(14) Rept. no. ATD-U-64-77

(11) 23 July 64,

(9) Annotated bibliography on surveys of Soviet-Bloc scientific and technical literature.

(6) SOVIET PARAPSYCHOLOGY.

~~Annotated Bibliography~~

ATD Work Assignment No. 38

Task 3

Completed 7/24/64

(5) Aerospace Technology Div[illegible]
Library of Congress,
Washington, D.C.

ATD U-64-77 23 July 1964

Surveys of Soviet-Bloc Scientific and Technical Literature

SOVIET PARAPSYCHOLOGY

Annotated Bibliography

ATD Work Assignment No. 38

Task 3

This is an unedited rough draft which has not been approved for publication and is intended for the use of the requestor only. Recommendations regarding future publication and dissemination are invited. The Aerospace Technology Division reserves the right to publish this report, after final editing, if it considers wider dissemination desirable.

Aerospace Technology Division
Library of Congress

FOREWORD

This bibliography has been prepared in response to ATD Work Assignment No. 38 (OAR No. 4a), Task 3. It consists of materials reflecting Soviet research efforts and the state of Soviet research in telepathy.

The bibliography is divided into two sections. Section 1 contains annotations of Soviet materials which were available for examination at the Library of Congress. Section 2 lists materials known to exist which were not available or could not be obtained in time for annotation and inclusion in Section 1. Some of the items in Section 2 could not even be identified because of the inconsistent and often sloppy citations given by the Russian authors. These are usually incomplete and sometimes utterly incomprehensible. Others were not available because they appear in publications which have never been received by the Library of Congress; and still others, because they happen to fall into one of the not infrequent lacunae in the Library's serial collections.

The primary materials used in compiling this bibliography were three recent books by Professor L. L. Vasil'yev of Leningrad State University, and a fourth by B. B. Kazhinskiy. These were: Vnusheniye na rasstoyanii (Suggestion at a distance) (1962), Eksperimental'nyye issledovaniya myslennogo vnusheniya (Experimental studies on mental suggestion) (1962), and the chapter "Brain radio" from the book Tainstvennyye yavleniya chelovecheskoy psikhiki (Mysterious phenomena of the human psyche) (1959), all by Vasil'yev; and Biologicheskaya radiosvyaz' (Biological radio-communication) (1962), by Kazhinskiy. The sources cited by Vasil'yev and Kazhinskiy were obtained (when available) and examined, and, if they were relevant to the subject, annotations were made. However, standard Soviet reference works, handbooks, textbooks, and the like were not abstracted; and statistical data and research results in biophysics and biochemistry, and other materials not directly pertinent to parapsychology, were not included.

In addition to the materials obtained by the methods described above, the current Soviet press (journals, newspapers, and magazines, 1960 to date) was scanned for articles or discussions on telepathy, and any found were included.

Of the total of 430 references cited in the three books and chapter of a fourth by Vasil'yev and Kazhinskiy, 204 are from Russian sources and 225 from Western literature. Of the 204 Russian citations, about half (103) were published prior to 1940. A total of 39 citations (both Russian and Western)

are taken from sources published before 1900. About one-third of the 430 references, Russian and Western, are taken from popular magazine articles, or from general textbooks on statistics, physiology, biophysics, and other subjects not directly related to parapsychological phenomena.

This review of current discussions of telepathy appearing in the Soviet press is the basis of the following subjective opinion with respect to the status of parapsychological research in the USSR. Professor L. L. Vasil'yev of Leningrad State University is not only the most prolific, but also the most prominent of Soviet parapsychologists. He is engaged in what is apparently an attempt not only to justify his experimental endeavors, but also to gain official support for a research program in parapsychology. His efforts in behalf of the latter objective are meeting with stiffening opposition. The opponents of telepathy are becoming quite voluble in the expression of their views, and unfortunately for Vasil'yev there are some very influential scientists (such as Ya. B. Zel'dovich) among them. In view of the violent antipathy of this group to the very idea of telepathy, it appears highly unlikely that any official support or funds will be forthcoming for parapsychological research. Lack of support may indeed be the least of the evils which might befall Vasil'yev's hopes. It is also entirely possible that telepathy will be condemned officially as a concept, its proponents forced to recent, and investigations of it abandoned.

are taken from sources published before 1900. About one-third of the 430 references, Russian and Western, are taken from popular magazine articles, or from general textbooks on statistics, physiology, biophysics, and other subjects not directly related to parapsychological phenomena.

