tended to over-compensate for this academic shortcoming within a scientific community in which hierarchical traditions are not easily defied.

As an enthusiastic amateur, with the kind of ego drive that gave his domestic and international public relations activities persistence and flair, Naumov was welcomed by a good number of Soviet parapsychologists. The term "Soviet parapsychologist" covers - at least in some segments of the press and the public mind - a multitude of types, ranging from UFO buffs and astrologers to prestige-conscious and conservative psychologists and physicists who look with disdain upon what they regard as a deplorable country fair inhabited by publicity-seeking freaks.

Naumov's acceptance into the academic community, as far as it went, came in 1966 with the establishment of a Section on Bio-Information at the A.S. Popov Scientific and Technical Society of Radio Communication and Electrical Engineering in Moscow. While Naumov was on the staff of the section, it made studies of conditions under which hypnosis can be most effective, and also experimented with subjects in a normal state of wakefulness. In the field of telepathy, emphasis was placed on long-distance tests. By 1968, the difference in academic standing and research targets that

separated Professor Kogan, president of the section, from the irrepressible Naumov resulted in Edward Naumov's removal from the Popov Society, denying him direct affiliation with an academic institution.

However, Naumov's organizing and publicity talents soon led to establishment of a section within the Scientific and Technical Association for Instrument Construction; the group was named Branch of Technical Parapsychology and Biointroscopy. Its participants and supporters ranged from professors of engineering and physics to specialists in geology and mineralogy. It can be easily understood why Kogan and Naumov came to a parting of the ways. Naumov, who was one of the first to support and publicize the psychokinetic demonstrations of Mrs. Kulagina in Leningrad (although he later withdrew from contact with the Leningrad group), enlisted support for the more extensive studies of such mind-over-matter phenomena by showing Kulagina's performance on film; Kogan refused to share his enthusiasm, saying, "Well, it's just a film, and one can't really base a scientific conclusion on it; it simply is not an experiment!"

It is fair to say that most seasoned Western parapsychologists, although delighted with the films, or even with Kulagina's performance in vivo, in hotel rooms or in her Leningrad apartment, have tended to withhold judgment. Dr. Montague Ullman, New York psychiatrist and one-time president of the American Society for Psychical Research, said after observing Kulagina that he hoped "further independent studies" would eventually "support the claim of authenticity" of the Kulagina phenomena.

The Kulagina experiments were, for a while, undertaken jointly by Naumov and A. Genady Sergeyev, a Leningrad physicist and technologist with official affiliations. Naumov was instrumental in the preparation of a film, "On the Threshold of the Unknown," which dramatized parapsychological experiments abroad and in the Soviet Union, and which contained segments showing Kulagina moving objects through apparent mind power. Among the places where the film was shown was the television station in the town of Gorki.

During this period, Naumov emerged from the position of active middleman between Soviet and foreign parapsychologists and sought more and more to place himself in the role of scientist-experimenter. In doing so, he introduced several imaginative concepts into the discussion of unexplained phenomena, most of them reflecting his devotion to telekinesis. Specifically, he sought to throw new light on psycho-physiological phenomena, which, in his opinion, could "create tremendous practical interest." In one article he even said:

"I have no doubt that telekinesis can be used for man's welfare and improvement. The biological energy of telekinesis will find application in the running of electronic machines and physico-chemical processes. I hope that these new discoveries will not fall into the hands of those who may use telekinesis as a biological weapon. The physiological and physical investigations we are now working on will help uncover the nature of telekinesis. The first results received from physical studies have not only confirmed the fact of the existence of telekinesis but also permit its physical interpretation."

Just whom was he warning here? What government or governments, or what specific government agencies - in the Soviet Union or abroad - did he suspect of hoping to use telekinesis as a "biological weapon"? At least Zdenek Rejda, much-traveled Czechoslovak advocate of psychotronic research, played it safe in an article, "Parapsychology: War Menace or Total Peace Weapon?" (Periscope, Prague, 1960). He wrote that some Czechoslovak experiments combining hypnosis with telepathy

showed that ESP can be used "as a total weapon for peace," but added, "however, if in the United States they want to use parapsychology for military purposes, scientists in Russia want peaceful uses of parapsychology."

Naumov also advanced intriguing ideas concerning parapsychological aspects of his original field of study, biology. He thinks there are para-biological reasons why people do, or do not, get along with each other. He wants to go deeper into the man-to-man relationship, and into biological, "not psychological," compatibility between the individual and the collective, or group. If this were possible, one could tell in advance whether a man or woman would or would not fit into a work team, into a family, into an army unit, a scientific expedition, or any other grouping that relies heavily on interdependence.

This includes any team that is isolated for an extended period, or one in which all members are dependent on each person as a link in a strong chain. Such undertakings as arctic and underwater expeditions come to mind, the combination of submarine crews, of astronauts and cosmonauts, teams manning space shuttles, surgery teams in hospitals, and virtually all other units that depend on interpersonal relations.

Naumov compares personal interaction to the way that one tired member within a group can make all the others feel sleepy, too. He believes that "instinctive dislike of some person" is "linked with a manifestation of biological incompatibility, which is material in its function." To him, changes in emotions, temper, and mood are reflected in "changing rhythms in the brain's electrical activity." He concludes: "Transmission of emotional states from one person to another results from the ability of one person's brain to impose its rhythm on another, by means of electrical activity."

And how does this fit into parapsychology? Naumov states that this transfer of rhythm "is, in effect, nothing but spontaneous telepathy," except that emotions rather than images are being transmitted. He sees research into this area as ultimately benefiting the selection of individuals for service within a group, picking people for specific tasks, and helping people live within a collective, as well as selecting "telepathic couples."

Naumov was at the center of the 1968 Moscow Conference on Technological Parapsychology, scheduled from June 20 to 25. It had been postponed from 1967, and the new program placed the meeting just a few weeks before the invasion of Czechoslovakia by Soviet troops. The conflicting trends and viewpoints affecting this conference were dramatized by the fact that, at the last moment, the second-day meeting had to be switched from Friendship House to the Embassy of Czechoslovakia - of all places, at that time! Another scheduling flaw occurred when the conference was postponed to June 25, the day it originally was to have ended. By then, some 150 people from the Soviet Union and abroad had assembled at the Popov Society.

But this was, in retrospect, Naumov's finest hour. He acted as organizer and host, and reported orally and at length on a number of successful experiments allegedly undertaken by him and other Soviet parapsychologists. He spoke extensively of Kulagina's dramatic demonstration of telekinesis, and generally projected a mood of confidence and progress. At the same time, an article appeared in Pravda accusing Kulagina of various fraudulent activities.

The conferees, who had braved Moscow's temperature of 90 degrees Fahrenheit and the switch of conference sites, were further confused by the absence (and public accusations against) Kulagina. Naumov remained steady as well as flexible. He rescued what might otherwise have been a total disaster, turning the change of events into tolerable confusion and showing himself to be a resourceful organizer and candid conversationalist.

But the Moscow incidents were storm signals for Naumov as a person, and for parapsychology in the Soviet Union generally. One Western participant, Mr. John Cutten, then Honorary Secretary of the Society for Psychical Research, London, recalls that he "left Moscow with mixed impressions regarding the status of parapsychology in the Soviet Union." He felt certain that "a great deal of experimental work is currently being carried out in neurology and cybernetics in scientific institutes in many parts of the Soviet Union; there is no secret about it, even if some of the findings are not published." He anticipated that further knowledge "will come through the work of those engaged in unraveling the mysteries of the human brain, in which field Russian scientists are taking a leading part."

James Grayson Bolen, publisher-editor of the magazine *Psychic* (now *New Realities*), San Francisco, noted in the periodical's issue for July-August 1970 that "the promise of further research" in the Soviet Union now "seemed dim." He added that, despite these impressions, "research has continued there, but with different speculation here as to its climate and intensity." He felt that Naumov's appearance on the Gorki television station in the forty-five-minute telecast of "On the Threshold of the Unknown" the previous January 16 implied that "the Soviet Union once again may be publicly viewing parapsychology with an open mind - or at least a tolerant one."

A few days after the Gorki telecast, Naumov wrote to me on the letterhead of the "Institute of Technological Parapsychology" (January 24, 1970). Referring to my "expertise on parapsychology," he requested a copy of my book *Prophecy in Our Time* ("we are interested in precognition, but do not have very much information on the subject at the present time"). He included with his request a paper "by one of our physicists putting forward a hypothesis which may be of some interest to those engaged in investigating precognition" and expressed interest in "the application of some pharmacological substances in Psi-research."

His letter suggested that the idea that certain drugs might heighten extrasensory powers (including telepathy and mind-over-matter phenomena) had attracted the attention of Soviet research, or at least of Naumov himself. As a matter of fact, Western experiments do not provide either strong or clear-cut evidence that drugs do, in fact, increase ESP ability, although they may strengthen the subjective feeling of a subject that he or she is "reading the mind" of someone else or is able to "will" an object to move or some other physical act to happen.

But Naumov's own activities, as illustrated in the Gorki telecast and in inquiries such as his letter to me, did not reflect trends in the Soviet Union generally. In fact, Naumov was swimming against an increasingly strong tide. A crackdown on the relatively free-wheeling "Naumov group" was coming. This was authoritatively spelled out in the Moscow journal *Questions of Philosophy* (No. 9, September 1973) by four leading psychologists, W.P. Zinchenko, A.N. Leontiev, B.M. Lomov, and A.R. Luria.

The paper, "Parapsychology: Fiction or Reality," reviewed parapsychology in the Soviet Union and abroad in a knowledgeable, detailed manner, but concluded that its study needed to be taken out of the hands of self-styled "specialists," a reference that most certainly included Naumov. The authors asked that future research be undertaken by qualified scientists and called for the "attention of serious scientific organizations" to deal with "unanswered questions of the human psyche." In other words, academicians were to engage in parapsychological studies, with psychologists presumably particularly qualified, and people like Naumov might best keep their hands off the whole delicate subject!

Rumors that Naumov had been arrested and was facing a trial reached his friends and acquaintances in the spring of 1974, only a few months after the attack on "self-styled parapsychological specialists" had been published. The most forceful defense of Edward Naumov was not made in the courtroom, but by a Moscow physicist, Lev Regelson. His "Appeal to Soviet and Foreign Policy Opinion" circulated within the Soviet Union and abroad, reached Dr. Peter Reddaway, Senior Lecturer in Political Science at the London School of Economics, among others.

Regelson's appeal arrived in London in September 1974 and was printed in the December issue of the Journal of the Society for Psychical Research. Regelson, a fierce defender of academic freedom in the Soviet Union, called Naumov's sentencing "a standard act of illegality." Referring to Naumov as a former colleague of the Ail-Union Scientific Research Institute of Medical Technology, he observed that the judicial action against him was unusual, as he "was not a dissident in political and social matters," had not criticized the Soviet system, and had not "signed letters of protest." Regelson wrote: "The accusation brought against Naumov is so absurd that it forced even those Soviet lawyers who had expressed their opinion on the case to shake their heads in disbelief."

As noted earlier, Naumov had been accused of illegally collecting money from his lectures. Regelson stated that "the leaders of one of the clubs, where Naumov had given several lectures on parapsychology, appropriated the financial receipts from the lectures," and Naumov was simply judged an "accomplice" in their "private enterprise activity."

While the investigation was going on, over a period of one year, Naumov remained at liberty. When they were arrested, the director of the club and his assistant had implicated the lecturer; but, according to Regelson's account, they later denied their earlier testimony and said that Naumov had not been involved in their "illegal operation." According to psychiatric testimony provided by the Serbsky Institute of Forensic Psychological Expertise, headed by academician A. Snezhnevsky, the two club leaders displayed symptoms of schizophrenia.

According to Regelson, the two men were undergoing "involuntary treatment" at the institute, although "there is no documentation to indicate that they are really ill." Regelson observed that "faith in the diagnosis of the Serbsky Institute had been undermined by systematic abuse." This was in the reference to the notorious Soviet procedure of judging dissidents as mentally ill and subjecting them to various forms of psycho-physiological and psycho-pharmacological conditioning in the name of psychiatric "treatment."

According to Regelson, who was later himself arrested, "it was decided to consider Naumov healthy, so that "a demonstration of force, an open trial, a condemnation of Naumov" could be achieved. Some forty witnesses testified that they had listened to the lectures and had bought tickets to it from the

directors or their agents. "But," Regelson, asked, "how does Naumov fit into this?" He answered his question this way:

"One cannot take seriously the prosecutor's claim that Naumov's receiving payment for a lecture (even assuming the breach of formalities common on the lecture circuit) constitutes complicity in 'financial gain'! Or, for that matter, the claim that Naumov took advantage of 'hired labor' in the sense that during his lecture a cleaning woman and a film operator were working in the club.

"Naumov's courageous defense lawyer, Lev Molchanov (risking his judicial career), demanded acquittal, pointing out the lack of substance in all the points of the accusation.

"All the same - two years at the camp.

"What was Naumov really guilty of?

"To understand this, we must go beyond the confines of the court and turn our attention to those threats and warnings which the KGB frequently issued to Naumov. Here is what he has dared to do: for many years he has maintained free, personal, human contact with many foreign scholars, contacts which were not sanctioned from above; he carried on an extensive correspondence with them and made use of the material he received for disseminating information on parapsychology in the USSR.

"On his personal initiative, he organized international meetings and scientific symposia, became a member of international societies, presented himself as the representative of Soviet parapsychology at a time when this science was not officially recognized in the USSR.

"He created an undesirable precedent, made himself a 'dangerous' example, by taking seriously all this talk about peaceful coexistence and international scientific cooperation. In his wake, other Soviet parapsychologists began to do similar things, although on a lesser scale than Naumov. Being devoted enthusiasts in their field, they violated - not Soviet law, no - but those unspoken party-ideological restrictions to which every citizen of the USSR is required to submit."

In other words, Regelson suggested that foreign parapsychologists who had assumed that, somehow, Naumov had received a green light from Soviet authorities - or was, in fact, operating at their behest - were mistaken; Naumov was by then a loner, but one whose enthusiasm was infectious and organizationally effective. Regelson also wrote that Naumov's second fault was "ideological." He recalled that, until recently, parapsychology in the Soviet Union had been regarded as "mysticism" or "pseudo-science." This theme, he added, recurred during Naumov's investigation. Regelson came to this basic conclusion:

"The scientific and civil conscience cannot protest against the fact that someone in the scientific community considers parapsychology a mistake - this belongs to the realm of ordinary scientific polemics. But conscience cannot make peace with the fact that dissidents in science have been deprived of the right to speak, no matter how valid their views may seem. Conscience cannot make peace with the fact that the search for new areas of science is permitted only in some pre-arranged order, and that innovators are subject to persecution."



Protests against the sentencing of Naumov began to mount. From the Society of Psychical Research, London, several distinguished British scientists and educators stated in a letter to *The Times* (London, November 18, 1974) that the sentencing of Naumov had been "a miscarriage of justice."

The letter, signed by Dr. John Beloff, University of Edinburgh, and others, noted that Naumov, "who is no longer young and is in poor health, has been subjected to very harsh treatment and that he was interrogated while suffering from pneumonia and a temperature of 40°C." The letter concluded: "We very much hope that there will be an official investigation into the circumstances under which Mr. Naumov was accused and sentenced and that any harassment of his former collaborators will cease."

In the United States, the editors of the *Journal of Parapsychology*, including the late Dr. J.B. Rhine, director of the Foundation for Research in the Nature of Man, addressed a letter to the Foreign Office of the Soviet Union, by way of the embassy of the USSR in Washington. Taking note of Naumov's sentencing, the letter stated, "Lack of access to the full particulars of the case and the possibility that this might be an indirect attack on the science of parapsychology itself, have led to very widespread concern, especially among those who are interested in this science."

The letter urged "an inquiry into the Naumov case by a properly qualified committee, prepared to examine the trial records and treatment of Edward Naumov," and that its report should be published. The editors stated: "If the case has been handled with justice, it will beyond question help the cause of mutual understanding. If not, it may not be too late to make some amends, which could also contribute to the cause of better international relations."

Early in May 1975, a year before his two-year sentence expired, Edward Naumov was released from the labor camp, which was located some twelve hours by train from Moscow. On his return, he refused to dwell on the conditions of his imprisonment. Instead, he seemed to have retained his vigor, together with his determination to advance the international cause of parapsychology; it almost seemed as if he had come to see his imprisonment as a form of martyrdom to be overcome in the cause of scientific advancement.

While Naumov was imprisoned, news of parapsychological activities in the Soviet Union became more and more scarce. This did not mean that research ceased; on the contrary, the impression grew that such research had become more important, more official, more widely dispersed among Soviet scientific institutes, and, above all, more secret. The Naumov incident began to look to some outside observers as an elaborate example of "misdirection" on the part of those Soviet authorities concerned with secret, long-range parapsychological research.

Naumov, deprived of a regular income, was evicted from his apartment at 47 Kutuzov Prospect (Block D, Flat 44), Moscow G-293; for a while, he ran the additional risk of being arrested for vagrancy. Unable to obtain regular employment, he concentrated on collecting data and preparing several books on a variety of subjects. The range of his interests had, during imprisonment, widened rather than diminished. His topics included such basic technical projects as the search for the hypothetical supra-light particle that may be responsible for all parapsychological phenomena. Dowsing, dermo-optics, and Kirlian photography for a variety of purposes were also among his subjects.

At the end of 1976, Edward Naumov circulated a New Year's letter that struck an almost incongruously optimistic note. He assured his friends abroad that "the complications" he had experienced were "no longer relevant, and there is no obstacle to renewing the former contacts." (This seemed to contrast sharply with the charges made against him during the 1974 trial, at least according to Regelson's version, which suggested that precisely such overseas contacts had influenced the court's decision against Naumov.) His letter also said that he was "looking forward to a time when the cooperation between our scientists will reach a much better state," and that he hoped to "continue cooperation as we used to have previously."

If Edward Naumov's release from prison was contingent on a pledge that he refrain from his customary research and contacts, he certainly did not go along with it. Although his apartment was searched many times, with much data removed, and although he was physically attacked in the street by unidentified "hooligans," Naumov persisted in his activities. His euphoria in 1976, if it was not induced or self-induced bravado, may have been due to the fact that he found temporary employment at the Laboratory of Biophysics at the State Control Institute of Medical Biological Preparations.

His chief was Valery G. Petukhov - the very man who was arrested in 1977 when he handed a report to Los Angeles Times correspondent Robert C. Toth. In his report on the disastrous encounter with Petukhov, Toth was apparently unaware of any link between his informant and Naumov. He referred to Naumov (Los Angeles Times, June 12, 1977) as "the best-known parapsychologist here." Toth added, "I interviewed him once, but found the result not worth a story."

Although he worked for Petukhov only briefly, Naumov used the period to study what he described as "mitogenetic radiation of cells" in the hands of well-known healer Aleksei E. Krivotorov. The elder Krivotorov, a lieutenant colonel, and his son Vladimir, a psychiatrist, live in Tbilisi (Tiflis), capital of Soviet Georgia. Aleksei Krivotorov has a substantial reputation for his ability to heal through the "laying on of hands." It would seem in line with Soviet physiological research methods to search for special internal factors, be they of a genetic, electromagnetic, or some other as-yet uncategorized nature.

Naumov had to leave Petukhov's employ in November 1976, more than six months before the Toth incident. On the whole, 1977 was another gloomy year for Naumov. But 1978 showed improvements that were reflected in travels and lectures. On February 25, he participated in the eightieth birthday celebration of Semyon D. Kirlian, father of the Kirlian photographic technique, which captures rays from animate and even inanimate matter. Kirlian had photographed such emanations from Krivotorov's "healing hands," and had observed considerable changes before and after a healing session.

His visit to Kirlian in the city of Krasnodar, shortly before the old man's death, prompted Edward Naumov to begin work on a book dealing with Kirlian's life and work. In collaboration with other parapsychologists, Naumov completed a second, expanded version of his earlier International Bibliography of Parapsychological Studies. He also continued work on three more books, including a Dictionary of Psychoenergetic Terms.

Naumov lectured on parapsychology in virtually all the capital cities of the different Soviet republics. His visits, during the 1978-80 period, included incidents that reflected official ambivalence, as well as disagreement and rivalries between various government agencies, on the subject of parapsychology.

For example, when Naumov visited Erivan, capital of the Armenian Soviet Republic, he was arrested after his lecture and kept in prison overnight. His arrest was undertaken by the local Armenian militia, which confiscated his material and accused him of propagating "idealistic" concepts. After a brief hearing, Naumov was "deported" back to Moscow.

Parapsychology has retained a considerable following in the Baltic Soviet republics. In the summer of 1979, Naumov lectured in Riga, Latvia, and also gave talks in Vilnius, Lithuania, and Tallinn, Estonia. At times he gave as many as five or six lectures per week. In Kishinev, Bessarabia (formerly part of Romania), Naumov was also arrested by local militiamen. After an inconclusive hearing, he was summarily placed on an east-bound train and returned to Moscow.

Although estranged from several of his former colleagues in parapsychology, both in Moscow and Leningrad, Naumov widened contacts with interested local groups throughout the Soviet Union. Typically, he would arrive at his destinations loaded down with suitcases and boxes containing material to illustrate his lectures, particularly films of experiments made in various parts of the USSR. Naumov made it his business to gather reports on tests, still photographs, films, and various exhibits wherever possible; then - in an effort resembling cross-pollination - he presented this material in lectures elsewhere. He was so imbued with the desire to convey as much information as possible, whenever and wherever the opportunity arose, that his lectures occasionally lasted as long as four hours.

Audiences left halls after Naumov talks, exhausted and intrigued. Although one cannot generalize about the composition of these audiences, a pattern does emerge that shows that lecture halls were often filled with representatives of the older and the younger generations - the middle-aged being more sparsely represented. Older men and women appeared fascinated by the subject matter of these talks, at least partly because it reminded them of earlier reports on psychic phenomena; younger people appeared to concentrate on concepts that seemed to them fresh and novel, in contrast to the humdrum intellectual fare usually available.

By 1980, Naumov seemed no longer in danger of being arrested as a "vagrant," although incidents such as those in Erivan and Kishinev showed that he was always skating on thin ice. Life had become settled again, no matter how tentatively. Naumov's wife, who had found the risky life of a parapsychologist intolerable, left him; he moved into his mother's apartment. From time to time, his files and books were seized; some of them were copied and returned, while others disappeared.

He kept replacing lost items and tried to keep his archives up to date. The illustrated mass-circulation magazine *Ogonyok* (April 1981) published a symposium, "On the Threshold of the Unexplored," with Naumov among its participants, reporting on parapsychological research throughout the world. All these contradictions showed that Soviet authorities couldn't quite keep their fingers off him. He continued to trouble and intrigue them; on occasion, even KGB and military personnel attended his lectures.

If you were to walk into Naumov's study and spend a few hours with him, you might be tempted to ask him, finally, whether, if he had a choice, he would do it all over again. Undoubtedly he would tell you quite solemnly, "No matter how much trouble I've had, and how much trouble I still face, I have always lived, continue to live, and probably will always live, in Russia - and I remain devoted to the

study of parapsychology."

## 6 - If Thoughts Can Kill

On March 10, 1970, Nina Kulagina used her mind power to stop the beat of a frog's heart.

The record of this experiment is in the form of a cardiogram, in the files of Professor Genady Sergeyev in Leningrad. The animal's heart, separated from its body, had been placed in a container linked to a cardiograph.

While the tiny heart continued beating, Sergeyev recalls, Mrs. Kulagina used her "mind power" and "ordered the heart to stop." After she had concentrated on this thought for fifteen minutes, the heartbeat suddenly ceased. Efforts to re-stimulate the heart electrically were unsuccessful.

As Sergeyev interpreted the cardiogram, the heart seemed to experience a sudden flare-up of electrical activity; it stopped right afterward, and the recording resembled the impact of an electric shock.

When this story made the rounds, it was inevitably embellished. "If it is possible to stop a frog's heart by mind power," some people said, "it might well be possible to stop a human heart the same way, even within a living body." But Kulagina had not, actually, killed a frog by sheer mind power. The separated heart would have stopped beating, eventually. Still, there was a correlation between Nina Kulagina's effort to make it stop, and the electrocardiogram's record of the suddenness and unusual circumstances under which it "died."

Kulagina, as a psychic or "extrasensor," as the Russians have started to categorize people with her type of ability, has shown almost disconcerting versatility. Her main fame stems from psychokinetic or telekinetic skills. She demonstrated so many different capacities that she became, inevitably, the center of controversy. We have already noted that Pravda chose the very day a parapsychology conference began in Moscow to run an article accusing Kulagina of fraud. Western stage conjurers have claimed that they can duplicate her feats - and they probably can, given the right kind of setting and circumstances.

As far as available records show, Nina Kulagina has never been caught in any kind of trick. The phenomena her visitors observed, which have been filmed and shown all over the world, look quite remarkable. Now in her sixties, Mrs. Kulagina is plagued by high blood pressure and a variety of other ailments. She tires easily and finds experiments physically and emotionally fatiguing. The heyday of her powers as a mind-over-matter psychic is past.

Well, what exactly has Nina Kulagina done? And why did Soviet authorities permit her to demonstrate her skills, while allowing violent denunciations to be published?

Kulagina has moved small objects, usually by pushing her hands toward or away from them while keeping a substantial distance. These experiments were at times arranged so that the objects themselves remained under a transparent plastic cover, while Kulagina's hands remained outside it.

She managed, in much the same manner, to make the magnetic needle of a compass swing back and forth, and even twirl around. Her associates categorize this as "bio-magnetism."

She has managed to induce unbearable skin burns on people while simply placing her hands on their arms. This has been called her "counter-healing force," a power that seems to magnify a warming effect of the laying-on of hands in a destructive manner.

Over the years, a number of Western observers have seen Kulagina's demonstrations. Usually these visitors met her in the company of Naumov, Sergeyev, or her husband, engineer Victor Kulagin. During the experiment with the frog's heart, Sergeyev was present while the actual test was made by his associate, Dr. Sergey Sarychev.

One visitor has, half-jokingly, referred to Kulagina's heat effect as "Nina's flaming sword." They tell the story of a Leningrad psychiatrist who regarded all talk about her powers, the frog heart episode in particular, as so much unscientific gossip. He met Kulagina in the presence of several physicians. They were seated several feet apart, both connected to an electrocardiograph.

Kulagina gave the psychiatrist her "whammy," a modern equivalent of the "evil eye." The graph soon showed that his heart was beating at an accelerated speed, while Nina's heartbeats were also coming more rapidly. Within a few minutes, the man's heart was racing so wildly that the experiment had to be stopped; the risk of cardiac arrest had become too great.

At times, odd burn marks appear on Kulagina's skin. Sergeyev considers them as evidence that the heat force she generates boomerangs back into her body. One wonders whether there is a psycho-physiological link between them and the stigmata of religious tradition. In one way or another, Nina's mysterious kinetic force has been linked to high temperatures. Twice, a British parapsychologist, Benson Herbert, experienced this force on his own body.

Mr. Herbert, who directs the Paraphysical Laboratory at Downton, Wiltshire, England, paid two visits to Kulagina. The first, to her home, took place in 1972; the second, when he conducted a carefully planned experiment, took place at a Leningrad hotel the following year.

During the first visit, Kulagina placed her hand on Herbert's arm and he experienced a burning sensation so strong that he asked her to stop after only two minutes. On his return trip, he was determined to see how long he could bear the burning feeling. He included the following description in a detailed account of his visit, published in the *Journal of Paraphysics* (Vol. 7, No. 3):

"She then removed rings from her fingers and asked me to roll up my left shirt-sleeve, and I knew she intended to repeat the experiment of June 1972 in which she held my arm and produced an intolerable sensation of heat, which I could not endure for more than two minutes. I suddenly had the impulse to suggest a variation of this experiment; I told Kulagina on this occasion not to let go of my arm, however much distress I appeared to be suffering, but to continue indefinitely, for I was curious to see what would happen if I could endure a prolonged exposure to this torture. My drastic resolve aroused some amusement in our companions, who formed a circle to witness the outcome."

Benson Herbert reported that he "steeled" himself as she held his arm lightly, just above the wrist. He had not been sure, the year before, whether the sensation he felt was electrical or heat. He knew that

mere suggestion can produce red skin marks, just as religious stigmata can be caused by autosuggestion. He had, however, seen what he regarded as objective evidence, the impact of Kulagina's heat phenomenon on photographic film, and concluded that suggestion was not the decisive factor. Herbert began to feel the heat in a minute or so; his report continues:

"As far as I was concerned, it felt like acute physical pain, and I had to clench my teeth and beat my forehead with my free hand in order to continue with the experiment. It soon became clear beyond doubt that the sensation was pure heat, and electrical in nature. Apart from the heat, restricted roughly to the area beneath her hand, I felt no other symptom. I cannot be sure how long I held out, but guess it was between four and five minutes, after which time I involuntarily collapsed on a nearby couch, and Kulagina released me of her own accord."

In Herbert's view, her power can be used "as negative healing - to injure organisms - if she wishes, but of course she only does it by way of scientific demonstration to advance our knowledge." He wrote: "It is now not difficult for me to believe that she can stop a frog's heart. I think it possible that if Kulagina had maintained her grip on my arm for half an hour or so, I would have followed the way of the frog."

Herbert's Leningrad visit in 1973, on which he was accompanied by his colleague Dr. Manfred Cassirer, was organized to anticipate criticism from inside and outside the parapsychological research fraternity. He therefore arranged that the 1973 tests should take place outside the Kulagin apartment, at a hotel.

Herbert and Cassirer had originally been booked into the Hotel Leningrad, but the Intourist travel agency ran into scheduling trouble and placed them in the Hotel d'Europe instead.

With financial support from the Parapsychology Foundation in New York, Herbert had prepared an instrument that he hoped to be tamperproof and exact, designed to deal specifically with Kulagina's mysterious power to move solid objects seemingly by an effort of will. One aim was to guard against the play of electrostatic forces - everyone has experienced them on a very dry day, when such things as doorknobs give us tiny electric shocks - that might be at work.

Benson Herbert's pride and joy was a hydrometer he had brought along. Normally this device is only used to measure the specific gravity of a liquid. A hydrometer is a sealed tube, weighted at the bottom so it floats upright. The specific gravity of a liquid - for example, the strength of a saline solution - is measured by the degree or depth to which it becomes submerged in the liquid. He wanted to see to what point Kulagina might be able to press the hydrometer down, in order to calculate the strength of her force. The device, which floated in a saline solution, was protected by an earthed metal screen and monitored by an electrostatic meter.

Kulagina, her husband, Sergeyev and his assistant, Dr. Karamov, and Larissa Vilenskaya, who had come from Moscow for the tests, assembled in the hotel room. Kulagina at first felt too ill to do any kind of demonstration. But intrigued by the new technical device, and after swallowing some pills, Kulagina walked over to the hydrometer and began to place her hands at various points around the metal container that held the liquid. Herbert does not give much importance to the fact that the

hydrometer moved within the solution a few times; Kulagina was close to the container, and even vibrations from the floor might have caused the device to move.

Briefly, Kulagina sat down, exhausted. But a few minutes later she began to concentrate, to look intently at the hydrometer. Herbert reported:

"Kulagina slowly raised her arms, palms of her hands facing towards the instrument. Shortly after, the hydrometer began to move away from her in a straight line across the full diameter of the vessel, a distance of 2 1/2 inches, and came to rest after ninety seconds at the opposite side. She then lowered her arms and remained quite still. Two minutes later the hydrometer commenced to move again at the same speed as before, retracing its path until stopped by the edge of the glass nearest to her."

Through all this, the electrostatic meter showed no response. Kulagina had exerted her usual powers, an ability to move things horizontally. She had done this sort of thing in the past with matchboxes, cigarettes, and other small items. The idea that she might push the hydrometer down with her invisible force did not pan out; but the horizontal force was clearly evident.

Benson Herbert analyzed the experimental setup in detail, considering the use of such stage conjuring tricks as all-but-invisible threads, supersonic vibrations, the use of hidden magnets, and static electricity. He decided that none of these methods could have been used, and that the phenomena must therefore be judged genuine. There was no way the room could have been rigged, and Kulagina herself did not carry so much as a handbag with her.

How did she do it?

Sergeyev spoke of the possible role of ionization effected by Kulagina. Herbert feels that she "mobilizes the mitogenetic radiation of her own organic cells," but confesses that the way she manages to "yield these powerful effects, merely by mental concentration, remains at present a mystery still unsolved."

Herbert's associate Manfred Cassirer summarized his impressions in a paper on "Experiments with Nina Kulagina" in the *Journal of the Society for Psychical Research*, London (March 1974). While his account corroborates Herbert's, he notes that "there was a certain conflict in aim and directions" among the participants in the 1973 experiment, due to the short time available. Concerning the hydrometer experiment, Dr. Cassirer wrote that, as far as he knew, it was "a complete novelty" to Kulagina and presented a challenge that she "convincingly and easily met." He also described experiments with radiometers, a compass, and a heat experiment of which he, Cassirer, was the subject; he wrote that he "beckoned her to desist" after about one minute, as his skin seemed to have heated up "to boiling point." Cassirer added these cautious comments:

"It need hardly be added that the team is aware of the shortcomings of and possible objections to their experiments, which were of a necessity conducted, impromptu, in a hotel rather than in a well-equipped laboratory. No less than seven people altogether were milling round a medium-sized room with somewhat loose floorboards; the windows were open, although there was no appreciable draught. On the credit side, the exemplary conduct of the well-trained medium, who sat motionless with legs



sideways away from the table, cannot be too highly praised.

There was bright day-light, and flash photography as well as cine filming was allowed at all times. In the case of the hydrometer and the compass, which had both been brought by the experimenters into their own habitat, there was no manual contact on the medium's part. While Kulagina was sitting well back during the latter part of the hydrometer tests, and the object was constantly moving and changing direction, people were passing between the table and the medium."

The simple fact remains that, in well over a decade of Kulagina demonstrations, the woman and her gifts have remained an enigma. When Cassirer writes that the tests made with her took place in a hotel "rather than in a well-equipped laboratory," he echoed the regrets of just about every other Western visitor, observer, and researcher. Dr. Montague Ullman, psychiatrist and president of the American Society for Psychical Research, wrote in the society's Newsletter (Spring 1971), after he observed Kulagina for several hours, that he hoped that "further independent studies will support the claim of authenticity" that has been made for her psychokinetic gifts.

Ullman's comment was typical of the politeness and good manners that visiting researchers displayed in their public statements on the Kulagina performances. As the years passed, and no properly controlled experiments could be arranged, some researchers expressed impatience, doubt, and chagrin. Inevitably, the question arose as to what Nina Kulagina really represented: Was she, indeed, a private, freelance psychic of unique psychokinetic and other unusual powers? Or was she a side-show, rigged up to distract foreign parapsychologists, a reliable performer who could be persuaded to divert and fascinate curious visitors? Were her illnesses, her seeming reluctance to do demonstrations - which was usually overcome, courteously and graciously, one more time - all part of a convincing act?

It is not even possible to compile a reliable biographical sketch of Nina Kulagina, earlier known as Nelya Mikhailova. Critics allege that she has a background of stage conjuring. Her convincing demonstrations of psychic ability for entertainment purposes first attracted the attention of Professor Vasiliev. Leon Kolodny, writing in *Moskovskaya Pravda* (March 17, 1968), credits Nina with having served at the Leningrad front during World War II as "a brave wireless operator, a senior sergeant of the 226th detached tank regiment," who "went into the attack in the tank "T-34." He cited as his source a small Red Army booklet, complete with photographs of an armored train, "where almost all her family, father, brother and sister Mikhailova, were among the crew." She was in her twentieth year during these events, "just as the tide of battle" against the Nazi German invasion turned in the Leningrad area.

Kolodny wrote that Vasiliev was "the first to investigate" her psychic gifts. He apparently did this secretly, as he did not mention it to Dr. J.G. Pratt, a U.S. parapsychologist who visited Russia for the first of six trips in 1962. This was the period when Soviet researchers experimented with dermo-optic vision, the apparent ability to read with fingertips. Kulagina told another visitor, Dr. Thelma Moss of Los Angeles, that her psychokinetic ability developed during such eyeless-sight experiments. She recalled that she was able to distinguish among three different-colored threads inside her bag, just by fingering them.

Vasiliev started Kulagina on psychokinetic work by recalling experiments done by Admiral Angelo

Tanagras, a Greek psychic researcher, with a medium known as Cleio, who had been able to move a compass needle by mind power. Benson Herbert, writing on "Cleio and Kulagina" in the *Parapsychology Review* (September-October 1971) stated that Cleio was able to move a compass needle while in trance, whereas Kulagina learned to do the same thing in a waking state.

Czechoslovak parapsychologist and Psychotronics authority Dr. Zdenek Rejdak has reported that Vasiliev began experimenting with Kulagina "towards the end of his life" - he died in 1966 - and "discovered her faculty of dermo-optical vision." This led to compass tests, with the result that "Vasiliev turned to psychokinesis experiments, which began in a promising way." Rejdak denied that Kulagina had been jailed for "any fraud and cheating." Instead, he said, she had run into trouble "for being unable to refund considerable sums of money she had borrowed," and "was briefly jailed."

Because of this encounter with the law, Rejdak wrote, Kulagina "began to be designated as an all-round impostor." He quoted an article in the *Leningrad Evening News*, written by Vladimir Lvov, accusing Kulagina of attaining her effects "with the help of some small magnets hidden on her body." Rejdak, writing in the *San Francisco magazine Psychic* (May-June 1971), said that the true origin of that story was an experiment at Leningrad's Metronomical Institute, where "an increased magnetic field was detected around her body." Rejdak added:

"Such a phenomenon, however, should have been the object of further investigations, but by no means leading to an irresponsible statement that Kulagina had some small magnets hidden on her body. Nobody verified, of course, if such small magnets were worn by her or not. The journalist Lvov who released the story, when asked whether he was present at the experiments, declared: 'I did not see them, and do not care to see them at all.' "

The most prominent attack on Kulagina appeared in *Pravda* on June 24, 1968, coinciding with the previously mentioned international conference on parapsychology opened at Friendship House, which featured films and talks dealing with her phenomena. The article repeated the charge that she had used magnets, concealed in "intimate places" above and below her waist. The report suggested that she had engaged in foreign currency manipulation, and compared her to a witch in one of Nicolai Gogol's stories. (Earlier it had been alleged that Kulagina had sold nonexistent refrigerators, cheating buyers out of their down payments.)

In other words, articles both for and against Nina Kulagina, about her private and public life, including her psychic demonstrations, have appeared in Soviet newspapers and periodicals, notably during the transition year of 1968. These contradictory expressions of opinions indicated then, as they do now, that Soviet authorities were blowing simultaneously hot and cold on parapsychology, suggesting that segments of government and science are at odds with each other. Kulagina personified the embattled phenomena, and her enigmatic performance continued to do so in years to come.

To visiting parapsychologists, Nina Kulagina's apartment on the outskirts of Leningrad, or a visit by her and her entourage to one of the city's hotels, became as much a standard feature of a visit as the Leaning Tower in Pisa or the Empire State Building in New York; she was a psychic institution. And yet her performances were always mere "demonstrations," never well-planned and fully controlled experiments. And it wasn't a question of whether she performed in her apartment or a hotel room,

rather than, as Dr. Cassirer put it, in a "well-equipped laboratory." It is possible to undertake a controlled experiment even under primitive conditions - but Kulagina, for one reason or another, always eluded rigid controls and sustained observation.

The frustration involved in trying to control Nina Kulagina was documented by Dr. J. Gaither Pratt, whose experience had been solidified in countless tests within the framework of the Parapsychology Laboratory of Duke University and the Division of Parapsychology, University of Virginia. In his book *ESP Research Today*, Pratt related how, during his six visits to the Soviet Union from 1962 to 1971, he tried patiently to set up a truly scientific set of experiments in Leningrad - but never succeeded. Pratt's initial enthusiastic attitude toward parapsychology in the USSR typified that of other researchers who had fewer opportunities to attempt a serious study.

His first and second encounters with the Leningrad group around Professor Vasiliev reflected a cordiality among colleagues that reached moments of euphoric camaraderie. He said that "in thirty years of working in the ESP field," he had rarely found himself greeted and treated with as much empathy as by the Vasiliev group.

Following Vasiliev's death, Dr. Pratt attended the Moscow conference in 1968, where he saw films of Kulagina in action. When Naumov asked Pratt afterward what he thought of the film, he answered that "it was not possible to reach a scientific conclusion on the basis of such a movie record alone," but that he felt "the case clearly deserved further investigation." In fact, Dr. Pratt regarded the Kulagina film as "the most exciting scientific news" to come out of the conference. Together with Dr. Jurgen Keil of the University of Tasmania, he planned a careful Kulagina investigation.

Keil visited Leningrad in June 1970 and discussed plans with Sergeyev, who welcomed such an investigation by a team from abroad "if it could be properly arranged." Subsequently, Pratt and his colleague Champe Ransom arrived in Leningrad the following October. Sergeyev and a mathematician-computer expert, Konstantin Ivanenko, brought Kulagina and her husband to the hotel on October 3, and the two American parapsychologists were able to observe Nina Kulagina in action: moving a matchbox in her direction, while she "held her hands stretched out toward it," and prompting the matchbox and a compass to move independently on the table. Pratt recorded the following observation:

"Sergeyev and Ivanenko were still interested in trying to get photographic effects on unexposed Polaroid film [Pratt had brought along an old Polaroid camera that used roll film]. This time they wished to see if the film would be affected if the object Kulagina was trying to move was in contact with the roll of film. This was arranged by placing the object on the table and balancing the roll on top of it. The end of the film near Kulagina was held up by a small block of wood and the test object, a small non-magnetic metal cylinder, was placed under the other end of the film. Kulagina could see only the film and the wood block. She knew the position of the small cylinder but it was blocked off from her view during the test.

"Both Ransom and I did not expect her to move the cylinder, but only to concentrate her attention on it, after which the roll of film would be developed in the Polaroid camera for possible effects.

I was standing across the table from Kulagina and could see the cylinder under the roll of film. Ransom was standing to my right and the film screened the cylinder from his view. Shortly I saw the cylinder move slowly away from me until it went out of sight under the roll of film. I said: 'Did you see that move?' Ransom immediately stepped around to my side of the table and saw that the position of the cylinder had changed from where he had seen it placed shortly before."

There were no exposure effects on the film, once it was developed. The experimenters had obviously hoped that Kulagina might be able to impress an image on the film, much in the manner of the American Ted Serios, whose seeming ability to practice "thoughtography" in this manner had gained considerable publicity a few years earlier. Sergeyev said that Kulagina's heartbeat had increased from 150 to 240 beats per minute during the demonstration. Pratt succeeded in delaying Kulagina's departure until after he had taken photographs showing her moving the cylinder in a patch of aquarium gravel, "clearing a path" as it did so, and later while a tall glass stood, upside-down, over it.

Dr. Prati categorized this encounter as a "brief and informal firsthand observation." Obviously, by laboratory standards, more rigid controls needed to be established. Together with Dr. Keil, Pratt visited Leningrad the following February, where they were again "welcomed cordially and extended every courtesy." They hoped to stay two weeks and undertake a series of controlled experiments. Sergeyev and Ivanenko told them it would take at least three days to prepare for experiments at the Physiology Laboratory of Leningrad University.

Soon afterward they were told that it "would not be possible to work at the university," as "the physiologists there had said that the Kulagina claims were highly controversial and that such an investigation as we wished to do would need to be arranged through official channels and registered in advance with the proper authorities." Anything as elaborate as all this "could not be undertaken as a private enterprise by visiting tourists."

Sergeyev also said that, under these circumstances, he could not "cooperate further" with the U.S. parapsychologist, but that they were "free to see" if they could get Kulagina to work with them "directly." But when Prati and Ransom tried to get in touch with Kulagina, they ran into a blank wall. They talked to her through an interpreter over the telephone, but her polite apologies left them "in the dark regarding why she did not wish to see them."

Sergeyev and Ivanenko came to the hotel a week later and told them that a Russian-language broadcast of the Voice of America had described Kulagina's work with foreign scientists. This had prompted "the authorities" to bring pressure on Kulagina, and "this was what had made it impossible for her to see us." Pratt later identified this broadcast as a review of the book *Psychic Discoveries Behind the Iron Curtain*, by Sheila Ostrander and Lynn Schroeder. (Pratt did not actually specify the book's title and authors, but referred to it as "a popular book dealing with parapsychological investigations and other researches on the frontiers of science in the USSR.") He commented:

"From our efforts that far, Keil and I had learned at least one way that a desire to carry out international research in the USSR could meet with frustration. We thought we might have gained some insight into what may be a successful approach. We began laying plans to find out whether any approach can be successful when the issue at stake is something as unusual as the phenomena

demonstrated by Nina S. Kulagina."

They went through all the proper and formal channels to arrange a truly international series of tests, bringing together six researchers from four countries, and directing their inquiries through professional organizations. Their requests were turned down. Still Drs. Pratt and Keil tried once again, on their own, in the fall of 1972. Kulagina came to their hotel. During the experiment, she concentrated on a plastic cup placed between her hands on the table - it did not move, but a small wooden block, which the experimenters had placed about four inches behind a large guidebook to the city of Prague, "slid about one-half inch toward Kulagina but angled toward her left, then moved again in the same way about five seconds later."

Pratt and Keil had both seen the block's movements. Dr. Pratt added: "We saw nothing in the least suspicious in her actions before the block moved." Pratt had also brought a hollow four-inch plastic tube, with two dice and some aquarium gravel sealed inside it. He observed that Kulagina "seemed fascinated by this device and she immediately began to concentrate in what seemed to be an effort to make the dice move inside the tube." Instead, the tube itself moved by about half an inch.

The two experimenters left the tube behind, showing Kulagina how it could be fastened to the table with tape, so she could practice trying to move the dice or gravel inside it. But there was no further experimental meeting. "The authorities," Pratt wrote, "specifically prohibited Kulagina from keeping the appointment." He concluded from this that "Soviet authorities have decided that the interest of foreign scientists in Kulagina is so strong that the Soviets cannot afford to ignore her claims.

Whether their interest, assuming it really exists, is a positive one or a negative one that will work in the direction of discrediting the claims, must be left to future developments." He noted further that "Kulagina's gift, if it is genuine, cannot be unique," and that it should encourage work with other, similarly gifted subjects. Dr. Pratt died in 1979, and so did his hope that he might eventually undertake carefully controlled and repeated experiments with Nina Kulagina.

Larissa Vilenskaya, who left the USSR in 1979, has published a series of volumes on Parapsychology in the USSR (Washington Research Center, San Francisco); she summarized her conclusions on Kulagina's work in the third volume of that series. In her paper "Psycho-Physical Effects of N. Kulagina: Remote Influence on Surrounding Objects," she wrote that the subject had "produced the movement of objects weighing up to 380 grams, at distances of up to two meters from the objects, without touching them and without using any other known physical means." Vilenskaya also reported that Kulagina "successfully moved objects of various shapes and materials placed on a flat surface" and "demonstrated lifting objects weighing up to 30 grams and 'suspending' them in the air."

Miss Vilenskaya, who participated in experiments with Nina Kulagina from 1971 to 1976, listed nine different effects achieved by the Leningrad psychic, ranging from "the movement of single objects to desired or requested directions, with short stops and starts" to "moving one or two objects simultaneously" while they were "partly or entirely submerged in water."

Vilenskaya listed methods used to place shields between Kulagina and the various objects: partial vacuum; constant magnetic fields; water; shields of various shapes, flat and three-dimensional, and

made of paper, wood, glass, transparent plastic, ceramics, sheet lead, aluminum, copper sheeting, steel, etc. She reported that the psychokinetic effects were not impeded by these shields, except in the case of the vacuum, where "psychological reasons" may have been at work.

The Russian researcher also listed previously unreported biological experiments. She wrote that there had been "many observations of Kulagina's influence on flies and other insects, placed in a box of transparent plastics." She gave these details:

"When Kulagina, using her PR-influence, made an imaginary borderline intersecting the direction of their movement, they immediately changed their direction, as if they were encountering an invisible obstacle. The same phenomenon occurred with aquarium fish. After Kulagina's influence, formerly sick, slow-moving aquarium fish became very active, and this activity remained for several hours. Aquarium plants began to grow more rapidly after the influence, emitting a number of air bubbles on the surface of their leaves (much more than before the influence)."

And she provided the following details concerning the famous frog heart experiment:

"The frog's heart was placed in a physiological solution, with electrodes attached to it to record the heart's activity. In normal conditions, an isolated frog's heart will continue its activity for 30-40 minutes (in some cases up to 1.5 hours). When the heart stops, it can be activated by electrostimulation. When N.S. Kulagina was asked to increase the frog's heart beating, the intensive systoles were recorded during the period of 1.5-2 minutes. Afterwards Kulagina was requested to stop the heart from a distance of about 1.5 m [meters] from it, evoking in herself the state analogous to that when she was able to demonstrate PK-movement of objects. Forty seconds after beginning her influence, the frog's heart stopped, and the electrostimulation method appeared to be inefficient [ineffective] to activate it."

Larissa Vilenskaya obviously regards the Kulagina phenomena as genuine. Why, then, did such Western researchers as Dr. Pratt come away with frustration and lingering doubts? Experiments left Kulagina in conditions of "great stress," Vilenskaya recalls, with "considerable increase in heartbeat rate, blood pressure, content of sugar in her blood, loss of weight" and other symptoms of psychophysiological tension. At times, she actually became unconscious. "This partly explains," Miss Vilenskaya concludes, "why some experiments which had been skilfully designed, and gave good results, were not continued."

## 7 - Code By Telepathy

The most spectacular experiments undertaken by the Moscow Laboratory of Bio-Information were long-distance tests in telepathy. The experimenters used the Soviet Union's star telepathists: Yuri Kamensky, a biophysicist, and Karl Nikolayev, an actor. The two men first discovered each other's capabilities in thought transference when they met socially. Even before the Popov research group arranged formal tests, their skills attracted a mixture of curiosity, awe, and doubt in Moscow society.

The first long-distance experiment took place in 1966, with Kamensky staying in Moscow, acting as sender of the telepathic signals, while Nikolayev served as receiver in Novosibirsk, the science research center in western Siberia. The Moscow daily Komsomolskaya Pravda (July 9, 1966) reported that the experiment consisted of two types. The first, modeled after tests pioneered in the United States by Dr. J.B. Rhine at the Parapsychology Laboratory of Duke University, employed a deck of cards made up of five different geometric symbols: cross, circle, star, wavy lines, and square.

The newspaper account did not provide details on the experiment's design, nor did it publish specific results. It concluded, however, that "the number of correct identifications of symbols was higher than correct random identifications, as computed according to the theory of probability." The report said, "The reception of other symbols was disturbed by considerable associative interference," a condition that would be "reduced in the future."

The second experiment aimed at the transfer of images of concrete objects. The paper reported that Nikolayev, in Novosibirsk, "received quite clearly" the images of dumbbells and of a screwdriver sent from Moscow by Kamensky. The Moscow paper commented:

"It is quite possible that these results will equally disappoint the most ardent adherents of telepathy and its opponents. The former, because no miracle occurred, because there were no perfect identifications. The latter, because the experiment demonstrated the reality of the phenomenon and produced valuable data, both positive and negative, which pointed up the need for continued research." [Additional details of this test may be found in the chapter "The Novosibirsk Connection."]

A follow-up experiment, this time between Moscow and Leningrad, took place a year later. It was designed to harness the emotional content of crisis telepathy into a code transmission. Telepathy appears to emerge, whether in peace or war, when technology fails. For the most part, we have no need to resort to anything but accepted natural or technological channels in order to communicate with each other. Our means range from a shout, a letter, the telephone or telegraph, to telex and computer networks. But when needs are urgent, and powered by primitive emotions, another channel may take over: telepathy.

Of all the spontaneous phenomena (occurring outside a laboratory or other structured setting) recorded by parapsychologists, crisis telepathy is the most frequently reported. It happens when someone is in acute pain, under stress, in danger, or dying. A young mother may think she hears her small child's cry, or may simply experience a quick, inexplicable pang of anxiety. Alarmed, she runs to the crib, the swimming pool, or a sandpile, just in time to rescue her infant from imminent danger.

Crisis telepathy cannot be duplicated in the laboratory. It cannot be proved statistically. But thousands of people experience crisis telepathy. Some are shocked by it, others take it for granted. The Popov group set out to design an experiment that would (a) be suited to the skills of its telepathists, (b) utilize emotional elements, and (c) achieve specific information transmission.

The problem faced by the Moscow experimenters is a basic one in efforts to use psychic powers for practical purposes. In designing the Moscow-Leningrad experiment, they had to come up with an answer to the question: "How do you tame a telepathic flash; how do you transform a split-second impression into a meaningful message?"

The answer was provided by Dr. Genady Sergeyeve, then a staff member of the A. A. Uktomskii Physiological Institute in Leningrad and senior experimenter with Nina Kulagina. Sergeyeve, who had been a World War II radio operator stationed in the Baltic region, decided that a short outburst of emotion might have sufficient impact to form the Morse code equivalent of a letter of the alphabet.

The experimental design called for a message of aggressive emotion lasting fifteen or thirty seconds to act as the equivalent of a dot in Morse code, while a message of forty-five seconds was to be the equivalent of a dash. To generate sufficient violence, Kamensky was instructed to imagine that he was giving Nikolayev a severe beating, lasting either the short or the long period.

The experiment did not assume that Nikolayev would experience the "code beating" consciously or intellectually. Rather, it was designed to be registered by his brain and/or cardiovascular system. To measure these effects of the telepathic transmission, Nikolayev sat alone in a soundproof test chamber in Leningrad University's physiological laboratory. His heart action was monitored by an electrocardiograph, while his brain function was recorded by an electroencephalograph.

The full protocol of these experiments, which took place in January and March 1967, has not been published. But an eyewitness account was provided by Leon Kolodny in *Moskovskaya Pravda* (April 9, 1967). The writer accompanied the "receiver team" on the Red Arrow overnight train from Moscow to Leningrad. They entertained themselves by "limbering up" for the tests. While Nikolayev silently looked at one ESP card after another, a Moscow laboratory researcher, Arkadi Monin, practiced telepathy by calling out "star, waves, square," and so forth. Thus prepared for the "main event" in Leningrad, Nikolayev went to sleep.

The telepathy test between Moscow and Leningrad, with its Morse code transmissions, was the highlight of the experiment. The word being "broadcast" by Yuri Kamensky from Moscow, MIG, was transmitted by means of seven signals: two dashes for the letter "M," two dots for "I," and two dashes and one dot for "G." Seven changes in Nikolayev's heart rhythm coincided with Kamensky's messages.

Published accounts of the experiments show two discrepancies. Different versions speak of the use of fifteen and of thirty seconds as the dot transmission time. One version states that Nikolayev recorded three dashes at the beginning of the transmission, rather than two - an obvious error.

Kamensky sought to dramatize his emotions by visualizing a flash in his own mind whenever he



wanted to make a telepathic impact on Nikolayev. On the first night of the experiment, contact was made at ten P.M.: Nikolayev's fist tightened, as he vainly tried to turn away from what appeared like a series of blinding flashes. Kolodny reported that, when the others came to Nikolayev's room afterward, his eyes looked as "if he had been staring into the sun too long."

The second segment of the experiment began two hours later. Kamensky, who was handling his side of the test from a room in Moscow's Polytechnical Museum, had to select an object from one of several sealed packages. Kamensky picked an empty cigarette box, Java brand, and envisioned Nikolayev selecting a cigarette from the box.

At that moment, the "receiver" in Leningrad wrote that he experienced "the illusion of a cigarette." He noted "a lid, but empty inside," and added: "The outside is not cold. Cardboard." He had, in fact, picked up the image of the actual object, together with the thought image that Kamensky had created for himself.

Upon returning to Moscow, the participants - among them Edward Naumov of the Bio-Communication Laboratory - were quick to publicize the tests' results. They had succeeded in showing that telepathy could have highly practical uses in thought transmission; the potential for military as well as academic use was obvious. Certainly, the Moscow-Leningrad transmissions had provided an imaginative illustration of human emotion as a major element in telepathic communication.

The Popov group, with Naumov acting as liaison, published an article, "Parapsychology, Science of the Future," in the weekly magazine *Literaturnaya Gazeta* (LG for short) in December 1967. Their enthusiasm, however, aroused irritation in the periodical's editorial office. The LG editors decided to duplicate the Moscow-Novosibirsk and Moscow-Leningrad experiments, using the same star telepathists, but providing their own research committee of scientists.

The experiments took place in May 1968; the weekly published its findings on June 5, under the heading, "We Did Not Find Telepathy Effective." The LG editors criticized the earlier article, contributed by "a group of enthusiasts," who had not only "insisted on the all-round development of research in telepathy, telekinesis, clairvoyance, etc., but dealt with the phenomena as if they had been proven beyond doubt." The original authors had written:

"The results of parapsychological research are not only of scientific and theoretical interest but also make it possible to solve a host of questions of an applied nature. These include: achieving bio-telecommunication (the transmission of information without the use of present-day technical communications media); raising the efficiency of the learning process; and extracting information from the depth of human memory."

The LG editors commented that, contrary to these claims, "the very existence of parapsychological effects is seriously doubted by most scientists." To bridge the gap between claims and denials, they had pledged themselves to publish the results, "whether the outcome is positive or negative." Following the Novosibirsk and Leningrad experiments, the magazine noted, "leading scientific institutions did not change their skeptical attitude toward telepathy and were in no hurry to develop

parapsychological research, finance it or organize specialized institutes."

The LG editors consulted several scientists who said that "certain methodological requirements had been violated in the experiments, and records kept in flagrant violation of experimental principles, so that it was impossible to interpret the results unambiguously."

Literaturnaya Gazeta's ten-member commission drafted a twenty-three point memorandum of aims and methods. For the new test, too, the subjects were Kamensky and Nikolayev. Methodology for the experiment was worked out with the approval of the two telepathists. Kamensky was to hold, and concentrate on, one object at a time, while Nikolayev would seek to tune in on the image and describe it.

On May 10, 1968, Kamensky and the supervising experimenters met at the Moscow Psychiatric Institute, while Nikolayev and the "reception group" gathered in the rehearsal room of the Municipal Theater in the city of Kersh.

Two collections of identical objects made up of fifty different items were used: one group in Moscow, the other in Kersh. In Moscow, an item was picked by lot, and "transmission" of this first object, No. 30, began at 7:15 P.M. Nikolayev's impressions, in Kersh, were described by him and recorded on tape. Each ten-minute transmission was followed by a five-minute intermission.

The experiment was halted at 8:25 P.M. Moscow time and resumed the next day, May 11. The second lot was drawn, and this time No. 9 came up. Yuri Kamensky opened the box that contained the item, a rubber eraser. Acting as agent, he sought to convey the nature and appearance of an eraser to Nikolayev in Kersh.

As the magazine describes the scene, Nikolayev "was silent for some time, then slowly lifted his arms and seemed to be trying to finger the subject." But when he went into a detailed description, he first described a corkscrew, "long, smooth, and with a pointed end," then talked about a bowl, but complained that "the damn corkscrew" was "coming in" again. This second-day transmission began at 11:15 A.M. Moscow time and ended at 3:15 P.M.

On May 13, the commission and the magazine's staff opened the sealed records supplied by the Moscow and Kersh groups.

Their report on the experiment was completed four days later. The commission had agreed that "any of the ten tests is to be considered successful if the object indicated in the record of the Kersh group coincides with the object transmitted at that time and indicated in the record of the Moscow group." The experiment was to be regarded as a success "if five or more tests out of ten prove successful." They went on the assumption that the odds of "such a match-up" occurring by pure chance were "only about .000001." They also stated: "If less than five objects coincide, the commission will conclude that in the given experiment telepathic communication was absent."

The record of the first day's experiments showed that, at the time Kamensky sought to transmit the image of a lead cable tied into a knot, Nikolayev received the impression of "a cooling radiator."

When the rubber eraser was transmitted, a "small porcelain saucer was received." In place of a model of a motor-boat, a cork from a champagne bottle was seen. Instead of a rectangular aluminum plate with holes, the recipient envisioned "half a hacksaw web." And instead of a silver ruble, he saw the model of the motorboat.

On the second day, when the model of a motorboat was transmitted again, Nikolayev saw a "brown plastic wheel." Instead of an ax, he envisioned a wooden toy soldier. In place of an innersole, there was the image of the lead cable that had been transmitted as the first item on the preceding day. When a ball bearing was shown, the leg of a plastic doll was recorded. Finally, in place of a tablespoon, Kersh received the image of an electrolytic condenser.

The editors commented:

"Thus, not one of the ten transmitted objects was received. The commission states that no telepathic communication had taken place during the experiment. Nevertheless, the commission is certain that it is reasonable to continue the experiments to verify assertions about the existence of telepathic communication; experiments should be conducted under strictly controlled conditions, followed by mandatory publication of both positive and negative results."

The two star participants, Yuri Kamensky and Karl Nikolayev, appear to have been quite upset by this report. Kamensky has since re-emphasized that his work as a biophysicist and biochemist consumes nearly all of his time and energy, but that he still considers telepathy an intriguing hobby. Nikolayev's schedule as member of a touring repertory company, which makes constant demands on his acting skill, is perhaps even more taxing. But he, too, remains a firm believer in the reality of telepathy.

Human factors aside, just how solid was the Moscow magazine's experimental set-up? And what did it imply for the future of telepathy research in the Soviet Union?

The scientific commission that outlined the experimental conditions expected a great deal - perhaps too much - from the telepathic duo. The odds for getting five hits in ten trials, which they called for, amounted to about a million to one. The commission was, in effect, saying: "We will admit that you have succeeded, if you achieve 2,400 % success!"

The LG report was not exhaustive as to experimental detail. There is no serious Soviet journal that regularly prints papers on parapsychological experiments, preferably, as the commission asked, whether the results are positive or negative. We do not know the identity of thirty-seven out of the fifty objects, because only seventeen are named. Did Nikolayev know beforehand what these fifty objects were? Was he given this information after the first session, as a passage in the article suggests? Mr. J. Fraser Nicol, an experienced U.S. parapsychologist, observed that "the probability of a hit during the first session was far less than one in fifty, and the Binomial Distribution which the commission evidently used in its evaluation is inapplicable."

Drawing lots, which they did in Moscow, is not an accepted method of randomization. All sorts of non-random effects can affect the outcome, much as one gets with a badly shuffled deck of cards or from dice that are biased or worn. There isn't enough information in the LG report to characterize the

whole effort as a tightly planned experiment. That the outcome was negative is, in this context, almost incidental. The idea of having an evaluation of a human capacity, such as telepathy, either stand or fall on the outcome of a pseudo-scientific stunt must be questioned. Neither Kamensky nor Nikolayev should have been too discouraged by it all, although they may well have assumed that the magazine's editorial denunciation of telepathy might affect their careers and public standing.

## 8 - The Skin Readers

Once Professor Vasiliev's effort had opened the floodgates to the investigation of the unexplained in the 1960s, a wave of public curiosity rushed in. Seemingly out of nowhere, nationwide fascination with "skin reading" exploded. For two decades since then, people in the Soviet Union and elsewhere have demonstrated an ability to tell colors apart while blindfolded, read with their fingertips, and perform similar feats of "dermo-optic vision."

Twenty years should have been enough to settle this issue - once and for all, without a doubt, and without any gray areas. But no. Arguments continue whether skin readers are actually demonstrating eyeless vision, or whether they are simply skillful fakes. Experiments in the Soviet Union, France, the United States, and Romania have continued, year after year.

The skin-reading controversy is personalized in the person of Rosa Kuleshova, who came to the attention of a psychiatrist, Dr. I.M. Goldberg, in 1962, while she was hospitalized in Nizhniy Tagil (Lower Tagil) in the Ural mountain region. Rosa was suffering from a heart condition and also had her tonsils removed. While recovering, she asked a nurse to blindfold her and give her a book. Kuleshova told the Moscow magazine *Technology for Youth* in 1979:

"I managed to read three lines of the book, using my fingers to guide me. This startled and frightened the nurses, and they ran to get one of the doctors. He didn't believe it either, called me to his office, and handed me a book covered by a pillowcase. I stuck my hand inside the pillowcase, covered my eyes with my other hand and managed to read a whole page of a medical textbook that I had never seen before."

Rosa, who was born in the small village of Pokrovk, also in the Ural region, had practiced amateur acting when she was twenty years old. It was during her visits to homes for the blind, where she put on theatrical productions, that she became fascinated with the blind's ability to read by touch, using the Braille system. Rosa asserted later that she had taught herself to read Braille within a few weeks.

Her hospitalization took place two years later. Dr. Goldberg, who visited her at the hospital, reported her skin-reading feats to the Department of Pedagogy and Psychology of the Pedagogical Institute of Nizhniy Tagil. He was questioned eagerly by A. S. Novomeisky, a lecturer at the Institute, who soon became a prolific advocate of skin-vision studies. Novomeisky was first quoted on the "Kuleshova phenomenon" in a local paper, *Tagil-sky Rabochiy* (The Tagil Worker), under the title "Scientific Research Carried Out by Psychologists in the Urals." The following November, his article was reprinted in the Moscow magazine *Nauka i Zhizn* (Science and Life). His experiments with Rosa were summarized in the prestigious Moscow journal *Voprosy Filosofii* (Questions of Philosophy) in July 1963 under the title "The Role of the Dermo-Optic Sense in Cognition."

The chronology of events that emerged from these accounts began when Dr. Goldberg's initiative, in the early summer of 1962, took Rosa Kuleshova to a regional meeting of the All-Union Society of Psychologists, which just happened to take place in Nizhniy Tagil. According to Novomeisky, Rosa "accurately distinguished color tones of various images, of spools of thread, of various small objects, as well as parts of the clothing of those who were present" at the meeting.

While being observed by the assembled psychologists, Miss Kuleshova also "identified, by touch, the colors of pieces of fabric" while she was blindfolded, and of sheets of paper that had been "placed inside a bag of light-proof black paper, the kind used to wrap photographic films." With her hand inside the bag, Rosa pulled out different colors, responding to the requests of experimenters. She said that the "surfaces of various colors" gave her "different sensations." Rosa "felt" one color as a wavy line, another as dots, a third as crosses, while the actual colors appeared simultaneously "in her mind."

After the meeting, several psychologists went to Rosa's home, where she continued her demonstrations. She ran her fingers over photographs while blindfolded and "correctly described the appearance of persons, their postures and positions." Novomeisky wrote that she had "deliberately trained herself to develop the unusual sensitivity of her touch" in order to read printed words and distinguish colors with her eyes closed or while blindfolded.

Following her appearance at the meeting of psychologists, Miss Kuleshova spent a month and a half at a university clinic in Sverdlovsk and at the Sight Laboratory of the Institute of Biophysics of the USSR Academy of Sciences in Moscow. Science and Life quoted one Sight Laboratory staff member, Dr. Mikhail Smirnov, as "expressing the collective opinion of the scientific workers of the Laboratory." He asked, "Do her fingers register the raised imprints left by the type on the paper, distinguish the difference in the respective temperatures of the light and the dark portions of the printed line, or actually register light?" and answered this question as follows:

"When Rosa's fingers were lit by different rays of the spectrum (red, green, etc.), she always felt it, and identified the colors correctly. But she did so only when it was one of the rays belonging to that part of the spectrum which is visible to the eye. If, on the other hand, infra-red rays were projected on Rosa's fingers, she did not notice anything, despite the fact that these rays warmed her fingers a thousand times more than did visible light. Apparently, then, Rosa's faculty is based neither on an extraordinarily developed sense of touch, nor on an exceptional sensitivity to differences in temperature; it is based on the perception of light by her fingers.

"As is known, human perception of color is brought about by three types of receptors, each sensitive to 'its own' sector of the spectrum. We determine color according to the degree to which the receptor is stimulated. As the tests with mixed colors showed, there are the same three types of spectral sensitivity in Rosa's finger receptors as there are in the eye. If, for instance, only red light, stimulating only the receptors of one type, is present in the room, Rosa's fingers - just like the eyes of any human being - become colorblind, that is to say, able to distinguish only between dark and light. In complete darkness, Rosa can neither read nor discern colors. This fact, incidentally, serves to refute the theory that Rosa's faculty is a parapsychical phenomenon involving telepathy and clairvoyance.

We thus have reached the following conclusion: Rosa does that and only that, which one would do if the eye's retina were located in the fingers. This, to be sure, must not be taken literally, for the structure of sensitive cells in the skin differs from those in the retina. Where does Rosa's unusual faculty come from? In our opinion, Rosa differs from ordinary individuals, not in some peculiar structure of skin receptors and of conduction paths, but in that, through protracted exercise, she has developed in her brain the faculty to analyze signals relayed by these receptors under the impact of light. Probably each one of us has such photo-sensitive substances in the cells of his skin (although Rosa may be more

amply supplied than most of us). However, in order to express a more concrete opinion on the subject, electrophysiological tests should be conducted and efforts be made to locate photo-sensitive formations in human and animal skin."

Smirnov's conclusions, although they represented the collective views of the Sight Laboratory, did not end the dispute about Rosa Kuleshova's abilities - or the charge that she had simply tricked all those august assemblies of academicians! As news of her accomplishments made its way throughout the Soviet Union and the world, imitators and detractors multiplied. Young women who claimed, and even demonstrated, that they, too, possessed skin vision, soon made themselves known in various parts of the USSR. Backlash was inevitable.

The Novosti agency, the Soviet news feature service, compiled an expose of the dermo-optic fad, which appeared in London's Soviet Weekly (March 19, 1964). The agency decided "to settle once and for all whether there is any real basis for believing that a new sense has been discovered." It sent correspondents to Leningrad, Kharkov, and Sverdlovsk with sealed envelopes, each containing a sheet of paper with four large numerals written on it at random. Novosti correspondents were instructed to take the envelopes to four of the most-publicized dermo-optic readers and ask them to write down the numbers without opening the envelopes.

The news service's science editor, Lev Teplov, reported that Nadya Lovanova, a blind or partially blind teenager, had tried to read through the envelopes and failed; nine-year-old Lena Bliznova, daughter of a Kharkov physician, who had been able to "see" with her chin, did not take the test, because her parents considered it "insultingly simple"; Rosa Kuleshova and Nina Kulagina were, according to Novosti, "unable to take the test because they were in a state of mental derangement." The Newsletter of the Parapsychology Foundation in New York (March-April 1964) commented that the Soviet "avalanche of enthusiasm for Rosa Kuleshova represents one extreme of the pendulum; Teplov's denunciations form another extreme: somewhere in the middle, serious research must continue to progress steadily, carefully, without fanfare or flamboyance." Teplov alleged that Miss Kuleshova had been an epilepsy case when she was examined by Dr. Goldberg in 1962, and that her condition was accompanied by "hysterical symptoms." He warned that "any attempt to train in 'skin vision,' either the blind or those who can see normally, would appear to be harmful, as it may induce hysteria."

While the Soviet press service was gathering its evidence, the Presidium of the Ural Division of the Society of Psychologists met at the Sverdlovsk Pedagogical Institute from February 3 to 6, 1964. The meeting heard several papers on dermo-optic vision, followed by a "lively discussion." Dr. Goldberg described the phenomenon as "a physiological mechanism in which the senses of touch and vision fused." Novomeisky said that the phenomena "reflect signals of an electromagnetic order." In reporting the meeting, Problems of Philosophy (November-December 1964) commented that "the posing of the problem and the first steps in its solution belong to Soviet science." It added:

"In addition to psychologists and physiologists, representatives of physics, histology, and other sciences ought to be drawn into future work in this field. The creation of a central body, which would unite and coordinate all work on this problem, is necessary. The need for constantly raising the level of theoretical and experimental investigations was pointed out."

Literaturnaya Gazeta, the weekly of the Soviet Writers' Union, entered the fray on April 26, 1964, with

articles offering various views. The magazine entitled this symposium "Delusion or Discovery?" and noted "the heated argument" that had "flared up about the phenomenon which has become part of scientific terminology under the name of the 'Rosa Kuleshova phenomenon.'" Teplov led off with a brief historical survey of eyeless vision cases in France in the late eighteenth and early nineteenth centuries. He quoted British psychic researcher Frank Podmore as saying that the majority of reported cases might be attributed to "poor observation or the omission of essential precautions." Podmore also said that "there is virtually no way of bandaging eyes that, without causing harm to the subject, would exclude the possibility of looking down sideways along the nose." Teplov attributed Kuleshova's successes to peeping.

This view was contradicted by Professor D. Fedotov, Director of the State Scientific Research Institute of Psychiatry. He said that Teplov was wrong in categorizing dermo-optic subjects as mentally ill or hysterical types. Fedotov cited the case of one eleven-year-old, Vera Petrova, who had demonstrated skin vision without any indication of emotional instability, although he admitted that he had not yet arrived at a satisfactory explanation for the phenomenon itself.

Fedotov's reassuring comments were contradicted by an on-the-scene report by G. Bashkirova, a reporter for the paper. She had traveled to the Petrova girl's home town, Ulyanovsk, where she found that all the excitement about her eyeless vision had placed a heavy "burden of fame" on the child:

"People call her everything from a clairvoyant to a sorceress; old women whisper about 'evil' forces. The village children, who are quite aware of what is going on around them, tease Vera and refuse to play with her. All this has put her parents' nerves on edge, and they spend many sleepless nights. Her father, afraid of what might happen to her, now escorts the girl to school."

The village whispers, with their hints of demonic forces, reflect traditional—even pre-Christian—patterns of folk belief.

Mystical notions of the supernatural create currents that are in potential conflict with serious scientific interest. After a good deal of lively interest in Soviet publications, scientific and popular, as well as worldwide reaction to the "Kuleshova phenomena," the girls either outgrew their unusual skills or the public tired of the experiments.

Professor Novomeisky, on the other hand, continued dermo-optic experiments at the Pedagogical Institute at Sverdlovsk. His researches were being published under the auspices of the Institute and of the Ministry of Education at Sverdlovsk. In Moscow, Larissa Vilenskaya engaged in tests along similar lines; she continued them in Israel, after her emigration from the Soviet Union in 1979, with a research grant from the Parapsychology Foundation of New York. The foundation also backed the research of Dr. Yvonne Duplessis of the Centre d'Information de la Couleur in Paris, who maintains that dermo-optic perception is not an extrasensory (ESP) function, but is based on the invisible impact of color on a subject's hands. In a paper on "Dermo-Optic Perception" in the *Parapsychology Review* (November-December 1978) Dr. Duplessis wrote that skin perception may be thermal, tactile, affective, or weight-related.

Rosa Kuleshova's career and many-sided demonstrations make a definitive conclusion just about



impossible. A few months before her death in January 1978, Miss Kuleshova visited the Moscow offices of the periodical *Technology for Youth*. The magazine reported on the visit in its August issue, which included a lengthy interview and a report on a series of demonstrations. Rosa's performance ranged from her standard dermo-optic skills to stunts that might have been either ESP or skillful conjuring tricks.

The magazine's editors were well aware of the severe criticisms that Rosa's performances had provoked previously. To bolster their position, they invited an outside observer, whom they identified as "the eminent Soviet scientist, Academician Yuri Borisovich Kobzarev," director of the Laboratory for Bio-Electronics. The editors regarded "an experiment as an experiment, even if it is carried out by journalists"; they enforced "strict conditions" to forestall "disbelief," and added: "It is, of course, not enough that her eyes are only covered by hands.

Padded eye patches, and a bandage made of heavy, dark cloth were regarded as insufficient by sceptics, so we made it still more difficult."

Stage conjurers maintain that any bandage is ultimately useless to guard against trickery, and that an opaque box, placed on the subject's head—with a breathing hole on top—should be used instead. The editors reported that Rosa was also able to use her toes and elbows to read "successfully." In addition to the bandage, "a newspaper with a heavy cover was placed between her eyes and the text," and even then results were "most convincing."

Next, Rosa read "large print, even though the page was placed inside an envelope." Her reading was slow under these conditions, particularly when she had to read through blue-tinted paper, but "she succeeded nevertheless." Rosa then asked that someone write a number "in the air," above a piece of paper. She read it correctly, although there was "no trace of it visible on the paper itself." The editors commented that there may have been "a thermal trace on the paper." (This refers to the hypothesis that the subject is able to feel a slight difference in temperature with her skin.)

But Rosa's next demonstration could not have been done by any feel for temperature. She guessed people's mere thoughts about ESP cards (Zener cards)—the five symbols of circle, wavy lines, cross, star, and square—without any actual reading. One experimenter "first thought of a circle, then switched to the star symbol," and Miss Kuleshova promptly said, "I first saw a star and then a circle." The magazine commented: "This is not a dermo-optic phenomenon, but a matter of equally amazing ability: the transmission of bio-information over a distance; so far, no one can explain how she does it."

When *Technology for Youth* reported on the tests, it noted that Miss Kuleshova had died of a "brain tumor in the right occipital region," a fact that "further perplexes researchers trying to discover the secret of her unusual abilities." Other psychics, among them Dutch-born Peter Hurkos in the United States, report that their extrasensory skills surfaced after an accident, such as a brain concussion.

Stage magicians such as Milbourne Christopher, who has performed as an illusionist in twenty-six countries and written more than twenty books, ascribe skin vision to skillful conjuring. So do other students of conjuring and critics of parapsychology, notably U.S. mathematician-science writer Martin Gardner and Dr. Eric J. Dingwall, one-time research director of the Society for Psychical Research,

London, now retired.

Christopher dedicated his book *Mediums, Mystics and the Occult* (New York, 1975) to Dr. Dingwall, because the researcher had tried for more than half a century "to convince credulous investigators that a knowledge of conjuring is essential for their probes of unexplained psychic phenomena." He devoted a chapter of this book to "Eyeless Vision" and commented that the Russian researchers were "not aware that history was being repeated," as "dermo-optical perception was investigated in Liverpool as far back as 1816," when Margaret M'Avoy, then sixteen, began a long career of showing that, although considered totally blind, she was able to "read" with her fingertips.

According to Christopher, Miss M'Avoy's repertoire was "the first-known, complete eyeless-vision routine; it encompasses most of the marvels performed by those who profess to see while blindfolded today." Indeed, the skills displayed by Margaret closely parallel those of Rosa Kuleshova. How did Margaret M'Avoy and her successors perform their feats? Christopher answers as follows:

"The methods are well known to magicians. Plasters do not adhere as firmly to the skin as most people suppose. A facial grimace can loosen them slightly. Only a small space between cheek and nose is required for a downward peek under a blindfold. An occasional unobtrusive lift of the head increases the distance one can see forward. There is little doubt that Hendrick [Dennis Hendrick, a contemporary of Miss M'Avoy] and Margaret M'Avoy peered down the sides of their noses. ... A blindfold did not hinder the rope dancers of antiquity, nor does it make the feats of modern circus high-wire walkers more dangerous. In addition to peeks made from under a blindfold, ingenious entertainers have for years used specially prepared blindfolds. For example, the cloth on the side that is to cover the eyes may be scraped in advance to make the material more transparent. This method is a favorite of jugglers."

Rosa Kuleshova's experience as a public performer began in 1962, when she acted at a children's circus in Nizhniy Tagil. Posters used to announce "Circus with Rosa Kuleshova." She thrilled her audiences by reading with her eyes closed and describing the color and other details of objects without touching them; here, again, we cannot really speak of "dermo-optic" sight: this was either clairvoyance or a conjuring act.

Technology for Youth, looking back on Kuleshova's early work, noted that it had given "strong stimulus to scientific exploration of this novel and surprising field." Dr. Kobzarev called dermo-optic vision "one of the continuing riddles of science," another being telekinesis. He disagreed with scientists who brush such phenomena aside as "impossible" or as simply based on trickery. Kobzarev said, "A man who cannot tell the difference between a trick and a natural phenomenon, when he has a chance to construct an experiment in accordance with his own concepts, should not call himself a scientific investigator."

Now that Kuleshova is dead, she will forever remain the enigma she was in her lifetime. When Dr. Thelma Moss, then on staff at the Neuro-psychiatric Institute of the University of California in Los Angeles, visited the Soviet Union in 1973, Edward Naumov told her that Kuleshova, although emotionally unstable, had originally been a remarkably gifted, self-taught skin-reader. Moss quoted Naumov in her book *The Probability of the Impossible* (1974) as follows:

"She had begun demonstrating her abilities before theatrical audiences, had conceived grandiose ideas of being supported her entire life for the purpose of scientific investigation, had made more and more extravagant claims—which she could not support—and eventually suffered a mental breakdown, during which she lost her ability."

Whatever the genuineness of her gifts, Rosa Kuleshova reemerged before her death, tolerated by officialdom, and able to impress the editors of *Technology for Youth* as the personification of the skin-reading riddle.

## 9 - They Call It Psychotronics

What is one to do with a new word, a big word, which has been in international use for nearly a decade, and whose meaning is both weighty and vague? One can't ignore it; one has to try and understand it—particularly if such a word is being bandied about in the special world of psychic phenomena, covering a spectrum from the earth-shaking to the dubious.

Such a word is Psychotronics.

Officially, according to the Scientific Committee that met at the beginning of the Second International Congress on Psychotronic Research in Monte Carlo (June 30 to July 4, 1975), it is "a science which, in an interdisciplinary fashion, studies fields of interaction between people and their environment (both internal and external) and the energetic processes involved." The committee said that "Psychotronics recognizes that matter, energy and consciousness are interconnected in a way which contributes to new understanding of the energetic capabilities of human beings, life-processes and matter in general."

Is Psychotronics the same as parapsychology (or psychic research)? Well, it wants to be more than parapsychology, which is pretty well restricted to telepathy, clairvoyance, precognition, and psychokinesis. Psychotronic conferences have been grab bags, providing a forum for such a wide variety of talks, papers, and brief presentations that just about anyone with a way-out subject, and the necessary carfare to get to Europe, Japan, or Brazil, could be included among the psychotronists. Dr. Zdenek Rejda of Czechoslovakia, President of the International Association for Psychotronic Research, worked closely with Dr. Stanley Krippner of the Humanistic Psychology Institute, San Francisco.

Psychotronics was officially born at the first international congress in Prague in 1973. It provided a meeting ground for researchers from all over the world, including Czechoslovakia, Poland, Romania, and the Soviet Union (although never East Germany). Russian participation has been erratic. At the Prague meeting, several Soviet researchers originally scheduled to attend the congress never arrived; in their stead, a group of well-informed Russians came to Prague under the guidance of a KGB man. Other congresses have had Soviet participants representing relatively low-key fields of study, such as dowsing and various medical areas.

The word Psychotronics is an interesting hybrid, well chosen to combine the respectable but wide field of psychology with that of materialist science. The word, introduced by the Czech contingent of the association, provides a label acceptable to Marxist doctrine while fitting into the scientific vocabulary of the West. Traditionally, from its Greek and Latin origins, the word psyche stands for soul or spirit. In Psychotronics it forms a word that ends with two syllables associated with modern technology, as in "electronics."

Several conferences on Psychotronics have taken place since the Prague meeting, but they lacked the air of adventure and enthusiasm that marked that original congress. Subsequent conferences had none of the cosmopolitan camaraderie of the earlier encounter; the later get-togethers also suffered from over-diversity, large helpings of amateurish research, and the relative prominence of cultist and

faddist ideas.

Still, among the large number of participants there have always been men and women who brought imagination in research design, careful control of experiments, and solid standards of analysis to psychotronic work. Among the most enigmatic, challenging, and puzzling experiments were those presented by Robert Pavlita and his daughter, Jana Pavlitova, of Czechoslovakia. East European researchers have often bracketed the Pavlita demonstrations in apparent psychokinesis (or telekinesis) with those presented by Nina Kulagina in Leningrad. At the Second International Congress of Psychotronic Research, held in Monte Carlo, Mr. Pavlita presented a brief paper, "Vertical Biomagnetic Field of Generator," designed to show "the influence of a biomagnetic field" on a "generator" that is contained within a cylinder.

The Pavlita enigma is compounded by outsiders' ignorance of what, precisely, is contained within the cylinder, which is 600 millimeters high and 60 millimeters in diameter. At the Second congress (June 30 to July 4, 1975) Pavlita reported that materials placed inside the field above the generator "appear to be magnetic," although they are actually non-magnetic. He also reported that the material was "without polarization," meaning that, when placed within the "field," the materials were "attracted to the southern as well as to the northern pole of a magnet," although they did not display the same "affinity" to the same magnet when placed outside the generator's field.

Pavlita claimed that he managed to get the generator "biologically excited" by the power of his mind. To quote the congress translation of Mr. Pavlita's conclusion, "This experiment shows that biological energy can, in cooperation with a generator, [be] induced in [created within] a material which is not magnetically active, a property manifested by this material reacting to a magnetic field." He used a wooden or glass rod to achieve the magnetizing effect. Jana Pavlitova, in a parallel paper, "Probe Controlled by Impulses from the Brain," said specifically that brain impulses were used to influence the "magnetic polarity of the working end of the probe" (presumably the wooden or glass rod), making it "biologically pre-excited." She described how Pavlita, or another "inducer," can go about influencing the object:

"The experimenter stands facing the magnetic needle, so that its north pole is directed toward him. In his right hand he holds the probe [object]. Another, quite arbitrarily chosen, person determines which is to be the northern polarity. He will say, for example, that the lower hemisphere should have the southern polarity and the upper hemisphere the northern polarity. The experimenter will then place the probe on his forehead and, through cerebral impulses, will change the probe's polarity as requested.

"To make sure that the probe has acquired the requested polarity, it can be moved close to the magnetic needle. If then, at the request of another person, the probe should be given the opposite polarity, the experimenter will bring about the change of polarity by using the same method, with the difference that, this time, when placing the probe on his forehead, he controls the brain impulses in another way."

If all this sounds confusing - it is! The modus operandi of the Pavlitas remains unclear, but it is Psychotronics on its most basic, even primitive level; it is Psychotronics in miniature, certainly when compared to some of the monumental psychotronic feats that have been claimed elsewhere.

The Monte Carlo congress also received a paper from Moscow physicist-parapsychologist Victor G. Adamenko, then on the staff of the National Institute of Normal Psychology. Dr. Adamenko's paper, "Psychoenergetic and Extramotor Functions of an Organism," was a theoretical analysis rather than a report on experimental work. Adamenko, who received his doctorate in physics in Minsk, rather than in Moscow - and only after much delay, allegedly because of his unorthodox interest in psychic studies - had done considerable research with Alia Vinogradava, a vivacious practitioner of homemade psychotronics, who later became his wife. (They separated in 1979, after a few years of marriage.)

Vinogradava had seen a film of Kulagina's experiments in moving small objects by a force that looked like mind-power (psychokinesis, biomagnetism, whatever the suitable label), and proceeded to imitate it. For several years, a visit with Victor and Alia was de rigeur for Western parapsychologists on the Moscow-Leningrad circuit. Dr. Krippner has described what appears to have been a delightful social event as well as a fascinating demonstration of - of what? of psychokinesis? of static electricity (electrostatics)? of a combination of both? In his autobiographical book, *Song of the Siren*, Krippner gives this account:

"Adamenko placed a Havana cigar tube on the surface of the table. Vinogradava put her right hand to the side of the tube and it began to move across the table. When it reached the table's far side, she shifted her hand to the other side and it moved back. The tube continued to roll from edge to edge for several minutes; each time it reached the far side of the table, Vinogradava shifted her hand to the other side of the table and the tube moved back.

"Adamenko then removed the cigar tube and substituted a heavier tube made from aluminum. She preceded her attempts to move this tube by picking it up and rubbing it briefly - indicating to me that she was initiating an electrostatic charge. This charge would cause the tube to repel from her hand - through an electrostatic effect rather than PK [psychokinesis]. The aluminum tube rolled across the table in choppy movements, whereas the cigar tube had moved smoothly."

Krippner also reported that he, himself, had successfully imitated Vinogradava's demonstration. One of his associates at the Dream Laboratory at Maimonides Medical Clinic in Brooklyn, N.Y., Felicia Parise, demonstrated similar actions in 1971 and 1972; these included moving a plastic bottle away from her and deflecting the needle of a small compass.

In the paper he presented to the Monte Carlo congress, Dr. Adamenko speculated that, in certain psychotronic experiments, the human brain acts as "a transformer of psychic energy into the physico-chemical one." He added that such "miniature" psychokinesis may be interpreted as "an influence of the Psyche over the neurons proper; and neurons, in turn, set muscles in motions." He added:

"Sometimes, a rather strong field is being generated which produces an extra-motorio (i.e., with no muscles involved) influence over target objects. That is to say, we are discussing here a quantitative - and not a qualitative - difference in the transformation of the psychical energy into the physico-chemical one. Under the circumstances discussed, we can assume it to be one of the basic properties of life."