This review of current discussions of telepathy appearing in the Soviet press is the basis of the following subjective opinion with respect to the status of parapsychological research in the USSR. Professor L. L. Vasil'yev of Leningrad State University is not only the most prolific, but also the most prominent of Soviet parapsychologists. He is engaged in what is apparently an attempt not only to justify his experimental endeavors, but also to gain official support for a research program in parapsychology. His efforts in behalf of the latter objective are meeting with stiffening opposition. The opponents of telepathy are becoming quite voluble in the expression of their views, and unfortunately for Vasil'yev there are some very influential scientists (such as Ya. B. Zel'dovich) among them. In view of the violent antipathy of this group to the very idea of telepathy, it appears highly unlikely that any official support or funds will be forthcoming for parapsychological research. Lack of support may indeed be the least of the evils which might befall Vasil'yev's hopes. It is also entirely possible that telepathy will be condemned officially as a concept, its proponents forced to recent, and investigations of it abandoned.

TABLE OF CONTENTS

SECTION I. ANNOTATED BIBLIOGRAPHY

1. Ayrapetyants, M., and A. Ivanitskiy. Two physiologists argue... Tekhnika molodezhi, no. 1, 1961, 30.

   The first writer is of the opinion that the notion of thought transmission should be classified with other fairy tales. The second postulates the existence of a cerebral electromagnetic field which is so extremely weak that it has never so far been registered even by the most sensitive instruments.

2. Baratyants, M. The sixth sense—does it exist? Trud, 8 May 1964, p. 3, cols. 2-6.

   Earlier reports of extraocular vision (skin vision) concerned Lena Bliznova of Khar'kov and Roza Kuleshova of Nizhniy Tagil. Now a new name has been added to the list: that of Vera Petrova, an 11-year-old girl from the village of Novocheremshansk in Ul'yanovskaya Oblast'. Tests in Ul'yanovsk established that the girl is in good health with a normal nervous system and normal reflexes. In blindfold tests she proved capable of reading small print, recognizing colors and photographs, and telling time. With shoes on she could recognize colors and designs placed under a carpet by walking over them. She could also "see" through a wooden door and a thick wall. The majority of authorities debating these phenomena insist that skin vision is possible. Doctor of Medical Sciences Ye. Rabkin, an oculist, inclines to the theory that photochemical reactions in the skin are responsible. Professor I. Vel'vovskiy considers that the skin possesses "receptors" which transmit impulses to the brain. Still others regard skin version as a vestigial capability left over from earlier stages of evolution (one-celled animals).

3. Bekhterev, V. M. [Bechterew]. Hypnotic therapy. Vestnik znaniya, no. 2, 1926, 86-95.

Hypnotic therapy is discussed mainly from the viewpoint of the author's personal experience. No attempt is made to describe the nature of hypnosis.

4. Bekhterev, V. M. [Bechterew]. Mutual autosuggestion in human groups and mass hallucinations. Vestnik znaniya, no. 6, 1926, 362-366.

The author narrates historical examples of mass hallucinations, suicidal religious tendencies, and the like. It is suggested that mass hallucinations are prompted by visual stimuli during acute emotional stress.

5. Bekhterev, V. M. [Bechterew]. The nature of hypnosis. Vestnik znaniya, no. 1, 1926, 35-39.

This is a popular exposition of the nature of hypnosis. Artificially induced inhibition reflex is regarded as the physiological basis of hypnosis.

6. Biryukov, D. A. Is telepathy scientific? Akademiya meditsinskikh nauk. Vestnik, no. 1, 1964, 43-53.

Telepathy is considered in the light of dialectic materialism and its own intrinsic scientific merits. The author takes a very dim view of the latter. His main objections can be summarized as follows: 1) Experimental data supported by adequate controls are not available. 2) Proponents of telepathy tend to be enthusiasts, biased and subjective in their interpretation of telepathic phenomena, possibly even to the point of doctoring "experimental" results to support the conclusions they wish to reach. 3) The author further implies that L. L. Vasil'yev, leader of Soviet parapsychology, is attempting to blackmail the Soviet scientific community into lending him its support, through his constant references to the alleged great interest of U. S. military authorities in parapsychological phenomena generally and telepathy in particular.

He concludes that telepathy in the light of present knowledge should be classed with such other "sciences" as necromancy, clairvoyance, and the like.