The crucial question in this type of psychotronic experimentation and theory is "If the mind can influence the movement of a small object, can it be so directed or amplified as to move a much larger object?" In other words, if it is the "quality" of psychokinesis or biomagnetism that matters, rather than the "quantity" (size, weight, nature) of the object involved, can the human mind - metaphorically speaking - move mountains?

Precisely these questions have prompted some analysts to speculate or claim that Soviet researchers have managed to harness huge psychotronic powers; that the demonstrations that visitors have seen in Moscow, Leningrad, and elsewhere are relatively insignificant, designed to distract outsiders from more substantial achievements of psychic technology in the USSR. The foremost spokesman for this view is former U.S. Army Lieutenant Colonel Thomas E. Bearden, of Huntsville, Alabama. Bearden, now retired, is the author of *The Excalibur Briefing* (1980), which details his views of Soviet psychotronic weaponry and related topics.

In Bearden's opinion, Soviet specialists engineered the spectacular sinking of the U.S. nuclear submarine *Thresher*, lost in the North Atlantic on April 10, 1963. The submarine exploded for no apparent reason, at a depth of 300 feet. Lost were 112 officers and men, as well as 17 civilian technicians. The *Thresher* had been in radio contact with its escort vessel, *Skylark*, but its transmissions terminated with a fragmentary message.

The Yugoslav magazine *Vikend* (Weekend) published an interview with Moscow parapsychologist Barbara Ivanova in its issue of September 4, 1981. She was asked: "There have been rumors that one Soviet psychic, Nina Kulagina, using psychotronic energy, destroyed the American nuclear submarine 'Thresher.' Do you know whether this is true?" She replied: "I know nothing about this, but I think that, under certain conditions, psi forces could have destructive capabilities beyond those of nuclear weaponry." The magazine's interviewer, A. Bele, interspersed that he felt Ivanova had "exaggerated," and she quickly qualified her remarks as follows: "The nature of psi has not been sufficiently studied to know to what degree it can be used for negative purposes."

Writing in the periodical *Energy Unlimited*, Lt. Col. Bearden suggested that it might have been possible to use a "hyper-spatial amplifier" to attack the *Thresher*, guided by an image of the submarine, such as a photograph. Bearden, whose writings appear in the quarterly journal *Specula*, published by the American Association of Meta-Science, uses a highly technical vocabulary and numerous charts to convey his ideas. In Bearden's view,

"The Soviets have had a massive program in the psychotronics area for about thirty years. By all indications, the program proceeds at a highly classified level. In my own analytical opinion, they have developed a rather mind-boggling weaponry, based on seven major undertakings, each of them on the scale of our Manhattan Project, which created the atomic bomb. Along with this, they are engaged in a massive deception plan - a purely military operation, which is standard practice for such an undertaking. The disinformation program concerning bio-information, bio-energetics, etc., is part of the overall deception operation."

The idea that psychic effects might either be used for positive aims, such as healing, or negative aims, such as warfare, is echoed by Bearden in *Excalibur Briefing*. He asserts that Pavlita has "admitted that

his devices could be scaled up to serve as weapons - unfortunately, every tool can be used for either good or evil." Bearden also wrote that Pavlita's daughter had been injured by one of her father's devices so that he "had to work feverishly" to build a second one, capable of undoing the damage of the first.

Bearden added:

"The loose information net of which I am a part has recently learned that Pavlita is now in charge of a secret project that has succeeded in building two weapons, one of about two-hundred-mile range and the other of unlimited range. No further details on the weapons are available. Pavlita is a pioneering genius, and it is hoped that he will eventually release the secret of his psychotronic devices to the world for use in the healing arts and other beneficial sciences."

Psychotronics, even as defined by its proponents of the International Association for Psychotronic Research, is difficult enough to comprehend for the outsider. When its elusive capabilities are linked with the mysterious sinking of a submarine, it becomes even more complex and unimaginable. Bearden presented two papers, in absentia, to the Third International Congress on Psychotronic Research, which took place in Tokyo in 1977. They dealt with "Solution of the Fundamental Problem of Quantum Mechanics" and "Photon Quenching of the Paranormal (Time) Channel." An article dealing briefly with "Soviet Psychotronic Weapons" appeared in *Specula* (March-June 1978), linking U.S. research in the 1920s with current Pavlita claims and the assumed existence of an array of powerful, novel Soviet "PT weapons" (PT stands for "psychotronics").

Bearden assumed that "the Soviets plan to first launch a conventional attack, then choose the time to use the PT weapons in a blinding display of power that will totally paralyze the West." He believes that "they plan to use the same scenario we used on Japan with our atomic bombs in World War II. That is, after all, where they got the idea in the first place." He is of the opinion that a "third generation of Soviet PT weapons are already on site."

Well, it would be nice to assume that all this is only the work of a retired army officer's vivid imagination. Kulagina's matchboxes and Vinogradava's empty cigar tubes represent a far more innocent psychotronic target than do submarines, planes, or missile installations. Psychotronics, even if the word can't be accurately defined, seems to have potentials ranging from the trivial and eccentric to the fiercely destructive.

A U.S. Army study of the factors that can influence the stamina and performance of field artillerymen specifically noted the potential impact of psychotronics. The study, published as a partly unclassified document in early 1981, was presented under the title Fire Support Mission Area Analysis (FSMAA). It provided an overall view of the factors that contribute to "the total capacity of our fighting forces," first in terms of purely military strength (weapon power and combat organization); then in soldier skills (effectiveness of individuals and units); and finally in the will of the individual soldier (his cohesion, courage, commitment, heart, and spirit).

In its analysis of the soldier's personal will to fight, the study refers to "cryptomental matters" as forming part of the link that creates the human dimension in combat performance. Together with the



relationship between men and equipment and what the study calls "human chemistry matters," it singles out cryptomental issues as dealing with sparsely studied "hidden" mental capacities and potential. The study adds:

"This area attempts to direct attention to relatively unexplored, unexploited human technologies in such areas as influence, communications, thinking, learning and stress reduction. Discussions of this area represent an excursion into a largely unknown realm which appears to possess significant military application."

The study emphasized that man-machine interface, human chemistry, and cryptomental matters are not separated by "denned, persistent boundaries." It did note, however, that "these categorizations are operational and do contribute to an understanding of how greater potential force readiness can be attained." The combined human dimensions factors are, according to the study, required in making decisions as to "when and where it will make the greatest contribution to force readiness."

While the study dealt specifically with field artillery performance, its basic premises and conclusions could well be applied to other segments of the armed forces, including air and naval units. Specifically, the study sought to establish the factors that influence what field artillerymen, individually and collectively, "are doing and what they can do." In order to narrow the gap between "actual and potential force readiness," the study separated one key issue from each of the three sub-areas: standardization, fatigue factors - and psychotronics.

Speaking of psychotronics, the study noted that the term refers to "a union between mind and matter - a form of energy about which little is apparently known in the United States, but which appears to have significant military application and implication." The study added:

"Open source literature describes the significant amount of research that has been completed by Warsaw Pact countries during the past decade in the area of psychic phenomena, of which psychotronics is one element. The Soviet Union, in particular, appears to have made significant progress toward developing psychotronic weapons. Psychotronics can refer to the projection or transmission of mental energy by individual or collective mental discipline and control, or by an energy-emitting device - a kind of mind jammer."

The study suggested that field artillery may be subjected to forms of psychotronic bombardment, or mind-jamming, which could seriously affect its combat performance. It contained this caution:

"While considering the subject of Psychotronics, it is essential that people remain open-minded and recognize that the technology, physics and mathematics involved are real, and not matters of the occult and supernatural. Details of Psychotronics offer a 'physics of metaphysics' - a fully developed theory of paranormal phenomena that unites physics and psychology."

The study cited source material to the effect that "supernormal happenings arise from laws of the mind, and that phenomena like extrasensory perception and telepathy are not as out of the ordinary and inexplicable as they are generally considered to be." It cited telepathy as "seen by the Soviets as being a possible means of willing human communication, and possible imposition, over great

distances without the need for conventional communication devices. Additionally, the Soviets apparently believe that an individual can be trained to develop telepathic ability."

The study also referred to remote-viewing as "another exploration into the capacities of the human brain," which "investigates the possibility of leaving one's physical body to travel elsewhere with a mental energy, unseen and unheard." It adds:

"The Soviets, no doubt, recognize the potential of being able to be present outside of a person's physical body. Results of these and other experiments are far from complete or conclusive; however, the Warsaw Pact countries continue to conduct research. Although specifics are unknown, it can be reasonably expected that the Soviet Union will exploit any military application that may emerge from their research."

The Fire Support Mission Area Analysis specifically cited a scholarly anthology, *The Iceland Papers* (1977), "a compilation of treatises that provide scientific support for paranormal and psychic events." The study said that the work

"presents scientific support and validation of paranormal occurrences that are most commonly considered to be supernatural or occult.

The scientific validation of paranormal events has added credibility and acceptability to an area thought to be void of rational explanation; and, more importantly, it has opened the door for assessing the military potential of specific psychic capabilities."

In analyzing the role of psychotronics, the study said that "the key deficiency in this area is the apparent absence of an organized U.S. military or government effort to investigate the offensive and defensive potential of psychotronics. This deficiency is especially significant in light of the reported research by the Soviet Union in the area of Psychotronic Warfare." The analysis then narrowed down to an examination of various factors that affect the functioning of howitzer crews. (A howitzer, employed by field artillery, is a long-barreled cannon that uses shells of medium velocity, usually by high trajectory; it is commonly utilized against targets that cannot be reached by flat trajectories.)

The study concluded with the observation that "the area of psychotronics" offers a significant research opportunity" for the U.S. government to "explore the potential military application of psychotronics." It suggested that "U.S. resources should be organized and directed at a near-term understanding of the defensive techniques that can be employed against psychotronic energy," while, "on a longer term basis, a program appears necessary to study the offensive potential of psychotronics."

An appendix to the FSMAA, a paper on "The New Mental Battlefield" by Lieutenant Colonel John B. Alexander, Ph.D., surveyed the military potential of psychotronics, as well as that of other psychic capacities. He stated that "it is clear" that psychotronics' "possibility for employment as weaponry has been explored." Specifically, he wrote, "what we are discussing are weapons systems that operate on the power of the mind, and whose capacity for lethality has already been demonstrated."

Alexander suggested that psychotronic weapons have a destructive potential, so that, "certainly with

development, they will be able to induce illness or death at little or no risk to the operator." He added that "range may be a present problem, but this will probably be overcome, if it hasn't already." In his view, "The psychotronic weapon would be silent, difficult to detect, and would require only a human operator as a power source." The author concluded:

"The impact psychotronic weaponry and other paranormal applications will have in the future is difficult to determine at this time. Some suggest that whoever makes the first major breakthrough in the field will have a quantum leap over his opponent, similar to sole possession of nuclear weapons. Clearly, advances in any of the aforementioned areas will add new dimensions to the battlefield."

## 10 - Secrets, Rumors, Speculations

Back in 1977, a series of explosions stimulated Moscow's psychic rumor mill. On February 6, an explosion at the mammoth Hotel Rossiya caused a raging fire that took at least seventeen lives. The fire in the thirty-two-hundred-room hotel started between eight and nine P.M., spread from the fifth to the twelfth floors, and was not brought under control until the early morning hours. The Rossiya overlooks the Moskva River embankment; from its western windows it offers a panoramic view of central Moscow and the Kremlin.

Investigations lasted for months. The KGB was quoted as accusing political dissidents of having planted the Rossiya bomb, while physicist Andrei D. Sakharov suggested that such incidents - including a subway bombing the previous January 8 - had, in fact, been arranged by the secret police as a provocation. Sakharov was accused of voicing "deliberately false concoctions that smear the Soviet state."

Rumor-ridden Moscow heard that the KGB had employed several of its newly trained psychics to track down the Metro bomber and the Rossiya arsonist, presumably by telepathy or clairvoyance or in conjunction with police interrogations. The Paris newspaper *Le Monde* (June 14, 1977) noted that, as "Soviet parapsychology guards all its secrets," such reports could "not be officially confirmed."

A great deal more of what is reported about psychic experiments in the USSR remains equally unconfirmed, starting with the reasons why such studies have had erratic, on-again, off-again government backing. Strong impetus was apparently received under the regime of Nikita Khrushchev, notably following a much-publicized visit to India in December 1955. Khrushchev had seen demonstrations of yogic powers, including fakirs "buried alive" for several days and yogis able to control their breathing and oxygen intake.

Such feats, related to biofeedback practices now in clinical use in the West, were said to have impressed Khrushchev strongly enough to prompt him to order an expert commission to study a wide range of paranormal phenomena. According to Moscow rumors, about one million rubles were set aside for these research programs. It certainly looked as if psychic studies blossomed publicly under Khrushchev; once the ebullient leader was ousted, at least some of these public projects fell into disrepute. At the same time, a general cultural "thaw" also lost its warmth rather quickly.

The secrecy with which the Soviet Union treats parapsychology, as noted in the French paper, covers all of Russian science. News of many events, be they routine crime stories or extraordinary scientific findings, does not appear in the Soviet press; this applies to such daily papers as *Pravda* or *Izvestia* as well as to scholarly journals. Rumors fill the vacuum. Although Muscovites are conditioned to be cautious, gossip often flows like vodka. The first news about skin-readers, for example, circulated in Moscow as mere rumor. So did stories about the healing feats of a Georgian woman (see Chapter 13, "Dhzuna the Healer"). But word-of-mouth news tends to distort and sensationalize. Secrecy breeds rumors that range from the remarkably accurate to the totally wild, with many gradations in between.

The psychic, being tantalizingly elusive to begin with, makes for rumors and allegations that often tax credulity. Yet Russian scientists are known in the West to be imaginative and not above unorthodox

experiments. What is one to say, for instance, to rumors that individuals have been employed to test their capacity of putting a "hex" on artifacts that are then handed to unsuspecting antagonists or, at least, outsiders?

This particular rumor is persistent and, if one puts it in perspective, not as weird as it might at first seem. The folkloric tradition of the curse is multicultural; it ranges from pins stuck into a voodoo doll to varied techniques employed by witch doctors, "wise women," or feared village crones, from Australia to Africa, from the cities of Brazil to the French provinces.

These rumors, which have been echoed by emigres abroad, suggest specifically that research into "batteries of energy" has been undertaken by Moscow's Institute for Problems of Information Transmission, known by its Russian initials as the IPPI. The institute is said to have functioned as one of the leading parapsychology units in the Soviet Union. The most specific references to it have been made by Abraham Shifrin, one-time legal advisor to the Soviet Ministry of War Supplies, now the Ministry of Defense.

Shifrin, who spent ten years in Siberian labor camps, now lives in Israel; he states that he was asked by the IPPI's director, Professor Solomon Gellerstein, to join the Institute's staff in 1963. Shifrin, a student of parapsychology since 1954, is the author of several books in the field and edits the Russian-language journal *Tainovedenie* (Study of the Unknown).

According to Shifrin, the Institute, housed in a ten-story building, teemed with uniformed guards, while researchers were "conducting experiments in monitoring thoughts and conversations" at long distances, "transferring thoughts to others, and trying to direct the actions of subjects according to their own will."

During a visit to Gellerstein's home, Shifrin was briefed on the "batteries of energy" experiments. The project included projection of psychic powers onto objects made of copper, silver, and wood. Objects were divided by color to see which most readily absorbed psychic energies. Among such "accumulators" were dolls, wooden spoons, and souvenir-type models of the Soviet spacecraft Sputnik. Shifrin commented: "The person who handles such a gift may be affected negatively by the energy that has been projected into it. If the recipient is a decision-maker, the object could render him mentally weak and indecisive."

Other East European researchers, including several from outside the Soviet Union, have confirmed that "accumulator" experiments have taken place at several Russian research centers. Their common concept is that directive energies, whether constructive or destructive, might not only be harnessed but stored, just as electric batteries are charged for later use. These experiments place the age-old concept of the "cursed" object into an electro-physical context, providing a materialistic laboratory framework for an ancient belief.

To an ethnologist, this type of test has its origin in the religio-folkloric idea of a "cursed" or "blessed" idol or religious artifact, such as a medal or holy water. A scientific parallel are the experiments of Dr. Bernard Grad, McGill University, Montreal, Canada, who seeks to isolate the qualities transferred by a psychic healer to water, which in turn is used to water plants experimentally damaged by radiation.

Soviet "battery" tests are also said to involve the use of minerals, semi-precious stones, rocks and pebbles as repositories of psychic energy. Some of these charged objects were placed in cages with experimental animals, particularly rabbits and rats. Others were buried in plant soil, to see whether they might retard or hasten the growth of plants. Density of material, as well as temperature, was included in the calculations.

Scientific gossip alleges that "negatively charged" energy "accumulators" have, in fact, been passed on to unsuspecting visitors (the traditional nest of Russian wooden dolls being a favorite souvenir). Experimental results within Soviet laboratories are said to have confirmed that recipients may come to feel depressed, become indifferent to their environment and activities, and even suffer emotional breakdown. One researcher in this field, Boris Ivanov, developed a special technique at the Laboratory of Bio-Information in Moscow and transferred to the Institute for Molecular Genetics to perfect its application.

Still another center, the Institute of Control Problems of the USSR Academy of Sciences, located on Moscow's Profsoyuz-nii Street, engaged in similar experiments. The Institute's director, Leon Lupichev, visited the United States together with cosmonaut Vitaly Sevastyanov in 1976. Professor Lupichev met several U.S. parapsychologists who outlined their research projects to him. He returned to Moscow, to the second floor of the Moscow institute, to continue his work on the "batteries of energy."

Mr. Shifrin did not join the staff of the Moscow Institute for Problems of Information Transmission, but collaborated with it while he lived in Kazakhstan. Among his tasks was the testing of Central Asian psychics, including one woman physician who showed remarkable ability at remote-viewing. This psychic appeared capable of describing a secret missile site at a distance of five hundred kilometers. Three top researchers of the Moscow Institute flew to Kazakhstan to examine the psychic's capacities, as her visions concerned Soviet space exploration. Mr. Shifrin also says:

"The Information Transmission institute has, since then, been broken up into several regional centers, to assure a higher degree of secrecy. But while I was able to observe its operations, I noted that telepathy and clairvoyance are even used to anticipate troop movements. During one military maneuver, one group of soldiers was ordered to capture an 'enemy' unit stationed across the river. A psychic, working for the IPPI, was brought to the base and advised the command as to where and when an attack would take place. As a result, the attacking troops were captured as they swam across the river."

Mr. Shifrin confirmed that Soviet experimenters are using biochemical means to enhance the psychic abilities of telepath-ists. Soviet researchers, he said, observed that a psychic who was transmitting thoughts showed an adrenaline increase in the bloodstream, while telepathic receivers registered a decreased adrenaline level. IPPI researchers sought to increase the accuracy of telepathic transmissions by injecting Adrenaline into transmitters and giving chemical depressants to receivers.

It is not always possible to draw a clear line between what Soviet researchers attempt to accomplish and what they actually do achieve. What is one to make, for example, of the colorful rumor that the IPPI brought several "Tibetan priests" to its Moscow research center, and that these men commanded

such psychokinetic powers that they were able "crack the back of a skull by thought alone"? While the accuracy of such an account may be doubted, Eastern and Western parapsychologists agree that Soviet researchers have used the services of Siberian shamans to explore psychic frontiers. Shaman is a Sanskrit word that means "ascetic," and refers to the type of religio-folkloric medium-witch doctor who can be found in much of northern and southern Asia and has links to North American Indian medicine men.

Shamans, and their real or imagined skills, have traditionally been objects of popular awe and fear. The concept of impregnating physical objects with negative bio-energetic power is a modern version of the age-old concept of the "evil eye," common in the Near East and the Mediterranean. The use of shamans in experiments, then, links folk belief with modern research aims.

Soviet ethnologists have studied shamanistic practices for several decades. Visitors returning from Kazakhstan have asserted that researchers in the republic's capital, Alma Ata, have employed shamans in experiments similar to those in malevolent energy transfer undertaken in Moscow. In Alma Ata, according to this version, the shamans used their skills to "curse" the equivalent of amulets and talismans - again, innocent little gift items - made of hides and bone. These items were later tested for "emanations." Ethnologists are familiar with such devices from magical practices throughout the world, designed to carry destructive powers to depress the recipient, making him or her subject to illness, death, or self-destruction.

Any effort at creating mood changes carries a double edge. This point has been made, in reference to two different experiments, by Larissa Vilenskaya. She mentioned that a biologist of her acquaintance was interviewed at a secret, unnamed institute on Moscow's Zamorenov Street, close to the Krasnoprenen-sky subway station and the Moscow Zoo. This institute, as the biologist gathered from initial conversations, sought to create electromagnetic fields that would arouse aggressive states in animals or slow down their reactions to danger, with the aim of later applying these techniques to humans.

Positive uses are envisaged for the "electro-auragram," developed by Professor Pavel Gulyaev, best known in the West as the leading follower and eventual successor of Professor Vasiliev, the noted Leningrad physiologist and pioneer psychic researcher. Gulyaev, working at the Laboratory for Physiological Cybernetics at Leningrad University, succeeded in developing an instrument that registered an electromagnetic field radiated by living organisms. Gulyaev expressed the hope that his findings would serve to "impose" the electro-auragram of a healthy person upon that of an ill person, by prompting the afflicted organism to "remember" a healthy or healing rhythm.

Gulyaev's findings, which involved the cooperation of co-workers, were published in the journal *Nervous Systems (Nevev-naya Sisteme, September, 1968)* under the title "Electro-aura-grams in Humans and Animals." The paper claimed that he had "established the existence of electromagnetic low-frequency fields surrounding living objects," such as nerves, muscles, and the heart. They had examined frog hearts, nerves, and muscles, as well as "electric fields surrounding man as a result of heart and muscle action." The paper concluded: "The activity of living beings is regarded as manifested, as well, in the form of electromagnetic fields generated by them, fields which are spatially generated far beyond the geometric boundaries of their body."

The potential for influencing the minds of decision-making officials, from heads of state to negotiators, does exist. There is circumstantial evidence to suggest that experiments or attempts in this direction have taken place. This information fails to clarify whether drugs, suggestion, esoteric hypnosis techniques, or other mind-control methods were used or attempted.

Public evidence for an attempt at influencing U.S. officials during a visit abroad was presented by Dr. Sidney Gottlieb on September 21, 1977, during testimony before a Senate subcommittee. Dr. Gottlieb, then retired, had been the CIA's director of mind control experiments. He told the committee that in "approximately 1971" several members of President Richard Nixon's staff had shown "inappropriate" behavior. Among them, Dr. Gottlieb said, was President Nixon's physician, Dr. Walter Tkash, who had shown unusual symptoms, such as crying without provocation. Referring specifically to Dr. Tkash, the witness said that "inappropriate tears and crying" were, as he remembered, "part of the manifested behavior."

When committee members asked Dr. Gottlieb whether President Nixon too, had acted in an "inappropriate" manner, he testified that the president had not been affected. Senator Edward Kennedy, chairman of the Senate Subcommittee on Health, specifically asked, "Are you suggesting that the presidential party was drugged?" Dr. Gottlieb's reply was, "I'm suggesting we want to review whether this happened."

In other parts of his testimony, Gottlieb did include the president himself among those who seemed to be affected by some type of unusual influence. He put it this way: "Not too long ago, in connection with a presidential visit to a potentially hostile country, the president when he came back described some unusual feelings he and others had and asked if I would be able to give counsel." (President Nixon visited a "potentially hostile" country, the Soviet Union, in 1972.)

Still, Dr. Gottlieb said that "it did not include the president," but "it specifically included the physician himself [Dr. Tkash] and associates."

Intelligence officers discourage U.S. officials from eating and drinking abroad under uncontrolled conditions, just as they discourage social contacts, and specifically amorous liaisons, between U.S. officials abroad and local personnel. Conversely, high foreign visitors, such as the late President Brezhnev, had medical assistance from physicians who may be attached to the KGB, the Soviet Secret Service, who see to it that food and beverages are only served after they have been tested or are prepared under strict supervision.

Such precautions may be considered entirely normal, if one allows that all sides are constantly on the lookout for advantages, if only in obtaining information. When Gamal Abdel Nasser (1918-1970) was president of Egypt and rumors of his ill health were common throughout Cairo, CIA operatives rigged a special interrupt to a urinal, so that they might obtain and analyze Nasser's urine and gain precise biochemical information on his medical condition from the specimen.

In Moscow, U.S. intelligence agents managed to monitor conversations between President Brezhnev, as he spoke by wireless telephone from his limousine, and associates in the Kremlin. Technically, such an intercept should present no greater problems than tuning in on a ship-to-shore telephone



conversation on the marine band of a shortwave receiving set.

More complex were the circumstances, in the summer of 1979, when a series of erratic actions by President Jimmy Carter troubled observers. Carter appeared to seesaw between indecision and frantic action.

These events are worth recalling, particularly as they were preceded by a visit to Vienna, where President Carter signed the Strategic Arms Limitation Treaty's second-stage document (SALT II). Meeting with him was Soviet President Leonid Brezhnev. By strict protocol, Brezhnev should have come to Washington for the occasion. Numerous explanations, largely based on the Soviet leader's delicate health, were offered to show that Carter had to visit a "neutral" capital.

The Vienna meeting, which lasted for three days beginning on June 17, included visits by the two heads of states to their respective embassies. After the SALT II signing, Carter presented the agreement to the U.S. Congress. Next, he participated in an economic summit meeting of the major industrial nations in Tokyo; he then returned to the White House. His administration stood at an economic-political crossroads.

As Time (July 9, 1979) put it:

"Rarely had a U.S. President seemed so strikingly mired in indecision. Just back from the ineffectual Tokyo summit, Jimmy Carter last week scheduled a major address on energy policy, telling aides that he wanted a 'bold new approach.' Then, just 30 hours before he was supposed to go before the TV cameras, he called off the speech without a word of explanation and holed up at Camp David. Behind in Washington he left baffled aides with almost nothing that they could say for certain - except that the President had gone fishing."

The magazine's White House correspondent, Hugh Sidey, who had seen presidents come and go, commented that Carter "seemed to falter and slip back, hesitant and uncertain about how to lead this nation into a future that grows darker each day." Carter's friends, he reported, were voicing the "chilling conclusion" that the President might "not be up to the challenge." What had suddenly happened to the man? What would he do next?

At Camp David, Carter puzzled the world by a week-long exhibition of soul-searching, inviting helicopter-loads of prominent men and women for brainstorming sessions that began on July 6. Following this marathon dialogue, the President made quick visits to "the people," including a machinist in Carnegie, Pennsylvania, and a Marine veteran in Martinsburg, West Virginia.

In a nationwide TV address on July 15, a Sunday night, Carter referred to a "crisis of the American spirit" and promised that he would "lead our fight," adding, "above all, I will act."

Act, he did. To worldwide consternation, the White House announced that all members of the Cabinet and of the President's staff, thirty-four in all, had offered their resignations. Once this sweeping move had been announced, the President replaced several Cabinet members and gave his long-time aide, Hamilton Jordan, new executive powers as a White House chief-of-staff.

Alternating between indecision and such sudden, dramatic actions was a break with Carter's governing style. Public reaction centered on the manner, rather than the substance, of what the President had done. Ever since the Vienna meeting, he had been erratic, virtually manic-depressive in speech and action. Never before had he been so melodramatic. Never before in U.S. history had there been such a purge of the very men the President had appointed. Ted Stevens, Alaska Republican, wondered out loud, "Some of us are seriously worried that he might be approaching some sort of mental problem." Time's Hugh Sidey wrote (July 30): "The Jimmy Carter now at work behind the closed White House doors is not the Jimmy Carter we grew to know in the first 30 months of his presidency."

Looking back, it is possible to make a case for a sudden change in President Carter's personality and behavior, dating back to mid-June of 1979, the days of his Vienna meeting with Soviet leaders. We may ask the question: Was Carter subjected to some form of "brainwashing," to psychotronic or some other technique of mind-changing? Were psychic means used to induce in the President an altered state of consciousness?

From the historic distance, the two incidents during the Nixon and Carter administrations take on a foggy science fiction hue. Yet they might well have been trial runs, experimental undertakings in a ruthless game of mind control. Just to create an alteration in mind functions can, on the world scene, be dangerously decisive. And such actions might well escape unnoticed on the lower levels of public affairs be they political, economic or military. Using the term "psychic warfare" runs the risk of limiting the potentials of interaction between electronic and the human mind to the purely parapsychological, while the boundaries between the psycho-physiological and the electronic have long been penetrated in such fields as medical technology.

## 11 - Boosting The Human Brain

Let's go back, for a moment, to Chapter 3 of this book, where we looked into "The Great Nautilus Hoax," reports that the nuclear submarine Nautilus had been successfully contacted by telepathy while cruising beneath arctic ice. While the Nautilus story was probably a hoax, the needs on which it was based are genuine: After some two decades of effort, a clear wireless channel to submerged submarines has still not been established. All conceivable methods of radio communication with submerged submarines are controversial and expensive. Could telepathy, as we know it now, succeed where current radio technique encounters huge obstacles?

The answer is no. But the emphasis, in our question, was on the capabilities of telepathy "as we know it now." Mind-to-mind communication, to the degree that the validity of telepathy has been established, tends to be spontaneous and uncontrolled. To function in such highly critical situations as battle commands to a submarine, which must be precise, brief, in code, and correctly targeted, telepathy would have to be boosted and refined in a manner so far unknown in the non-communist world. Soviet scientists, originally intrigued by the Nautilus reports, have experimented in the field of targeting and boosting telepathic power. Have they succeeded in their efforts?

The long-distance experiments from Moscow to Leningrad, Kersh, and Novosibirsk were imaginative but controversial. What seems certain is that the direction of these experiments was well established when, by about 1970, news of such experiments dried up.

Specifically, the work of Professor Ippolite M. Kogan, who directed the Bio-Communication Laboratory of the Popov Institute in Moscow until 1975, has disappeared into a fog of silence. Either Kogan or his successors may well have continued this work. The AiResearch Manufacturing Company, in its report to the U.S. Central Intelligence Agency, suggested that "further theoretic and experimental developments along the lines outlined by Kogan are continuing in the Soviet Union." The report added:

"Kogan posed too many interesting and challenging questions for himself and his colleagues not to have delved into them further. Based on the well-known predilection of Soviet physicists to solve difficult and challenging problems, and their excellent training in modern physics, the possibility that a team of Soviet physicists is at work to systematically uncover and learn the physical mechanisms of parapsychological events is highly probable."

The California research group used the term Novel Biophysical Information Transfer (NBIT) to label the telepathic aspects of parapsychology when it stated "Had Kogan not presented such a clear and sound proposal six years ago, one might have wondered if Soviet physicists have any interest at all in novel biophysical information transfer (NBIT) mechanisms. Clearly, if one could find out where Kogan is working and what he is doing, this question would be answered."

But Kogan has not been heard from since his Moscow Bio-Information Laboratory was closed down in 1975, and he is not a member of the staff of the laboratory that replaced it three years later. Kogan's background in the theory and practice of radio-electronics, together with his dramatic tests in longdistance telepathy, made his research particularly significant to studies in the transmission in

Very Low Frequency (VLF) and Extremely Low Frequency (ELF) radio waves. These research areas are of specific interest to shore-to-submarine communications. The AiResearch study made these points:

"Assuming that the USSR started a special NBIT program some time in 1970, by now they could have developed some sensitive instruments to detect, monitor and analyze VLF and ELF radiations for possible instrument content, as Kogan suggested should be done. Also, they must have been instrumental in developing sensors to monitor fluctuations in the human body's electric and magnetic fields, and they may have a team of scientists studying the properties of bio-organic molecules and their response to electromagnetic ELF/ VLF radiation."

The report suggested that Soviet researchers are using electronic means for boosting telepathic communications. "The Russians may now be implementing the next logical step," it said, "namely to reinforce, enhance or aid NBIT in certain trained or gifted individuals after having discovered the basic communication carriers."

How could such enhanced telepathic or clairvoyant ability be utilized?

The most dramatic means possible, despite its science fiction connotations, is tuning in on people's minds. Less precisely focused monitoring is well under way. The Soviet Union operates an elaborate eavesdropping network, with several monitoring stations on the eastern seaboard of the United States, to record radio-telephone conversations among U.S. government agencies, private corporations, and individuals. The monitoring of more intimate communications, even "thought reading," can be seen as an extrapolation from these undertakings - particularly if it can extend to the mind-reading of prominent, decision-making officials.

It may be taken for granted that Moscow is interested, on a continuous basis, in monitoring extremely low frequency communications between U.S. naval command posts and submarines at sea, now in an experimental stage; tuning in on the mind processes and decisions of individuals, on ELF/VLF wavelengths, can hardly be less tempting. The AiResearch report says: "If experiments which generate special ELF/VLF waves are being conducted, it may be possible to intercept and analyze them, because they will travel across the world." It adds that these frequencies may be "undetectable by the usual relatively broadband frequency detectors," and commented:

"It is rational to assume that the Soviets pursue the investigation of various physical methods that might serve novel biophysical information transmission mechanisms. Whether or not ELF/VLF mechanisms explain parapsychological events may be a moot question, if these mechanisms can be utilized for human information transfer."

In other words: If it works, who cares what you call it?

To discover the "carrier mechanisms" of this capacity, the AiResearch team undertook what it called "a short speculative study" and decided that three methods were "compatible with current modern physics." These included: "(1) Very Low Frequency (VLF) and Extremely Low Frequency (ELF) electromagnetic waves; (2) Neutrinos, based on the photon theory of neutrinos; (3) Quantum-

mechanical (symbol p124) waves, based on schizo-physical interpretation of basic QM [Quantum Mechanics] theory." At present, the report said, experiments in the United States and the Soviet Union in this field point to the ELF/VLF mechanisms, but "the other two possibilities cannot be ruled out."

Whether one uses such terms as NBIT, bio-communication, or the handy word telepathy, there is an awesome fascination in the prospect that a single mind may be monitored, or thought transference between two people intercepted, on an extremely low frequency receiver. Medical electronics have perfected apparatus that come close to the frontier of such uses. Dr. Gen-nady Sergeyev's somewhat mysterious distant sensor would seem to be a forerunner of such a device.

A key problem in all such tests and devices is the need to bridge the gap between pure human emotion, which seems to power telepathy, and the transmission of detailed, factual content of human thought. Dr. Benjamin Pushkin's efforts to convey human fear to plants did not go beyond the communication of strong emotions. On the other hand, he did report being able to prevent a hypnotic subject from disguising the fact that she had selected the figure five from a range of numbers from one to ten. Combinations of electronics and hypnosis, electronic boosting of mind power, the improved design of sophisticated mechanisms - these might eventually result in creating a mind-reading mechanism.

An especially gifted or well-trained psychic, perhaps with natural receptivity enhanced by an electronic device, or a receiving mechanism without human aid, could tune in on the ELF functions of a person's brain, because, the AiResearch report noted, "the brain can easily provide the necessary microwatts of power for emission of ELF or VLF waves, as well as register absorptions."

Why should just these waves, specifically, be able to transmit brain signals carrying information by telepathy?

Because, the report stated, while other electromagnetic waves of the spectrum are "highly attenuated and/or escape into space or an attempted trip around the world, the ELF and VLF waves have the unique property of being able to circle the globe." The Soviet idea of boosting brain waves appears feasible, once one assumes that, when "amplified in some fashion (say, by other bio-organic assemblies), certain waves may even keep circling the globe for a day before they lose most of their information content."

Which brings us back to the crucial problem of finding a way to send signals to submerged submarines.

The United States Navy and the electronic corporation GTE Sylvania spent two decades in developing an ELF radio signal. The project cost \$120 million. At the time it began, in the early 1960s, the research field was wide open. Although the Nautilus report was most likely a hoax, it is perfectly possible that the U.S. Navy encouraged several contractors to explore a variety of shore-to-sub communication methods. Among the firms that, at one time or another, were reported as exploring extrasensory perception are Westinghouse, General Electric, and the Bell System. At the very least, a few thousand dollars spent on telepathy tests from a coastal point to a submerged submarine would have been useful in checking out an esoteric form of "information transfer."

Considering the continuing and often-expressed Soviet curiosity about such a U.S. experiment, shore-to-submarine telepathy is likely to have remained a major Russian research project.

This particular quest can be a meeting ground for several research techniques: animal-to-animal telepathy, human-to-human telepathy, human-to-animal telepathy, or a variety of ESP mixtures involving the use of psychological and physiological methods. Such projects could include the creation of stress and other emotional factors. Another element is hypnosis, designed to increase the effectiveness of either the inductor, the recipient of information, or both. Drugs, electronic boosters, and other mechanisms could act as adjuncts or stimuli.

The U.S. Navy had settled on the use of ELF waves for shore-to-sub communications by 1980 but appeared ambivalent about this decision a year later. To Soviet researchers monitoring American plans, such seesawing between enthusiasm and reluctance must have been confusing; low-frequency communications channels had been the focus of attention by such researchers as Professor Kogan, whose achievements had been in radio communications before he branched out into "information transfer" by telepathy.

Assuming that telepathy was ruled out by the U.S. Navy as a shore-to-sub signal, what has delayed the obviously urgent establishment of a more reliable communications method?

Looking back over nearly a quarter century, one must conclude that indecision was caused more by political than technological considerations. At one point, specialists in naval electronics decided that a huge grid of wire was needed to serve as an antenna. Plans were made to bury the wire in the soil of northern Michigan and neighboring Wisconsin. The New York Times recalled (December 25, 1979) that citizens groups and political organizations in both states maintained the antenna would "endanger life and ecology," while the National Research Council asserted that it would carry "no more risk than an ordinary electric power line."

The Times report, by its Washington science correspondent Malcolm W. Browne, said that naval commanders saw "a growing urgency in the need for a deep-water communications system." He noted that the bulk of U.S. nuclear deterrent power is carried by submarines, which "move constantly and are difficult to detect," and provide better launching platforms for intercontinental missiles than land bases. Browne added:

"But to be useful as strategic weapons, submarines must be capable almost continuously of receiving instructions from a controlling headquarters. If the United States should be attacked by missiles from the Soviet Union, the order to retaliate must reach American submarines swiftly. This means that submarine antennas must remain at or near the surface, because conventional radio frequencies can penetrate only a few feet of water. Since submarine antennas can be detected by an enemy using radar or instruments sensitive to acoustic and infrared emissions, some of the submarine's value as a concealed missile launching platform is lost."

The Soviet Navy shares the U.S. Navy's dilemma, while trying to outdistance its technological advances. The Times report noted that the Department of Defense had examined numerous alternative methods, including the use of lasers and acoustical signals. A naval laboratory had looked into using

beams of neutrino particles, passing through the earth, which "could be digitized to carry messages."

The ELF system temporarily won out; the U.S. Congress appropriated \$20 million for its development, but completion was further delayed. ELF radio signals are so slow that it takes a full minute to transmit a single on-or-off pulse. A three-letter word can take from fifteen minutes to half an hour to transmit. The method is reminiscent of the Moscow-to-Leningrad transmission of the word MIG, using Morse code telepathy.

The ELF system is, thus, sufficient only for the most urgent need, such as the transmission of an emergency code word. Browne reported that a three-letter message "could order a submarine to come to periscope depth to receive a longer message (including a wartime order to launch missiles) by conventional transmissions." The ELF system penetrates water and ice. In what sounded remarkably like the original Nautilus story, the Navy managed to send an ELF message to a submarine, submerged near the North Pole, at a depth of four hundred feet and below a thirty-foot layer of ice.

In March 1981, the U.S. Navy began to downplay the ELF research. By then, it had shrunk from the plan to bury six thousand miles of antenna wire to a project that envisioned a twenty-eight-mile grid at Clam Lake, Wisconsin. Under the Defense Authorization Act of 1981, President Ronald Reagan was scheduled to report on the ELF project by April 1 of that year. However, a memorandum written by Admiral Thomas B. Hayward, Chief of Naval Operations, and Mr. Robert J. Murray, Undersecretary of the Navy, did not contain specific recommendations on how to proceed with the project. This prompted Secretary of Defense Caspar W. Weinberger to instruct the navy to reactivate the ELF project and to complete a study of its communications potential.

The Navy seemed dissatisfied with the ELF system, after all. But it could not settle on a satisfactory alternative for its shore-to-submarine communication problem. One plan, the use of a laser to penetrate seawater to reach a submarine by satellite, would have required clear water and needed ten to fifteen years to complete. Small wonder, then, that the twenty-year-old Nautilus hoax might be reconsidered, with the prospect of electronically boosted brainpower as an inexpensive alternative to other costly projects.

To put such ideas in perspective, it is essential that they be taken out of their occult and science-fiction context and placed within the thorough and aggressive Soviet information-gathering framework. The unorthodox use of electronic means has become a characteristic of Soviet practices. The U.S. Embassy in Moscow, to cite a concrete example, has been the target of mysterious microwaves that hit it from a building across the street. Their possible function is worth detailed analysis.

The embassy, a twelve-story building that is the center of the American presence in the Soviet Union, was subject to microwave radiation in the 1970s. During the years 1975 and 1976, radiation reached peak levels of 18 microwatts per centimeter. Embassy staff members reported physical and emotional disturbances. Medical and psychiatric reports, based on diagnoses of these symptoms, were contradictory. The U.S. public was alternately advised that radiation impact was so serious that it might be causing cancer or serious mental dislocation, and that the radiation was too minimal to have significantly negative results.

The embassy constructed protective screens. Radiation was later measured at only two-tenths of a microwatt per centimeter.

Just before President Carter went to Vienna to meet Brezhnev, the microwave bombardment stopped suddenly, on April 27, 1979. It was resumed some three months later, in mid-July, just as the two leaders were beginning their meetings in the Austrian capital. A spokesman for the embassy in Moscow said that "during the week ending July 15, a microwave signal was active, although at a low level."

Two main hypotheses have been applied to the mysterious Moscow microwaves: that (a) they were used to make tracking-down of Soviet listening devices within the embassy difficult or impossible, or (2) they were designed to jam U.S. electronic eavesdropping equipment operated by intelligence agents in the embassy's basement. Another hypothesis is Soviet use of radiation to effect mind-changes in embassy personnel; or that they were used to "read minds" by tuning microwaves to the level of brain waves, possibly amplifying their intensity, then effecting a "feedback" that could range from remote monitoring of brain wave activity to recording emotions, images, or thoughts.

The persistence with which the Soviet government continued this radiation, despite protests from Washington, testified to usefulness of these techniques. The potential of microwave technology in intelligence-gathering and brain manipulation is, literally, unimaginable. Thus, the possibility that, during the Vienna SALT II conference, President Carter might have been subjected to some esoteric form of mind manipulation cannot be ruled out.

Use of microwave technology has expanded enormously during the past two decades. Telephone conversations relayed by satellites all over the world can easily be monitored. After the first major grain deal leading to the purchase of large quantities of U.S. wheat by the Soviet Union, it was assumed that the Soviet negotiators had eavesdropped on telephone conversations between American grain dealers, enabling them to drive a particularly advantageous bargain.

As most long-distance telephone calls within the United States are transmitted by satellite, by these two methods, they are relatively easily intercepted - not only by the agents of a foreign power, but also by business and financial interests, including criminal enterprises. Shortly after President Gerald Ford took office following the resignation of President Nixon, the National Security Agency advised him that Soviet agents were "plucking" information from the air by tuning in on longdistance telephone conversations between U.S. government agencies and private corporations.

The report was specific in pinpointing monitoring stations within the continental United States: the Soviet Embassy in Washington, which is being relocated to a new, elevated, and relatively static-free location; the USSR office of the United Nations delegation in New York; vacation residences of Soviet diplomats in Long Island and Maryland; and a high-rise residential compound of Soviet officials and their families in the Riverdale section of The Bronx, in New York City. Cuba also provides a major military and civilian signal-monitoring base.

President Ford was given initial information in a memorandum on "telephone espionage," dated June 30, 1975, prepared by John M. Eger, then acting director of the Office of Telecommunications Policy,



a relatively new office within the NSA. The Eger memorandum said that "the potential for such monitoring raises concerns related not only to our national security, but also to the privacy and confidentiality of personal affairs and business dealings, and effective functioning of our economy."

Later that year, Thomas C. Reed, then director of Telecommunications and Command and Controls Systems in the Office of the Secretary of Defense, told an audience in Sacramento, California, that interception of domestic long-distance telephone conversations represented "a simple and straightforward matter for the underworld organizations, blackmailers, terrorists, or foreign powers." He explained that "modern computer techniques make it possible to sort through that traffic and target conversations fairly easily."

The kind of computer that can alert its users to key words used in an intercepted series of telephone talks would have to be located in the Soviet Union itself, in Cuba, or in an Eastern European center, such as East Berlin. It is possible that the transmissions, from a Soviet monitoring station in the United States to a screening computer, could themselves be intercepted by NSA or an equivalent agency in West Germany.

President Carter in 1977 approved the rerouting of confidential telephone communications, through underground cables circling among Washington, New York, and San Francisco. At the same time, the then CIA director Admiral Stansfield Turner told a Chicago audience that "hijackers, gangsters, foreign intelligence operatives and industrial spies" might all be engaging in electronic surveillance of long-distance telephone calls. The U.S. government alerted private corporations to this risk, encouraging them to make their telephone connections more secure.

Efforts to monitor human brain activity, by means of some form of super-telepathy, should be seen in the context of just such technological means as microwave techniques offer today.

Biocommunication, from cells within one human body to cells in another or in several persons, can be seen as a biological parallel of sophisticated electronic equipment. Certain aspects of psychotronics, those concerned with extremely low levels of energy, electromagnetism, photons, bioplasma, and similar categories, are the electro-biological equivalent of communication and interception techniques that utilize advanced electronic technology.

## 12 - The Novosibirsk Connection

Across the Ob River from Novosibirsk, a pioneer town in western Siberia, lies Academgorodok, or Science City. For some four years, its Institute of Automation and Electrometry maintained a research unit with the nondescript name of "Special Department No. 8." The building that housed the department could only be entered if one knew the code, changed each week, that opened the main door's lock.

The "No. 8" operation was devoted to parapsychological experiments in information transmission. As part of its program, physicists sought to discover the nature of "psi particles," the elusive elements that some Soviet scientists regard as essential to the function of such psychic techniques as biocommunication and bioenergetics.

Novosibirsk was a logical place for such advanced studies. Its Science City was developed, after World War II, with such single-mindedness that even the names of streets and city squares reflect its nature: You can take a bus down Thermo-physics Street, get off at the corner of Calculators Street, and walk across Institute of Hydrodynamics Square. The city contains some forty research centers and houses tens of thousands of scientists and their families.

When the No. 8 project was established in 1966, some sixty researchers were brought to Science City from other parts of the USSR. One of them, Dr. August Stern, provided an account of the department's operation after he migrated to France in 1977. He told the New York Times that the project's director, a Soviet Navy officer, Vitaly Perov, had shown special "deference to two visitors," presumably KGB officers, "who came in the early days" of the project "to check on the installations."

Theory and application of parapsychological principles were part of the experiments. Dr. Stern dealt with aspects of theoretical physics, designed to solve the enigma of psychic energies flowing between living things. The center's elaborate equipment, he said, had "cost many millions." In line with other Soviet experiments, the Novosibirsk center did such things as applying electric shocks to kittens to see whether their mother, three floors above, would react to their experience in a telepathic way. This type of experiment is similar to a rumored test in which baby rabbits were taken down below sea level in a Russian submarine, then killed, while the mother rabbit remained ashore, her reactions monitored by measuring brain and heart functions.

Project No. 8 included telepathy-type distance experiments among people. Inductors, or senders, were stimulated in one group of rooms, while recipients were placed elsewhere, their responses monitored on closed-circuit television. The center also undertook the study of electromagnetic forces in person-to-person and mind-over-matter experiments. Among laboratory animals used in the project were monkeys. Dr. Stern recalled further details:

"There were also experiments with photon waves, in which frogs' eyes were used as a more sensitive measuring instrument than a machine. One involved putting bacteria on two sides of a glass plate to see whether a fatal disease could be transmitted through the glass. It was reasoned that if this could be done, it would show that photons - light particles - accounted for some inexplicable forms of communication."

Stern did not succeed in the project he had been assigned, and which he regarded as a legitimate scientific challenge. In fact, the whole of No. 8 was dissolved in 1969, although it was much too early to achieve definitive results. Dr. Stern concluded that the shut-down reflected "a change in attitude or power balance in the Kremlin." Presumably, Moscow authorities had decided on different administrative or research tactics in dealing with psychic studies.

Dr. Stern heard later that the Soviet armed forces, notably the navy, had established a parapsychology center in Leningrad. Dr. Gennady Sergeyev, best known for his work with Nina Kulagina, invited Stern to join him in a new Leningrad laboratory. Sergeyev had been assured that he would receive funds and permission to operate an advanced laboratory; nevertheless, the project was canceled. Through the scientific grapevine, Stern heard that the Novosibirsk and Leningrad projects had been "combined in a new laboratory in Moscow under the auspices of the KGB." At the time he left the Soviet Union in 1974, Dr. Stern was told that parapsychology research had been "curtailed," except for the "secret" KGB laboratory. He also heard that the lab had discovered "something important, very dangerous," but he doubted the accuracy of these claims.

Stern's recollections concerning photon waves have since been confirmed. Three researchers at Novosibirsk's Institute of Clinical and Experimental Medicine and at the Institute of Automation and Electrometry (Siberian Section, USSR Academy of Science) are credited with undertaking the key experiment on this problem. They were Vlail Kanachevy, Simon Shchurin, and Ludmilla Mikhailova. Their experiment, designed to establish photon communication between cells of living organisms, has been listed in the State Register of Discoveries by the Committee for Inventions and Discoveries, which functions under the USSR Council of Ministers.

An English translation of their paper appeared in the Journal of Paraphysics (Vol. 7, No. 2, 1973) as "Report from Novosibirsk: Communication between Cells." Their experiment indicated that cells could communicate illness, such as a virus infection, despite the fact that the cells were physically separated. The experimenters used normal cells, supplied with nutrients that enabled them to divide and survive normally. The tests showed that when one group of cells was contaminated with a virus, the adjacent group - although separated by quartz glass - "caught the disease." When regular glass was used to separate the two cell groups, the non-contaminated cells remained healthy.

The experimenters linked their idea to the concept prominent in Soviet parapsychology: the existence of unknown communication channels in living cells for the transfer of information-"a language of waves and radiation," Shchurin called it. The medical researcher added these comments:

"Why should information on all the processes of life be necessarily transmitted by chemical means, which are certainly not the most economical methods? After all, any chemical change is primarily an interaction of electrons, complicated formations that carry a reserve of energy. In colliding with a substance, they would either transfer this energy to it or radiate it in the form of photons, or light particles.

"Today there are no methods for studying the specific character of photon radiations, the constant normal radiations of normal cells. We decided to evade the ban imposed by physics by creating an artificial situation. We subjected cells taken from an organism to extreme effects to observe the

character of radiations emitted by them. That the cell radiated photons was known. But perhaps the cell was able to perceive them, too? Our experiments provided the answers to this question."

The barrier of quartz glass permitted neither viruses nor chemical substances to travel between the two vessels inhabited by the cells. Yet, as Shchurin picturesquely put it, "the affected cells virtually cried out loud about the danger" when they were attacked by the virus, and "their cry freely penetrated the barrier of quartz glass which permitted ultra-violet waves to pass. Something highly improbable happened. These waves were not only perceived by the neighboring cells, they also conveyed the sickness to the neighboring cells."

Dr. Stanley Krippner, faculty member of the Humanistic Psychology Institute, San Francisco, surveyed this and related experiments in *Human Possibilities* (1981). He specified that the experimenters had used tissue from a chicken embryo, which they divided and placed in two isolated metal containers. One group was infected with a toxic virus or exposed to a poisonous chemical or lethal radiation. Those in the non-infected containers separated by quartz glass windows died. He added:

"In the case of viral infection, the tissue began to degenerate within thirty-six hours. The non-infected tissue began to discolor twelve hours later. When photomultiplier tubes were employed, it was discovered that ultraviolet radiation emanated from the diseased tissue, passed through the quartz window, and infected the other tissue. Ultraviolet rays cannot pass through glass, hence the differential effect."

The quartz glass experiments appeared to confirm the reality of so-called mitogenic radiation, a concept employed frequently by Soviet parapsychologists. The experiments, said to have been repeated many times in the Soviet Union, created interest among Western researchers. Dr. Krippner stated that American scientists had hoped to repeat the Novosibirsk study, but "found several questions unanswered." These included "What amount of tissue was used? Were the chambers closed on top? Is it necessary to rotate the cultures? If so, at what speed should they be rotated? What precautions were taken in introducing toxic materials to prevent contamination of the other preparations? What method was used to determine the number of cells killed? How was the 'mirror' tissue [in the non-contaminated containers] examined? Were there variations in the various experiments? How close were the tissue cultures to the windows?"

Krippner and his associates queried the experimenters on these points but did not receive satisfactory replies. He says in his book that "unfortunately, this lack of detail permeates most of the Soviet articles in mitogenic radiation, psychotronics and parapsychology." Soviet researchers at times maintain that paper shortages force them to publish their reports in truncated form. However, non-Soviet scientists often find that papers in Russian journals lack essential links in experimental descriptions, so that it is impossible to achieve a comprehensive view of design, protocol, and results; this lack is not limited to parapsychology or related fields.

Although the No. 8 project was shut down and sections of it transferred to other cities, animal research in information transmission continued in Science City. A Novosibirsk toxicologist, Dr. S. V. Speransky, discovered a form of telepathy between starving and normally nourished mice. He observed that impulses from hungry mice were transmitted in such a manner that non-starving mice acted as if they, themselves, were famished.

The most complete account of the Speransky experiment appeared in *Parapsychology in the USSR* (Part III), translated by Larissa Vilenskaya from the researcher's original manuscript. As a toxicologist, Dr. Speransky's primary interest was the impact of poisons on living organisms; the mind-to-mind reaction among the mice was encountered accidentally. Dr. Speransky's "upper mice" lived on in the fourth-floor laboratory, while "lower mice" were kept in the basement. In some experiments, the upper mice were starved, in others, they were nourished. Out of thirty experiments, results in twenty-seven were positive: Non-starving mice responded to the suffering of their "friends," who were several stories removed; in only three cases were the results negative.

Refining his methodology, Dr. Speransky engaged in additional series of experiments, varying sex, weight and other variables. He found that the "biological significance of the rapid increase in weight of mice which received signals about starvations from their 'friends' is clear: a danger of starvation has to give them an additional stimulus to be sated." In other words, telepathy-like signals warned the non-starving mice that food was short, so they increased food consumption and storage within their bodies. Speransky drew this conclusion:

"Undoubtedly, mentioning that the transmission of information occurred beyond ordinary channels of perception will remind the reader of such notions as telepathy, extrasensory perception, and 'biological radio-communication.' Is it possible to suppose that the transmission of information about starvation pertains to this type of phenomenon? We think so, but cannot strictly affirm it at present. It is only clear that the transmission of information about starvation in conditions of our experiments goes beyond ordinary forms of interactions of animals. Therefore, we propose to call it extraordinary transmission of information."

Actually, related phenomena have been recorded by Western researchers. Sir Alister Hardy, Professor Emeritus of Zoology and Comparative Anatomy at Oxford University, has considered the possibility that telepathic communications among animals might even affect evolution and adaptation. He cited communication among tit birds that learned to open the tops of milk bottles to get at the cream. Once a few tits had managed the trick, the practice spread quickly across all of Europe. In an essay on "Biology and ESP," Professor Hardy suggested that animal habits might be spread by "telepathy-like means," and that a "psychic pool of existence" might function among members of a species by some method "akin" to telepathy.

Speransky linked his findings about communications between mice to work done by Gulyaev with his auragram on humans, by Sergeyev in human brain activity, and by Presman on the influence of electromagnetic fields upon living organisms. A. S. Presman's work, notably his book *Electromagnetic Fields and Life* (New York, 1970), is internationally known. One rare positive reference to parapsychology-related work to appear in an East German publication was printed in *Neues Deutschland*, the East Berlin daily published by the Socialist Unity Party, May 15, 1982.

In an article on "Man, Animals and Magnetism," Professor Hans Weiss and Dr. Jurgen Hellebrand discussed the question of whether a correlation between electromagnetic fields and life processes does, in fact, exist. They found that the views of physicists, chemists, and biologists vary greatly. They cited Presman's work, notably his references to the apparent ability of snails and birds to orient themselves through the earth's magnetic field. The two authors denounced popular claims for magnetic healing

devices as "clearly humbug," but stated that in such fields as food production further basic research "may permit developments leading to practical applications."

As a leading research center, Novosibirsk was a natural contact point for long-distance experiments in telepathy. As noted in an earlier chapter, Professor Ippolite Kogan's Bio-Communication Laboratory arranged for a Moscow-to-Novosibirsk test. Kogan reported on this experiment, in absentia, to a meeting at the University of California at Los Angeles in 1969. The test concentrated on the telepathic transmission of the identity of various objects, with Yuri Kamensky in Moscow trying to communicate the images to Karl Nikolayev in Novosibirsk.

The methods used corresponded to other long-distance tests (see Chapter 7, "Code by Telepathy"). However, Kogan noted that the recipient in the Siberian city "did not have an assortment of items before him," as was arranged later during the Moscow-Kersh tests, so he "could not give a specific name for the object" he saw telepathically.

Kogan said that the Novosibirsk recipient was limited to listing "the characteristics" of each item, which restricted statistical analysis of the experimental results to "an approximation." In one such test, the transmitting telepath in the Soviet capital was asked by supervising scientists "to suggest an object they had chosen randomly." Six segments of test were used to transmit images of six different objects. Half of these tests gave positive results; here is Kogan's account of the procedure:

"In three out of six tests, a correct description of the main characteristics of each object was provided [by the recipient in Novosibirsk]. For example, when a metal screwdriver, equipped with plastic handle, was transmitted from Moscow, the recipient reported these impressions: 'A handle, or chess figure. Long, black, probably plastic.' For each item, the transmission time was ten minutes. Using the same mathematical criteria as in our short-distance experiments, we obtained a mean transmission rate of 0.005 bits per second.

"During another long-distance experiment between these two cities, the transmitter sought to send an object he had selected himself. Again, we had six runs with six different objects, and in this case the recipient correctly described the main characteristics of four of the objects. However, some of the descriptions did not correspond to the object transmitted during this particular time period, but to objects transmitted during earlier periods. This may have been due to the transmitter's attention remaining, unconsciously, focused on the object transmitted previously. Calculations yielded an information transmission rate similar to that of the first long-distance experiment."

Queries reaching Western parapsychologists from Novosibirsk suggest continuing interest on the part of individual researchers, whether or not officially organized research is being undertaken. Among the topics in which Science City workers have expressed an interest are such academic subjects as body-mind relationships, as well as such popular topics as mysterious ship and plane disappearances in the "Bermuda Triangle" area of the Caribbean. Individuality and personal initiative are characteristics of Novosibirsk researchers, just as they are of parapsychologists throughout the world. The line between what is done in the name of "private" research, although often using public laboratory facilities, and what is "official" experimentation in parapsychology is often very thin.

### 13 - Dzhuna The Healer

The Soviet dilemma over psychic powers was dramatized in the 1980s by the appearance on the Moscow scene of a glamorous healer, Dzhuna Davitashvili. Traditionally, such healers live in obscure villages and are either old men of the sage, bearded type or peasant women with a reputation for second sight. The dark-eyed, model-slim healer, whose first name is actually Eugenia (Evgeniya) - Dzhuna or Juna is a popular nickname - personified Soviet ambivalence toward the "unknown." Caught between official rationalism and traditional Russian mysticism, Soviet authorities wavered between admiration for and suspicion of Dzhuna's healing gifts.

No one, of course, used the words "miraculous healing." Instead, a new pseudo-scientific buzz word, "biofield," was added to biocommunication, bioenergy, and related Soviet parapsychological terms. Miss Davitashvili's officially tolerated prominence tended to support rumors that her healing skills had benefitted top Soviet leaders, including President Leonid I. Brezhnev. As he had used the services of unorthodox healers in the past, it seemed possible that Dzhuna had in fact eased the party chiefs' discomforts. In any event, Davitashvili had become highly popular among top people in the Soviet entertainment field, academicians, and high Communist Party officials.

Dzhuna Davitashvili's popularity provoked contradictory reactions. Some people swore by her with unbridled and seemingly uncritical enthusiasm; testimonials and letters of thanks poured in and were publicized. Others were cautious in their endorsement of Dzhuna's healing gifts, while official medical comment was quite negative, ranging from the detached to the caustic.

Newspaper and magazine stories about Miss Davitashvili appeared in the daily papers and periodicals in the Soviet Union as well as abroad. Boris V. Petrovsky, Soviet Minister of Health, and Nikolai K. Baibakov, director of Gosplan, the country's central planning board, were among those reported to have benefitted from Dzhuna's treatment. Other non-medical healers gained new tolerance for their work, radiated by Dzhuna's public acceptance. The illustrated magazine *Ogonyok* (April 1981) quoted her as saying that, of course, there was "no miracle" involved in her work. She added:

"There is a biological field around all living organisms, including human beings, which we extrasensers feel very easily. This biofield changes, depending on physical and even psychical states of the organism. Therefore, when I pass my hands along the patient's body, I can tell at once which organs of the body are diseased. Various diseases cause different sensations in my hands, such as prickling, warmth, or other sensations not easy to define."

As quoted in *Parapsychology in the USSR (Part I)*, published by the Washington Research Center, San Francisco, Miss Davitashvili told a meeting of the *Ogonyok* Club that the human body's energy system has many outlets on the skin, equivalent to acupuncture points. These, she said, can be stimulated to "enhance the restoring process" that facilitates healing. The chairman of the *Ogonyok* round table, Sergey Vlasov, noted that, although much had been written about Dzhuna, she was "not the only extrasenser," as there were an estimated "two hundred such people" in the Moscow area alone.

The same issue of the San Francisco publication contained ten texts testifying to Miss Davitashvili's

success, including an enthusiastic endorsement by Shota A. Lomidze, Deputy Minister of Health Care for Georgia, Davitashvili's home state. The third issue of Parapsychology in the USSR (a series edited by Larissa Vilenskaya) contained a letter from her close Moscow friend, Barbara Ivanova, one of the participants in the Ogonyok round table. Miss Ivanova noted that the meeting had taken place a year prior to publication and had lasted for five hours, with Dzhuna as one of four healers present. Also present were representatives from various public bodies, including the Medical Department of the State Committee for Science and Technology. Ivanova commented:

"However, in any case, the fact of such publication has some intriguing implications, with all its complications and controversies. But it does not mean - not at all - a reconciliation between the official viewpoint and our work, [the] activities of independent parapsychologists (on the contrary, after this publication, many things got worse). The fight for our science, for parapsychology, is proceeding still, with many facts and situations - but for the positive parapsychology, the open one, not hidden behind walls and doors."

These strikingly candid observations highlight the contrast in Soviet attitudes toward psychic studies, where public and secret research clearly differ in character, methods, and aims. Miss Vilenskaya, conveying "Some Impressions Concerning Healing in the USSR," noted that it had previously been considered "non-scientific" to speak about psychic healing in the Soviet Union, but that "healing by biofield" and "biofield influence" were being widely discussed in relation to Dzhuna Davitashvili. Vilenskaya recalled that she had met the Georgian healer in the Moscow hotel Druzhba in April 1979. Miss Vilenskaya noted that Dzhuna's methods and ideas were not unique, but part of a tradition and technique practiced by a large number of healers, including Alexey Krivorotov and his son Victor of Tbilisi, Vladimir Safonov of Moscow, and others.

Miss Davitashvili's prominence may well be due to such factors as her treatment of leading officials and her striking personal appearance. She had been something of a local heroine in her native Tbilisi (Tiflis), capital of Georgia. The city is basically a good deal more unconventional than dour, self-conscious Moscow. Bordering on the Black Sea, the Georgian Republic, together with Armenia, enjoys a Near Eastern or Mediterranean ambiance, which expresses itself in everything from food to literature and even academic attitudes.

Dzhuna, who left home at the age of fourteen, worked for several years servicing a projector in a movie house and then became a waitress. Later, as a masseuse for hospital patients, she first showed her gift, which compares to the traditional laying on of hands, with its biblical roots. Although Dzhuna belongs to the minority population of the twenty-five thousand Assyrian Christians in the USSR, there is no indication that she links her healing gift to a religious conviction.

During her hospital treatments, patients reported that symptoms of arthritis, neuralgia, and sciatica suddenly disappeared. She told Vilenskaya that she had treated as many as one hundred patients per day and successfully dealt with cases of stomach ulcers, duodenal ulcers, esophageal ulcers, and adenoma of the prostate gland. According to the West German newsweekly Der Spiegel (September 22, 1980), Miss Davitashvili "continued her medical education thereafter, gaining certificates at the People's High School in Tbilisi, as well as at an educational institute for 'clinical psychology.'" Her duties combined those of nurse attendant, hospital masseuse, and medical aide.



Dzhuna next took a position at a Polyclinic for Railway Employees. There, news of her healing skills quickly spread. Even seriously ill patients left other hospitals secretly, to be treated by Dzhuna. She attracted such a following that a local Communist Party functionary cautioned against exaggerated enthusiasm for a "new Mecca" of healing.

In line with the relative open-mindedness of Georgian academicians, one professor at the Tbilisi Institute for Physiology was quoted as claiming that his electrical instruments proved too weak for the bio-electrical energy emanating from Dzhuna, and that his recording devices hit the optimal points of their scales when measuring the healer's powers. Other claims are more modest and better documented. Still, an element of contemporary folklore enters into accounts of Dzhuna's life and accomplishments. Her parents are said to have regarded her as "something strange" even as a child. During her early years, spent in the Kuban region of the USSR, she perceived a "rainbow-like light, an aureole above flowers and trees." In fact, these and her diagnostic impressions are in line with Western psychic traditions of a "human aura," often described by psychics.

Leon Kolodny, a newspaper man who had written previously about parapsychological tests, offered an enthusiastic portrait of Dzhuna Davitashvili in *Komsomolskaya Pravda* (August 16, 1980), Moscow's communist youth daily. He wrote that, as a child, "she heard not only the rustling of leaves in the wind but other sounds, as though the tree were an orchestra and each flower a singer." Kolodny compared Dzhuna, with her long flowing hair, to a ballerina, and wrote she was able to see "a radiance above the heads of people." He added: "When there are a lot of people in a room, she sees a rainbow hanging over them. If you look at an ordinary black-and-white photograph of Dzhuna, you will see light emanating from her hands and radiance over her head."

Kolodny was so impressed by Dzhuna Davitashvili that he even reported her seeming ability to "heal" a bouquet of wilted roses. He wrote: "You may believe me or not, as you like; but the scent of roses flowed toward me, as if Dzhuna had opened a bottle of perfume. Then, one after another, the rose petals began to open." How had she done this? By passing her hands over the flowers, the reporter said, just as she does over her patients. Next, Dzhuna engaged in a demonstration of the psychokinetic type: She held her hand over an empty cigarette box, raised her hand, and "the box rose with it."

Miss Davitashvili told the reporter that she saw "a yellow and blue light" over his head, adding, "I think you have a headache." He confirmed her observation: "This was correct. I did not have much sleep the previous night, and got up early. She passed her hands over my head, lightly. I felt a faint breeze, and the headache stopped."

Following the reporter's visit, Dzhuna Davitashvili left for the polyclinic where she did her healing when in Moscow. Earlier, she had worked from an apartment, but the crush of would-be patients had become too great. Her waiting list had grown out of manageable proportions, and applicants for her services had to be screened.

Dzhuna originally came to Moscow from Tbilisi as the protegee of a Georgian film producer, Otar Ioselini. When Craig Whitney, Moscow correspondent of the *New York Times*, reported on her popularity (May 29, 1980), he noted that she was "besieged by patients unable to obtain satisfaction from the public health system." He added:

"Russians complain that they can get treatment in hospitals only by bribing nurses and doctors, that medicine prescribed to them turns out to be unavailable in pharmacies, and that patients have to wait for hours for treatment in neighborhood clinics. But they willingly line up in front of the apartment where Miss Davitashvili stayed."

The facilities at a polyclinic gave Dzhuna Davitashvili semiofficial status. Whitney reported that her fee was the equivalent of \$375 each for her prominent clientele. He quoted one prospective patient as expressing concern over the healer's status and affluence: "I worry about her. What if she doesn't pay income tax on her fees? They'll make her stop practicing."

Patients have credited her with prompt psychic diagnostic insight. One, a writer, reported: "She looks at you and says immediately whether she can help you. Sometimes she'll take a look and say, right away, 'I can't cure that,' with complicated things like brain tumors." Her procedures, as recounted by a film worker, are reminiscent of those of other healers: In treating a headache, she places her fingers on the man's face and asked him to close his eyes; he then felt as if he were swaying to and fro. He said, "My friends in the room said I was moving violently from side to side, almost hitting the floor." His headache disappeared, but, he said, "there were burn marks, like sunburn, where her fingers had touched my face."

The issue of *Komsomolskaya Pravda* that carried Leon Kolodny's account of his meeting with Dzhuna Davitashvili also contained a commentary by a member of the Soviet Academy of Sciences, Yuri Kobzarev, the specialist in radar and radio engineering who directs the Laboratory for Bio-Electronics. He strongly emphasized that the Dzhuna phenomenon should be regarded as "factual and real." He explained: "There have, at all times and in all ages, been individuals who were able to heal by means of the laying on of hands, and there are such individuals among us today." Linking the Davitashvili demonstrations with those of Nina Kulagina, Kobzarev said that it had been "established" that Kulagina's hands generated "acoustic impulses" during healing as well as telekinesis (psychokinesis). He added:

"These impulses are audible and can be registered on sound-recording devices. Two other healers are known to emit similar impulses. Some of them, including Kulagina, also emit electromagnetic waves in the optical spectrum. They can be seen with the eye and recorded by photoelectronic devices or on film. These facts suggest that healing is achieved not only or not so much by affecting the body through the mind as by direct physical influence."

Another Soviet scientist, Alexander G. Spirikin, expressed similar views in several articles. Spirikin is a corresponding member of the Soviet Academy of Sciences and a philosopher who has made a special study of "bioenergy." Writing in *Sovet-skaya Rossiya* (January 6, 1980), he castigated scientists for lack of moral courage in admitting that they had found psychic phenomena genuine and had, in fact, benefitted from them. Spirikin cited the case of one "ungrateful" scientist as follows:

"A scientist of very advanced years was suffering from a serious illness, which could hardly be treated at his age. In desperation, he asked for a man who had cured others by means of biofields to be brought to his sickbed. Experiencing great relief, the patient was so grateful to his 'miracle worker'

that he was only too happy to do everything in his power for him. But the healer said, 'I really don't need anything - except just this: Make a statement that my treatment has helped you.' Hearing this, the scientist became embarrassed and replied, 'How can I confirm that? I would have to explain it more fully. But I can see no explanation. So they will say that, in my declining years, I have plunged into mysticism.' "

This anecdote illustrates, more graphically than many pages of ideological analysis, the dilemma of Soviet scientists who are personally convinced of the validity of psychic phenomena but fear ridicule, loss of professional prestige, and possible exclusion from a society that can make or break them.

Spirikin's enthusiasm was sharply challenged by a full Academy member, Y.B. Zeldovich, who wrote in the society's journal (*Vestnik AN USSR*, April 1981) that "a corresponding member of the Academy of Sciences of the USSR (I will not even mention his name) gives lectures on biological fields and biological radiation in polyclinics and hospitals of the Academy, and physicians have begun to think about its practical application." He said that, at the suggestion of this corresponding member, Dzhuna Davitashvili had been invited to appear before a meeting of the Academy's Division of Philosophy and Law, while "philosophical aspects of biopsychic phenomena were discussed." Zeldovich added:

"I think it is improper for a member of the Academy of Sciences to present unverified data to a broad audience, and to raise the question of philosophical aspects of phenomena whose existence and meaning have not been sufficiently established experimentally. Physicists know of all remotely influencing fields which interact with matter: electromagnetic, acoustical, and gravitational. Therefore, the concept of a certain field which could not be detected by instruments is definitely incorrect."

Spirikin's criticism then grew rather demagogic, linking the concept of the biofield with spiritualism and religious mysticism, both anathema to Soviet ideology. He recalled that there had been "spiritists in Czarist Russia" and "Rasputin, who charmed away bleeding," although these "did not participate in meetings of the Russian Academy of Sciences." He added: "Let healers treat, by suggestion, disorders which do not require surgery, but let scientists, especially members of the Academy of Sciences, not be hypnotized, even by healers." According to *Parapsychology in the USSR (Part Five)*, these views were supported by academician A. P. Alexandrov, president of the academy. The Division of Philosophy and Law advised Spirikin that it was inadmissible to substitute "cheap sensations which hinder the development of science" for "serious consideration of scientific questions."

It is characteristic that endorsements of Miss Davitashvili's techniques, and by implication those of other healers, have come from prominent laypersons and from specialists in such fields as engineering and philosophy, rather than in medicine. At the time of this writing, while a good deal on this subject has appeared in the general Soviet press, medical journals have not published accounts of case histories or tests with Miss Davitashvili. That the Georgian healer has the personal support of prominent officials is illustrated by reports that, despite opposition elsewhere, Nicolai N. Blochin has ordered the establishment of an institute to test Dzhuna's healing powers. Blochin is president of the Academy of Medical Sciences; he twice received the Order of Lenin for special services to the Soviet state, and is therefore a man of influence.

Rumors that Brezhnev himself benefitted from the healer's treatment were reported by Whitney in the New York Times, who wrote that Dzhuna worked her "apparent miracle" on the Soviet chief of state when, "after years of decline," he appeared as "the picture of health and stamina in his recent meetings with Western and communist leaders in Belgrade and Warsaw." These observations were made more than two years before Brezhnev's death in November 1982.

Further words of caution came less than two weeks after the Kolodny and Kobzarev articles appeared in the Communist youth paper. The combative weekly of the Writers Union in Moscow, *Literaturnaya Gazeta* (no. 35, 1980), warned against extrasensory healers in general and Dzhuna Davitashvili in particular. The weekly had organized a meeting of Georgian scientists and had asked the Ministry of Health for a clarification on the subject of extrasensory healing.

The scientific opinions in the round table included sharp criticism of extrasensory healers, as well as numerous statements favorable to Davitashvili and in support of the existence of "biological information." A special commission had been set up earlier by the Georgian Ministry of Health to study the Davitashvili phenomenon, and the Radiometric Laboratory at Tbilisi University was experimenting in the transmission of such "biological information."

The Commission of the Ministry of Health noted that uncritical application" of terminology from other sciences to the living organism was questionable. It denounced "the groundlessness of claims" concerning the use of "biofields" to treat disease. The commission denied the possibility that Dzhuna could have cured an ulcer, and attributed reports that she had done so to the incompetence of those who had observed the procedure. It also warned against therapeutic work by people without medical education. Publicizing such practices in newspapers and magazines, it said, could lead to "regrettable consequences." It cited the case of one patient who had "resorted to parapsychologists" instead of going to an oncological specialist.

The commission urged that psychotherapy "for preventive and curative purposes" should be further studied and applied, but warned against the acceptance of psychic claims:

"It is, of course, necessary to conduct scientific research on various phenomena about which little is known. But today, specialists believe, there are no reliable grounds for asserting that people with extrasensory powers possess any phenomenal healing abilities. There is no reliable basis for believing that some kind of special 'biofield' exists, distinct from known physical fields in nature or that it may ultimately be used, as one sensational article has stated, as 'the long-awaited medicine for all.' "

The day after the commission's views were published in the literary weekly, Dzhuna Davitashvili was the honored guest at the weekly "Thursday Club" meeting of employees of *Komsomolskaya Pravda*. The paper reported on the friendly get-together on August 29, noting the "unusual, innate Psychoenergetic powers of Dzhuna," and stated that she had taken part in three experiments at medical institutes during the summer. The paper added that it planned to keep its readers up to date on further developments in the field. That further study may be necessary, although parapsychology has now been under on-again, off-again observation in the Soviet Union for two decades, had been observed by Dr. Kobzarev in his earlier article in the paper; he wrote: "We still know next to nothing about these physical fields and the role they play. The importance of further research into these fields

can hardly be overestimated."

## 14 - The KGB Takes Control

It has become a commonplace observation that the Committee for State Security (Komitet Gosudarstvennoi Bezpast-nosti, or KGB for short) permeates Soviet society at all levels. Its role in parapsychological research is, clearly, a minor aspect of KGB activity. Established as a state police agency during the Bolshevik Revolution in 1917, with the acronym "Cheka," the agency has proliferated under a variety of successive names and initials.

The KGB's uneasy role in psychic studies illustrates that it is not, and cannot be, a monolithic agency. Its sometimes contradictory aims, as well as its enormous domestic and international scope and diversity, make total efficiency impossible. We have already seen that KGB interrogation of U.S. newspaper correspondent Robert Toth prompted the revelation that the Soviet state does, in fact, engage in "secret" studies of psi "particles" at its official research institutes.

Western parapsychologists have concluded that the KGB took control of Soviet studies in parapsychology no later than 1970. More precisely, the agency appears to have taken a serious interest in the field during this period, and its involvement since then has been active and consistent. As the central policing force within the state, the KGB seeks to maintain ideological purity among the populace, including scientific researchers. Such purity is difficult to gauge among parapsychologists; their subject matter can easily be labeled idealistic or mystical, rather than materialistic in the approved Marxist sense.

The KGB's alternately benign and hostile attitude toward psychic studies is well illustrated by the rise, fall, and resurrection of the parapsychological laboratory attached to Moscow's A.S. Popov Scientific-Technical Society for Radio Engineering, Electronics and Communications (known as NTORES, the acronym of its Russian name). The original initiative for the Popov lab came from members of its Bionics Section in 1965, who suggested a series of telepathy experiments under the label "biological communication." The new section met on October 11, 1965, and developed a three-point program: study and analysis of international literature on the subject; a synthesis of spontaneous telepathic phenomena previously observed; and a plan for laboratory-controlled telepathic experiments.

The resulting Laboratory for Bio-Information functioned on two levels, private and official. The core of the operation was a team of unpaid volunteers, who were permitted to work on premises leased by the Popov institute, and whose activity was "officially authorized."

The little band of parapsychology enthusiasts inside the Bio-Communication Laboratory was well aware that they operated under official scrutiny, that at least one KGB operative was a staff member and others regularly reported to the agency. Much of their work was clearly visible, such as the long-distance telepathy experiments, but other studies were never published. Among the unpublicized studies was the work of Yuri Korabel-nikov and Ludmilla Tishchenko-Korabelnikova, a husband-and-wife team who organized more than eight thousand clairvoyance tests. They placed different geometric designs or numbers inside opaque envelopes. According to the group's compilations, the two psychics were able to name about 70 percent of the images correctly, compared to 20 percent expected by probability.

In addition to the existence of rival "idealistic" and "materialistic" cliques, there was a continuous effort on the part of publicity-conscious Edward Naumov to push for more research in psychokinesis, while the laboratory's director, Professor Kogan, favored telepathy experiments. Barbara Ivanova, then employed as a government translator, engaged in a series of experiments that included remote-viewing and distant healing. Larissa Vilenskaya, impressed by the performances of Rosa Kuleshova, investigated dermo-optic vision and developed techniques for teaching this ability.

One of Ivanova's early students, Boris Ivanov, eventually denounced her as bringing an "idealistic" taint to healing research. Ivanov himself specialized in "charging" water with "bio-energy," a technique that has long been examined by a Canadian researcher, Dr. Bernard Grad of McGill University, Montreal. After Ivanov left the Popov laboratory to continue his studies at the Institute of Molecular Genetics of the USSR Academy of Sciences, a curtain of secrecy dropped over his work.

Although tension within the laboratory was an everyday fact, researchers were surprised when it was suddenly closed in 1975. The Popov Institute's Presidium surveyed the laboratory's ten years of activity, stating that it had attracted specialists from various "disciplines interested in bio-information problems." It credited the laboratory with helping to form "objective public opinion" on its subject matter, while performing "several thousand" experiments.

The presidium concluded its summary with the finding that the lab had reached the limits of its capacity, claiming that it had become "impossible" to "achieve further progress in this area, based on public activity and without carefully planned research, financed at a level of the central government." To continue such studies "under prevailing conditions," it said, without modern instruments for physical and physiological experiments, would "lack perspective and would lead, and in part has already led, to an appearance of arbitrariness and lack of direction."

The report warned that continuation along the same path can only spread illusions with regard to the possibility of solving complex scientific problems, without paying serious attention to them, and leaning only on the individual enthusiasm of the society's workers." In this, the presidium echoed views expressed two years earlier by four leading psychologists in their status report on Problems of Philosophy.

One can sense, behind all this, the pervasive and permanent fear of "idealistic" infection. The Science Section of the Central Committee of the Communist Party had first backed those who saw parapsychology as supportive of materialism, but later seesawed in its ideological stance. Eventually, the KGB put its foot down and reorganized the Popov laboratory in 1978 along lines that favored military-oriented research.

The new unit, under the direction of academician Yuri Kobzarev, was established after three years of soul-searching. Professor Kobzarev is considered by Moscow parapsychologists as a sound scientist but, to the degree that this is possible within Soviet society, something of a "political innocent." As such, he occupies the position of an academic figurehead for the new Laboratory for Bio-Electronics, while the day-to-day functions of the unit rest in the firm hands of his deputy, a KGB functionary who had been active within the old laboratory and was instrumental in its eventual dissolution.

As it happened, his task in the old laboratory had not been an easy one. Members of the experimental group informally blocked what they regarded as "inhumane" experiments. This led to serious friction toward the end of 1974 and early 1975, and resulted in confrontations that disrupted the work.

The resident KGB operative was on guard against this sort of polarization within the new Laboratory of Bio-Electronics. Determined to avoid a repetition of the experience within the earlier laboratory, the authorities did not permit either within the unit's secretariat, its council, or the laboratory team, the presence of anyone who might oppose "inhumane" projects.

To enforce this policy, a strict screening process was established, complete with "Rules for Admittance to Membership in the Central Public Laboratory for Bio-Electronics" (December 7, 1978). The rules specified that all potential staff members had to be interviewed by the lab's directors, commit themselves in writing to adhere to the rules, file two passport-type portrait photographs, and submit a statement of three to four pages showing "familiarity with bio-electronic problems." The laboratory, in turn, established a file on each individual and issued an identity card.

Once admitted to the staff, members were forbidden to give lectures or publish papers "without the laboratory's prior permission." They were not permitted to "engage in any research concerning the structure, or the improved quality of biofields" outside the laboratory, without the prior permission of the Scientific-Technological Section.

In order to widen the geographic scope of bio-electronic research, Popov institutes in Leningrad, Kiev, Alma Ata, Kishinev, Taganrog, Minsk, and Tallin were urged to establish similar laboratories and to engage psychics for experiments.

In addition to KGB guidance of the Bio-Electronics Laboratory, the military was well represented among its officers. Among eighteen members selected on October 31, 1978, two were senior scientists at the Soviet Ministry of Defense: Jan I. Koltunov and Nikolai A. Nosov; a third, Mikhail A. Sukhikh, was a Candidate of Military Sciences at the Ministry of Defense.

An appraisal of the KGB's role in Russian parapsychology must acknowledge that the agency is an ever-present fact of Soviet life, rather than an omnisciently sinister force. Thus, when we observe that the KGB slowly tightened its hold on psychic studies, it simply means that - with a lot of backing and filling - it started to take the psychic potential seriously, examined it more closely, and began to guide its use toward serious application.

Evidence for this interest can be found in diverse areas. When emigre physicist August Stern reported on the carefully guarded operations of a parapsychology laboratory in Novosibirsk, he made two significant references to the KGB's role in the operation of this unit in particular and in parapsychology studies in general. He expressed the belief that two visitors who had inspected the Novosibirsk installations during its early days were KGB men, and stated that experiments in Leningrad and Novosibirsk were later reported to have been combined into one Moscow laboratory, operated under KGB auspices.

Dr. Stern understood in 1974 that all parapsychology tests had been curtailed, except for the "secret



KGB laboratory," but when he was told that something "important" and "very dangerous" had been discovered in the course of these laboratory experiments, Stern said, "I never believed it. How can the KGB do effective research? They need real scientists."

Stern, speaking from the elitist viewpoint of a scientist, may well have underestimated the results that can be achieved under police pressure, if not guidance. One American researcher has stated bluntly: "The KGB simply discovered or decided that parapsychological phenomena are real, that they work, that all theoretical wrangling be damned, and that the only thing that counts are results - and they just went ahead, full steam, to get more reliable results to suit their specific aims."

Edward Naumov, in his letter addressed to the science department of the Soviet Communist Party in 1974, made several references to the secret police, KGB as well as MVD (Ministry of Interior). He stated, on the one hand, that he had been accused by "investigative organs of the MVD of unlawful lecturing (that has been characterized as criminal), of illegally publicizing parapsychology, and of engaging in criminal activities."

On the other hand, he noted, the secret police had taken an active interest in parapsychology or psychotronics; specifically, one of the Soviet representatives at the International Conference on Psychotronics held in Prague in 1973 had been G.A. Samoylev, whom he identified as a colonel in the Academy of the National Militia of the MVD. He added that Samoylev had been elected Vice President for the Eastern Hemisphere of the International Association for Psychotronic Research.

The pattern that has emerged, of the KGB's rule in Soviet parapsychology is one of increasing secrecy about actual research within the USSR, accompanied by fluctuating tolerance or encouragement of the exposure of peripheral, irrelevant, or even inaccurate information concerning Soviet studies. Three stages in this process can be identified; they were influenced by the role and policies of Yuri V. Andropov, who held the post of KGB chairman from 1967 to 1982. On November 12, 1982, Andropov was named General Secretary of the Communist Party of the Soviet Union, the country's top position, succeeding Brezhnev, who had died a few days before.

The "golden age" of Soviet parapsychology, the first stage of its contemporary development, lasted through most of the 1960s. It began with Professor Vasiliev's spirited advocacy of the research he had long proposed; it became obscured after Andropov took control of the KGB, which intruded more firmly into scientific activities, including the monitoring, supervision, and actual conducting of experiments.

From mid-1968 on, and quite noticeably by 1970, contact between Soviet parapsychologists and their colleagues abroad began to dry up. By 1975, the Laboratory for Bio-Communication was disbanded. Publication of findings by such authorities as Professor Kogan ceased, while rumors concerning KGB-operated laboratories circulated. This was a period of transition, with new plans made, blueprints prepared, staff tentatively selected, some projects at least publicly abandoned, and others pursued in an exploratory, probing, and even confused manner.

The stage was set for a power struggle over the controversial parapsychology field, with ideological and practical considerations providing impetus for a tug-of-war, partly doctrinal and partly

bureaucratic rivalry.

In the struggle for allocation of control over parapsychological research, changes took place gradually. The main contender for control was the Psychology Establishment. Its position was temporarily strengthened in 1973. One critical development was the apparently successful treatment of Leonid Brezhnev by a prominent practitioner of acupuncture, a native of Outer Mongolia known among the Moscow elite only as "Lobsang." Brezhnev has on several occasions been treated by non-medical practitioners, including the Georgian healer Dzhuna Davitashvili (see Chapter 13, "Dzhuna the Healer").

Just as Prime Minister Nikita Khrushchev became fascinated with Indian fakir demonstrations and subsequently encouraged related psychic studies, Brezhnev's personal experiences may well have prompted him to be tolerant of parapsychological research. If so, a parallel development strengthened interest in psychic matters still further. In the summer of 1973, the attention of one of the most prominent Soviet psychologists, Professor A. R. Luria, was drawn to a puzzling case of apparent clairvoyance or telepathy. A psychiatric colleague of Dr. Luria was treating a woman suffering from a terminal brain tumor in the occipital region; she displayed what to him were uncanny skills of "mind-reading" and other cognitive abilities.

It became a matter of lively conversation in Moscow psychiatric circles at the time that Dr. Luria was on his way to visit this patient when she told her attending psychiatrist that the noted psychologist was in the building; in fact, the woman was said to have been able to trace his movements from one floor to another by means of extrasensory perception. Details on tests made by Dr. Luria with this patient are not known. He was, however, said to have been so profoundly impressed by this patient, who subsequently died, that he decided to take a personal initiative in pressing for intensified parapsychological studies.

Luria's interest prompted the publication of a definitive position paper, which he co-authored with three other leading psychologists. The paper, whose complete text may be found in the Appendix of this book, attracted particular attention, as it was not published in the "house organ" of the Psychology Establishment, *Problems of Psychology*, but in the leading Soviet ideological journal, *Problems of Philosophy*. The main thrust of the paper was that parapsychology should be taken away from amateurs and placed in the hands of research institutes under the direction of psychologists.