7. Blyumenfel'd, L. A. The problem of biomagnetism. Nauka i zhizn', no. 7, Jul 1961, 89-90.

Doctor of Chemical Sciences L. A. Blyumenfel'd states: "I am not aware of the existence of even a single experimental fact supporting the existence of such [i. e., biomagnetic] effects. All data are either statistically uncertain, or could be due to electrical effects arising with the switching on or off of the magnetic field. Some writers have referred to the 'pseudo-ferromagnetic' properties of nucleic acids, detected in our laboratory. This is due to a misunderstanding. We did not study magnetic field effects on any biological object, but merely assayed the magnetic characteristics of the more important biological compounds."

8. Bykov, K. M. Sovremennyye predstavleniya o peredache nervnogo protsessa (Modern notions concerning the transmission of nervous processes). Moskva, Izd-vo "Pravda," 1948. 14 p.

The nature of the mechanisms of the propagation of nervous excitation are reviewed. It is considered that both chemical and electrical hypotheses of the propagation of nervous excitation have received the sanction of the international scientific community and supplement, rather than contradict, one another.

9. Dzhavadyan, N. Cerebral biocurrents and thought. Tekhnika molodezhi, no. 2, 1961, 31-32.

The possibility of thought transmission is categorically denied. No correlation can exist between cerebral biocurrents and thought because the former is determined by the nature of chemical, physical, and physiological processes, while the latter is unique and to a great extent is shaped by the social environment.

10. Frolov, Yu. P. The mystery of olfaction. Tekhnika molodezhi, no. 12, 1959, 27-28.

Theories of olfaction are briefly discussed. In the writer's opinion, the problem of analyzing the elements of olfactory perception and the decoding of olfactory information could be solved if it were attacked with all the resources of modern physical science. The diagram of an olfactometer—a device for the measurement of olfactory information—is given.

11. Gulyayev, P. Thought transmission over a distance. Tekhnika molodezhi, no. 1, 1961, 28-29.

The transmission of thought over a distance is discussed. For purposes of discussion it is assumed that the brain emits electromagnetic waves, although their existence has not been proven. If such waves exist, it would still be impossible to decode them, i.e., to read thoughts, because of the analogy between them and electroencephalographic bioelectric activity. The components of an electroencephalogram cannot be decoded because the EEG represents the summation of millions of separate signals emitted by individual neurons.

12. Kazhinskiy, B. B. Biologicheskaya radiosvyaz' (Biological radiocommunication). Kiyev, Izd-vo AN UkrSSR, 1962. 167 p. 30,000 copies printed.

The purpose of this popularly written monograph is to focus public attention on the problem of biological radiocommunication, i.e., telepathy. The foreword, written by V. K. Kozak, M. D., reviews the problem of telepathy in the light of Kazhinskiy's contribution. Though critical of some aspects of Kazhinskiy's work, the review is generally favorable. The author's introduction is a chronological recital of his investigations on telepathy and is essentially an apologia for telepathy. Ch. 1 begins with a description of an extraordinary personal experience of the author. Analogies between

components of the nervous system and electrical circuits are discussed. Ch. 2 discusses animal experiments. The work of the animal trainer V. L. Durov is particularly emphasized. Ch. 3 deals with so-called "visual rays." Durov's experiments are further discussed. The hypothesis is advanced that the epiphesis is the receptor of biological emissions. Ch. 4 describes acoustic phenomena. It is stressed that there is a direct relationship between auditory sensibilities and the histological structure of the auditory cortex. The attempt is made to draw an analogy between the latter and electrical circuitry. Ch. 5 discusses memory and its possible relation to some brain structures. Ch. 6 mentions the attitude of K. E. Tsiolkovskiy (a prominent aerodynamicist, deceased in the 30's) toward telepathy. The author engages in lively polemics against his past and present detractors. Ch. 7 reviews various ideas concerning the nature of telepathy are reviewed, and the work of non-Soviet investigators is reviewed at some length.

13. Kholodov, Yu. A. The magnetic field—a strange stimulus. Nauka i zhizn', no. 7, Jul 1961, 78-80.

The Department of the Physiology of Higher Nervous Activity of Moscow State University, headed by Professor L. G. Voronin, is engaged in the study of the effects of magnetic fields on various animals. It was found that it was possible to establish a conditioned response to a magnetic field in fish if the conditioning was reinforced with another stimulus such as light or an electrical current. Blind fish exposed to a magnetic field responded to light stimulation. Extirpation of the diencephalon eliminated all reaction to magnetic fields. Pigeons failed to develop any conditioned reflex during exposure to magnetic fields. However, the magnetic field did have the effect of totally inhibiting conditioned responses to standard stimuli in pigeons.