The Psychology Establishment did not win this round in the continuing bureaucratic struggle. At least publicly, parapsychology laboratories were not placed - or at least not exclusively so - in psychology institutes. Yet such allocations are not clear-cut. Moscow's Serbsky Central Scientific Institute of Forensic Psychiatry, which commands the facilities and staff needed for research in "biocommunication," "bio-energetics," and so on, may well engage in such studies. One of the Serbsky's leading officials, Dr. R. Lunts, was identified in the U.S. Defense Intelligence Agency's report on "Controlled Offensive Behavior - USSR" as a "possible KGB Colonel."

A third period in the RGB's role in Soviet parapsychology began in the 1970s and is continuing. Seesawing between various academic and other interest groups, possibly including different sections within the vast KGB organization itself, may never be fully resolved - if only because

parapsychology, as defined and explored in the USSR, intrudes into a variety of scientific disciplines, ranging from psychology to physics, from medicine to warfare. Nor has infighting between proponents and opponents of Soviet parapsychology come to an end. Among the many layers of governmental and scholarly interests, pressures and shifts are continuous, inside as well as outside parapsychology.

Looked at from a distance, the backing and filling on parapsychology - as in psychology and sociology, to name two major disciplines - may reflect conflicts between several KGB sections, or "Directorates." One reason is the amorphous nature of the researches themselves; another is the agency's structure, divided into units that operate in self-contained secrecy, often from each other.

The KGB's influence on scientific research generally has been uneven. While it has the task of assuring maximum ideological and political loyalty among scientists, it must also encourage optimum productivity. This calls for a relatively open exchange of information, including a monitoring of scientific developments abroad. But the sheer volume of data in science and technology available openly - at meetings, in journals and books - in the United States, Western Europe, and Japan during any given day must severely tax the transmission and translation facilities available to Soviet science. The skilled manpower needed to evaluate, analyze, and apply such data is limited. Soviet scholars find KGB censorship of incoming mail uneven and heavy-handed; publications are often simply stolen in transit and sold on a specialized black market.

Soviet science, arts, and literature experienced a "thaw" of several years during the regime of Nikita Khrushchev. When direction of the KGB was taken over by Andropov, controls over Soviet society were tightened; flexibility, unpredictability, and changes in policies have characterized the agency's operations ever since.

The KGB's relations to the national and regional Academies of Sciences have traditionally been most delicate. In the past, the Soviet Academy of Sciences, with a budget of some \$25 billion per year, managed to retain a degree of autonomy. In 1975, foreign observers detected a distinct tightening-up of KGB and Communist Party control over the academy. The weekly magazine *U.S. News & World Report* (March 1, 1967) described this development as "one of the most important Soviet internal changes since World War II." The magazine quoted one analyst as saying "It is right up there with Stalin's death and the reversal of Khrushchev's reforms, because it destroyed the only important island of independence left in the country."

When the four psychologists made their pitch for control of parapsychology by the Soviet Psychology Establishment in 1973 (see Appendix), their effort was no mere attack on self-styled parapsychologists, but an attempt by the Psychology Section of the Academy of Sciences to keep parapsychology from slipping into KGB and military hands. The KGB appears to have won this academic-bureaucratic tug-of-war.

That the KGB, its resources stretched far and wide, at home and abroad, should take as much interest in parapsychology as it apparently does, remains intriguing. At least two KGB departments have been involved: (1) the Scientific and Technical Directorate, also known as Directorate T; and (2) the "Disinformation Department," a special unit that concerns itself with guiding visitors, including

touring scientists.

This brings us to a crucial question: To what degree have foreign parapsychologists been kept away from researchers and projects that represent major Soviet interests, and sidetracked toward the peripheral, innocuous "hobbies" of naive enthusiasts and amateurs, or to actual "disinformation" dispensed by KGB plants?

Experiences recorded by individual visitors provide at least a partial answer. One visiting researcher, U.S. parapsychologist Dr. J. Gaither Pratt (1910-1979), served successively at the Parapsychology Laboratory of Duke University and at the Division of Parapsychology, University of Virginia School of Medicine. Dr. Pratt, who described his findings in a book, *ESP Research Today* (1973), arrived in the Soviet Union with top credentials in his field, rather than as a casually curious tourist or as a journalistic observer in search of a "good story."

Dr. Pratt's was not a single hit-or-miss journey, either. He made three visits during the 1960s, plus one each in 1970, 1971, and 1972. Yet in the end he was unable to conduct or observe a single well-controlled experiment. Pratt was received cordially enough. During his first trip, in 1962, he met with Professor Vasiliev and his staff in the physiology department of Leningrad University. At their initial meeting, Vasiliev briefed Pratt on the work he and his associates had done in the past. The second day, Dr. Pratt was questioned by the group for seven hours "about all aspects of parapsychology in the West."

The patient, soft-spoken Pratt, who himself had done research in just about every aspect of parapsychology, at last "claimed the right of asking them some questions and getting their answers" on the third and final day of his visit. Vasiliev was not present. The questions-and-answer period lasted three hours, but the replies were meager.

The Leningrad researchers first told Pratt what they did not plan to do, such as continue Vasiliev's work in hypnosis-at-a-distance. But what, Pratt asked, "are you actually doing?" He was told that this question could only be answered once research projects had been "completed and properly reported in the scientific literature." Although disappointed by this lack of response from his professional colleagues, Dr. Pratt left with the feeling that he had "much in common" with his Leningrad hosts.

Pratt returned in November 1963. First he stopped over in Moscow, where Naumov persuaded him to give a talk at Friendship House. The Leningrad visit that followed did not differ greatly from the previous year's, although there was a cordial dinner at the House of Scientists. As Pratt recalled, "Neither my hosts nor I had any startling scientific news to disclose." Vasiliev spoke of his physiological approach and outlined several directions that research along these lines might take. This was their last encounter; Pratt heard of Vasiliev's death early in 1966.

Pratt noted in his book that, in 1967, Naumov began using the letterhead "Department of Technical Parapsychology," signing himself as director and inviting participants to a Moscow conference in December of that year. "For reasons that were not fully explained," Pratt wrote, "this conference was postponed." The meeting eventually did take place, in June 1968, in an atmosphere of tension and confusion; instead of lasting a whole week, it was telescoped down to two hectic days.

True, the Soviet Union was on the verge of its August invasion of Czechoslovakia, but the conference itself was under the shadow of the Pravda report that some participants regarded as an open attack on parapsychology in general. Friendship House was closed to them, and the second session, partly devoted to a film of Nina Kulagina, took place at the Czechoslovak Embassy. Pratt heard later that the Pravda story was "not a reflection of official disapproval of parapsychology" and that the withdrawal of hospitality by the House of Friendship was "a local matter, a case of 'discretion is the better part of valor.'" Pratt found the Kulagina film "the most exciting scientific news to come out of the gathering" and made plans for a firsthand examination. An opportunity for such a test finally arose in 1970, when Dr. Pratt arrived in Leningrad from Prague, accompanied by Mr. Champe Ransom, a colleague from the University of Virginia. (See Chapter 6, "If Thoughts Can Kill ...")

Pratt called this visit a "brief and informal firsthand observation"; it was followed by a trip that Pratt and Dr. Jurgen Keil, a psychologist from the University of Tasmania, made the following February. They had envisioned it as a "first serious effort to make our own study of Kulagina," and hoped to stay for two weeks. As noted earlier, Pratt was disappointed in this hope, as in later efforts to study Nina Kulagina.

Dr. Pratt, alternatively encouraged and frustrated by his six visits, observed a "widespread interest in this field in the USSR, not only among the general public but also at the scientific and intellectual level." He noted as "another inescapable fact" a "strong opposition to parapsychology in orthodox scientific circles as well as at different political levels." Pratt observed that "recent political developments" in the Soviet Union had once again "interfered to some degree with the growth of interest there in ESP."

Dr. Pratt wrote this analysis before the statement by the four Soviet psychologists, before Naumov's arrest, imprisonment, and subsequent return to further activity, and prior to the partial blackout on the work of such researchers as Professor Kogan. Nevertheless, his observations have not lost their validity, precisely because they were made during the time when KGB influence moved Soviet parapsychology from its first to its second stage. Pratt cautioned against a deprecating Western view that would dismiss Russian interest in parapsychology as "much ado about nothing." In his opinion, Soviet studies were not to be met with excessive enthusiasm or expectations, but neither should they be prejudged or downgraded.

At the time Dr. Pratt wrote his book, he was able to say that "perhaps the strongest impression formed by visitors to the ESP conference in Moscow in 1968 was that the group around Naumov comprised a closely knit, highly motivated corps of investigators and scholars who were active in the field." Since then, Edward Naumov has broken with Sergeyev in Leningrad. Barbara Ivanova and Larissa Vilenskaya became estranged from him, and Vilenskaya left the country. Ivanova now maintains that Naumov "no longer does any real research, but restricts himself to the publicizing of parapsychology." In other words, the once "closely knit and highly motivated corps" no longer functions - at least partly because Naumov returned from a labor camp a puzzled and wary man.

Did the KGB plan it that way? Was this the result of a tactic that led from stage two to stage three in Soviet parapsychology? And if so, why?

One major clue came from former KGB chief Andropov himself. On the anniversary of Lenin's birth, April 22, 1976, he made the keynote speech during a commemorative ceremony in Moscow. A major aspect of his address was a reference to mounting demands on Soviet resources by the armed forces, the "burden of armaments" on the nation's economy. From the very start, Soviet interest in parapsychology has been strengthened by the financially attractive concept that such skills as psychokinesis (telekinesis) and clairvoyance (remote-viewing) promise economic shortcuts. Being able to divert a military antagonist's electronic weapons system through mind-over-matter, or studying his contingency plans or hidden weapons by remote-viewing, would be vastly cheaper than any form of conventional or advanced military technique.

Soviet ideology, Marxian theories aside, is essentially pragmatic, and in that sense utterly materialistic. The KGB's role in Soviet parapsychology, whether in testing psychics or boosting telepathic powers through drugs, hypnosis, or electronics, is geared toward results. If experiments succeed in reducing the "burden of armaments" by replacing even a single spy satellite with the mind of a clairvoyant, so much the better.

Vast numbers of potential subjects are easily available to the KGB for psychic testing, including members of the armed forces, millions of students, the memberships of the Komsomol (Communist Youth) and of the Communist Party, as well as employees of various government and academic institutions.

Tests of psychic potential can easily be incorporated into innocuous questionnaires, tests of psychomotor skills, psycho-physiological experiments, or multiple-choice tests. Even the institutions charged with administering such tests need not be aware of their ultimate aim: to select men and women of telepathic or other psychic abilities. As the KGB is widely represented in all major governmental organizations, in the armed services, in educational, cultural, and economic groupings, tests can be organized nationwide from a central body, and later collected and screened, again at a single point. All it would take is a clear-cut policy, a well-designed overall plan, and thorough organization. The KGB is well equipped to execute such a procedure.

## 15 - An Astronaut Speaks Out

Soviet researchers have been fascinated by two reports on parapsychology experiments in the United States: the controversial account of telepathy tests with the nuclear submarine Nautilus, and the ESP tests made by Captain Edgar D. Mitchell during the Apollo 14 space flight to the moon in February 1971. Today, Capt. Mitchell, who holds a Doctor of Science degree in Aeronautics/Astronautics from the Massachusetts Institute of Technology and three honorary doctorates, is an independent business executive-entrepreneur with headquarters in West Palm Beach, Florida, and Founder-Chairman of the Institute of Noetic Sciences, San Francisco, California.

When four leading Soviet psychologists published a survey article on parapsychology in 1973, they accused the daily newspaper of the Young Communist League, Komsomolskaya Pravda, of exaggerating the "positive results" of Dr. Mitchell's ESP tests during the Apollo mission. What, then, are Mitchell's own views at this time? And what, exactly, were the results of his pioneer experiments from the Apollo space capsule?

The author put a series of questions to Capt. Mitchell, which are published below with the former astronaut's replies. Further on, the Apollo tests are summarized; they have a bearing on current and future research, as well as on Mitchell's views today.

**Martin Ebon:** How has your own thinking evolved during the near-decade since the Apollo space flight?

**Edgar D. Mitchell:** It is certainly true that my thinking has changed considerably, or shall we say that it has evolved since I saw that early outline of things yet to come. Since then, the pieces of the mosaic have been filled in by many experiences, trends, and developments that have taken place during the past ten years. I never envisioned research in parapsychology, even during those early days, as an end in itself, but as a means toward gaining a greater understanding of human capability. To the degree that such capability could not be expressed in terms of conventional science, these investigations became a method for expanding the view of science, as it attempts to investigate nature.

During the intervening years, my work, as well as the work of parapsychology in general, has convinced me that the human organism is capable of all of the events we study in parapsychology: telepathy, clairvoyance, precognition, and psychokinesis. Having established this to my own satisfaction - if not fully to the satisfaction of all skeptics - I have chosen to move on to study the implications to our thinking, to our growth patterns, and to science itself, of the factual nature of events of this type. Our current world view does not include such capabilities; then, what kind of world view would? I have further become convinced that these are not isolated capabilities, rare in the human species, but a generalized capability that is emerging as we learn how to develop it within ourselves.

It is clear to me at this time that as we delve into the inner world of our own capabilities, and try to better understand our intrinsic nature, the psychic abilities are the least important of all the hidden talents we possess. To the extent that psychic abilities manifest occasionally in all people, and quite consistently in some rare individuals, they are only indicative of the hidden potential that resides in

the human nature. What has changed also, in the last ten years, is my attitude toward science and society in general.

In the early days I was much concerned that we follow a rigorous scientific protocol in investigating "psychic" phenomena; today, I am far less concerned because I recognize that classic methods in science, developed by study of the external world, are very poorly suited to the study of intrinsic human nature. Not to say that classic scientific methodology is barren or useless - not at all; it is, however, unnecessarily restrictive when searching for knowledge in the deep recesses of the inner world. I can sum it up by saying that it is folly to think that nature would change itself to conform to our methods of investigation. We must be open enough to change our methods of investigation to reveal truths about the Universe.

ME: We have the research tradition of largely quantitative parapsychology experiments in this country. The younger generation of researchers seems restless about it, and the Russians certainly don't seem to engage in long test runs that can be quantified and offer a broad statistical base. What are your views on this discussion?

EDM: I don't believe that statistical analyses prove anything, nor are they usually necessary. They simply help us isolate very low-grade signals in a mass of noise. When we are trying to discover rare events in people's lives, we have to use statistics to show that we have a rare event. On the other hand, what we're truly looking for is knowledge about the rare event, and statistics are of little help. Of course, the younger researchers are frustrated with statistical techniques, primarily because we can now elicit and study the phenomena without using statistical techniques, and do so in a much more powerful and productive way. This is simply another indication that when we truly understand the real nature of human potentiality, and stop trying to make it conform to our ideas of truth, we will make far greater progress.

ME: Reports of Soviet experiments in long-distance telepathy suggest that they ignore quantitative, statistical methods and use imaginative and dramatic experimental patterns. Is that your impression?

EDM: From the accounts I have seen, I'd say that I totally agree on this point. The Soviet scientists just do not seem to have the hangup with methodology that we have, and are thus inclined to be much more imaginative and dramatic. I think this occurs when you pass the point of being defensive about the existence of these events, and try to understand the nature of the events. I long ago gave up trying to convince the skeptics of the reality of what we're doing. It was a total waste of time. I much prefer putting resources and effort into imaginative techniques for learning more about ourselves, than in endlessly repeating controlled experiments in a vain effort to convince those who do not want to be convinced that there is something to look at.

ME: Isn't much of the published Soviet research either so badly documented as to be irrelevant, or little more than "misdirection," designed to lead Western analysts astray?

EDM: I do not think the work in the Soviet Union is irrelevant, and I really don't believe that an attempt to "misdirect" would be very successful in the long run, although I'm quite sure that officialdom would enjoy seeing us deceived. On the other hand, we are so ridiculously slow in coming



into an acceptance of this type of research that the Soviets don't give us much thought, one way or the other. I am also certain that, to the extent they intend to use much of their work for intelligence and control purposes, a large portion of it is classified and not available to the scientific world in general.

ME: Are there any specific areas that are likely to enjoy Soviet priorities in the intelligence and general military fields?

EDM: I've come to believe less and less in anyone's ability to truly develop psychic abilities to a consistent and well-controlled level, if the motivation is to use them in intelligence, military, or hostile application. Perhaps it is possible. I believe, however, that the inner conflict created by such use is almost certain to cause great difficulties for the individuals who use their abilities in this way. It is my own view that spiritual values and psychic capabilities are really inseparable, and that proper development and use of our higher capabilities requires a value system that makes a destructive or nefarious application of these potentialities very difficult. Thus I have difficulty answering any question relating to intelligence-gathering, conflict, and war potential. I simply will not study it, I do not find it of interest to me, nor do I think it has any long-range capability that I want to be concerned with. Those who believe differently must find such answers themselves.

ME: Is the use of drugs and hypnosis likely to aid human ability to use extrasensory perception?

EDM: I believe that hypnosis and drugs, both, can heighten - at least, temporarily - the higher capabilities, but when used as an end in themselves, they are highly destructive to the individual. Hypnosis or suggestion is certainly a very powerful tool in enabling individuals to reach their inner resources and to develop their highest capabilities; but it also stirs, within the individual, the need to have a value system to govern these higher capabilities.

ME: Does this also apply to hypnosis-at-a-distance?

EDM: I have no doubt that hypnosis-at-a-distance can be practiced effectively, provided the individual is receptive to and desirous of it. I do not believe, however, that it can be done without the cooperation of the subject.

ME: We hear nothing of remote-viewing in the Soviet Union. Still, it would seem almost self-evident that Russian scientists are experimenting with it.

EDM: We can be reasonably certain that the Soviets are doing remote-viewing, and probably doing it under the "classified" label, for intelligence purposes, because this seems to be one of the easiest capabilities to elicit in a subject. Simply by relaxation and allowing your mind to work, I think we can make fairly rapid progress - as can they - in this field.

ME: I sense a certain impatience among U.S. parapsychologists with the kind of reports on Soviet experiments that used to fascinate, but don't any longer. Specifically, the demonstrations by Nina Kulagina in Leningrad, which were never tightly controlled, appear to have fallen out of favor.

EDM: I really see no purpose in continuing to look at the same old stuff, such as Kulagina or [Alia]

Vinogradava have been doing, especially when Bob Jahn, down at Princeton, is doing far more exciting original work [Professor Robert G. Jahn is Dean of the School of Engineering and Applied Science, Princeton University], and doing it in a scientifically credible setting. Frankly, I'm quite discouraged with most U.S. parapsychologists, as I believe they have a very limited view, and generally just hack the old data over and over again, hoping to discover something new - and, of course, they never will! It takes creativity and imagination to really see through these events and recognize where they are coming from. I find neither the Kulagina phenomena, nor Uri Geller's exceptional abilities [the Israeli psychic who specialized in bending keys and forks by "mind" power] of interest anymore. We know they can do it. Certainly it was important at that time, but that's been years ago, and there's no point in wasting our time in rehashing old events. I have moved to broader areas of concern.

ME: What do you think happened to prompt the cut-off in parapsychology information from the Soviet Union, after the "honeymoon" of the early 1960s?

EDM: There was probably a change in the policy within the Soviet government, as it began to recognize - at least, in its perception - that here was a new tool they could use for intelligence and military purposes, and that has put it under a wrap of secrecy. And I'm quite sure the imprisonment, in 1974, of Naumov was for not quite going along, readily, with the party line.

ME: What should we, in the United States, be doing in parapsychology, on the government level and in purely private, academic research? And what are you and the Institute of Noetic Sciences doing at present?

EDM: Since government pretty well fouls up everything they touch, I'd just as soon the government stay out of it as much as possible, but, of course, encourage research in the private and academic areas. Despite my critical remarks, I believe that research in parapsychology should continue; however, I truly believe that exciting results will be achieved in physics and mathematics, which will allow us to understand the higher realms of human capability, including psychic capabilities. This research suggests a new world view, uses holograms as a model, implies that the universe is more like thought than substance, and continues to move toward a unified theory, which currently descends more from mysticism than from traditional science.

At the Institute of Noetic Sciences we are far more concerned with the implications of this new world model; we are concerned with the transformation in social systems that it implies, based on the transformation of individuals, as they start to understand their true potential and begin to comprehend the value systems and the personal discipline necessary to achieve that transformation. We are doing very little work in the area of parapsychology, although we follow it with keen interest, hoping that it may provide some insight. But we're really more concerned with the process of transformation that provides greater insights into our higher capabilities. Psychic subject matter thus becomes quite secondary, peripheral and tangential to the total effort, which, in my view, it has always been. For reasons of expediency and credibility, we didn't say that ten years ago.

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The experiments undertaken by Professor Jahn of Princeton University, which Dr. Mitchell regarded as "exciting original work" in a "scientifically credible setting," were outlined by Jahn at the Seventeenth Annual Briefing of the Council for the Advancement of Science Writing in Palo Alto, California, on November 9, 1979. The tests he arranged were in the field of "controlled, low-level psychokinesis, using relatively simple physical systems - mechanical, optical, thermal, electrical, atomic, etc. - each of which involves a specific element or process that is vulnerable to disturbance, and which signifies such disturbance by a relatively large change in some feedback display for the subject."

Other experimenters, under Jahn's guidance, monitored possible psychokinetic influence on "deviations in temperature of thermistors to one-thousandth of a degree with a progressive pattern of colored lights; the variations in electrical noise from a solid-state diode interface with an illuminated digital display; or the development of the statistical deflections of 10,000 marbles cascading through an array of obstructing pins by direct visual and photographic observation." Professor Jahn cautioned that "it is far too early to claim any definitive results from these experiments." He noted that some effects appeared to be "classically inexplicable," but had varied from experiment to experiment, subject to subject, and even from day to day.

A minor portion of the Princeton program was designed to deal with remote-viewing, or "remote perception." In a series of experiments resembling those undertaken at the Stanford Research Institute (See Chapter 16, "The View from Menlo Park"), a subject "attempts to perceive aspects of a randomly selected target scene in which a colleague in the experiment, termed the agent, is immersed at a given time." The percipient records his impressions of the target, and an effort is made to replace the "subjective human judging process" by "a more analytical method for evaluation of the degree of information transfer in such perception efforts." These experiments differed from the SRI tests in that, at Princeton, efforts were made to bring about "the precognition mode of remote perception," which meant that the subject tried to anticipate which target would become the focus of the test.

Capt. Mitchell's unprecedented ESP experiment from the Apollo 14 space capsule took place during the moon flight that began on January 31, 1971. He had planned a space-to-earth transmission each day: February 1, 2, 3, 4, 7, and 8. His tool, pages from the flight data file, contained columns providing twenty-five numbers, in random order, per column. Mitchell used a set of five standard ESP test cards: white cards, each with a black imprint of a square, circle, star, wavy lines, or cross.

Mitchell converted one column of twenty-five numbers to the corresponding symbols. His project called for a different number of columns and a changed ordering of symbols for each day, for a total of six columns. As he made his entries, Edgar Mitchell concentrated on each symbol for about fifteen seconds. This gave his four ESP recipients on earth time to tune in on the sign. If they managed to "read" the symbols on his record sheet, they would be practicing clairvoyance. If they linked up with Mitchell's mind, it would be telepathy. Both techniques could be called "remote-viewing."

Here was the challenge: Would their "guesses" parallel those of the astronaut, out in space? Might they tune in on him more accurately than pure chance permitted? If the recipients on earth guessed close to an average five out of twenty-five symbols correctly, results would be no more than chance. But if they guessed enough above, or even below, their extrasensory perception would have bridged thousands of miles beyond earth. If they guessed statistically below chance, their performance would

amount to "psi missing," indicating an unconscious avoidance of the ESP targets.

Mitchell, whose main task on the mission was exploration of the moon's surface, had planned to use his six rest periods to make ESP contact with earth. However, as he later wrote in the *Journal of Parapsychology* (June 1971) the revised Apollo schedule, including minor emergencies, gave him only four opportunities to use about twenty minutes for tests.

Mitchell was able to "transmit" on the first day of the schedule, but not during the second and fourth days. The earth receivers did not know this, of course; they dutifully "tuned-in" on him and recorded impressions when Mitchell was not yet seeking contact with them. In other words, they guessed ahead, presumably practicing precognition.

Capt. Mitchell used the letters A, B, C, and D to identify the psychics who were supposed to tune in on him. He spoke of Subject A as "the most eager of the four"; this was Swedish-born Olof Jonsson of Chicago. An initial analysis of the results showed that A's and B's first four runs - two hundred guesses in all - had hit the targets correctly fifty-one times. As chance hits would number only forty, these results amounted to odds of twenty to one. This amounts to statistically significant results of 5 percent, but most parapsychologists prefer odds of fifty to one to satisfy their standards.

A second statistical evaluation was made at the Parapsychology Laboratory of Duke University when Dr. Mitchell visited Dr. J. B. Rhine and his staff. The Rhine group decided to let the A and B results stand by themselves, but evaluate the remaining guesses against Mitchell's target runs closest in time. The results, odd enough to be startling, were remarkably below chance. Mitchell observed that "these 12 runs gave a strikingly low total of 35 hits, with 60 expected by chance." He added: "This is so far below chance ( - 25) that the odds are approximately 3,000 to 1 against it being a chance result." He summarized the results:

"Thus the Second Analysis gives a highly significant result, indicating ESP in this extreme target avoidance. In fact, all four subjects appeared to be discriminating against time proximity. The seven calendar date runs were much the lowest of all the scores. This is the familiar psi missing effect, and the two analyses together suggest that the subjects were positively oriented toward the sequential order and negatively toward time proximity."

Dr. Mitchell's interest in psychic subject matters continued after the Apollo flight. He devoted himself to the Institute of Noetic Sciences, as well as to a variety of business enterprises. As his ideas evolved, he presented them to the International Institute of Engineering at a meeting in New York (April 19 to 21, 1977). Speaking on the topic "A Look at the Exceptional," he established four categories in which "satisfactorily safe" mind training might be undertaken. In the first category, "animate awareness," Mitchell included the "traditional categories of telepathy and pre- and post-cognition," as well as "self-awareness and awareness of other animate life forms." The second category, "matter awareness," according to Mitchell includes not only these traditional categories, but also encompasses "information received" that "pertains to other than the animate universe."

Dr. Mitchell defined the third category, "animate control," this way: "This category is concerned with the active processes of exerting direct or indirect influence on another individual or group of

individuals by extraordinary means and includes, as a subset, control of other forms of animate life. It also includes, as a subset, the ability to control one's own physical mechanisms beyond the boundaries currently understood in classical psychology and physiology." As a fourth category, Mitchell defined "matter control," to include "the traditional notion of telekinesis or psychokinesis as applied to the inanimate universe."

Mitchell expressed a positive view of the results that might be achieved if psychic capabilities were to become general. He asked, "What would it be like to live in a society where one's inner feelings, state of mind and covert motivations could be perceived directly?" He foresaw that "duplicity, dishonesty and deception would no longer be useful characteristics. With awareness fully developed in a social structure, individuals would either become totally honest, with life as an open book, or become paranoid from one's baser motivations being continually perceived."

As expressed in the interview cited earlier in this chapter, Mitchell sees grave psychological dangers for individuals who try to use their psychic capacities for warfare purposes. He said that fully developed awareness would prompt "the diplomatic, political, military and promotional games that society currently enjoys" to "fall apart." The alternative to such a development would be an "awareness race" in which "adversaries engage in the self-defeating practice of keeping score and out-maneuvering the other's deception." This would differ from current practice only in "speed and directness." But he advanced this positive, individual alternative:

"An important element of animate awareness is deeper self-awareness. Achievement of greater awareness of other living systems is not as likely to occur without first, or at least concurrently, achieving greater self-awareness. Being able to discern accurately and honestly one's own condition, needs, and motivations may, in the final analysis, be the most important social advance to evolve from our exploration of extraordinary mental functioning."

## 16 - The View From Menlo Park

Experiments involving submarines play a dramatic role in Soviet-American parapsychology rivalry. The reader will recall that today's psychic studies in the Soviet Union only began in earnest when Leningrad researchers heard of alleged U.S. Navy experiments using telepathy to communicate with a submarine. Later, Soviet authorities were irritated that details of a Russian test in crisis telepathy involving a mother rabbit, which linked a naval station to a submerged submarine, were reported to American visitors in Moscow.

But in both cases, no documented account of the tests was ever made public. Quite the reverse is true in the case of the Taurus, a small submarine with only a five-man crew, used in 1977 for so-called remote-viewing. The Taurus test was part of an ongoing series of experiments at Menlo Park, California, undertaken at the Stanford Research Institute, now SRI International, by Dr. Harold E. Puthoff, Mr. Russell Targ, and Dr. Edwin C. May. The essence of these experiments is use of the human mind to reach out, locate, and describe a physical target at a distance.

This submarine test was reported by Puthoff, Targ, and May as "Long-Distance Remote Viewing from a Submarine" in their paper on Experimental Psi Research: Implications for Physics, delivered at the 145th National Meeting of the American Association for the Advancement of Science, at Houston, January 3 to 8, 1979. They reported that the submarine was placed in "several hundred feet of seawater, approximately 500 miles from the target site."

After years of refining their methods, the researchers had developed specific techniques for using psychics to "tune in" on remote targets and describing what they saw. Putting a psychic into a submarine, sending it out to sea, and then submerging it, gave them "an opportunity to investigate the remote viewing phenomenon under conditions of increased distance and shielding" from outside influences. Among the factors they wanted to eliminate was the possible influence of all but the lowest frequencies of the electromagnetic spectrum.

These remote-viewing experiments, including the researchers' concern with biological as well as electronic interaction, must surely be of great interest to Soviet researchers. There can be little doubt that (a) the Menlo Park experiments are monitored in the Soviet Union with attention and fascination, and (b) that experiments of a similar or virtually identical nature are going on in Russian research institutes. But, perhaps because of the serious nature of these experiments and their potential usefulness in psychic warfare terms, the SRI tests have not been mentioned in Soviet technical journals available to the public, nor is there any concrete evidence that equivalent experiments are, in fact, under way in the USSR.

By the inverse ratio of silence and noise in a controlled society (much shouting about essentially irrelevant projects, but official silence on truly significant undertakings), we may assume that Soviet research in remote-viewing has been going on for years. The U.S. studies in this area should, therefore, be evaluated as if they were duplicated or excelled in several Soviet institutes, employing a fairly large number of scientists and subjects.

The Taurus experiment took place while the little vessel lay submerged near Santa Catalina Island, off

the coast of southern California. In advance of the test, six different targets had been picked, five hundred miles away, in the San Francisco Bay Area. According to research protocol, neither the psychic inside the submarine nor the experimenter who was with him had any idea of what the target areas were.

While these two were inside the submerged Taurus, two other experimenters, the "target demarcation team," visited one of the six possible target areas - picked by a random-selection method - and stayed there for fifteen minutes at a prearranged time.

This procedure took place twice. First, the submarine was taken to a depth of 170 meters; the psychic, or subject, correctly picked the target: a large tree. The research report stated that the tree was accurately described as "framed against a dropoff," and the psychic "had no difficulty choosing the correct target from the list of six potential targets." During the test, which took place on July 16, 1977, the subject described the target in these words: "A very tall looming object. A very, very huge, tall tree and a lot of space behind them. There almost feels like there is a dropoff or a palisade or a cliff behind them." The big oak was, in fact, surrounded by a clump of smaller trees and underbrush. The setting was a hilltop in the Portola Valley.

For the second test, the submarine was seventy-eight meters deep. A new list of targets had been put together, and this time a shopping mall in Mountain View, California, had been selected. On the scene, the target demarcation team walked around, and the psychic in the faroff, submerged Taurus, said: "Flat stone flooring, walls, small pool, reddish stone walk, large doors, walking around, an enclosed space." The psychic also made a rough drawing of the area.

In psychic research, this kind of skill is called telepathy or clairvoyance. Telepathy is defined as mind-to-mind communication, while clairvoyance is used to mean the mind's ability to view a setting or event directly, without another human mind acting as intermediary. Puthoff, Targ, and May speak of remote-viewing as part of the "so-called psi process," which they describe as "a class of interactions between consciousness and the physical world, as yet unexplained." They avoid such words as "brain" and "mind," as no one really knows how the whole process operates, or what human organs or energy forces are active in it.

The SRI research team also concerns itself with the second area that has attracted the attention of Soviet researchers, called psychokinesis by U.S. and other Western parapsychologists and telekinesis (actually a word used earlier in the century in the West) in the Soviet Union. The Menlo Park team refers to it as "the production of physical effects not mediated by any obvious mechanism" - in other words, a mind-over-matter effect.

Mainly, though, Puthoff, Targ, and May have concentrated on what they call remote-viewing, which to them is "the ability of certain individuals to access and describe, by means of mental processes, information blocked from ordinary perception by distance or shielding." The layman, letting his mind wander, can conjure up amazing possibilities for this sort of operation, in peace or war. When, in the fall of 1979, President Jimmy Carter had to deal with the problem of what a brigade of some two thousand to three thousand Soviet troops were doing in Cuba, air reconnaissance alone could not clear up the mystery, and the United States had no reliable on-the-ground information that might have

provided a clear picture.

Why not, then, have a psychic with remote-viewing ability try to zero-in on the barracks and drill grounds of the Soviet brigade - perhaps even on a submarine submerged near the coast of Cuba - and obtain a series of target-impressions? In theory, such intelligence-gathering would appear to be no more than an extension of the remote-viewing done from the submerged Taurus - although differing in several respects, such as exploring a specific target, rather than picking one out of a group. But, in a way, would that not be easier?

To get a better understanding of the potential and limitations of remote-viewing, one must see the SRI experiments in their entirety. Critics of the remote-viewing studies have expressed doubts about their design, control, and methods. They say that the experimenters, Targ and Puthoff in particular, are too engrossed in their project, and thus too biased toward its success, that they may have permitted themselves to be hoodwinked by conjuring tricks on the part of psychics, or have fallen victims to their own will-to-believe.

The experimenters have sought to take critiques, one at a time, and adjust their testing methods to eliminate any flaws. Since publication of their book *Mind Reach* (1977), their first accounting to the general public, the SRI researchers have tightened experimental designs while broadening the scope of their tests. Specifically, they moved from remote-viewing within a radius of some thirty miles from the Stanford Research Institute, setting up long-distance experiments across the continental United States. Another series of projects dealt with the viewing of mini-targets hidden in small, light-tight metal containers.

That, in anybody's language, is spying on a major as well as minor scale. This type of experiment lies in the realm of hard-nosed, practical intelligence-gathering techniques, though with an imaginative psychic touch. The SRI researchers now believe that just about anyone has potential remote-viewing abilities, although - as in all human gifts - some are better at it than others; also, subjects' skills can be developed, trained, and focused. The researchers learned the hard way that subjects who interpreted what they saw were very often wrong. When they limited themselves to a factual description of a scene or object, and left analysis to others, fewer errors crept in. One early volunteer, Richard Bach, author of *Jonathan Livingston Seagull*, interpreted as the check-in counter of an airline, what was actually the altar of a church. He described the interior setting quite accurately, but superimposed his own interpretation on it; thus what he called "the logo" of the company was in reality a cross behind the altar.

Over the years, Puthoff and Targ, both laser physicists, found that certain subjects clearly showed outstanding and reliable psychic abilities. Yet, they did not want to rely on too small a number of subjects. As a result, experiments ran side by side with the recruitment of additional men and women. One of their stars was a former police commissioner of Burbank, Patrick H. Price, who died in 1976. A prominent subject of the SRI project has been Ingo Swann, New York artist-author, whose novel *Starfire* (1977) dealt with the role of a super-psychic in a warfare setting. Photographer Hella Hammid emerged as another subject who could be counted on to operate with a high degree of reliability in project after project.



In prose appropriate to their audience, the American Academy for the Advancement of Science, the researchers recalled seven years of experimentation. Over and over again, they had to explain the novelty of their study, "the ability of certain individuals to access and describe, by means of mental processes, remote geographical locations up to several thousand km [kilometers] distant from their physical location, given only a known person on whom to target." In traditional parapsychology terms, this reference to a "person" on whom the psychics can take aim, as it were, puts these SRI experiments into the telepathy category - although other tests did not use a human intermediary.

When scientists speak of people as able to "access" distant locations, it means they are trying to be vague and specific at the same time. But as no one is sure just how a psychic gains access to a target (does the mind travel, perhaps?), the process remains mysterious. According to Puthoff, Targ, and May, some people have developed their remote-viewing skills to a point where they are able to describe, "often in considerable detail, geographical or technical material such as buildings, roads, natural formations, interior laboratory apparatus and sealed targets, along with the real-time activities of persons on the target sites."

Puthoff and Targ started their remote-viewing experiments using targets in the San Francisco Bay Area, employing nine subjects (psychics). They put each subject into an isolated room, with an SRI experimenter by his or her side, while the target team went off to visit whatever spot had been randomly selected. One member of the team, known to the subject, functioned as the "target person," and presumably acted as a sort of image transmitter (although the researchers don't go so far as to say just that). To guard against leakage, a "sealed travel order" for the roving team was kept in a safe until the team left on its brief journey.

According to the researchers' summary of their early experiments, these were encouraging. One subject, Price, correctly described a regional landmark, the Hoover Tower at Stanford University at Palo Alto; he said the target "seems like it would be the Hoover Tower." In another case, a marina where boats were docked was accurately described by the remote-viewer in detail, beginning with the words, "What I'm looking at is a little boat jetty or boat dock along the bay ..."

But, along with such remarkably accurate hits, descriptions also "contained inaccuracies." In one case the subject made a drawing of the target but included objects that weren't there. The psychics also had a tendency to reverse left and right, as in a mirror. Judging the results wasn't easy, either. Independent judges had to be subjective in deciding whether a description was close to the target or not. But the researchers felt they had arrived at an "exact calculation method requiring no approximations, such as normality assumptions."

When this early work was finished, the research team felt it had established remote-viewing as "both a real and a robust phenomenon." But it continued until it had made a total of fifty tests, just to have a statistically broad enough base to evaluate findings "conservatively." The team then went on to more elaborate experiments, such as the submarine tests and transcontinental remote-viewing. There is a superficial similarity between the published Soviet long-distance telepathy tests (Moscow-Leningrad, Moscow-Novosibirsk, Moscow-Kersh, etc.) and the West-to-East experiments undertaken from Menlo Park, California. But operational details differ considerably.

The SRI used a computer linkup to transmit information from California to eastern cities, part of a network employed by the Advanced Research Projects Agency (ARPA) of the U.S. Department of Defense. This was particularly helpful in establishing the exact time at which a target team visited a specific site, so the subject in Menlo Park could "tune in" at the right moment. In their report to the AAAS, the researcher spoke of "two subjects, S7 and S8," who stood by in California, while Targ and his son Nicky were visiting Grant's Tomb in New York City.

Both subjects made "independently provided computer-stored records of their impressions," and one of them made a line drawing. Subject S8 wrote: "Outdoors, large open area, standing on and then off asphalt (rough material), dark for a path. A white building, like a ticket booth. Wooden structure, is white in color, and has an arched look about it. There is large shade tree close to Russ [Russell Targ]."

The other subject, sitting in a different SRI location, began his description by saying, "I thought of a high place with a view." Grant's Tomb stands on a hill, overlooking the Hudson River. The subject also wrote, "I saw a tree on your left in a brick plaza - it seemed in front of the building you were entering." And: "I could not clearly identify the activity. A restaurant? A museum? A bookstore?" This illustrates the point the remote-viewers may do very well in describing a target, but tend to veer off into self-made imagery once they try to interpret what they see. This test had a neat little detail to it. Subject S7 wrote, "You were looking at coins in the palm of your hand, maybe giving some to Nicky." As a matter of fact, Targ did give his son some coins with which to buy a postcard showing Grant's Tomb.

Both subjects then described what they thought were activities inside the building; details they gave were partly right and partly wrong. Targ and his son walked around the wooded area, looked at the trees, and went back to their hotel. Next, they visited Washington Square Park in New York's Greenwich Village section. Their random target was the fountain in the park. Subject S7 began a description this way:

"The first image I got at about the first minute was of a cement depression - as if a dry fountain with a cement post in the center or inside. There seemed to be pigeons off to the right, flying around the surface out of the depression. At one point I thought I saw you opening a cellophane bag."

What Targ had actually done was buy an ice cream during the fifteen-minute "transmission" period. The psychic also wrote:

"There was also a rectangular wooden frame, a window frame, but I wasn't sure if it was on a building, or a similar structure for a different purpose."

Well, Targ did look back on the park, through the classically arched opening provided by the Washington Square Arch, and this provided a window-like effect. If only subjects would not go into interpretation, and would stick to what they actually see! This subject not only spoke of the arch as a "window frame," but later said, "All in all, I thought you were in Riverside Park," which was a totally incorrect interpretation.

Still, the subject made up for these flights of needless fancy by mentioning pigeons and including

flying pigeons in his drawing; pigeons are an ever-present element of the Washington Square scene.

To include a highly unusual image among long-distance targets, a skeptical scientist took Puthoff and Targ to the underground Ohio Caverns, near Springfield. While they were touring the maze of tunnels within the rock area, subject S4, photographer Hella Hammid, was in New York. The two researchers, accompanied by the host, who had picked the target, proceeded as follows:

"Under the observation of our challenger, we telephoned Subject S4 in New York City and obtained the subject's agreement to participate in a long-distance remote-viewing experiment. The subject was told only that we were located somewhere between New York City and California and that shortly we would be taken to a target. The time for the experiment was set at 2:00 P.M. EDT. We also agreed to call again at 3:00 P.M. EDT to obtain Subject S4's impressions and to provide feedback as to actual target.

"The scientist chose as a target location the Ohio Caverns at Springfield, Ohio. We entered the grounds through an entrance arch that opened onto an enormous expanse of lawn, perhaps 20 acres. The caves are located at a depth of 150 feet and are entered through a small building having a long flight of steep stairs. Once underground, we walked through a maze of rocklined tunnels that led eventually into a series of rooms lined with calcite stalactites and stalagmites, frosty white and beige crystals formed like icicles.

"The entire cavern was illuminated by small electric light bulbs attached to the walls. After a 45-minute walk, we exited the caves through a large metal door giving access to a square cross-sectional shaft with stairs leading to the surface."

Three-quarters of an hour after the three men had left the caves, the researchers' skeptical host-scientist telephoned Hella Hammid in New York. She had written down her impressions, dictated them over the phone, and sent a copy to SRI headquarters in California. Here is her opening statement:

"1:50 P.M. before starting - Flat semi-industrial countryside with mountain range in background and something to do with underground caves or mines or deep shafts - half man-made, half natural - some electric humming going on - throbbing, inner throbbing. Nuclear or some very far out and possibly secret installation - corridor - mazes of them - whole underground city almost - Don't like it at all - long for outdoors and nature. 2:00 P.M. - R and H [Russell and Harold] walking along sunny road - entering into arbor-like shaft - again looks like man helped nature - vines (wisteria) growing in arch at entrance like to a wine cellar - leading into underground world. Darker earth - smelling cool moist passage with something grey and of interest on the left of them - musty - sudden change to bank of elevators - a very man-made steel wall - and shaft-like, inverted silo going deep below earth - brightly lit."

You'd think that was a pretty close hit? Not from the researchers' point of view; although Ms. Hammid's descriptions were initially startlingly correct, her interpretation that she saw a nuclear installation was wrong. A second subject, S8, went completely off because he came to the conclusion that the three men were visiting a museum - and all his later observations, "although containing some

correct elements, reflects primarily this incorrect analytical interpretation and cannot be said to constitute evidence for paranormal functioning."

Some critics have said that the SRI researcher's photographs could well be taken after an experiment, and in such a manner as to emphasize a specific aspect or angle of a target. For instance, if a photograph of Washington Square, taken through the arch, were used to illustrate a "window frame" effect, this might be taken as a bias in illustrative approach. The researchers pointed out, however, that judges asked to blind-match transcripts to sites are not given any after-the-fact photographs, so there is "no artificial inflation of the judges' evaluations by photograph-cueing."

In remote-viewing contact between New Orleans and Palo Alto, the subject recorded impressions that included a number of features that corresponded to targets on the Northern California Bank Plaza of Palo Alto. In addition, the subject saw "a projectile coming toward" one of the experimenters, which was "like a ball or frisbee," which another experimenter had thrown.