14. Krylov, A. V., and G. A. Tarakanova. Magnetotropism. Nauka i zhizn', no. 7, Jul 1961, 85-87.

The roots of plant seeds germinated in a constant magnetic field show a general tendency to gravitate towards the south pole of the field. It is postulated that this polar asymmetry is the physical basis which determines the continuity of matter conversion in living organisms.

15. Kursanov, A. L., Academician. (Untitled article). Nauka i zhizn', no. 7, Jul 1961, 85.

Although it is difficult to forsee all the scientific and practical consequences which may result from the study of magnetotropism, the existence of this new, previously unsuspected property of living matter is established, and the importance of its study is clear.

16. Leontovich, A. V. The neuron—an alternating current device (based on pericellular electrophysiology). Biologicheskiy zhurnal, v. 2, nos. 2-3, 1933.

The author regards the pericellular convolutions of neurons as solenoids. The notion that these convolutions are random is rejected. Mathematical methods are used in the attempt to show that a neuron contains two induction coils: one consisting of pericellular fibrils; the other consisting of intracellular neuron fibrils.

17. Linetskiy, M. L. Micturition following hypnotically suggested water intake. Zhurnal vysshey nervnoy deyatel'nosti, v. 11, no. 1, 1961, 46-49.

Hypnotically suggested water-drinking initially resulted in increased micturition, but repeated suggestion reduced micturition gradually to control levels. All subjects tested were aware of their action during hypnotic trance, as revealed by later questioning.

18. Mirza, D. Don't forget random coincidence. Tekhnika molodezhi, no. 2, 1961, 30.

Experiments conducted by S. Ya. Turlygin in 1942 are described. A subject with preliminary conditioning (to fall backward on receipt of hypnotic suggestion) was hypnotized by an operator separated from him by a thick lead screen. The screen was pierced by a tube whose mouth was covered with dark paper to prevent the hypnotist from seeing what went on in front of the screen. The experiments showed that the time required to trigger the conditioned reflex in the subject was longer when the orifice between hypnotist and subject was closed. If a rectangular metallic mirror was placed in front of the orifice, the conditioned response to hypnotic suggestion occurred only when the subject was located in the line of deflection of the mirror, as calculated on the assumption that the emissions were electromagnetic in nature and would obey the laws of electromagnetic deflection. It was concluded that the phenomena observed should be ascribed to electromagnetic emissions generated by the hypnotist. The present writer (Mirza) feels that the statistical basis of this conclusion is shaky and that the data need to be reexamined to see if they are not equally ascribable to coincidence.

19. Novak, V. Not thought transmission, but illusion. Tekhnika molodezhi, no. 1, 1961, 31.

The author states his view that so-called thought transmissions should be regarded as pseudohallucinations.

20. Polyakov, G., and O. Adrianov. It is necessary to experiment! Tekhnika molodezhi, no. 2, 1961, 32.

The question of the transmission of thoughts and emotions is a serious one which requires serious and coordinated study, making use of the most advanced instruments and apparatus available.

21. Saradzhev, N. Can the brain receive direct transmission of thought? Tekhnika molodezhi, no. 1, 1961, 31.

It is assumed that, although extremely weak, electromagnetic emissions from the cerebrum can be received by specialized and still unknown sense organs. Some animal species have extremely sensitive neurons capable of excitation by subliminal energy levels. S. I. Vavilov is cited as stating that "under certain conditions, individual rods in the retina are sensitive to energy levels ranging from one to a few dozen photons." There is no reason to deny the possibility of thought transmission just because the persons sending or receiving the signals are not aware of the participation of any of their known sense organs in the thought transmission process.

22. Shcherbak, Yu. Neurons have begun to talk. Nauka i zhizn', no. 6, Jun 62, 50-53.

Glass microcapillaries with diameters of 0.1—0.5 μ have been developed in the Laboratory of General Physiology of the Institute of Physiology of the academy of Sciences Ukrainian SSR in Kiyev, which is headed by Dr. P. G. Kostyuk. These capillaries are used for manipulating neurons and injecting neuroplasm with electrolytes in studying the propagation of nervous excitation.