As it happened, the experimenters - a playful bunch, on occasion - having found a paper airplane on the ground, had thrown it back and forth several times. And, lucky for their documentation, a photo taken at the very time the experiment was in progress showed the airplane between them!

For their big production number, if we may call it that, the SRI team chose - by random selection - the New Orleans Superdome, the gigantic arena that has become that city's newest mass attraction. On October 31, 1976, the psychic subject (what the Russians would call the "recipient" or "receiver" in this case of "information transmission") was sitting in Menlo Park, ready to tape-record impressions and making any line drawings that might suggest themselves.

Meanwhile, in New Orleans, the on-target observer (whom the Russians would label the "inductor" of such a telepathy-type experiment) recorded his own impression into a tape recorder: "It is a bright, sunny day. In front of me is a huge silvery building with a white dome gleaming in the sun. It is a circular building with metal sides. It looks like nothing so much as a flying saucer. The target is in fact the eighty thousand-seat Louisiana Superdome."

The payoff, in terms of the subject's impression, was quite precise. Some two thousand miles away, in Menlo Park, the psychic wrote that the target looked like "a large circular building with a white dome." The subject was puzzled and irritated by the remote view of what looked incongruously "like a flying saucer in the middle of a city," and made two drawings showing a circular edifice with a strongly outlined dome, surrounded by cement and grass strips, and featuring "walls with glass display cases."

The SRI researcher could not apply the standard matching method - one out of six possible targets - to these five longdistance tests. But they concluded that their dramatic experiments, cross-country from New York, Ohio, and Louisiana, got results "roughly of the same accuracy with regard to site description as those obtained in local remote-viewing experiments." They noted with satisfaction that the subjects had been able to record events, such as the handing-over of coins and the throwing of the paper airplane, that were taking place at the same time the subjects observed them by transcontinental viewing. Distance, they concluded, need not be a barrier to remote-viewing, at least in the two

thousand- to three thousand-mile ranges used during their experiments.

Early in 1981, the author of this book visited the SRI International laboratory in order to bring himself up to date on the team's latest research. The Puthoff-Targ team was now attached to the SRI Radio Physics Laboratory. My visit to SRI came after a short drive from the sprawling campus of Stanford University, a complicated maze of palm-lined roads and dozens of buildings ranging from the university's own hospital to the imposing central Hoover Tower (in memory of one-time U.S. President Herbert Hoover), target of Pat Price's successful remote-viewing test.

By comparison with the vast university, a city-within-the-city of Palo Alto, the SRI establishment in neighboring Menlo Park is compact. Building No. 44, which houses the Radio Physics Laboratory, is of medium size, its offices cheery in an impersonal way. The remote-viewing room is furnished in a manner that encourages easy relaxation; it is neither antiseptic nor overly cozy. The SRI team had by then completed a series of as-yet-unpublished experiments in psychokinesis (PK), and the visitor had an opportunity to examine the "PK Room," and even act as a research subject, trying to influence computer-action by mind power. SRI was clearly moving toward new frontiers of study, utilizing the most advanced equipment, not satisfied to limit itself to remote-viewing.

## 17 - Washington's Dilemma

In June 1981, the Committee on Science and Technology of the U.S. House of Representatives issued a staff report that called for "a serious assessment" of parapsychological research in the United States. The report took note of "the potentially powerful and far-reaching implications of knowledge in this field" and observed that the Soviet Union "is widely acknowledged to be supporting such research at a far higher and more official level" than is the case in the United States.

The report submitted the following questions "for congressional consideration": "Is funding for such research adequate? What is the credibility of such research in the sciences, humanities, and religions? How does the public perceive the credibility of research in this field from both a subjective and objective point of view? What should the Federal role in such research be and what agencies are or should be involved in such research?"

These suggestions and questions were part of a comprehensive Survey of Science and Technology Issues, Present and Future, commissioned by the committee. In a section on "Research on the Physics of Consciousness (Parapsychology)," it defined the issue this way: "Recent experiments in remote-viewing and other studies of parapsychology suggest that there exists an 'interconnectiveness' of the human mind with other minds and with matter. This interconnectiveness would appear to be functional in nature and amplified by intent and emotion." The report noted the history of studies in parapsychology generally, and in telepathy and psychokinesis specifically, and said:

"Attempts in history to obtain insights into the ability of the human mind to function in as-yet misunderstood ways goes back thousands of years. Only recently, serious and scientifically based attempts have been made to understand and measure the functional nature of mind-mind and mind-matter interconnectiveness. Experiments on mind-mind interconnectiveness have yielded some encouraging results. Experiments in mind-matter interconnectiveness (psychokinesis) have yielded less compelling and more enigmatic results. The implications of these experiments is that the human mind may be able to obtain information independent of geography and time."

The report acknowledged there could be "no certainty as to what results will emerge from basic and exploratory research" now underway, so that its potential importance and "its implications for the United States and the world at large can only be speculated upon." It then listed the categories on which parapsychological studies might have an impact:

"In the area of health, the coupling of traditional medical cures to the use of mind-initiated cures could be advanced. In the area of investigative work, 'emotional imprints' have been used by skilled sensitives to trace past events in archaeological and police investigations. In the area of education, the ability of the human mind to obtain information at various levels has been indicated as an important factor in successful decision-making by executives. In the area of national defense, there are obvious implications of one's ability to identify distant sites and affect sensitive instruments or other humans. A general recognition of the degree of interconnectiveness of minds could have far-reaching social and political implications for this Nation and the world."

The congressional report noted that studies in parapsychology had "received relatively low funding."

It attributed this to the fact that "the credibility and potential yield of such research is widely questioned, although less today than ever before." It added: "Thus far, the quality of research that even the strongest proponents of such research believe is necessary has been lacking due in part to low funding."

Such cautious, obviously well informed appraisal of parapsychology on the part of a congressional body was unprecedented. Until then, Congress as a whole had not taken cognizance of ESP potentials in peace or war. Only one of its members, Representative Charles Rose, Democrat of North Carolina and a member of the Permanent Select Committee on Intelligence, had shown long-range interest in psychic studies generally and their warfare potentials in particular.

Agencies of the Federal government sporadically encourage ESP research. But, given the ubiquitous nature of government concerns, such efforts often seemed no more than an expression of personal interests, the cautious involvement of "closet parapsychologists" at various levels in one or another agency. Individuals and groups that might want to follow the ideas expressed by the staff report on science and technology were likely to be held back by fear of ridicule, either from within Congress or in the media. As columnist Jack Anderson had phrased it, the Central Intelligence Agency had its "mouth watering" when it looked into Soviet research on remote-viewing. Anderson wrote on March 30, 1981: "Who'd need a mole in the Kremlin if a psychic sitting at a desk in Washington could zoom-in mentally on a super-secret Soviet missile site or a Politburo meeting?"

One of Anderson's researchers, Ron McRae, was alerted to what he interpreted as serious armed forces interest in the psychic when he read Lt. Col. Alexander's article in *Military Review*, late in 1980. McRae told another Washington writer, Randy Fitzgerald, the article had convinced him "there were people in the Pentagon who were really taking it seriously." Anderson-McRae claimed that a psychic task force, budgeted at \$6 million per year, had been established in the Pentagon "basement," and that the National Security Agency was examining the use of extrasensory perception in its code-breaking work.

Anderson's flippant terminology seemed designed to ridicule his findings or allegations. He wrote of "wacky projects" that covered "ESP weapons that can brainwash or incapacitate enemy leaders by thought transfer, deliver nuclear bombs instantaneously thousands of miles away by psychic energy, or even create a protective 'time warp' to make incoming Soviet missiles explode harmlessly in the past." He added: "The CIA, though historically less alarmist about the Red Menace than the Pentagon spooks are, also has been monitoring Soviet ESP research and pondering the possibility of less bizarre psychic weapons."

The Central Intelligence Agency provided Mr. Fitzgerald with the texts of memoranda on ESP studies under the Freedom of Information Act. Fitzgerald, writing in *Fate* (July 1981), found a correlation between the CIA's interest in ESP and its "drug-testing program called Artichoke, later nicknamed Project MK-Ultra." He noted that one document (April 9, 1952), discussing whether ESP capabilities are affected by drugs, concluded that during the use of "barbiturate drugs such as sodium amytal, the ESP fell off and was restored by the use of caffeine." Another CIA document, he wrote, "specifically mentions possible Artichoke application of ESP." It is a fact that, until such hallucinogenic drugs as LSD were banned, the possible stimulating impact of hallucinogenic drugs on ESP was under

temporary study by non-governmental researchers.

One CIA memorandum, dated January 7, 1952 (see full text in Appendix), outlined a three-year program designed to make "a serious effort" to advance ESP research "in the direction of reliable application to the practical problems of intelligence." The memorandum's author, apparently basing his conclusions on studies undertaken at the Parapsychology Laboratory of Duke University, wrote: "If, as now appears to us as established beyond question, there is in some persons a certain capacity for extrasensory perception, this fact and consequent developments leading from it should have significance for professional intelligence services."

The memorandum appears to have been written by a researcher outside the CIA, who expressed considerably more confidence in the likelihood of targeting ESP than would most professional parapsychologists, then and now. He asserted that "the problem of getting and maintaining control over the ESP function has been solved," and suggested that "two special projects of investigation ought to be pushed in the interest of the project under discussion." These were, "first, the search for and development of exceptionally gifted individuals who can approximate perfect success in ESP test performance, and, second, in the statistical concentration of scattered ESP performance, so as to enable an ultimately perfect reliability and application."

The memorandum's author listed the steps that would have to be taken to set up appropriate experiments and said:

"If we were to undertake to push this research as far and as fast as we can reasonably well do in the direction of practical application to the problems of intelligence, it would be necessary to be exceedingly careful about thorough cloaking of the undertaking. I should not want anyone here in the [word or words deleted], except [two names apparently deleted] and myself to know about it. We are all three cleared for security purposes to the level of 'Secret.' I would perhaps feel bound to have a confidential discussion on the matter with [name or names apparently deleted]. Funds necessary for the support of the work would understandably carry no identification and raise no questions."

After offering an estimate of the project's cost, the memorandum's author suggested that it be scheduled to cover at least three years. He expressed frustration concerning short-term projects and "the wastefulness of effort that accompanies the attempt to do long-term research on that basis." He urged that the U.S. achieve have "as much [of] a lead as possible in this matter." Considering that the memo was written in 1952, almost a decade before the Soviet scientists began to discuss the pros and cons of parapsychology publicly, the anonymous writer showed considerable insight when he wrote: "I might add that, while the Russians have both officially and through their leading psychologists disapproved of our kind of work, as they would have to do because of the philosophy of Marxian materialism, I have seen at least one reference to the fact that they have done experiments on our lines, giving a materialist interpretation."

While the outlined ESP project may never have been undertaken, it seems certain that the Central Intelligence Agency did engage in psychic experiments. One source of information on this subject is ex-CIA employee Victor Marchetti, who wrote several books based on his fourteen years with the agency. Marchetti, who tends to be critical of the CIA's activities, has said that it once sought to



establish mediumistic communication with spirits of agents who had died. He recalled that the agency's "scientific spooks" were "progressing into parapsychology, experimenting with mediums in efforts to contact dead agents, with psychics in attempts to divine the intentions of the Kremlin leadership and with even stranger phenomena." Marchetti asserted that the CIA had tried to make contact, through a medium, with Oleg Penkovsky, a colonel in the Soviet Army who had been one of its most valuable contacts during his lifetime. On May 11, 1963, Penkovsky appeared before the Soviet Supreme Court in Moscow, where he was declared guilty of treason and sentenced to be shot to death. As a colonel in the military intelligence branch of the Soviet Army, he had been assigned to artillery in a "civilian capacity." Penkovsky was a member of the Soviet State Committee for the Coordination of Scientific Research Activities, with responsibilities in domestic and international technological liaison and development.

Penkovsky had been an agent for Western intelligence agencies, presumably British services as well as the CIA. His reports, statements, and observations appeared under the title *The Penkovskiy Papers*, published in 1965. There is a simple kind of logic in trying to keep in touch with such a valuable agent, even after death. It is speculative, of course, whether such contact can actually be established, whether spirit communications can be specific and reliable, could be checked against information from other sources, or merely used to fill gaps in existing data. It may be regarded as imaginative rather than foolish to have tried to reach someone like Penkovsky through a medium (or several mediums, cross-checking any resulting information for correlations and deviations). But the number of qualified mediums is limited; it would be difficult to keep such an assignment secret, even if the mediums concerned did not know whom they were expected to contact. Marchetti said that, after Penkovsky had been executed, someone in the CIA had said, "Why don't we try to contact him?" and that this suggestion had led to the agency's becoming "involved with mediums." He said, "They began to contact our own dead agents, as well as dead agents from the other side."

If the project expanded beyond an attempt to get in touch with the spirit of Penkovsky, it may be assumed that at least some of the mediumistic messages had been satisfactory or at least promising to CIA staff members. "There is no indication that they have stopped," Marchetti said, "and no reason why they would." Still, psychic researchers have found that supposed spirit communications fall short of the precision and reliability essential to engage the continued attention of an intelligence service. At any rate, Marchetti's recollections suggest that the CIA has been alert to psychic potentials, no matter how unproven, in the service of intelligence-gathering.

Any testing of psychic potentials must be seen within the framework of other unorthodox approaches. The CIA appears to have experimented with the tracing of submarines by dowsing or water-witching, as was attempted by the German navy late in World War II. Marchetti asserted that the agency tested Russian emigre psychics in an effort to perform long-distance telepathy. He claimed that the agency employed "a set of twins," with one twin remaining in the Soviet Union and the other presumably acting as a recipient in Western Europe or the United States. U.S. parapsychologists who have experimented with twins doubt the reputed telepathic capabilities of fraternal or even identical twins. Quantitative experiments do not bear out the popular idea that twins are particularly adept at "reading each other's minds," although common upbringing and genetic factors tend to create similar thought patterns.

The CIA was certainly justified in keeping an eye on Soviet studies. In previous chapters, references

have been made to a report on Soviet parapsychology commissioned by the Central Agency from the AiResearch Manufacturing Company of Tor-ranee, California. The research group's experts suggested that, in view of Soviet studies, the U.S. government should initiate developments in what it called Novel Biophysical Information Transfer Mechanisms (NBIT) that "are functional," although "they may have no relationship to common parapsychological phenomena."

The report (January 14, 1976) advised that such studies should be interdisciplinary, as this type of research "crosses so many widely different scientific disciplines." The report noted that one Soviet researcher Professor Gennady Sergeyev of Leningrad, appeared to have perfected a mechanism capable of measuring human brain function from a distance of five meters. The report observed that Sergeyev's instrument was classified and that "no credible description of it is available - only allusions to its existence."

The AiResearch report traced reference to the Sergeyev device in Russian scientific literature, while noting that "there is reason to doubt the Russian claim." It speculated that "it is possible that a sensitive electric or magnetic sensor, or some combination of the two, would detect electrical signals from a human body at a distance of five meters. Although it is unlikely that the output of such an instrument would be a direct measure of the EEG, it would provide information of interest to a police interrogator, such as the strength and rate of the heartbeat, the tensing and relaxation of muscles, the depth and rate of breathing, and perhaps the electrical properties of the skin. The uses to which the instrument would be put are reasons enough for official secrecy about its operating principles."

The report noted Sergeyev's professional competence, concluded its analysis with the assumption that Sergeyev's remote sensor "does exist" in some form, and examined the possible development of remote sensors by Soviet researchers, "following the indicated lines of investigation." Where, the report asked, could Sergeyev's findings lead? It made this cautious forecast:

"Perhaps the Russians have, in fact, developed such instruments; perhaps they are going to do so. Perhaps they have tried and have not been successful. Possible sensor developments discussed in the following paragraphs are not meant to be exhaustive; rather, they are speculative and offered as examples of what may or might be:

"A tuneable antenna for detecting low-frequency, very-low-frequency, or extremely-low-frequency electromagnetic radiation could be used. The Russians believe both in mental telepathy and in a prosaic physical mechanism for it. The most probable mechanism is electromagnetic radiation. A tuneable antenna could be used in two types of experiments: trying to detect the radiation from the telepathic agent and trying to generate radiation of the right frequency to interfere with telepathic reception.

"A neutrino detector may be used. Both the Russian Je. Parnov (*Nauka i Religia*, No. 3, pp. 44 to 49, 1966) and the American Martin Ruderfer (*Neutrino Theory of Extrasensory Perception*, in *Abstracts: 1st International Conference of Psychotronics*, Vol. 2, Prague, pp. 9 to 13, June 1973) have suggested neutrinos as the means of transmitting thought from one mind to another. One of the collaborators of the present study, J. Eerkens, has a plausible hypothesis about the production and detection of neutrinos that could be experimentally tested by relatively modest expenditures for equipment and

labor.

"A magnetic field or field gradient detector could be used. The Russians and other Eastern Europeans are greatly interested in dowsing, or finding ground water. A currently popular theory of dowsing is that the human body is sensitive to small changes (temporal and spatial) in the magnetic field of the earth, such as might be produced by water near the surface of the ground. If the human body can generate as well as sense magnetic fields, such a human magnetism might be the basis of some form of thought transference or psychokinesis.

In conclusion, the AiResearch study suggested five areas of research as "the most fruitful lines of investigation," as follows:

1. The Psychophysiology and Psychology of Awareness of NBIT - This area includes such questions as what are the modes of awareness that facilitate NBIT? How to select and train individuals for high resolution and reliable performance? Which of the possible transmission mechanisms can humans utilize for NBIT?
2. Transmission Mechanisms - This area includes such questions as what are possible NBIT transmission mechanisms? How is information transmitted from the source to the recipient?
3. The Physiology and Biochemistry of Human Transducer Mechanisms - In this area, research would be conducted on physiology and biochemistry of reception and receptor mechanisms.
4. Statistical Development - This area includes nonstationary analysis of random data, deviation from normally distributed data, and new developments in communication and information theory with respect to noisy channels.
5. Development of Non-Contact Physiological Sensors - This area includes development of MEG, thermography, low-frequency electric field monitors, and other sensors.

Translated from its technical terminology, the report suggested to the CIA, or other U.S. government agencies, that the conditions under which telepathy and related capacities operate should be more fully explored. Such a study would, of course, be designed to harness, control, boost, and direct telepathic ability.

Yet how can a government agency engage in such studies if, as in the case of Anderson's revelations, they are quickly labeled as "voodoo warfare"? Ron McRae, while collecting data for a book, said he had gained information on indirect CIA involvement in otherwise public parapsychology studies from a former agency employee, "a psychologist who is now writing a novel," who said that he had been personally responsible for the financing, by way of foundations and other conduits, of several ESP experiments over a period of a dozen years. Among the projects allegedly supported in this way he cited telepathy-in-dreams studies undertaken by a team of professional parapsychologists at the Dream Laboratory of the Maimonides Medical Center, Brooklyn, N.Y. Their experiments suggested that dreams may be influenced telepathically, with images or concepts transmitted from a person in a waking state to one who is dreaming.

The staff report to the congressional committee on science and technology, by suggesting more comprehensive research in parapsychology, tends to remove such government projects from their needlessly clandestine and camouflaged status. Why have such governmental studies in the past been secret? If such agencies as the CIA, the Navy, or the National Aeronautic and Space Administration (NASA) have supported research in this field undercover, they have done so either from clandestine habits, fear of ridicule, or because of the old, embarrassing links of such studies with occult tradition. But much of modern chemistry, physics, and medicine has roots in medieval alchemy; they are none the worse for their mixed ancestry.

Among Washington's superstitious fears is concern over scathing criticisms dispensed by Senator William Proxmire, Democrat from Wisconsin. The monthly *Discover* (February 1982), which is consistently skeptical of parapsychological claims, spoke of him as "one of the capital's most visible and colorful politicians, and certainly one of the wittiest." It wrote: "An energetic foe of government waste and boondoggles, Proxmire is perhaps best known for his Golden Fleece of the Month Award, intended to publicize what the senator considers to be examples of foolish federal spending." The magazine concluded that the senator at times displayed a "know-nothing attitude about science," but credited him with "being bright enough to know that scientific curiosity has been responsible for many of civilization's greatest advances."

Imaginative research was given strong support by President Ronald Reagan on March 23, 1983, when he advocated intensified studies in so-called "Star Wars" technology. The President spoke of futuristic means, designed to "eliminate" nuclear weapons. Space-based lasers, particle-beam weapons, and similar devices were publicly discussed. Yet open-ended exploration of antinuclear weaponry might well include "psychotronic" and other psychic warfare elements.

Washington's dilemma over psychic studies places it firmly between the recommendations to the Committee on Science and Technology and the real or imagined wrath of Senator Proxmire. It is thus caught squarely between the two Big Cs: Courage and Caution.

## 18 - Threat Or Illusion?

How much of psychic warfare research represents a military or civilian threat, and how much of it is an illusion?

The subject matter, as well as the various conflicting interests, tend to create exaggeration, camouflage, and confusion. This is true whether the setting is the Soviet Union or the United States. Ambivalence toward the unknown is universal, whether we are dealing with religio-occult traditions or modern scientific inquiries. In such countries as Germany, East and West, and in China before and after Mao's death, fascination with or rejection of the "supernatural" has aroused virtually primitive passions.

But the reader of this book deserves more than an even-handed presentation of the facts and speculations on the subject of psychic warfare. A researcher-author should have at least a few discriminating conclusions concerning the material he offers, which is only a fraction of the data he has examined. This chapter, therefore, presents a personal answer to the question, "Threat or Illusion?" and to other questions that arise from the elusive pattern of research into man's psychic potential.

Just how elusive some of this work is can be seen from a report published early in 1979 in the British weekly *Reveille*. If true, it shows remarkable ingenuity, a certain macabre ruthlessness on the part of the experimenters, and a dramatic potential for future work. The report credited the Research Institute of Psycho-Neurology at Kharkov University with linking the brain of an unnamed human psychic to that of a rat killed by drugs. The psychic was said to have been able to convey his or her emotions through electrodes into the rat's brain.

Clearly, a number of animals were used for the experiment. Each rat, while still alive, was placed inside a screened chamber, isolated from external stimuli. Once the animal's brain had stopped functioning, the psychic directed thoughts at it, which appeared to result in renewed cerebral activity. The report, said to have been "smuggled out" of the Soviet Union, noted that the brain reacted when the psychic laughed. It added: "The psychic did mental arithmetic and the rat's brain reacted again. The dead rat registered reaction to the psychic's emotions for three minutes. At no time was there any physical response from the rat."

The British periodical reported that the Kharkov University experiment's results had been circulated in the Soviet Union, but only among selected officials. The paper said it had been passed on to outsiders so that the free world "should know" of such Soviet undertakings as this "secret test."

Are we, then, dealing with a relatively successful Soviet experiment in "mind-to-mind communication," with the imposition of emotion or thought from one mind to another? How accurate and significant is a report such as this? I believe that an experiment or series of experiments probably did take place; whether specifically at Kharkov University is of peripheral importance. But it is doubtful that such details as the impact of the psychic's laughter or efforts to do mathematical calculations could have been exactly as reported in this instance.

Even if the confidential report on the man-to-rat experiment has been accurately summarized, it is nearly valueless without information on instrumentation used, controls maintained, and calculations made. How, precisely, was the human brain linked to that of the rat? What were the readings on the rat's brain electroencephalogram, if that was the instrument employed?

And, using the Kharkov rat brain test as an illustration, why should it have significance beyond being just another among thousands of experiments done in the continuing worldwide effort to study the brains of mammals and rodents? The mere fact that test results were only circulated among a group of specialists makes them neither particularly significant nor especially "secret." Much that might be widely circulated in the United States is regarded as classified information in the USSR, as a matter of political-scientific principle. In this case, the data may well have been considered too preliminary or tentative to be circulated more widely.

Having said all that, and in a way downgraded the report's dramatic framework, it is nevertheless important to realize that experiments of this type are being made in the Soviet Union. Despite the unconfirmable nature of the Kharkov test, it fits into a pattern of scientific thought that treats the brain as an electronic device to be explored and manipulated. If one refers to such an experiment, as I have done at the beginning of this chapter, as "macabre," one introduces a value judgment that is probably inappropriate. Such a judgment reflects a cultural conditioning that equates "mind" with "brain" and even recoils from so-called "psychosurgery," the implanting of minuscule electrodes in specific parts of the brain to rectify a variety of emotional disturbances by weak electric charges.

Unquestionably, we have come to regard the brain as more or less identical with the mind, and thus, at least vaguely, as the repository to the human soul - sacrosanct and untouchable. To Soviet scientists, conditioned by Marxist materialism, that sort of attitude amounts to superstition. Here is one area where Marxism and Freudian psychoanalysis, although antagonistic to each other generally, have common ground; seen psycho-analytically, the view that the brain-mind is somehow sacrosanct amounts to "magical thinking." The reality of Soviet psychic studies lies beyond the ideological seesaw battle as to whether "biocommunication," "bio-energetics," and so on are primarily idealistic or materialistic. New tactics are beginning to emerge.

A pseudo-medical model for studies is being adopted that provides an acceptable ideological framework and permits public and scholarly curiosity to express itself. The publicity permitted Dhzuna Davitashvili and other healers is presumably the tip of the iceberg of studies in bio-energy, as a public successor of earlier psychokinesis research. The struggle against illness is the one truly uncontroversial undertaking, shared by all man-mind; everything about it is positive, acceptable, glorious.

The need to be ideologically pure, safe from the gibes of antagonists, has also prompted China's newly emerging parapsychologists to place their own experiments within a medical framework. As noted earlier, parapsychology was denounced in extravagant terms during Mao's lifetime. It has had a spectacular renaissance, beginning in 1979. I have traced this development in a paper, "Parapsychology in Contemporary China," published in the *Parapsychology Review* (September-October 1981), noting that Hsu Hung-Chang of the Paraphysics Group, Institute of High Energy Physics, Academia Sinica in Beijing (Peking) has stated that "more and more individuals with intense

psi functioning, including almost all kinds of PK and ESP, have been proven to be valid throughout our large country." The ultimately medical-biological orientation of these studies was expressed in the name given the initial meeting, the Scientific Symposium on the Extra-ordinary Functioning of the Human Body.

The Chinese researchers were propelled into a curious specialty by a virtual outbreak of phenomena among young children: the apparent ability to "read" and distinguish colors with their ears and other parts of their bodies, other than their eyes. Research papers on experiments concerning these demonstrations were published in the Shanghai publication *Ziran Zazhi* (Nature Journal). One analysis of the findings came from Dr. Luo Dongsi, a staff member of the Chinese Air Force's Medical Science Institute. He suggested that they might throw light on relations between the human body and electromagnetic waves, although science had as yet "no means of explaining this type of physiological phenomenon of the human body." By the early 1980s, Soviet research had come to deemphasize biocommunication (telepathy) and restricted public discussions to bio-energetics (psychokinesis), notably its healing aspects. Does this mean that research in the application and potential of telepathy, clairvoyance, and other facets of extrasensory perception has lost momentum? Frankly, I don't think so, and neither do other Western observers of the Soviet psychic scene. This leads to a paradoxical argument, which might be summarized - a bit oversimplified, perhaps - as follows:

Soviet researchers used to be fascinated by hypnosis-at-a-distance, but now claim to have stopped working on it. But we have learned, from experience, that they hide the things on which they work most seriously - so it stands to reason that hypnosis-at-a-distance is one of their priorities. Similarly, as they have stopped publishing data on long-distance telepathy, this probably means they have found it promising and are going right ahead with their tests - but quietly, secretly. Further: After successive conferences on psychotronics, with their dramatic presentations of the human mind's impact on matter - including sensitive instruments - the psychotronic scene has grown empty and almost silent. Should we not, therefore, assume that psychotronics are emerging as a new weapon in the Soviet arsenal?

It is easy to poke fun at such seemingly upside-down thinking. Of course, it can be overdone. And, of course, quite often things are precisely what they seem. What we are left with is the task of separating spontaneous contradictions and confusions from knowingly and calculatingly designed disinformation. Were Kulagina's demonstrations of psychokinetic powers a form of distraction from more significant psychic undertakings? I feel the authorities regarded Kulagina - including Naumov's movies and such persistent pilgrimages as those of Dr. Pratt - as dubious but ultimately harmless to their own aims - assuming, of course, they had aims they could define clearly, even to themselves. Similarly, the skin-reading epidemic, with the rise, fall, and re-emergence of Rosa Kuleshova, amounted to a public and academic titillation, a tolerable diversion, but was not specifically calculated to mislead Western scholars or distract them from some super-secret psychotronic experiment.

The ultimate conclusion is that serious psychic studies have been going on in the Soviet Union, that they have been pursued with tenacity - and that their true extent and significance are unknown. Their impact and potential, it should be emphasized, are probably quite as unknown to most members of the Soviet scientific and military establishments, because their value cannot be gauged without a candid exchange of data among researchers. The significance of telepathy, for example, remains , controversial even where scholars meet freely, such as the annual conferences of the

Parapsychological Association, the professional organization of academic parapsychologists.

When Vasiliev began his overt researches in the early 1960s, he planned to publish a journal of parapsychological studies at the University of Leningrad. For a while it seemed that, at the very least, one section in a journal on physiology would be set aside for parapsychological papers. When none of this happened, Soviet researchers had no forum for the publication of their findings or for an exchange of views. Instead, colorful journalistic accounts of such experiments as the Moscow-Leningrad telepathy tests appeared in the daily press and various periodicals, none of them reliably documented. Characteristically, the best biographical compilations from diverse Soviet sources have been made abroad, by Larissa Vilenskaya, in San Francisco; an up-to-date version of an overall bibliography on parapsychology in the USSR, by Naumov and Vilenskaya, *Bibliography of Parapsychology: Psychotronics, Psychoenergetics, Psychobio-physics and Related Problems* was published by the Parapsychological Association (Alexandria, Virginia, 1981).

Parapsychology in the Soviet Union must be appraised in the light of the country's long-standing problem of reconciling efforts at central control with the need to decentralize, delegate authority, and encourage individual initiative. It is perfectly possible that Soviet scientists and government officials will eventually decide that the early promises of applied parapsychology (civilian or military) have not and cannot be fulfilled. Certainly, Western researchers have struggled with the challenge of reliably repeatable results, with the control, amplification, and focusing of psi abilities, without truly dramatic and ultimately convincing results. Have the Soviets done better?

I feel strongly that they have not done better than experimenters in the West - but they have tried harder, with fewer inhibitions, with gusto, imagination, and persistence. There is no reason to suppose that they are less persistent now than they have been for more than two decades. The significance of their work does not lie in such isolated, colorful undertakings as killing baby rabbits to test their mother's reaction, having one telepath signal his violent emotions from one city to another, or of cells communicating a virus by telepathy-like means - the significance is with the fact that all this, and more, is being done at all, and on a large scale, year after year, now locally, now centrally, now reluctantly, now with enthusiasm.

The taboo on psychic studies died with Stalin in Russia and with Mao in China. Only in East Germany does parapsychology remain a heresy. By the upside-down rules of the denial-means-affirmation theorists, this could mean that the world's most advanced parapsychological research is going on somewhere just beyond the Berlin Wall; it is certainly a fascinating bit of speculation ...



## 19 - The Century Of Fear

Psychic warfare does not stand by itself. It must be seen in context with all other forms of warfare. Just as psychological and economic factors have vital roles in the relations between nations, in peace and war, so can psychic elements be used for many purposes. Soviet interest in parapsychology began to have an impact on Western research when it became clear that Russia sought to find a manner in which to apply psychic powers as directly as possible.

For decades, Western parapsychology had tried to achieve repeatable experiments, as well as unassailable statistical proof of the existence of the "psi factor." These were, in their own way, exercises in "pure science," not designed to bring about concrete results. Unacknowledged were remnants of an occult tradition that prescribed that psychic "gifts" were too esoteric to be used for material gain, such as horse racing or stock market investing.

This contrast in approaches was illustrated by the "vacuum cleaner treatment" given Western researchers visiting their Soviet colleagues; they were giving enthusiastically, but received little in return. The frustrated efforts of the late Dr. J. G. Pratt, who tried again and again to run a series of carefully controlled experiments with Mrs. Kulagina in Leningrad, are typical of this one-sided undertaking. The assumption that much of the parapsychological data collected by Western researchers in the USSR served to "misdirect" the West is not easily accepted by devoted experimenters on both sides of the ideological fence; their essential goodwill is not in question, only the assumption that publicly known Soviet work represents major research.

I am not saying that Soviet parapsychologists have deliberately misled their Western colleagues - although some of them may have done so - but that their very enthusiasm may have accomplished what calculated "disinformation" could not have done better. The authorities permitted them, even encouraged them, to display their ideas, their work, and their commitment. Only where this enthusiasm ignored the limits of established caution, as in the case of Edward Naumov, did serious trouble arise.

The Soviet vocabulary for dividing saints from sinners in such fields as parapsychology is clear to those who practice it, but it doesn't travel well. When lecturers such as Naumov or Barbara Ivanova were accused of putting forth "idealistic" concepts, it must be remembered that "idealism" in Marxist terminology is an unacceptable form of "bourgeois" thinking, pitted against acceptable "materialism." Thus, specific health exercises may be acceptably materialistic in procedure and aim, but become idealistic when presented as yoga and linked to Indian spiritual traditions.

At times, terminology becomes a weapon against people who have run afoul of other restrictions. They may even be accused of idealistic thinking, camouflaged as materialism. Parapsychology will forever remain open to the charge that it is a convenient disguise for superstition, or - as the Chinese used to call it - "religion without the cross." If the hopes the KGB and the Soviet armed forces seem to have for parapsychology are not fulfilled, their disappointment may lead to attacks on the field, once again, as mere "religious superstition."

Meanwhile, however, official encouragement of psychic experimentation continues at a pace that seems to place parapsychology along other frontier areas of warfare. Just where it fits is hard to say. To a certain degree, it belongs with psychological warfare: Those who are strongly impressed by

Soviet achievements in hypnosis-at-a-distance, for example, are likely to join alarmists who see Russia as outpacing the United States; the image of the USSR as unbeatable gives it a major psychological advantage.

Those who look upon mind-manipulation as next to demonic are likely to ascribe moral degradation as well as diabolic potential to biocommunication, bio-energetics, psychotronics, and all the rest of the parapsychological or pseudo-parapsychological Soviet arsenal. To them, it is akin to biological and chemical warfare, poison gas or death-rays. This type of alarmist thinking has been encouraged by Soviet enthusiasts, whether private or officially inspired, who ascribe mysterious potential to psychotronic effects in the field of mind-over-matter, the brain's impact on physical effects. With this sort of subject matter, it is difficult to tell where experimental results become a story that improves with the telling, and finally turns into legend.

And, because we are dealing with such an assortment of claimed phenomena, ranging across a wide panorama of categories, it is quite impossible to tell whether secrecy covers grandiose achievements or desperately hidden failures; whether news of a breakthrough is designed to misdirect the outside observer or is an inadvertent leak that should be taken seriously.

Surely, one of the oddest twists in the more than two decades of psychic warfare rivalry is the switch in the Nautilus story. The reader will recall that publication of alleged U.S. Navy telepathy experiments with the nuclear submarine originally appeared in the French magazine *Science et Vie*, written by Gerald Messadie. From this snowball, the vast avalanche of Soviet parapsychology began, building on the idea that U.S. telepathy researchers were successfully exploring a frontier that Soviet scientists had ignored. Yet in 1980 Mr. Messadie revealed that, looking back, the sources that supplied him with the Nautilus data may well have been fabricating a hoax.

Of course, it is perfectly possible that we are examining a double-twist: Russian research could have been goaded into action by a hoax, but might then have achieved concrete and significant results. Science is no more rational than political or economic affairs, and these forever elude strict analyses and forecasts. Parapsychology, despite its practitioners' claims that their tools are strictly empirical, has its origin in mankind's age-old magical beliefs - and I can already see how critical Soviet analysts of this book will seize on this sentence; I hope they will also quote me as saying that Marxist practices, too, follow a religious pattern that uses sacred texts (Marx's and Lenin's writings) and maintains relics (Lenin's embalmed body on Moscow's Red Square). The achievements of modern science, from such everyday wonders as television to the miracle-like world of lasers and holographs, have the unmistakable sheen of the magical.

The mystical has remained part of Russian tradition, because its roots are deep within the unconscious of men and women throughout the vast countryside. Healers, local "witches" or wise men are as familiar to the masses as is fear of the evil eye or of ghosts. No one can measure the solidity of a rational veneer that Marxist materialism has spread over traditional magical thinking, reflected in the fascination that skin-reading and other flamboyant pseudo-parapsychological or neo-parapsychological phenomena have enjoyed. Popular Soviet periodicals and regional television producers understand these mass emotions, and try to respond to them.

We have learned from authoritarian societies of the past, including the period of Joseph Stalin's rule, that such societies are not monolithic. Today's Soviet sciences, from high-level controls down to scattered laboratories, are in a crisis of fragmentation, caused by constant seesawing between centralized and decentralized controls. On the one hand, the Communist Party's Scientific Committee and the Academy of Sciences seek to achieve specific and rapid results; on the other hand, regional research centers depend on personnel and equipment that have to be laboriously requisitioned, obtained, stationed, and made fully operational.

These difficulties are multiplied in a peripheral, controversial, and unseasoned field such as parapsychology. Enthusiasts and skeptics are in conflict - not to mention that some enthusiasts may find it convenient to masquerade as skeptics, while some skeptics may be disguised enthusiasts! All this means that a monolithic and optimally efficient Soviet parapsychological establishment simply cannot exist, despite all the outside talk of a \$50-100 million budget per year, presumably allocated to a network of researchers and laboratories engaged in sophisticated projects.

The Soviet Psychology Establishment certainly appears to have lost out in its 1973 bid to take over parapsychology. One can only guess that the KGB decided that parapsychology's potential was greater in the physiological, military, and paramilitary fields, including intelligence-gathering and information transmission. Dr. Mikhail Stern's observation that the Novosibirsk psychic experiments came to nothing, and that scientific experiments cannot blossom under secret police control, can be read as the candid expression of a free scientific mind; yet neither KGB officials nor experimenters functioning under their supervision are likely to flag in their diligence to prove him wrong.

Inevitably, the question arises: "What should the United States be doing in parapsychology?" One answer is easy: It should not be too concerned with "answering the Soviet challenge," or otherwise act in a manner that is merely a reflex. Researchers in the Soviet Union got going in 1960 because they were able to point to the alleged Nautilus experiment and to shout, "Look what the Americans are doing!" Conversely, some American parapsychologists tend to point to reports of extensive covert Soviet studies and exclaim, "Look what the Russians are doing!" Well, we have some ideas of what they are doing - but should that influence our own work, particularly where governmental support is involved?

The Central Intelligence Agency has become so concerned about its reputation that it cannot openly back major parapsychology research, for fear that it will encounter the accusation "The CIA is financing a bunch of psychic kooks!" True, the CIA ordered and received a status report on Soviet parapsychology from a private California corporation; but this was merely a report on, and analysis of, outside activities, and does not imply that the agency sponsors similar work in the United States. In theory, the CIA could, elusively, sponsor psychic studies abroad but most advanced ESP studies have taken place in the United States, so the personnel and facilities are right here, at home. It would be difficult to keep such research secret; the number of professional parapsychologists is small, and they are always talking about each other's work.

This leaves SRI International, with its ongoing remote-viewing and psychokinesis studies, as the most likely candidate for further research with at least some government funding. SRI researchers Puthoff and Targ are skilled, determined, and embattled. At the meeting of the American Association for the Advancement of Science in San Francisco, January 1979, some of their methods and findings were

criticized; studies replicating their remote-viewing work, undertaken by the Metropolitan State College in Denver, were found to have yielded only negative results. Still, other such studies, for example at Mundelein College, Chicago, confirmed the Targ and Puthoff findings.

The claims of parapsychologists do not go unchallenged, either in the Soviet Union or the United States. In both cases, the challenges originate from the viewpoint of rationalism versus irrationalism. Governmental and academic interest in psychic projects in the United States has been criticized by the Committee for the Scientific Investigation of Claims of the Paranormal, under the chairmanship of Professor Paul Kurtz, Department of Philosophy, New York State University, Buffalo, N.Y. Some members of the committee have specifically criticized the SRI remote-viewing project, calling for tighter monitoring of its research designs, controls, and conclusions. Others have taken the side of the parapsychologists, linking the committee's criticism with efforts to weaken the U.S. defense structure and even accusing it of seeking to sabotage a potentially valuable area of research.

John W. White, then director of Alpha Logics, a Connecticut educational center, stated in *Human Behavior* (February 1979) that the USSR had "mounted a massive research program to develop paranormal abilities and psychotronic weapons for strategic military purposes." Viewed in this light, he saw the activities of the Committee for the Scientific Investigation of Claims of the Paranormal as taking on a "sinister character." He wrote: "Wittingly or not, they may be negatively affecting American military readiness. The irony of such a development would be that the very thing the committee fears most - mind control by irrational sources - would be abetted by their work."

Writing in the anthology *Future Science*, which he edited jointly with Stanley Krippner, White considered the possibility that psychics might be employed by "unscrupulous parties."

Under such direction, he said, they could engage in clairvoyant "ESPionage," disrupt computers and radar by psychokinesis, "assassinate a political leader through PK-induced heart failure," or "telepathically implant ideas and commands in the mind of a military or political leader." To ignore such risks, White stated, "would be irresponsible and dangerous."

The author elaborated on this theme in his book *Pole Shift* (1980), where he wrote: "If the Soviet military has achieved the ability to enter and return signals from hyperspace, modulating onto them biological, electrical and nuclear effects, then conquests of non-Communist lands could be achieved without firing a shot."

One parallel to the ups and downs of parapsychological studies in the Soviet Union is the fate of sociology, the science that seeks to observe and measure the interrelationship of individuals and groups. As Hedrick Smith, former Moscow correspondent of the *New York Times*, noted in *The Russians* (1976), "Sociology had some tender beginnings in the Soviet Twenties until Stalin proscribed it officially as anti-Marxist." In the post-Stalin era, Smith says, "even some moderate Communist Party figures saw it as a modern tool for managing society and encouraged it. By the mid-Sixties, some sociologists were optimistically toying with the idea of venturing into political science as an empirical academic discipline apart from established, heavily ideological courses in Marxism-Leninism."

The experiment lasted for several years. It created promising projects that would have thrown fresh light on otherwise-ignored aspects of Soviet society. Such studies inevitably showed that society was

becoming stratified, with clear distinctions between education, income, privileges, and social status within the theoretically "classless" Soviet society. The Institute for Applied Social Research, established in Moscow in 1968, experienced something of the early enthusiasm that had characterized - on a more modest scale - the early years of the Laboratory of Bio-Information at the A.S. Popov Institute.

If anything, the sociologists were even unluckier than the parapsychologists. Within three years, members of the sociology institute found themselves being interrogated, harassed, and fired. About one-third of the three hundred researchers employed were dismissed. One young Soviet sociologist told Smith, "There were too many inquisitive minds at work - and they [the authorities] decided they had to muzzle them." The work was scattered among several research institutes, and lost its vigor. Late in 1974, the Moscow institute made a half-hearted comeback as the Institute for Sociological Research.

But it wasn't the same. Smith comments: "A new batch of research studies appeared, but Western sociologists were unimpressed with them. Though sometimes more carefully done than the work of the Sixties, the new work seemed more limited in scope, more cautious and generally less revealing. Word passed that the best research was being kept secret, unpublished, while publicly Soviet sociology became more ideologically conservative." All this must sound familiar to parapsychologists (and to other Soviet researchers, such as psychologists).

The path of parapsychology is a risky one, but its protagonists often show unusual tenacity and devotion. This is one reason why the Marxist suspicion of mystical, magical, or neo-religious orientation is not entirely off the mark. When one asks individual parapsychologists about the origin of their professional interest, one often discovers that a personal psychic experience sparked their curiosity. Of course, one can trace personal psychodynamic reasons for just about every professional choice, but among parapsychologists early encounters with crisis telepathy, premonition, or other "supernatural" events form a particularly fascinating pattern.

Russian mysticism was reflected in pre-revolutionary literature and in accounts of ecstatic religious experiences. This element of the "Russian soul," as it was often categorized somewhat vaguely and patronizingly by Western Slavophiles, was examined by Nikolai Khokhlov in his paper "The Relationship of Parapsychology to Communism," presented to the Foundation for Research on the Nature of Man on September 1, 1966. Professor Khokhlov, now with the department of psychology, San Bernardino State College, California, said that "the very nature of the Russian national character" involves "traits which make a Russian specifically sensitive to matters relative to the mystical side of the human psyche and lead him to a restless search for the philosophical meaning of human existence."

Marxism has not proven to be a substitute for the religio-mystical yearnings of the Soviet masses, be they Russian or non-Russian in ethnic tradition. Khokhlov noted that Russia was engaged in "a search for the mysterious, the far-removed world beyond the senses," seeking "cosmic wisdom" going "beyond materialism." He felt that, in determining its attitude toward parapsychology, the Soviet government "has to take into account the popular tendencies and demands as well as the ideological implications of communism's political promises."

The Utopian-mystical aspects of Marxism have long ago lost their transcendent appeal among the

Soviet masses. Parapsychology therefore offers both attractions and risks to policy-making authorities; their practical and dogmatic dilemma is obvious and all-too-real.

Devotees of parapsychology everywhere have their own dogmas. These are grounded in the conviction that psychic powers are undoubtedly genuine, can be harnessed, and represent a potentially powerful tool in mind-control and other forms of warfare. These devotees are prone to quote Soviet leaders, citing vague but ominous references to superweapons. Nikita Khrushchev, then Soviet Premier, is quoted as having told the Presidium in January 1960, "We have a new weapon, just within the portfolio of our scientists, so to speak, which is so powerful that, if unrestrainedly used, it could wipe out all of life on earth." Thomas E. Bearden, retired U.S. Army Lieutenant Colonel and nuclear engineer, commented on this Khrushchev remark in a footnote to his article, "Soviet Psychotronic Weapons: A Condensed Background" (Specula, March-June 1978) as follows:

"Khrushchev's 1960 statement probably referred to extinguishing currents flowing in circuits by means of virtual state electron-negation patterns modulated into electromagnetic carriers (into each photon of the carrier, in its AT portion). In addition to dudding electromagnetic equipment, severe effects could be obtained on biological systems, by interference with their electrical nerve current. In effect, nervous systems can be disabled to varying degrees, including disablement resulting in death."

Another Soviet leader whose remarks have been interpreted as referring to a psychic superweapon was Leonid I. Brezhnev, who urged the United States (June 13, 1975) to agree to a ban on research and development of new types of weapons, which might be "more terrible than anything the world has known." Psychic enthusiasts also cite Major-General George J. Keegan, retired intelligence director of the U.S. Air Force, as saying, "The Soviets are working on dramatically exotic new weapons, twenty years ahead of anything ever conceived in the U.S. - so awesome as to lead the Soviets to believe that in the coming decade they would be capable of total neutralization of our ballistic and submarine missiles" (Newsweek, January 5, 1977).

Obviously, this description fits the concept of a psychokinetic, or otherwise psychotronic, ability to influence missile controls through human minds that have been electronically boosted. The ethical and moral questions raised by such speculation were examined by Michael Rossman in *New Age Blues* (1979), who compared possible advances in the control and effectiveness of psychic abilities to the breakthrough in nuclear power. Examining research in the United States and the Soviet Union, the author said, "In even fractional, imperfect control of any of the psychic phenomena now under study, we recognize unprecedented potentials for new varieties of political, military and industrial espionage and sabotage; for selective influence and assassination; for deep and subtle invasions of privacy; for totalitarian practices in education and in the larger society; for disastrous pollutions or imbalancing of the psychoecosystem; and on and on."

Rossman explored the likelihood that psychic abilities can be fitted into a warfare pattern, where controllability is essential. He stated that psychic potentials "are no less visible now to those in positions of power, with strong reasons to make use of them, than they are to neutral researchers and Utopian visionaries." He recalled that, even for those

"who have found them real enough to experience, psychic phenomena have generally been understood as essentially uncontrollable, too delicate and unpredictable in their production and effects, too

dependent on 'antirational' contexts, too disjunct from ordinary experience and the technological world, to be harnessed by scientific method and cold machines in the foreseeable future."

But this judgment, Mr. Rossman observed, "is itself now wishful fantasy," because "controlled psychic technologies are both more possible and more imminent than is generally assumed." He added that "even a balky tool may still be useful, particularly for mischief," while systematic research is going on to map "the physiological and psychological states and preparations, which are conducive to the functioning of psychic powers." At the same time, as the author saw it, "a convergent front of research is presently applying educational psychology and biofeedback technology to the problem of the operant training of psychics."

Weighing the forces engaged in a "psychic arms race," Mr. Rossman noted that most knowledgeable people with whom he spoke had said the Central Intelligence Agency had "shown no special interest" in parapsychological studies, and while "they suppose the possibility can't be ruled out entirely, they really don't think the United States has bothered to involve itself at all seriously in psychic research." Nevertheless, he cited CIA director Admiral Stansfield Turner as telling a press conference in 1977 that his agency had worked with a psychic who could describe remote places, but who had since died. This could refer to Patrick H. Price, Sr., one of the subjects tested by Puthoff and Targ at the Stanford Research Institute, who died on July 14, 1975.

It really doesn't matter whether the CIA, specifically, has ever backed parapsychological experiments, directly or indirectly. The U.S. Navy has been interested in animal telepathy and in the special sensory or extrasensory capacities of homing pigeons; the Office of Naval Intelligence (ONI) has backed such research at the Parapsychology Laboratory, then associated with Duke University, in Durham, N.C. U.S. government agencies that might have an interest in psychic potentials range from the National Security Agency (NSA) to the National Aeronautic and Space Administration (NASA). The CIA's prominence makes it skittish about involving itself in borderline studies, and has prompted researchers to avoid knowing association with the agency.

Rossman, concerned about the abuse of psychic powers for warfare purposes, called for a "responsible effort" by civilian professionals and citizens to involve themselves "in the governance both of military science and strategic posture." He urged the government, if it does want to do further research into the psychic, to go public with its ideas. He advocated that parapsychology, as "a new science, conscious of its broad potential consequences for humanity, should in some way seek public advice as to what its purposes should be, if not public determination of these purposes." Rossman acknowledged that his views might be interpreted as "an exercise in paranoia," but defended his right to ask, "What is there to fear from psychic research?" and to demand "a credible answer."

One answer has been given by a former SRI futurologist, Duane Elgin, who was a subject for remote-viewing and psychokinesis experiments. Elgin's experiences and views were described by William K. Stuckey in an article, "Psychic Power: The Next Superweapon?" in *New York* (Dec. 27, 1976), who identified him as a forecaster of developments in ecology, transportation, population, and the social sciences. Stuckey saw Elgin as "a frightened man," who anticipated a society threatened by "the emergence of extrasensory politics and a potentially dangerous psychic technology." The article summarized the futurologist's "breath-taking assumptions and predictions" as follows:

"That psychic functioning is a normal, although long-repressed and not easily utilized, characteristic of the human race. It includes the powers of clairvoyance, or remote-viewing; of receiving clear images of future events (precognition); and of manipulating or destroying physical or biological objects through mental processes alone (psychokinesis, or PK).

"That some 20 percent of the American population will be practicing psychics by the mid 1980s, and that within the next 50 years many Americans will be meditating, using hypnosis, psychotherapies and unconventional medicine as a matter of course.

"That in the 1990s an incredibly destructive civil war may erupt between the military-industrial-nonpsychic majority, and a Palestinian like band of psychic radicals. The psychic guerrillas would wage war through the extrasensory induction of mental breakdowns among materialist leaders, and by the psychokinetic destruction of computers, satellites, weapons systems, and communications networks.

"And that if benign, loving psychics prevail, the nation will give rise to an era of capitalism that is humane. This will mean a wave of redistribution of the national wealth, both here and among poor nations abroad, involving the replacement of much conventional medicine with the psychic-healing variety, and so on."

At first glance, these four points read like a mixture of apocalyptic fantasies, wishful socialism, Utopian science fiction, and Mr. Elgin's private ambivalences. On second and third glance, the image doesn't change much. The psychic futurologist reports a personal psychokinetic experience that may have triggered fear as well as hope. One SRI laboratory device was composed of three 100-gram metal balls, suspended on wire inside a bell jar. They were monitored by lasers to screen them against outside vibrations. One day, during a lunch break, Duane Elgin meditated on the pendulum, seeking to be "one with it." After quite a while trying, the balls started banging and the recording machine registered the motion strongly. This happened several times.

When Stuckley asked Dr. Puthoff whether the movements had resulted from Elgin's psychokinetic efforts, he answered, "Who knows? Probably." And when Stuckley wondered whether Elgin might have been "playing tricks," or whether some outside disturbance, such as a mild earthquake may have been the cause, Puthoff said simply, "No." Russell Targ, Puthoff's colleague, was doubtful, however, because the pendulum set-up struck him as too vulnerable to surrounding movements.

At any rate, Mr. Elgin's version of a psychic Apocalypse must be seen in conjunction with his long-lasting meditations and his view that if matter can be moved by consciousness, it is possible that "matter doesn't matter." His fear that psychokinetic powers might be used to destroy "physical or biological objects" - meaning, people - are virtually identical with Lt. Col. Bearden's interpretation of Khrushchev's reference to an all-powerful weapon.

This brings us to the obvious question as to why anybody would need powerful psychic weapons in the century that has given us atom and hydrogen bombs, and nuclear power generally. We can't just assume that mankind's insatiable curiosity prompts a search for ever-more exotic ways to wipe itself out. The manipulation of masses of human minds, by means of finely tuned radiation, is of course



quite another matter. Hypnosis machines, and variations of them, have long been part of the Soviet Union's research arsenal. The combination of electronics with mind-control would certainly place psychological warfare into a suitably "materialistic" electrophysiological pattern.

When Socrates said, "I know that I know nothing," he expressed not merely a humble self-appraisal but the ultimate in open-mindedness. The critically open mind is the enemy of the True Believer, but also of the True Unbeliever. Parapsychology has more than its fair share of True Believers, people whose wish to believe is both unlimited and dogmatic. Equally distressing are the True Unbelievers who meet every piece of psychic research data with ultimately unanswerable questions about the perfection of test conditions. The perfect test does not exist, and ultimate proof eludes us in parapsychology as in so many other scientific areas. Between experimenter and subject, imperfections will remain; still, the highest degree of possible perfection should always be the research target.

In the arsenal of any cold or hot war on this globe, psychic capabilities do not have top priority on either side of the ideological fence. But we have no reason to doubt that the frontiers of psychic warfare are being explored, that a good deal of ingenuity is being devoted to it, or that some of its potentials are awesome. Yes, psychic warfare is something to fear. But the generations of whom we are a part have now lived in the shadow of fear for decades. We have become partly immune to it. Psychic warfare may be fearsome. Yet this is, after all, the century of fear.

## Appendix

### Centers of USSR Parapsychology Studies

Following is a list of research institutes in the Soviet Union that have been reported as being engaged, or as having been engaged in studies related to parapsychology.

A.S. Popov All-Union Scientific and Technical Society of Radio Technology and Electrical Engineering, Moscow; Laboratory of Bio-Information, 1965-1975; Laboratory of Bio-Energetics, established 1978.

Scientific Research Institute of General and Educational Psychology, USSR Academy of Pedagogical Sciences, Moscow.

Baumann Institute of Advanced Technology, Moscow; Laboratory of Dr. Wagner.

Institute of Energetics, Moscow; Laboratory of Dr. Sokolov.

Moscow State University; Laboratory of Prof. Kholodov.

State Instrument Engineering College, Department of Physics, Moscow.

Moscow Institute of Aviation.

I.V. Pavlov Institute, Moscow.

Institute of Reflexology, Moscow.

Moscow University, Department of Theoretical Physics.

Department of Geology, Moscow State University.

Interdepartmental Commission for Coordination of Study on the Biophysical Effect, Moscow (dowsing research).

Adjunct Laboratory of Medical and Biological Problems, Moscow.

University of Leningrad, Laboratory on the Physiology of Labor; Department of Physiology, Laboratory of Biological Cybernetics.

A.A. Uktomskii Physiological Institute, Leningrad. Leningrad Polytechnic Institute, Department of Cybernetics.

University of Leningrad, Bekhterev Brain Institute.

Research Institute of Psychology, Ukrainian SSR Academy of Sciences. Institute of Problems of Information Transmission of the USSR Academy of Science, Moscow.

Pulkovo Observatory, Leningrad.

Filatov Institute, Laboratory of the Physiology of Vision, Odessa.

Scientific-Industrial Unit "Quantum," Krasnodar.

State University of Georgia, Tbilisi (Tiflis).

Kazakhstan State University, Alma Ata, Kazakhstan.

Institute of Cybernetics of the Ukrainian SSR, Kiev.

Institute of Clinical Physiology, Kiev.

Scientific Research Institute of Biophysics, Department of Cybernetics, Puschino.

Institute of Psychiatry and Neurology, Kharkov.

Institute of Automation and Electricity, Special Department No. 8, Siberian Academy of Science (1965-1969), Novosibirsk.

Institute of Clinical and Experimental Medicine, Novosibirsk.

## **Parapsychology: Fiction Or Reality?**

(W.P. Zinchenko, A.N. Leontiev, B.M. Lomov, and A.R. Luria)

The transition of Soviet parapsychology from the relatively open decade that began in 1960 to more restricted operations in the field was signaled by four leading psychologists in the Moscow journal *Questions in Philosophy* (No. 9, September 1973). Western parapsychologists generally assumed that the article was based on research and a first draft compiled by Professor Zinchenko. The paper gained prestige through the participation of Professor A. R. Luria (1902-1977), whose original experiments and writings gained worldwide attention during his lifetime. The paper argued that parapsychological studies should be taken out of the hands of self-styled specialists, whom the authors obviously regarded as nonscientific amateurs. Future research, they suggested, should be undertaken by professionals, so that "the attention of serious scientific organizations" would be directed toward "unanswered questions of the human psyche. "

The question stated in the title of this article has been discussed for many decades in the scientific and popular literature of the entire world. Long periods of silence have alternated with a flood of reports on some paranormal phenomena. The authors of this article do not count themselves among the many specialists in parapsychology. We were compelled to write it by the increasing number of publications (mostly in popular science periodicals), here and abroad, concerning the observations and investigations of subjects possessing paranormal abilities. It should be noted that an overwhelming number of these publications are by journalists and only in a few isolated cases by professional scientists, among them psychologists and physiologists. These publications are frequently of a promotional nature and do not meet generally accepted requirements of accurate scientific investigation, but have nevertheless been received sympathetically by scientists in different disciplines. We are not even speaking of the common mass reader. A good indication, relevant to this point, are the results of a survey conducted in 1972 by the editors of the English journal *New Scientist* and published the following January. About 70 percent of the 1,500 scientists who answered the journal's questionnaire (out of a total of 72,000 questionnaires that were sent out), considered paranormal phenomena either as firmly established fact (25 percent) or as entirely possible (42 percent). (1)

Similar data which would characterize the attitude of Soviet scientists to this problem are not available to us, but the numerous irresponsible publications are a cause for justifiable alarm. It therefore seems to us that it is time to express the attitude of the Association of Psychologists of the USSR toward parapsychology, whose status was considered at one of the meetings of the Association's Presidium.

### **1. The Area Of Parapsychological Investigations**

In the *Encyclopedia of Philosophy*, parapsychology is defined as the area of investigation studying, primarily: (1) forms of sensitivity offering means of receiving information which cannot be explained by the actions of known sense organs; (2) corresponding forms of influence of a living being on physical phenomena, taking place outside the organism, without the intermediate aid of muscles (by desire, thought induction, etc).

The majority of contemporary parapsychologists recognize the following kinds of sensitivities:

**Telepathy:** Mutual thought communication between inductor and recipient. Through it two people exchange information without the participation of sense organs. Basically, telepathy is sensing the state of another live organism.

**Clairvoyance:** This also is an extra- or supersensory perception of certain occurrences, events, objects; the communication of information without participation of known sense organs.

**Precognition (Proscopy):** A special case of clairvoyance: the prediction of events based on information received from the future and which cannot be arrived at by reasoning.

**Dowsing (also called Bio-Physical Effect):** Based on the claim that some individuals are supposed to be able to discover accumulations of subterranean water, ore, caves, and certain other objects with the aid of an antenna (bent wire or twig, etc.).

**Paradiagnosis:** Establishment of medical diagnosis based on clairvoyance, without patient contact.

The forms of sensitivity listed above are frequently grouped together under the term "extrasensory perception" (ESP).

There are separate classifications of forms of influencing physical events.

**Psychokinesis:** Mental influence of a person on surrounding objects: for example, on the normal electric activity in growth; on spatial position of different objects (not too heavy, as a rule).

**Mental Photography:** A special case of psychokinesis; it consists of a man's ability, by looking into the lens of a camera, to imprint on the film the image of an object which he visualizes (but which in reality is absent).

**Paramedicine:** An area close to parapsychology, which includes various unexplained methods of treatment: laying-on-of-hands, mental induction (without use of speech and without direct contact, at times at great distance), and others.

All the occurrences listed above are united by the term "parapsychology." Other terms used are: "psychotronic," "bio-information," "bio-introspection," etc. In the past, hypnotic events were mistakenly included in parapsychology. At present, hypnosis is used in parapsychology as one means to induce certain paranormal events. Teaching of Yoga is also mistakenly included here. Sometimes even astrology.

As is evident from the above statements, various areas are combined into one, because of the mystery and puzzlement caused by the occurrences studied. However, it is wrong in principle to consider such a basis sufficient for grouping these occurrences into a separate field of scientific investigation.

## **2. Brief Historical Review And Status Of Parapsychology Abroad**

We shall not review in this article the paranormal abilities long ascribed to shamans, sorcerers, lamas, yogis, etc. Parapsychology, as a method of systematic experimental observations and investigations, appeared in European culture in 1882 when the first parapsychological association was organized in London, and which still exists. It is called the Society for Psychological Research. Since then, numerous similar organizations have been formed and dissolved in many countries. At present there exist a few dozen similar associations, in most cases nonprofessional and with small memberships. As a rule, these groups maintain small laboratories supported by members or by special funds. Many of these organizations are affiliates of the "International Parapsychology Association."

Parapsychological research is carried out on a small scale at a number of universities (usually private) in the USA and in other centers of scientific research. According to unofficial sources, the expenditures of the US federal government on parapsychological research amount to half a million dollars annually. Some large corporations also provide financial support for these investigations. One example of the new organizations is the recently formed corporation of Edgar Mitchell, the US astronaut who conducted four experiments in telepathic communication during his trip to the Moon (no significant results were obtained).

The task of this corporation is development of human abilities, investigations in the area of paramedicine and psychokinesis. Mitchell hopes to make his corporation self-supporting. Among consultants of the corporation are the well-known Werner von Braun and a few scientists from relatively well regarded research centers. In the USA there also exists the "Academy of Parapsychology and Medicine" (California).

According to a count made by parapsychologists there are over 240 laboratories and associations in 30 countries. This estimate is obviously somewhat high. The majority of these organizations are in the United States. In 1969 the American Association for the Advancement of Science, which includes different scientific societies, accepted the Parapsychological Association as a member.

From time to time, separate and, as a rule, limited scientific research projects of parapsychological interest are carried out at commercial corporations in the United States. Computer technology is utilized in carrying out investigations in these labs. Their research is directed toward establishing the existence of ESP.

## **3. Publications Abroad**

Parapsychological observations, as a rule, are published in specialized journals appearing in a number of countries. In the USA their number exceeds ten; in England, five; in Italy, six; in France, two. Some of them include both parapsychology and astrology. There are also journals in other European countries and Japan. In addition, different scientific publishing houses publish a large number of monographs, summaries of conferences and symposia.

Articles on parapsychology, particularly when of sensational nature, are highlighted in publications of the type of Life, Look, Stern [Germany], and sometimes even in such well-established scientific

journals as Science, Nature, and others.

Scientific journals in the fields of psychology, physiology, and other sciences do not as a rule publish reports of parapsychological investigations. Between 1960 and 1970 in all scientific psychology journals of the world there were published, all in all, 13 parapsychological research reports. Of these, 8 cases reported positive results; in others the existence of paranormal events was not confirmed. It is interesting that, during the same period, parapsychological journals of the world published 143 experimental observations with positive and 19 with negative results.

Reviews, criticisms, and accounts of uncontrolled investigations are not included in the above totals. (2) Numerous textbooks and teaching aids for conducting parapsychological research were published. The last textbook, by R. Ashby, came out in 1972. (3) The International Association of Scientific Psychology does not allow presentation of papers or lectures on parapsychological research at its congresses. This is included in its bylaws. Apparently by chance, an exception was made at the Twentieth International Psychological Congress (Tokyo, 1972), where a lecture by American parapsychologist S. Krippner was heard.

While on the topic of publications, one must mention some of the political speculations on parapsychology. We have in mind first of all the book by S. Ostrander and L. Schroeder, *Psychic Discoveries Behind the Iron Curtain*. The book was written in 1968 as a result of the authors' visit to the USSR, NRB [Bulgaria] and ChSSR [Czechoslovakia]. The authors (nonscientists) have written a low-level text of the promotional variety. In it, parapsychology serves as advertisement for anti-Sovietism, and vice-versa. These methods proved commercially successful, and in less than a year the book went through five printings.

The book, written on a very low professional level, overflows with factual errors, mistakes, and undisguised anti-Soviet thrusts. The book excessively exaggerates the "accomplishments" of our parapsychologists. One encounters similar exaggerations quite frequently in the West, particularly in parapsychological and popular publications (more often without the open anti-Soviet accompaniment). One sees speculations frequently on the following subjects: parapsychology and defense, psychological warfare, espionage, etc. All this simultaneously serves to drum up additional funds for parapsychological research. In general, such books are, nevertheless, few in parapsychological literature.

#### **4. Parapsychology In The USSR**

In the early 1920s Professor L.L. Vasiliev conducted research on telepathy and clairvoyance, at first with the participation of academician V.M. Bekhterev whose student he was at that time in Leningrad. (4) Similar research was conducted by B. B. Kazhinsky in the Ukraine. Results of these investigations were published by the authors in three monographs, which appeared in 1959 and 1962.

There is no organization uniting parapsychologists in the Soviet Union. Enthusiastic students of these or similar phenomena occasionally form sections within other technic-scientific organizations. A section on bioinformation was established in 1965 by staff members of the A.S. Popov Technic-Scientific Society of Radiotechnology and Electroncommunication in Moscow. The group's main area

of investigation is telepathy.

In 1967 a Pan-Union Section of Technical Parapsychology and Biointrospection was organized at the Central Administration of the Science-Technology Society of the Instrument-Manufacturing industry. Within the framework of this society two science-technology seminars were conducted in 1968 and 1971 on Bio-physical Effects (twig-conductivity) [dowsing]. In 1971 the Inter-science Commission for the Coordination of Projects on the Problem of Biophysical Effects was elected. There are also some small groups, or separate individuals, working in different institutions, or at teaching-research centers, who during their working time or their free time carry on observations and investigations of parapsychological effects.

For a number of years, in Nizhniy Tagil and other cities in the Ural, an investigation was conducted of "skin vision" (the so-called Rosa Kuleshova effect), which at times is grouped with parapsychological occurrences but in reality has nothing in common with them. Reports of results of numerous inspections, analogous cases observed abroad and quite recently in Moscow, give grounds for concluding that this phenomenon - that is, "skin vision" - really exists and calls for careful study. However, so far it would be difficult to make any definite conclusions about its mechanism.

## **5. Publications In The USSR**

Usually matters related to parapsychology are printed in thesis collections and reports of different conferences and symposia. Thus, for example, in 1972 five lectures related to telekinesis were published in a collection of materials of the conferences "Some Questions on Biodynamics and Bioenergetics of the Organism in Health and Pathology; Bio-stimulation by Laser Beams," held at the Kazakh University. Soviet parapsychologists sometimes publish their work in technical journals (for example, Radio technology), but mostly in popular science and mass magazines (most often youth magazines), and in newspapers. As a rule, these are announcements of work done abroad.

Many publications are prepared by journalists who, with their characteristic inclination to exaggeration and sensationalism, at times turn assumed results of experiments into supposedly authentic ones. The number of such publications is very high. It is sufficient to point out magazines such as Technology - Youth, Young Naturalist, Knowledge - Strength. In 1973, even Social Industry took a stand on many occasions. Then, also, popular publications as a rule pay no attention to published negative responses of specialists.

Soviet and foreign publications are characterized by exaggerations of results on both sides. Thus, going by reports in the American press, in 1966 in the Soviet Union telepathic experiments were organized and carried out over long distances - Moscow-Novosibirsk, Moscow-Leningrad - supposedly producing credible positive results, which obviously is fiction. On the other hand, it was reported in Komsomolskaya Pravda that during the telepathic experiments on the Apollo 14 mission, positive results were obtained.

Edgar Mitchell, who organized and participated in these experiments, wrote that they were of an exploratory nature, that negative results were obtained, and, what's more, that the number of successes was much below that predicted by the theory of probability. (The last would deserve some attention

were it not for Mitchell's statement about the promotional nature of the experiments.)

During the last decade, no fewer than five hundred articles published in the USSR dealt with different questions of parapsychology. Mostly these were poor reports of badly constructed "experiments" deserving no attention. Their authors did not check on the requirements for correctness of the experiments, which were formulated by parapsychologists themselves. N. Kulagina, the universal object of telepathic and psychokinetic investigations, has attracted particularly great attention in our press.

## **6. Who Are The Parapsychologists?**

The majority of parapsychologists have neither a biological nor a psychological education. Among them are considerably more representatives of the exact sciences - engineers, mathematicians, physicists - who, as a rule, do not have any psychological training. Very frequently within the last decade, specialists from these disciplines have switched over to work in medical, psychological and physiological institutions (without sufficient backgrounds). Then, some of them want to quickly investigate the most mysterious and most interesting aspects. As a rule, these are people qualified in their own fields, but not in psychology, who had a chance to observe some "puzzling" psychological events, or who became victims of charlatan tricks.

Frequently these specialists may have quite legitimate motivations: for example, to find some new type of connection that would make possible the transfer of important information (telepathy); to find a new kind of energy, so as to influence from a distance the detonator of some installation (psychokinesis), etc. Strange as it may sound, some of these scientists often exhibit a childlike trust and innocence.

Occasionally one meets, among parapsychologists, psychiatrists and physicians of other specialties who in their practice, more often than others, have a chance to observe inexplicable anomalies. There is also the category of rather clever, skillful people who have no formal education. They are the ones who play the part of impresarios and promoters of those who really have some kind of unusual abilities. And it is precisely these people who demand recognition of parapsychology as a separate independent science.

Thus, among parapsychologists and their supporters there are charlatans as well as entirely serious specialists, who must be protected from scientifically irresponsible characters who exploit these specialists for their own ends.

The subjects of psychological investigation are, as a rule, neurotics who have increased sensitivities, and in a number of cases are simply sick people. For example, it can be shown that in people with "skin vision" there is distinctly pathological heightening of excitability of the midbrain, hysteria, etc.

## **7. Parapsychological Methods**

In the first decades of its existence, parapsychology was using rather primitive methods of investigation and demonstration, such as card guessing, dream or thought induction, etc. Distrust and



disclosures forced parapsychologists to look for new means of demonstration.

The influx of engineers and physicists had a great influence on methods of investigation. They brought to parapsychology their own methods, assuming that the human brain functions as an electronic machine and that it is possible to transfer concepts from corresponding branches of physics for its study. Contemporary parapsychology thus utilizes a number of newer techniques, particularly from computer and laser technology. Many spokesmen of parapsychology mistakenly believe that the paranormal occurrences that they study are common physical occurrences based on electromagnetic radiation and that, in spite of its insignificant quantity, this energy can be calculated and measured.

The study and the measurement of electromagnetic fields, known under different names (bioplasmas electroaurogram, biopotential, etc.) are continued jointly with various traditional methods of investigation (for example, guessing one out of five Zener cards, induction at a distance, movement of an object without contact).

Instrumental methods for the evaluation of functional states of an individual, including the newest methods, were sufficiently developed in the framework of parapsychology; for example, the Kirlian effect (photography of live tissues in high-frequency currents) was used by parapsychologists sooner than by physiologists or psychologists. Some special methods of investigation being developed by parapsychology, though not revealing the nature of parapsychological phenomena, sometimes prove to be useful to psychophysiology and experimental psychology.

Instrumental methods of parapsychology are also being perfected.

Ten years ago L. L. Vasiliev wrote about experiments with a "free material," where the experimenter tries to find out something about an object [telepathically] from a multitude of possible objects unknown to him at the time of the experiment: "The unavoidable defect of similar experiments lies in the fact that their evaluation is entirely subjective, and it is doubtful whether the subjectivity can be removed." (5)

Since then, a method has been developed to analyze the results with the help of "judges" who know what was "perceived," know also what could have been sent out, and from the "perceived" try to find out what really was sent out. When this turns out to be possible, it proves the existence of a channel of communication-contact between the points of induction and reception. M.M. Bonhard and M.S. Smirnov have written about these and some other indispensable and useful methods in an article dedicated to requirements for a "telepathic" experiment. (6)

## **8. Credibility Problem In Parapsychological Investigations**

The history of parapsychology is a history of revelations that at times have attracted the participation of scientists of world renown, such as D. I. Mendeleev, American physicist Robert Wood, etc. This naturally evoked and evokes the distrust and annoyance of specialists because investigation reveals too many cases of simple mystification and cheating during parapsychological experiments. The second reason for distrust is the inability to reproduce paranormal occurrences; that is, they do not meet the requirements of credibility as scientific facts.

This irreproducibility is explained by the difficulty in setting up the experiments, due primarily to the peculiar nature of parapsychological phenomena. They appear under special conditions and it is difficult to induce them in life. According to descriptions by parapsychologists, such occurrences are very elusive and unstable, and disappear whenever some inner or outer condition appears to be unfavorable to them. The opinion is also stated that even when favorable conditions can be maintained, it is impossible to retain, for any length of time, the state in which appearance of parapsychological phenomena is possible.

Herein lies the main contradiction and main difficulty in interpreting parapsychological phenomena. Parapsychological literature is filled with supersensational descriptions, something like Ted Serios's ability (experimenter: Professor Eisenbud, USA), while on the Soviet-Turkish border, to visualize and then to photograph with his eyes Soviet missile installations!

In some cases professional circus performers, illusionists in particular, have been invited as experts to parapsychological experiments to show similar tricks. In general, parapsychology has produced a great many anti-parapsychological methods and means of demystification. Specialists of great experience in this field are also found in the Soviet Union. However, none of the disclosures have any effect on parapsychologists who are True Believers. As in religion, in parapsychology faith is more aggressive than facts. The truly aggressive effort to propagandize paranormal events, the sensationalism and promotions of other kinds or type, are connected with this faith.

Here is an appropriate quotation of Hansel, author of a highly critical book on parapsychology published in 1970 in the USSR: "One cannot declare categorically that results of these experiments are explainable by cheating, but neither can one think ... that these experiments give conclusive proof of extrasensory perception." (7)

Apparently some of the so-called parapsychological phenomena really exist. However, recognition of their existence is hindered by uncertainty about the channel for transmission of information or influence. Major hopes and efforts are now concentrated in the study of the electromagnetic field, of organisms as a means for biological contact and as information carriers. These investigations are carried out on insects, animals, and man, but in recent years many authorities, at least outwardly, have not associated their work with parapsychology. So far, no physical basis for these occurrences has been demonstrated. Many parapsychologists see the reason for this in the fact that major sciences are not involved in the phenomena they study.

To us it appears that the fault is mostly with the parapsychologists themselves, who have done much to set themselves apart, outside of science.

## **9. Brief Summaries**

Among phenomena included in parapsychology one should distinguish between the "supernatural" phenomena imagined and promoted by mystics and charlatans, and those that really exist but that so far have not received satisfactory scientific psychological or physical explanation. The first call for disclosure and demystification. The study of the latter must be continued in related scientific

institutions - psychological, physiological, biophysical, medical, and others.

The manner in which universal parapsychological opinions are spread now, too often taking on the form of promotion, objectively has a negative effect, feeding unstable elements searching for a scientifically inaccessible, mysterious origin.

Analysis of the status of so-called parapsychology shows that it is badly hampered by anti-scientific concepts and to a high degree has become an area of activity by so-called "specialists." Some of them have declared themselves to be leaders and participants in organizations that never even existed in our country, for example, "The Institute of Technical Parapsychology." It is essential to curtail the activity of the little-qualified and militant parapsy-

chologists who have taken upon themselves the voluntary and not at all unprofitable function of propaganda, giving numerous lectures on parapsychology, even before scientific audiences. These lectures are in fact, irresponsible mixtures of mythology and reality. The uncritical attitude toward parapsychology of some serious scientists can be explained by positivistic carelessness toward scientific theory and methodology. There are no valid grounds for the existence of parapsychology as a separate science, since the only thing unifying parapsychologists is the mystery and inexplicableness of the occurrences they study.

Also impermissible, it seems to us, is the practice of publication in papers, magazines, and the popular press of sensational, scientifically unfounded material on parapsychology. For some reason there is, in this particular field, a disregard of the tradition usually observed by self-respecting scientists: Serious scientific achievements are first published in special scientific literature, and only then in popular periodicals.

There is today a definite need to organize the scientific research work into areas of real occurrences described in parapsychology. Since many investigations in parapsychology are carried out by physicists and engineers, it would be expedient to evaluate the direction and scientific level of the study of the biophysical effect and electromagnetic fields generated by live organisms as possible means of biological connection, as well as a number of other phenomena, and to do it at the Institute of Biophysics, Academy of Sciences, USSR, and at the Institute for Problems of Information Transmission, Academy of Sciences, USSR. Reviewing them from the standpoint of biophysics and communications theory may help to demystify these phenomena.

Psychological Institutes of the Academy of Sciences and other psychological institutions should also review the possibility of strict scientific investigations of these phenomena. It obviously would be expedient to organize, within the structure of one of the psychological institutions, a laboratory for the study of individuals who possess unusual abilities (and not necessarily only of a paranormal nature). Results of these investigations should obviously, after careful examination, be published in scientific literature (and only then in popular literature).

It seems to us that the attention of serious scientific organizations to the phenomena described in parapsychology will help reveal their true nature, will block the road to charlatans who are counting on the general public's quite natural curiosity about the unanswered secrets of the human psyche, and

will dispel the myth of existence of a "parapsychological movement" in the USSR.

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## Naumov, In His Own Defense

Edward K. Naumov

The following is a translation of a letter of appeal, addressed by the Moscow parapsychologist Edward K. Naumov (see Chapter 5, "The Tragedy of Edward Naumov") to the Department of Science of the Central Committee of the Communist Party of the USSR on May 11, 1974. At that time, Naumov had been tried on various charges growing out of his parapsychological activities. He was subsequently sentenced to two years in a labor camp, although he was freed in 1975 after serving approximately one year of his sentence.

Mr. Naumov's open letter, which he circulated among friends and colleagues under the title "Open the Way to New Ideas!," represents a defense against the accusations made against him by what he describes as "the investigative organs" of the KGB, the State Security agency, as well as the Ministry of Internal Affairs (MVD). At the same time, he mentions that the KGB's own Department of Technical Control provided a film showing his illustrated lectures as evidence. This text is based on a translation provided by the Washington Research Center, San Francisco.

Abbreviations and acronyms used by Mr. Naumov may be defined as follows: NII are the Russian initials of "Scientific Research Institute;" "Introskopii" stands for the study of the interior of non-transparent entities and may refer to techniques as diverse as infrared photography and clairvoyance; "Bwintroskopii" is the biological approach to the preceding concept; NIR means "research work" in a general sense; VUZ refers to Higher Education and VUZakh refers to college graduates; MGU are the Russian initials for the Moscow State University, MIFI refers to the Moscow Institute of Physical

Engineering; MFTI stands for the Moscow Institute of Physics and Technology; and VNIIMT are the Russian initials for the All-Union Research Institute for Medical Technology.

Present circumstances compel me to address the following appeal to you.

I have given more than ten years of my life to the study of parapsychology. I had hoped to follow in the footsteps of my teachers, Professors L. L. Vasiliev and B. B. Kazhinsky. I placed great significance in attracting the scientific community to parapsychology. In 1965 I was one of the organizers of the Bioinformat on section of the the A. S. Popov Society of Radiotechnics and Electrocommunications.

Within the section for which I was responsible, various experimental research projects were planned and conducted. The findings were frequently published in the Soviet and foreign press. Several seminars, symposia, and conferences were held. And in 1967, with the support of the Director of Nil Introskopii, Professor P.K. Oshchepkov, I was an organizer and Chairman of the All-Union Section of Technical Parapsychology and Biointroskopii. For the first time in our country, two All-Union seminars were held on the problem of biophysical effects. As a result of the meeting of various researchers interested in these problems, research in our country was stimulated.

In 1961, as a member of the Union of the Soviet Society of Friendship and Culture, affiliated with representatives of foreign countries, I sought to develop scientific and fraternal contacts with foreign parapsychologists. In 1966, the International Congress of Psychologists was held in Moscow. Parapsychologists from foreign countries who took part expressed hopes of meeting with Soviet colleagues.

I turned to the President of the Congress, Professor A.N. Leontev, with a request to organize a symposium on parapsychology. Leontev rejected my request and based his refusal on provisions of the Charter of the International Council of Psychologists. The Bioinformation Section, the House of Medical Workers, and the House of Friendship with People of Foreign Countries then sponsored a symposium on parapsychology.

The meetings with foreign parapsychologists demonstrated the great interest of Soviet scientists in foreign research. Later, these meetings became more frequent and took on a permanent character. I personally established scientific and fraternal contacts with more than thirty-five countries and two hundred scientific centers, institutes, laboratories, corporations, and firms. In my contacts with foreign scientists, I publicized the achievements of Soviet research, defending the competence of Soviet science. I regarded this as my patriotic duty.

Recently, in our country and abroad, high-frequency photography (the Kirlian effect) has achieved widespread fame. This method was found to be useful in technology, biology, and medicine. Unfortunately, whereas the Kirlian method was little known within scientific circles of our country, it stimulated great interest in the United States and other countries. As research began on this method, conferences were held, monographs were published, and motion picture films were made. Working together with [Semyon] Kirlian, for many years I and my colleagues actively publicized this discovery, and promoted its recognition throughout the world.

A similar situation emerged in our case, when I and many Soviet scientists observed psychokinetic effects. I shot film of the effect that had stimulated such interest and discussion abroad. I often turned to organizations and to individual scientists, trying to draw their attention to the experimental finding of those phenomena. Not only did psychological barriers hinder us - e.g., the lack of openness to new ideas - but articles in the press appeared that viewed our findings as mystification and cunning trickery.

Thus, all my efforts had almost no positive effects, while Czech, English, and American researchers were conducting experiments and publishing the results in their scientific journals. Once academician A.L. Mints expressed an interesting thought: "The further advance of Soviet science will stagnate if our scientists do not undertake new tasks in those areas ... even ... where it is impossible to guarantee the success of the research beforehand. Alas, everywhere and always we are extremely enthusiastic about tasks that have emerged in other countries. Too often, new ideas advanced by Soviet scientists experience a second birth only after foreign publications have indicated their significance and prospects."

In my work, I placed great significance in the collection and analysis of national and foreign information. I compiled The Bibliographic Collection of National and Foreign Works on Parapsychology and Related Problems; I am preparing to publish A Bibliographic Collection on Bioenergetics; also, Contemporary Problems of Biological Bonds and Related Phenomena, in five volumes; Research Perspectives of Parapsychological Research Abroad, in five volumes; and various informational textbooks, in ten volumes. Recently I have been in the process of completing an Encyclopedic Dictionary on Parapsychology and Related Problems. In my materials one can learn about questions concerning financing, the structure of NIR, scientific research programs, and the prospects for their development in areas of parapsychology abroad. Acquiring that information is especially needed at this time, when every scientific discovery can be used in many different ways.

An American journalist commented recently: "It is possible that the [U.S.] government will soon develop a general program of research for the practical implementation of these phenomena. If Congress and the President will not take the necessary steps to develop such programs, we can expect that the Pentagon already has. The military, doubtless, recognizes the importance of investigating the possibility of influencing the masses by such means as creating visual illusions and hallucinations with the aid of automatic devices. We must ascertain how this is done, and do it soon, before other, powerful nations discover the answers to these questions."

In line with social and informational activities, I promoted the achievements of contemporary parapsychology. I lectured before the most skilled of audiences: leading and prominent institutes - the Radiotechnological Institute of the Academy of Sciences, USSR; the Institute of Physics AN USSR; the Institute of Radiotechnics and Electronics AN USSR; the I. Kurchatov Institute of Atomic Energy; the Institute of the Problems of Management; the Nil of Automatic Apparatus; the Institute of Space Medicine; the Institute of Medical-Biological Problems; and others. I lectured before organizations of the Ministry of Defense USSR - the Academy of the General Staff, the Frunze Academy, and others; before prominent VUZakh - MGU, MIFI, MFTI, and others; before the editorial staffs of newspapers, journals, radio, and television. My objectives were to attract the attention and interest of specialists in different fields to the new scientific problems with which the whole world is presently concerned.

These lectures contained no damaging information, nor did they express anti-scientific views. On the contrary, they were designed to clear parapsychological phenomena of mysticism by adherence to a materialistic point of view. My lectures dealt with little-explored potentialities of the mind, the problems of informational power sources - of biological fields - that belong to man and to all living things, the comprehension of which can deepen our understanding of human nature itself. That is why my lectures evoked great interest.

In lecturing, I attempted to stimulate the development of contacts with various Nil, departments, foundations, and organizations. In this regard, I developed recommendations, suggestions, and scientific programs (for example, in 1973, I developed and proposed an Nil program, "Biokompleks," for MIFI, for VNIIMT, etc.), as well as these projects: Project of the Center for Coordination of NIR, Division of Planning and Forecasting, Bureau for the Investigation of the Especially Gifted in ESP Areas.

At present, I have been accused by investigative organs of the MVD of unlawful lecturing (which has been characterized as criminal), of illegally publicizing parapsychology, and of engaging in criminal activities. To this day, I do not understand why my scientific-practical activities are considered in the least criminal.

I cannot imagine how scientific publicizing, a desire to support the prominence of Soviet science, stand behind one's country, and awaken in people an awareness of new scientific issues could be considered criminally punishable. In the Soviet state, there are no laws forbidding lectures such as I gave. Therefore, the accusation was not judicially motivated, and the conclusions, summarized in the verdict, do not correspond to actual fact.

I never lectured for mercenary motives. And, if I was paid for several lectures, I spent that money on parapsychology (that can be proven by consulting a list of expenditures in my criminal file). Besides, I gave more than four hundred lectures without compensation. These lectures, which lasted four to six hours, were accompanied by numerous illustrated materials, showings of unique films (many of which were donated by foreign colleagues), and psychological experiments, etc. I thus made the most of the personal effort, knowledge, and experience acquired after many years of creative endeavor. I considered this useful to the State.

During the investigation and search, the following scientific materials were confiscated: thirty-five films, a card-index of names and addresses of Soviet and foreign scientists interested in parapsychology, and a corresponding-member diploma from the Parapsychological Association. These documents were filed and identified as material evidence of my criminality. During the investigation, I handed over scientific materials to the investigating organs, hoping to prove the lawfulness of my lectures. Later, however, these materials were used against me.

The investigation attempted to prove that parapsychology was a pseudoscience, and that my lectures were anti-scientific. (Surely, then, if I could not prove the contrary, I would not have been accused of engaging in private enterprise, but of swindling.) The Director of the Institute of Psychiatry,

AMN USSR, Academician A. V. Snezhnevsky, held an examination that led to the confiscation of my files. He concluded that all of my lectures and the information at my disposal were nothing but primitive charlatanism and mysticism. In scientific circles, Academician Snezhnevsky is known as an opponent of parapsychology. Snezhnevsky has a preconceived opinion on such problems as acupuncture and cure-by-fasting - methods verified by time and practice, approved by the USSR Health Department, and successfully utilized in national health clinics.

Today, parapsychology has won a distinguished world audience. It is known that the Philosophical Encyclopedia defines parapsychology as a "field of psychological research." In 1969, the Parapsychological Association obtained the right to join the American Association for the Advancement of Science in the U.S.A. In 1972, psychological tradition was broken when, in Tokyo, at the International Congress of Psychologists, Soviet and foreign scientists reported on parapsychology.