23. Skachedub, R. G. Hypotheses, conclusions... Nauka i zhizn', no. 7, Jul 1961, 82-83.

The Department of Normal Physiology of the Perm' Medical Institute, headed by Professor M R. Mogendovich, is engaged in an intensive research effort to assay the effect of magnetic fields on the vital functions. The following data are reported as among research results: Under the effect of a magnetic field, coagulation time decreases, leukocytes become more active [presumably as the result of enhanced phagocytosis—Analyst], and the erythrocyte sedimentation rate decreases (this last is called "Mogendovich's phenomenon"). A constant magnetic field increases

the permeability of animal tissues and cells. Exposure to a magnetic field lowers the oxygen requirement of mice, and may act as a depressant judging from the analgesic effect on wounded during WW 2.

24. Sokolov, A. N. The alphabet of unspoken thoughts. Nauka i zhizn', no. 12, Dec 1962, 28-32.

Physiological studies of the vocal apparatus during the process of unarticulated speech were conducted in 1962 at the Institute of Psychology of the Academy of Pedagogical Sciences RSFSR. The purposes of the investigation were twofold: 1) design of electronic models of speech processes to include motor, visual, and auditory components and 2) decoding of vocal electromyograms.

25. Turlygin, S. Ya. Microwave (λ = 2 mm) emission by the human body. Byulleten' eksperimental'noy biologii i meditsiny, v. 14, no. 10, issue 4, 1942, 63-73.

Two subjects, a hypnotist-inductor (I) and a percipient (P), took part in the experiment. (I) was placed inside a lead-covered booth located in a well-insulated room. The booth was fitted with a tube which could be screened by a diaphragm. (P) sat outside the booth in a chair 2 m from the front of the tube. During preliminary trials (P) stated that she could "feel" when (I) was "working." During a preliminary control trial of 35 min duration, (P) responded correctly 17 consecutive times. It was assumed that the correct responses were random coincidences with a random series of a "work—no work" state. The probability η of 17 consecutive correct responses would then be

$$\eta = \frac{1}{P} = \frac{1}{1x2x3...16x17} = \frac{1}{3{\cdot}55x10} \text{ or}$$

$$\eta = 2.8 \times 10^{-16}.$$

The presence of [electromagnetic] emission was deduced as follows: 1) It had been noted by earlier

investigators that subjects in hypnotic trance lacrimate quite frequently. Since lacrimation is controlled by the automatic nervous system, it was assumed that an analogous situation should obtain with regard to the secretion of perspiration. A specially designed hygrometer was accordingly placed in (P)'s armpit. Before hypnotic suggestion, the hygrograph agreed quite well with the theoretical curve for constant environmental humidity. After the onset of hypnotic suggestion, the hygrographic curve continued to increase exponentially instead of deflecting to the right as did the theoretical curve. 2) A mirror placed in front of the tube between (I) and (P) deflected the emissions. Subsequent calculations led to the assumption of the electromagnetic nature nature of the emission. It was estimated that one of its components lies in the 1.8—2.1-mm range.

26. (Unsigned article). An experiment in thought transmission over a distance. Nauka i zhizn', no. 10, Oct 1962, 98.

This short article shows geometrical patterns used in telepathic experiments. The reader is referred to L. L. Vasil'yev's book, "Vnusheniye na rasstoyanii (Thought transmission over a distance)" for further specific information on telepathy.

27. (Unsigned article). Telepathy. Bol'shaya Sovetskaya entsiklopediya, 2d ed, 1956, v. 48, 159.

Telepathy is an antiscientific, idealistic fiction wnich maintains that man has a supernatural ability to perceive and transmit thoughts over a distance without the intervention of sensory organs or physical environment.

28. Vasil'yev, L. L. Eksperimental'nyye issledovaniya myslennogo vnusheniya (Experimental studies in mental suggestion). Leningrad, Izd-vo LGU, 1962. 198 p. 7000 copies printed.

Inasmuch as this book is available in English translation, as follows, it will not be annotated:

Vasiliev, L. L. Experiments in mental suggestion. Church Crookham, Hampshire, England, Institute for the Study of Mental Images, 1963. 178 p.

Library of Congress Call No. BF1156.S8V313.