In 1973, at the International Conference on Psychotronics held in Prague, the International Association of Psychotronic Research was established (a Soviet representative, G.A. Samoylev - a colonel in the Academy of the National Militia, MVD, was elected Vice-President for the Eastern Hemisphere). At present there are sufficient subsidies to allow parapsychological research a successful future development. New centers, laboratories, institutions, and corporations are being established in many countries. International cooperation is improving.

That is why the above-mentioned analysis reflects Snezhnevsky's personal views, which are at variance with, and out of keeping with, the modern role of international parapsychology. Because of this, I insisted on a second scientific opinion. Side by side with Academician Snezhnevsky's examination, a second opinion was provided by the Department of Technical Control of the KGB, Council of Ministers, USSR, which showed that the films illustrating my lectures were documentary and original, and that they contained no tricks, no mystification, and no fiction.

For one year (the period of investigation) I had no chance to conduct scientific research. Despite great difficulties, emotional stress, and an administrative prohibition on travel, I attempted to continue working. And when I was senior engineer in the Bio-conduction Lab of the VNIIMT, Department of Health, USSR, I pioneered and organized the so-called "non-traditional methods" in medicine: research in acupuncture technique, research in biological fields for diagnosis and therapy, and the influence of low-frequency laser beams on bio-energetic processes inside the human organism. Despite the fact that my research proposals were included in the thematic plan of our institute, I was many times advised to resign, and at last I did so.

Notwithstanding these difficulties, I considered it my duty to continue working - though alone! Frequently, during the first stages of growth, a new science is promoted by enthusiasts who have a correct scientific orientation and an understanding of the prospects of this or that field of science. The prominent Russian scientist K. A. Tsiolkovsky, who himself passed through an enthusiast stage, discussed the future of parapsychological research:

"In the coming cosmonautic era, telepathic abilities will be of great value, and will serve the general progress of mankind." The foresight of this Russian scientist was corroborated fifty years later by the



well-known American astronaut Edgar Mitchell, who, by conducting telepathic experiments between the spacecraft Apollo 14 and earth, introduced a new experimental mode in space flights. He wrote: "My experience exceeded all expectations. It is not now a question of believing or disbelieving in biological bonds. Nowadays, the important thing is to perform serious scientific work. For mankind, these experiments may be more significant than space research itself." We have only to add that the tenacity of American scientists and astronauts in this work will make the practical implementation of these phenomena not too far distant.

Not long ago, in scientific circles, there was a widespread negative and critical attitude toward parapsychology. The existence of parapsychological phenomena was also ignored.

The history of Soviet science knows of cases in which "scientific critics" - some philosophers and journalists - strongly hindered the development of new ideas. In 1962, Academician [Peter] Kapitsa, reporting in the Moscow House of Scientists, spoke out against the philosophical critics of the theory of relativity: "How nice it would be if our physicists would follow the conclusions of the philosophers and cease to work on the theory of relativity and nuclear physics. What a situation we'd put our country in!" It is very sad but it is a fact that, for some philosophers, an A-bomb explosion was necessary before they ceased to display their ignorance.

One unscrupulous Leningrad journalist, who became notorious for his scandalous and illiterate articles on Soviet science, also took an active part in the "scientific criticism" of "physical idealism." It developed later that he was the most uncommon of ignoramuses in the most elementary physical problems, especially in quantum mechanics. On one occasion, the most eminent Soviet physicists, Academicians N. Semenov, Fok, Landau, Lifshits, and others, sharply rebuffed the Leningrad journalist, V. Lvov, by protesting the space given to him in Soviet journals. In 1967, Lvov repented thusly "Please don't throw the baby out with the bathwater.

In those years, I presumptuously came out against Einstein, Friedman, Bohr, Heisenberg, Dirac, Landau, and Frankel." Unable to contend with the progressives in physics, Lvov then began to expose anti-scientific tendencies in parapsychology. This situation arose at a time when parapsychology badly needed defending from the side of official psychology. Unlike the physicists, the psychologists did not seriously challenge this ignoramus; rather, by reason of their negative attitude, the psychologists themselves hindered the development of Soviet parapsychology.

Vast experimental research using modern psycho-physiological methods, electronics, mathematics, the growing interest in this research, and wide official recognition have led many scientists and Soviet psychologists to change their attitudes toward parapsychology, and to recognize not only the existence of parapsychological phenomena, but the scientific legitimacy of the question itself.

Having acknowledged the problem, and made use of the vast body of information collected by me and my colleagues, psychologists misinterpreted my public activity. Actually, we only planned to publicize information and make contacts with foreign parapsychologists; yet I was compromised as a specialist and treated as an incompetent. The efforts of my colleagues and me to publicize, to inform, and to promote parapsychology were highly praised in Europe and America. I was elected to membership in the Society for Psychical Research, London; the parapsychological societies of Japan,

Italy, and Switzerland; the American Society for Psychical Research; the Institute of Noetic Sciences (founded by U. S. astronaut Edgar Mitchell), and the International Parapsychological Association.

New research cannot begin without those who lay the foundations; without those who have gained the requisite knowledge and experience; without informed individuals, creative and practical connections. Similarly, we must seek new ways of international cooperation, and assist in peace and progress. These are praiseworthy patriotic duties. Without these, today's parapsychological achievements would not be possible. In leading institutes of the Soviet Union today, preconditions for the development of scientific research in parapsychology and related fields are springing up. That is a significant and important achievement for our country.

Recently, I successfully interested several leading institutes in these problems; that ushered in a new era in experimental research. I am sure, despite everything, that research in these problems has a brilliant future! The inspired words K.E. Tsiolskoskii said to my teacher now give me strength and perseverance: "Nearly always the new, the advanced, and the progressive meet the firm opposition of old opponents." I myself experienced and observed that the more courageous an idea, the more embittered became the internal opposition to it. But do not avoid the fight. Work! Experiment! Open the way to new ideas on behalf of people, science, and life!

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## **The Rampancy Of Parapsychology And The Decline Of The Superpowers**

Hsin Ping

The paper reproduced on these pages was published in the Peking journal *Scientia Sinica*, July-August 1975. It accused the United States and the Soviet Union of encouraging parapsychological studies in order to detract from socio-economic difficulties. An article along similar lines appeared in the Chinese Communist Party's theoretical journal, *Hung Chi* (Red Flag) on January 1, 1975. Both articles associated parapsychology with "religious superstition." However after Mao Zedong's death, the Peking government changed emphasis concerning a wide variety of social and economic trends.

Chairman Mao has pointed out: "A given culture is the ideological reflection of the politics and economics of a given society" (On New Democracy). As the two superpowers, the United States and the Soviet Union, beset by troubles at home and abroad, are now in the grip of serious political and economic crises, and are both in the plight as described by the Chinese verse, "Flowers fall off, do what one may," their predicament is bound to be reflected in their decadent bourgeois culture.

Idealist thinking of all shades and various kinds of pseudoscience have found their way into spheres of science and technology of the two superpowers. As a conspicuous instance of this one may cite the rampancy of parapsychology - a queer hybrid offspring given birth by the union of "science" and religion, and a "church science" which "is openly helping the exploiters to replace the old and decayed religious prejudices by new, more odious and vile prejudices" (V. I. Lenin: On the Significance of Militant Materialism).

In recent years, the U.S. and Soviet authorities have advocated and subsidized researches into psychic phenomena. Numerous scientific organizations, military research centers and many scientists (including those in the field of high-energy physics, astronautics, computer technology, laser device, etc.) are participating in this undertaking, in addition to the research institutes and personnel specifically concerned. Scientific journals, popular magazines and newspapers have repeatedly published articles and reports on this subject.

Some of them even boasted that parapsychology is "a new scientific paradigm, like Newton's laws of motion or Einstein's theory of relativity." (1) The Soviet Union, on the other hand, has put up a clamor that parapsychology makes "science move on to the threshold of an outstanding discovery," (2) and that parapsychology "is no illusion, it is fact." (3) Just as Lenin pointed out: "In the marketplace it often happens that the vendor who shouts loudest and calls God to witness is the one with the shoddiest goods for sale" (Workers' Unity and Intellectualist "Trends"). The great fuss made of parapsychology by the two superpowers is precisely of this kind.

## I

Parapsychology originated at the turn of the last century in the guise of science. In essence, it is a form of humbuggery that peddles the rotten products of superstition and religion. And indeed, sometimes parapsychology did manage to do things which religion by itself could not have achieved. What really is parapsychology?

Firstly, "the immortality of the soul," that the soul survives after death and one may be able to have dialogues with it through a medium, to call it back and even to have it photographed.

Secondly, "extrasensory perception (ESP)," that knowledge may not originate in perception of the external world through man's physical sense organs. ESP includes telepathy (two persons far apart can transfer thoughts to one another without using any communication devices; this is also called thought transference or long-distance thought suggestion), clairvoyance (vision through obstacles, such as perceiving objects behind the walls of a safe), and precognition (apprehension of future events extrasensorily and extrarationally).

Thirdly, "psychokinesis," that one can cause objects to move or change in shape or form by purely paranormal means, i.e., without physical contact of any kind.

By now, as such superstition like the so-called "immortality of the soul" has gradually been on the wane, the superpowers have more than ever attempted to distort new scientific achievements to fit the framework of parapsychology so as to beguile people out of the right way and to confuse their minds. To name a few instances: With the advent of radio technology, parapsychologists have suggested that the human brain is capable of thought transference through transmission and reception of electromagnetic waves, and then a mass of "research work" has opened up in ESP; with new developments in bio-electric technique, it was learned that the artificial limb of an amputee could be innervated by myo-electric signals, in consequence of which parapsychologists began to practice psychokinesis with great vigor.

However, what is false cannot become true. Trickery will never sell for long. In December 1973, an Israeli psychic by the name of Uri Geller, who caused quite a sensation in the Western world, claimed to be able to demonstrate trans-oceanic telepathy. A parapsychologist in London served as an experimenter while Geller himself was on the other side of the Atlantic, in New York, and communication between them was conducted by transatlantic telephone.

During the demonstration, the experimenter held a photo of a police car and pretended to transmit it to Geller; but Geller, thousands of miles away, could say nothing about the picture. Only after a long pause did he begin to make many random guesses, which of course resulted in Complete failure. After repeated suggestions and coaching by the experimenter, Geller finally scribbled a confused drawing, "a fat sausage with, at the rear, a part that comes down and looks like, say, an elephant's foot, then goes along toward the front and becomes a sort of a breast."

This was, of course, not a police car; nevertheless the experimenter declared it to be a "a partial success." Again, in June 1974, Geller demonstrated psychokinesis by trying to bend a key. In this demonstration, he got the spectators moving about the room and, in the midst of confusion, when none of them were concentrating, he quickly spread his legs, but splitting his trousers, and stealthily pressed the key against the metal rail at the front of his sofa. The key was bent, but his trousers ripped, and the trick was clearly exposed on the spot. (4) These so-called parapsychological demonstrations which caused a sensation in the Western world are nothing but outright quackery!

Being not content to lag behind in this enterprise, one of the Soviet revisionists' official journals talked glibly about an experiment in long-distance thought transference. The experimenter, in Moscow, picked up a new object every ten minutes, concentrating his attention on it, and supposedly transferred its image to another psychical "expert" in far-off New Siberia. It was bragged that the experiment was quite successful.

Evidence for this has been that in one demonstration the experimenter held up a screwdriver, and among the indistinct utterances of the psychical expert were such words as "something long," "rather plastic-made," "black plastic-made," etc. (5) In fact, all these piecemeal and equivocal words, just like the other so-called experiments of this sort, are but sheer nonsense. Who can understand for sure what nonsense these quacks have said, for these words have nothing to do with the image of a screwdriver at all! Yet the Soviet revisionist "scientists" deliberately pieced these chosen words together as an evidence that "the experiment was successful," to say nothing of the fact that they concealed from the public the particulars about the experiment. What hypocrisy it is!

What is based on artifacts and subjective conjectures made from them must in the end lead to idealism and mysticism. From the preceding instances it is clear that the so-called scientific facts of parapsychology so extravagantly boasted by the two superpowers can never stand the test of practice; they are nothing but filthy products picked up from the time-worn remnants of theology and superstition, with only superficial changes made.

## II

Parapsychology, from its beginning, is a reaction to materialism. Its main body, the so-called ESP, is

in direct opposition to the theory of knowledge of dialectical materialism. As to why parapsychology "received the greater interest and the greater amount of investigation," J. B. Rhine, the American authority in psychical research, avowed: "The reason was that telepathy was believed to offer a special challenge to materialism, and materialism had begun to dominate the intellectual thought of the day." (6) Hired scholars of the Soviet revisionists' clique also have similarly stressed that the "facts" of parapsychology must be used as a basis "to give an impetus to the development of theory, and to make new generalizations and conclusions." Based on "clairvoyance" they have made an epistemological formula which states that knowledge runs directly "from the outside world to the brain"; another formula from telepathy is that knowledge can be transmitted "from brain to brain." (7) Such are the vicious attacks they have unscrupulously launched on the theory of knowledge of dialectical materialism.

The theory of knowledge of Marxist dialectical materialism holds that knowledge is a reflection of the objective external world, which can be fully made known to man. Knowledge, being a complex dialectical process, passes from perceptual to rational knowledge and then [has] to be applied in social practice to ascertain whether it is correct. Chairman Mao in his brilliant work *Where Do Correct Ideas Come From?* has pointed out: "Often, a correct idea can be arrived at only after many repetitions of the process leading from matter to consciousness and then back to matter, that is, leading from practice to knowledge and then back to practice."

In the process of social practice, "countless phenomena of the objective external world are reflected in a man's brain through his five sense organs - the organs of sight, hearing, smell, taste and touch." Sensation is a reflection in the brain of particular attributes of external objects. Apart from the material world and the motion of matter, there will be no such thing as either reflection or sensation, and hence no cognitive activity. All knowledge depends upon the interrelated activity of the brain and the sense organs.

The sense organs and the brain being parts of an inseparable whole, sense organs cannot give rise to sensations without the participation of the brain; apart from the sensory channels the brain will not produce sensations by itself. The function of each sense organ, besides sending afferent nerve impulses to the brain through sensory nerves, is also functionally regulated by the brain. Any such attempt as to separate the sensory apparatus from the brain will in the end find itself contrary to the facts of science.

Man's perception and knowledge of the external environment depend, to a large extent, on his past experience gained from social practice, and are regulated by his existing level of consciousness. However, the primal source of cognition, knowledge and volition, ultimately lies in the external world, which is reflected in our minds through the senses. Without sensations, the connecting link between the external world and our consciousness would be lost. Sensation is the transformation of the energy of external stimuli into the fact of consciousness. To deny our sensory process is to deny the possibility of the apprehension of the external world.

With the onward movement of class struggle, the struggle for production and the advance of science and technology, there comes about a deepening of man's knowledge of his external world as well as of his own cognitive process. The material changes caused by the active reformation of the external

world by man, in turn, promote the development of his cognitive activity. By the aid of new instruments and devices for promoting knowledge, human cognitive ability transcends the limitations set by the sense organs. For examples: the telescope is used to make astronomical observations in space, the microscope to see the internal structures of a cell or molecule, and through a radio-receiver one gets broadcast messages transmitted by electromagnetic waves.

In other words, due to the creative power of man, with his inventions of instrumental aids for knowing, things originally incapable of reception by the naked sense organs are now transformed into things receivable. All this points to the fact that only by way of the sense organs can external stimuli be transformed into conscious facts.

Marx pointed out: "... the human essence is no abstraction inherent in each single individual. In its reality it is the ensemble of the social relations" (Theses on Feuerbach). This marks the fundamental distinction between dialectical materialism and old materialism, as well as various forms of idealism. Man's reflection of external reality is conditioned by given social and class factors, always exhibiting the relationship of man to his surrounding world. Thus, there are differences among different individuals in their reflection of the same external reality.

Hence, the crucial points of the artifact of ESP in parapsychology may be summarized thus.

In the first place, there is the denial of the role of sensory activity and of practice in the process of knowledge. Once the sense organ [is] being bypassed, the brain is cut off from the outside world, thereby leading to a negation of the possibility for the brain to reflect external objects through practice.

The revisionists' so-called "from outside world to the brain" formula denies the fundamental principle that consciousness is a reflection of the objective world. And their so-called "from brain to brain" formula is, in essence, a statement that human consciousness has been bestowed to us from heaven, or is innate in the mind. The term brain in the vocabulary of the parapsychologists is but a synonym for the soul. Recently, in an American publication we have read such words as: "All of the body is in the mind, but not all of the mind is in the body," (8) which openly discloses the idealist apriorism of parapsychology. In the struggle between the two lines of epistemological thought in the history of philosophy, parapsychology always belongs to the reactionary idealist camp.

In the second place, there is the denial of the class nature of social practice, and of the class nature of thought and knowledge brought about by practice. The so-called ESP and the epistemological formula of "from brain to brain" neither base themselves on objective reality, nor admit their verification by objective reality, so that in this way knowledge is erroneously reduced to the spontaneous activity of the brain itself. Consequently, all knowledge and thought lose their class nature, and thus parapsychology denies the distinction between revolution and counter-revolution, ignores the facts of class struggle and plays the part of an apologist for imperialism, revisionism and counterrevolution.

In class society, the struggle between the two lines in philosophy reflects the class interests of different classes. It is one aspect of class struggle. As Lenin concludes: "The struggle of parties in philosophy ... in the last analysis reflects the tendencies and ideology of the antagonistic classes in

modern society" (Materialism and Empirio-criticism).

### III

It is by no means incidental, but has deep-lying social and class roots, that the two superpowers are vigorously propagating the effect of psychical research.

Parapsychology originated in the era when capitalism developed into imperialism. In the epoch of imperialism and proletarian revolution, a new deluge of psychical research takes place whenever bourgeois society undergoes a radical revolutionary change, or when imperialism is in the throes of severe political and economic crises. At such turning points of history, parapsychology, as a rule, seeks alliance with various forms of religion, gives aid to the monopoly capitalist class in its counter-revolutionary scheme and, like doses of opium, attempts to paralyze the reasoning power of the masses.

After the 1870s, the main capitalist countries passed on to the stage of imperialism and, in turn, were caught up in serious political and economic crises. The birth of Marxism and its wide propagation among the working class gave impetus to the proletarian revolutionary movement. Besides using force and violence, the monopoly capitalist class also called upon parapsychology to play the role of priests in its suppression of the workers' revolutionary movement.

In 1882, the world's first Society of Psychical Research was established in England, and two years later an organization of the same name was set up in the United States, and thereafter Germany, Russia, France, Holland and some other countries also formed societies or associations devoted to the same end. Parapsychology, at its very beginning, tried to prove experimentally the existence of God and the immortality of the soul, and to provide some "scientific basis" for religion. As a matter of fact, parapsychology and religion have always been akin to each other; it is not at all surprising that theologians asserted that the advent of psychical research lent credence to the hypothesis of the existence of the soul, that parapsychology had made positive contributions to the stand taken by religion.

As is well known, quite a number of the founders of psychical research were either spiritualists or subjective idealists, such as F.W.H. Meyers, Oliver Lodge, William James, to name only a few. They advocated the founding of a new religion based on psychical communication (i.e., telepathy). James even pledged to undertake after his death the task in the search of ways and means of spiritual intercourse with friends and relatives, in his effort to make one believe that the living could communicate with spirits in the other world.

Just at the time of the advent of psychical research, Engels, the militant champion of materialism, wrote his brilliant article "Natural Science in the Spiritual World" in which he thoroughly exposed and criticized this pseudoscience. As he has pointed out, "spiritualists" are shameless gangsters who "care nothing that hundreds of alleged facts are exposed as imposture and dozens of alleged mediums as ordinary tricksters."

During the 1920s and 1930s when the capitalist system in the world was stricken with over-all crisis,

the monopolistic bourgeoisie turned politically to fascist rule, while in the ideological realm it ardently advocated mysticism and fideism. To satisfy this need, parapsychology was again put in the limelight. The American Society of Psychical Research openly declared that parapsychology is religion. The American Spiritualists' Society issued a declaration saying that according to the investigations of parapsychology, man's individual personality (i.e., the class nature of monopolistic bourgeoisie - the author) would survive forever in the other world, and the door for advance and development (i.e., the perpetual sovereignty of the monopolistic bourgeoisie - the author) would never be shut upon us either in the present world or after our death; all these sayings were nothing other than attempts to praise and glorify capitalist exploitation.

In 1930 the British House of Commons passed a bill for the "protection of psychical research" so as to give it legal status. The Japanese government, in the 1930s, also appointed its official organs to take over the administration of various psychical research institutes.

However, parapsychology never enjoyed any popularity in the Soviet Union under Lenin's and Stalin's leadership. In 1922 Lenin published the brilliant work *On the Significance of Militant Materialism*, calling on all communists and revolutionary people to propagandize atheism and "to expose and indict unflinchingly all modern 'graduated flunkeys of clericalism.' "

"The ruling ideas of each age have ever been the ideas of its ruling class" (Manifesto of the Communist Party). Since the Khrushchev and Brezhnev renegade clique staged an over-all restoration of capitalism, parapsychology has been resuscitated in order to meet the political need of the revisionists. Chieftains of parapsychology in the Soviet Union hurriedly corresponded with the International Psychical Research Institute in Paris.

In 1959 the Soviet Government Political Books Publishing House published the book *The Mysterious Phenomena of the Human Psyche*, followed by numerous other books such as *Suggestion from a Distance*, *Experimental Studies in Mental Suggestion*, etc. Soviet journals and magazines such as *The Communist Youth League Pravda*, *Problems of Philosophy*, *Successor*, *Socialist Industry*, *Radio Technique*, etc., have printed works and reports on parapsychology issue after issue. Statistics from material so far available show that during the last decade publications on the subject amounted to a total of over 500 articles, averaging one article per week.

It is worth noting that parapsychology, being "the most inexpressible foulness, ... the most shameful 'infection'" (V.I. Lenin: *To Maxim Gorky*, written on November 13 or 14, 1913), is used by the revisionists as a tool for deceiving the working people and especially for poisoning the younger generation, and to this end these articles were mostly published in popular scientific journals and juvenile magazines such as *Science and Life*, *Knowledge is Power*, *Technique for Youth*, *Young Naturalist*, etc.

Meanwhile, Soviet universities and institutes have opened up new departments for parapsychological research. In 1960 the biology department of Leningrad University established a laboratory for parapsychological experimentation; in 1965 the Section of Bioinformation of the Moscow Commission of Popov's Scientific Technical Society of Radiotechnique and Electro-communication was established to undertake the study of thought transference as its basic research problem, and then



followed the establishment of the All-Union Section of Technical Parapsychology and Biointroscope of the Central Commission of Scientific-Technical Society of the Instrument-making Industry in 1967, and that of the Interdepartmental Commission for the Coordination of Work on the Problem of Biophysical Effect in 1971 to coordinate the study of parapsychology in different disciplines. They have conducted psychical experiments to an extensive scale, and have given lectures and held meetings to popularize Western parapsychology.

The resurrection and the rampancy of parapsychology in the Soviet Union are due to the support given by the Soviet revisionists' renegade clique, which have banged the drum to clear the way for psychical research by mobilizing its propaganda machine. For instance, the official The Communist Youth League Pravda frequently publishes news and articles on parapsychology, sometimes even accompanied by an editorial note to denote approval and recommendation.

The frantic craze for parapsychology in the U.S.S.R. has aroused astonishment even in the United States. One commentator said: "The Soviet Union has studied ESP for years, and the Russians' work, considered ahead of U.S. efforts, looms like a psychical Sputnik." (9) Another said: "None of the Western parapsychologists foresaw that it was a Russian university which took the lead in establishing a research laboratory of parapsychology financed by the government." (10) Thus in U.S., to keep up with the other superpower, the Pentagon and CIA constantly keep themselves well informed on new developments in parapsychology. NASA, NRC and other organizations as well as the U.S. Federal Government have readily offered financial support for psychical research.

Of course, the fact that the Soviet revisionists and the U.S. imperialists gave such an enthusiasm to parapsychology is by no means "to study for the pursuit of knowledge," still less are they conducting objective "scientific research." At present, the capitalist world is confronted with the most serious political and economic crises since World War II. The U.S.-Soviet superpowers have become the biggest international oppressors and exploiters of our time.

They are the potential source of a new world war. Under these political and economic conditions the two superpowers, with the ambition of seeking world hegemony, suppressing revolution, preparing for war, deceiving the masses and getting around their difficulties, besides concerning themselves with armaments expansion and the stepping up of nuclear arms race, have now chosen parapsychology as another weapon.

This is not because parapsychology can perform miracles or work wonders, but because these two superpowers are both being driven into a corner; they are in a wretched plight indeed! Persons sent to the U.S.S.R. from the United States to investigate the situation in parapsychology there discussed on the basis of Soviet research "the possible use of parapsychological forces for espionage and sabotage." (11) Americans on the basis of their own experiments in telepathy have remarked: "There seems to be a great untapped potential in the human mind," and "perhaps we can evolve man and his social structure so that he can cope with the problems we face." (12) All this clearly shows that parapsychology is a pseudoscience which directly serves the interests of the bourgeois and revisionist politics. And "modern pseudoscience actually serves as a vehicle for the grossest and most infamous reactionary views" (V. I. Lenin: On the Significance of Militant Materialism).

Just as the war policy of Soviet revisionism or U.S. imperialism can never save them from extinction, nor will parapsychology help them to avoid their dooms. The revolutionary people of the world will eventually dump the two hegemonic powers, together with all their parapsychology; the two superpowers will surely be discarded by history.

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## East Berlin: Modern Superstition, Disguised As Science

Wolfgang Spickermann

While other Eastern European countries have shown a lively interest in parapsychology (psychotronics), East Germany - the German Democratic Republic - has displayed official coldness toward the subject. International conferences in the field are attended by representatives from Czechoslovakia, Romania, and Poland, but never by residents of East Germany. Even at a time when Soviet researchers either attended such meetings in person or submitted papers that were read or circulated in their absence, no East Germans were present. In this respect, the East German position has been closer to that of Communist China, at least during Mao Zedong's lifetime, than to that of the Soviet Union, where serious study of parapsychology has been publicly advocated.

Mr. Spickermann's article, published in Neues Deutschland, the official daily paper of the East German Communist Party (the SED, or Sozialistische Einheits-Partei Deutschlands), appeared under the heading of "Ideological Questions" on February 8-9, 1975. It was subtitled "Parapsychology - Latest Fad of the Irrational." The article appeared at a time when demonstrations by Israeli psychic-conjurer Uri Geller attracted considerable attention in the United States and Europe; Geller appeared able to bend forks and keys by willpower, and performed other apparently psychokinetic, telepathic, and clairvoyant feats.

Some two hundred years ago, Swedish mystic Emanuel Swedenborg (1688-1772) managed to attract spectacular attention. He maintained that he was able to achieve contact with the spirit world. As a representative of Spiritualism, he prompted the interest of Immanuel Kant, who collected news items about Swedenborg and spent the sum of seven pounds sterling to order the spirit medium's "major work" from London.

However, Kant soon concluded that the Arcana Coelestia (Secrets of the Heavens) amounted to eight volumes of "complete nonsense," and he did the best he could to make up for the money he had wasted: He wrote a critical volume, *Dreams of a Ghostseer, Analyzed through Dreams of the Metaphysical*. This work appeared in Königsberg, anonymously, in 1766. Kant used it to unmask the improper and regressive intent of mysticism; he served not only as a passionate inspiration of German Enlightenment, but also as an unimpeachable guardian of progressive thought. Kant spoke of himself as "the author of this text," who had to "confess with a degree of humility that he had been naive enough to track down the accuracy of some of these narratives," and "he found - as one does where one has no business looking - that there was nothing there."

Today, when one hears of miraculous, mystical experiences among contemporary ghostseers, one feels transported back to the days of Swedenborg. So-called factual books, articles in large-circulation newspapers and magazines, as well as the radio and television programs of the imperialist countries have rediscovered it all: supernatural powers that enable gifted people to read the thoughts of others (telepathy), trace hidden objects, move objects without physical or mechanical means (psychokinesis), and prophesy accurately the events of the future.

Thus the "medium" Uri Geller, for example, appeared before the cameras of the FRG [Federal Republic of Germany - West Germany] and, by means of his "magic powers," bent forks which, before the eyes of his audience, broke into pieces. In seeming sympathy, forks and knives in households throughout Federal Germany also bent, or so some overeager viewers maintained later.

One day, a large-circulation newspaper shouted URI GELLER BENDS ALL OF GERMANY. And a popular technological magazine for young readers took it upon itself to report all this as a decisive turn in natural science, comparable only to the achievements of Albert Einstein.

However, experts employed to endorse Geller's bending skills were less impressed. They testified that the bending as well as the breaking were the results of previous treatment of the utensils with a solution of quicksilver nitrate. Things always go better with chemistry.

When specific chemical substances interact with mechanical stress upon certain mixtures, so-called stress-tear corrosion results. This can happen in the case of a silver-plated fork, an alloy of copper, nickel, and zinc, briefly moistened with a poisonous solution of quicksilver nitrate, or a similarly appropriate solution.

Its impact changes the crystalline pattern of the materials so that they lose their solidity, A break can then result from minute distortions, already present in the material, or through brief back-and-forth bending prior to the performance. All that is then needed is the skill of an experienced conjurer, who knows how to use distracting maneuvers, and who presents a prepared fork to an amazed audience at the right moment.

However, Uri Geller, with all his remarkable versatility, is only one among many. Astrologers, clairvoyants, prayers-for-health currently experience increasing success in the capitalist countries. Numerous universities and research institutes in the U.S.A., FRG, and other countries employ scientists who seriously investigate the so-called supernatural manifestations of telepathy, telekinesis

and other occult happenings. It should be noted that the reality of these manifestations is taken for granted. The name chosen for this new branch of science is "parapsychology," and the occult subject of this form of study is briefly known as "psi."

Sensational reports, which emanate from researchers equipped with academic degrees and which are widely publicized in the bourgeois mass media, are gaining a widening circle of consumers. Some 25 percent of the readers of the British scientific periodical *New Scientist*, for example, are convinced that there exists something like extrasensory perception. Another 42 percent regard it as not entirely impossible. These results emerged from a survey made in 1972. A survey made in 1973 showed that 2 percent of adult men and women in the FRG [West Germany] firmly believe in witches, while 12 percent could not make up their minds. And in medicine, too, occultism and superstition have gained fertile ground. Thus, the number of licensed (non-medical) health practitioners in Munich gained 20 percent during a three-year period.

The most recent wave of spiritism, more or less disguised as scientific, passed some forty years ago over a populace buffeted by economic crises and fears. Worldwide economic depression and rampant unemployment created a fertile ground during the 1920s and 1930s, when prophets of black magic, clairvoyants, card-readers, and magic-dispensing prayers-for-health were everywhere. One has only to remember the "clairvoyant" Erik Hanussen, whom the fascists used as an instrument of their propaganda [Hanussen prophesied Hitler's rise to power, but was murdered by Nazi leaders who regarded him as dangerously ambitious. - Ed.] Another team were the brothers Willy and Rudi Schneider, originally from Hitler's birthplace, Braunau-on-Inn [Austria], who during the 1920s ranked as stars in occult clubs in Munich, Paris, and London. Or the Bavarian peasant girl Therese of Konnersreuth, whose alleged ability to rival unearthly forces (she displayed Jesus-stigmata on her hands and feet) attracted thousands of pilgrims.

Once again, today, the crisis in the capitalist countries encourages the revival of irrational trends within bourgeois ideology. At a time when the crisis within bourgeois philosophy manifests itself, among other things, in a form of skeptical pragmatism, while political economics cause pessimistic headlines, and while conservatism has once again become acceptable in public life, respectable academicians are able to achieve television and publicity success through mystical pseudo-science.

The roots of all this rest within exploitative society itself. Class interests force the ideologists of the ruling classes to hide certain objective facts, and to find "causes" for social conditions and circumstances, such as the "right" to exploitation. One example is the bourgeois papering-over of the relationship of wage labor to capital or the means of capitalist exploitation as such, which Karl Marx demystified in *Das Kapital* and showed to be scientifically inaccurate.

Human consciousness is decisively formed by material existence and economic-social conditions. Karl Marx noted in *The German Ideology*: "Even the foggy creations of the human mind are necessarily sublimates of life processes that are based on material, empirically conceivable and material conditions."

Lacking a scientific world view, and without Marxism-Leninism, many people in the capitalist countries face social, economic, and political changes, quite helpless and confused. Particularly in

moments of crisis, social theories offered by the ruling class prove to be useless, providing no answers to the pressing questions of life. Many seek an escape from this frustration by turning toward a mystical belief in miracles. The mass media of the ruling classes nourish this process as much as possible, particularly as occultism and superstition correspond to the nature of the ruling ideology. Mysticism is, after all, well suited to distract the masses from important and substantive economic and political questions.

Mysticism disguised as science has, today in particular, selected such complicated areas as brain research, microbiology, and biochemistry - in other words, areas that have made great progress during recent decades, but where many problems demand further research.

Here we find a parallel to the mysticism of past centuries. All along, unsolved scientific questions have encouraged speculations that had nothing to do with an understanding of the real world. Lack of knowledge concerning electricity and atmospheric conditions once led people to consider such events as lightning and thunder as the acts of gods. And lack of anatomic knowledge has, in past centuries, led to totally inappropriate methods of treatment and prayers-for-health.

Research in the natural sciences does not proceed without a philosophy. Data that is gained by experimental, empirical methods is never interpreted from within itself. Working hypotheses, based on previous levels of knowledge, are essential. Without a materialistic ideology, research in the natural sciences lacks orientation toward a correct interpretation of the results a scientist's work has created, and he stumbles in the dark.

Dramatic developments in the natural sciences during this century, the emergence in physics of quantum and relativity theories, or the successes in genetics, for example, are in the main trends that can only be correctly interpreted when one employs dialectical materialism. Without such a means of evaluation, the natural scientist stands defenseless in the face of the vagaries of bourgeois ideology, including superstition disguised as science. "In order not to face such an event helplessly," V. I. Lenin wrote in his work *On the Meaning of a Challenging Materialism*, "we have to comprehend that, without a sophisticated philosophical basis, no natural science, no materialism can succeed in the struggle against the onslaught of bourgeois ideas and the reconstitution of a bourgeois ideology." In order to survive this struggle and to continue it to a victorious end, the natural scientist has to be a modern materialist, a conscious adherent to the materialism represented by Marx, which means he has to be a dialectical materialist.

Today, parapsychologists at times utilize the most modern experimental equipment in order to find experimental proof for their mystical working hypotheses. But their success is often the same as it was two hundred or one hundred years ago. Because, at times, these researchers suffer the same fate as William Crookes, who discovered the element thallium, and of whom Friedrich Engels [for many years Marx's closest collaborator] wrote in his *Dialectic of Nature*: "Mr. Crookes began about 1871 to study spiritistic manifestations, and utilized a variety of physical and mechanical apparatus, spring-scales, electric batteries, etc. Whether he brought along that essential device, a skeptical-critical head, or whether it lasted to the end in good working condition, will have to be decided later on.

In any event, Mr. Crookes was soon as quickly trapped as Mr. Wallace," another explorer of nature,

who had turned toward spiritism. [Alfred Russel Wallace developed a theory of human evolution separately, but at the same time as, Charles Darwin; he was a convinced spiritist. - Ed]

Engels notes in the same work: "In fact, pure empiricism is unable to handle the spiritists. First, the 'higher phenomena' are only revealed when the particular 'researcher' has already been trapped to a point where he only sees what he is supposed to see, or wants to see. ... Second, the spiritists do not care whether hundreds of alleged facts are revealed to be trickery, or dozens of alleged mediums turn out to be simple tricksters. As long as not every one of the supposed miracles has been explained away, they control sufficient territory."

Falsification has for quite some time managed to invade "scientifically" operated parapsychology. Quite recently, such a scandal affected the Institute for Parapsychology at Durham (USA). There, experiments with rats were supposed to prove that even animals are able to precognize events and to influence them.

The working hypothesis assumed that the animals, sufficiently stimulated, anticipated randomly created stimulation impulses and consequently influenced the generator by means of psychokinesis. It therefore created a sensation when the head of the experiment and director of the Institute, W.J. Levy, presented results that confirmed this impossible assumption. However, these results had been forged, and the psychokinetic miracle did not take place. Levy has since then admitted the manipulation, and resigned as director of the institute.

When we communists say that, with the socialist world system, a new era has begun, we express a preference for our system: this means the manipulators of darkness, misleading superstitions, and the profiteers of human ignorance are once and for all deprived of a nourishing soil.

Serious natural scientists and Marxist philosophers among us are engaged in unmasking such modern merchants of darkness. Among the passionate defenders of scientific honor stands Professor Dr. Otto Prokop and his collaborators of the Institute of Legal Medicine at Humboldt University in [East] Berlin. There, such occult undertakings as "thought photography" and "life emanations" are being unmasked as conscious frauds.

We Marxists-Leninists, in principle, consider the world as knowable and changeable by the efforts of man, who to us ranks as the highest of all things.

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## **Outline of CIA Project on ESP**

The following text, released by the Central Intelligence Agency under the Freedom of Information Act, deals with a twofold project designed to examine the potential use of extrasensory perception for "practical problems of intelligence." The author of the memorandum outlined a project of at least three years in length and estimated the cost for its first year. The project was envisioned as aiming at reliability and repeatability among "exceptionally gifted individuals" and at the utilization of "scattered" ESP results through "statistical concentration."

Names, telephone numbers, and other items that might permit the identification of individuals or departments were deleted by the CIA at the time the document was released in 1981, and such deletions are noted in the text. There are no indications whether the project was actually undertaken, nor is it clear whether the text is an interoffice memorandum between two agency officials or was addressed to a CIA official by a researcher working under a contract or grant outside the agency. The memorandum is dated January 7, 1952.

January 7, 1952

If, as now appears to us as established beyond question, there is in some persons a certain amount of capacity for extrasensory perception (ESP), this fact, and consequent developments leading from it, should have significance for professional intelligence service. Research on the problems of extrasensory perception has been in the hands of a very few workers and has not been directed to the purpose here in mind, or to any practical application whatever. However, having established certain basic facts, now, after long and patient efforts and more resistance than assistance, it now appears that we are ready to consider practical application as a research problem in itself.

There are two main lines of research that hold specific promise and need further development with a view to application to the intelligence project. These two are by no means all that could be done to contribute to that end; rather, everything that adds anything to our understanding of what is taking place in ESP is likely to give us advantage in the problem of use and control. Therefore, the Rockefeller-financed project of finding the personality correlates of ESP and the excursions into the question of ESP in animals, recently begun, as well as several major lines of inquiry, are all to the good.

The two special projects of investigation that ought to be pushed in the interest of the project under discussion are, first, the search for and development of exceptionally gifted individuals who can approximate perfect success in ESP test performance, and, second, in the statistical concentration of scattered ESP performance, so as to enable an ultimately perfect reliability and application.

We have something definite to go on in each case, and it is with this in mind that we are inclined to make a serious effort to push the research in the direction of reliable application to the practical problem of intelligence. First, a word about the "special subject": On a number of occasions, through the years, several different scientific investigators have, under conditions of excellent control, obtained strikingly long runs of unbroken success from subjects in ESP tests. The conditions allowed no alternative. At least one of them occurred with the target cards and experimenter in one building and the subject several hundred yards away in another.

Due to the elusive, unconscious nature of ESP ability, these same subjects could not reliably repeat, and during the years of investigation under the conditions of extreme limitations with which the work has had to be done, it has not been possible to solve the problem of overcoming this difficulty and bringing the capacity under reliable control. We have recently learned of two persons definitely reported to be able to keep up their rate of almost unbroken success over much longer stretches of time. These investigations have been going on in scientific laboratories, and from reports in our hands

we have no reason to question their reliability.

We have not been able to bring the subjects here or extend our investigation to the laboratories concerned. It looks, however, as if in these two cases the problem of getting and maintaining control over the ESP function has been solved. If it has, the rest of the way to practical application seems to us a matter of engineering with no insuperable difficulties. Even if there is anything wrong with one or both of these cases, this more extended control must come eventually, we think, and we have had in mind many lines of research, designed to try to bring it [about].

I shall not enlarge on the practical and technological developments that would be followed in bringing a capacity, such as that demonstrated in these card tests, of getting information in a practical situation. It will be seen that if a subject under control test conditions can identify the order of a deck of cards, several hundred yards away in another building, or can "identify" the thought of another person several hundred miles away, the adaptation to the practical requirements for obtaining secret information should not give serious difficulty.

The other practice on which research should be concentrated, we believe, is that of developing ways of using small percentages of success in such a way that reliable judgment can be made. While we are still exploring the advantages of this instrument of application, we have gone far enough to see how it is entirely possible and practical to use a small percentage of success, above that expected by chance alone, so as to concentrate the slight significance attaching to a given trial to the point where reliance can be placed upon the final application to the problem in hand. I believe you went into this matter thoroughly enough with [name of individual or unit deleted] that I will not need to review here the actual devices and procedures by which this concentration of reliability is brought about.

If we were to undertake to push this research as far and as fast as we can reasonably well do in the direction of practical application to the problems of intelligence, it would be necessary to be exceedingly careful about thorough cloaking of the undertaking. I should not want anyone here in the [word or words deleted], except [two names apparently deleted] and myself to know about it. We are all three cleared for security purposes to the level of "Secret." I would perhaps feel bound to have confidential discussion on the matter with [name or names apparently deleted]. Funds necessary for the support of the work would understandably carry no identification and raise no questions.

If there is no reason why there could not be, at any time it was justified, a renegotiation of additional needs that might arise that cannot be anticipated at this stage, I should prefer to proceed with some restraint in estimating what such a project would involve in the matter of funds. I shall estimate a research team of five persons working on this project primarily. There will be no careful line drawn.

There will be a great deal of exchange and, of course, no designation in the [several words deleted] a separate unit. For our purposes at the moment, however, the [deleted] can consider that such a test might consist of [name apparently deleted], a well-qualified statistician and two research workers qualified not only to handle groups of subjects but assist in the evaluative procedures as well. The total salary estimate for these five people would be between \$22,500 and \$25,000. In order to take advantage of mechanical aid in the statistical work and such other matters as traveling expenses, it would be advisable to add \$5,000 as a conservative estimate.



I think \$30,000 would be well spent on the first year. It is almost anyone's guess as to what the next year would lead us into, but it would almost certainly be more and probably a great deal more. I doubt if it would be profitable to try to fix it at this time.

Frustrated as we have been by having to deal in short-term projects and the wastefulness of effort that accompanies the attempt to do long-term research projects on that basis, I am about ready to say that without pretty definite assurance of at least a three-year program I should not want to try to assemble the personnel, design and research program and put the overall effort into what is really a major undertaking like this.

Much as I feel the urgency of having our country have as much a lead as possible in this matter, I do not think it is advisable to undertake it unless there is a certain amount of confidence on both sides of the agreement, and these short-term grants-in-aid are, after all, usually measures of limited confidence.

I might add that, while the Russians have both officially and through their leading psychologists disapproved of our kind of work, as they would have to do because of the philosophy of Marxian materialism, I have seen at least one reference to the fact that they have done experiments on our lines, giving a materialist interpretation. If you can give me any information on this, I would appreciate it. Sometime we might discuss what the Nazis undertook to do ...

## Notes On Sources

In addition to sources cited throughout the text of this book, interviews with specialists inside and outside the Soviet Union have yielded some of the data utilized. In the absence of a Soviet journal specializing in the field of parapsychology, publications outside the Soviet Union have selected and translated appropriate material from Soviet newspapers and periodicals, scientific as well as popular.

The pioneer publication in the field is the bi-monthly *International Journal of Paraphysics*, edited by Benson Herbert and published by the Paraphysical Laboratory, Downton, Wiltshire, England. It was joined in early 1982 by the quarterly *Psi Research*, edited by Larissa Vilenskaya and published by the Washington Research Center and the Foundation for Human Science, San Francisco. The same center has issued five volumes on Parapsychology in USSR, also edited by Ms. Vilenskaya.

These volumes contain extensive bibliographies, which serve to update the *Bibliography of Parapsychology: Psychotronics, Psychoenergetics, Psychobwphysics and Related Problems*, (1981), compiled by Edward K. Naumov and Ms. Vilenskaya and published by the Parapsychological Association, Alexandria, Virginia. Occasional articles and reviews relevant to the subject appear in *The Journal of the Society for Psychical Research*, London; *The Journal of Parapsychology*, published by the Foundation for Research on the Nature of Man, Durham, North Carolina, and the *Parapsychology Review*, published by the Parapsychology Foundation, New York, New York.