29. Vasil'yev, L. L. Experiments in psychomagnetism. Nauka i zhizn', no. 7, Jul 1961, 80-82.

The author narrates some of his experiences in experimenting with psychomagnetism: experimental subjects were exposed to magnetic fields which inhibited hypnotic effects and motor reactions and in one case caused a displacement of phosphene.

30. Vasil'yev, L. L. Tainstvennyye yavleniya chelovecheskoy psikhiki (Mysterious phenomena of the human psyche). Moskva, Gospolitizdat, 1959. 119 p.

The purpose of this popularly written pamphlet is "to unmask common superstitions" which arise from a naive approach to neuropsychiatric phenomena. It consists of the following chapters: 1. Mysterious psychic phenomena as the source of superstitions; 2. Sleep and visions; 3. Hypnosis and mental suggestion; 4. Suggestion and autosuggestion in the waking state; 5. Automatic movements; 6. Does "brain radio" exist? 7. Death and death-connected superstitions.

31. Vasil'yev, L. L. Thought conquers distances. Komsomol'skaya pravda, 16 Feb 1964, p. 4, cols. 3-7.

Vasil'yev, a student of ESP for over 25 years, uses the "skin vision" (identification of colors through a metal plate and of drawings encased in a metal tube) exploits of Soviet schoolchildren as a springboard for a dissertation on telepathy. He reviews card-guessing experiments where the number of correct guesses far exceeded statistical probability. Some sort of energy

emanating from the brain of the telepathic sender serves as a carrier for thoughts and images. Electromagnetic energy has been eliminated as a possibility. The neutrino is mentioned as a possible candidate having some of the necessary properties (universal penetration, low power, long-distance effects). Neutrinos can penetrate the earth virtually without energy loss. Whatever its nature, the telepathic carrier has never been registered by present instrumentation. Parapsychological equipment to deal with this new type of biologically active energy will have to be of a new type itself, perhaps using living matter as a component.

32. Vasil'yev, L. L. Thought transmission over a distance. Vestnik znaniya, no. 7, 1926, 458-468.

The author lists instances of telepathy. He concludes that although existing data are not sufficiently complete to permit a scientific definition of telepathy, nontheless such a phenomenon is within the realm of possibility.

33. Vasil'yev, L. L. Vnusheniye na rasstoyanii. Zametki fiziologa (Mental suggestion at a distance. Notes of a physiologist). Moscow, Gospolitizdat, 1962. 160 p. 120,000 copies printed.

The subject of telepathy is treated at length in this length in this popularly written book. The author is vocal in his effects to awaken the reader's curiosity and to create the impression that telepathy has received the official sanction of the international scientific community. The book contains 12 chapters, as follows: Ch. 1. History and basic concepts of telepathy; Ch. 2. Daily occurrences understood as mental suggestion over a distance; Ch. 3. Experimental mental suggestion over a distance; Ch. 4. Comparison of everyday occurrences with experimental data; Ch. 5. Seeking optimal experimental conditions; Ch. 6. Telepathic communication; Ch. 7. Telepathic talent; Ch. 8. Physiological studies of mental suggestion at a distance; Ch. 9. The phenomena of "biological telecommunications" in animals; Ch. 10. The electromagnetic

hypothesis of mental suggestion over a distance; Ch. 11. Experiments over a very long distance; Ch. 12. Theoretical significance and possible practical applications.

34. Vodolazskiy, L. The brain probably has electromagnetic properties after all. Tekhnika molodezhi, no. 2, 1961, 33.

In 1936 the author collaborated with Dr. T. Gurshteyn in experiments during which a hypnotic subject was screened from the hypnotist. The screening interfered with the process of hypnotic suggestion. In this respect, the results agreed quite well with those reported by S. Ya. Turlygin in 1942, six years later.

35. Zel'dovich, Ya. B. IN: Akademiya nauk SSSR. Vestnik, no. 4, Apr 1964, 75.

"In addition to new and interesting theories, pseudoscientific "theories" appear from time to time. These are widely dissiminated in the West. We have no intention of competing [with Western nations] in this respect, any more than we compete with them in the publication of comic strips and pornography. "For instance, in the U.S., papers are published on telepathy and experimental work is performed in telepathic communication between people located in the Pentagon and aboard a submarine 10,000 kilometers distant. I can prove with a pencil and paper that no known fields or particles exist which can sustain such communications. "...Greater intolerance is required in the sciences. The struggle against pseudoscience is one of the unpleasant but necessary tasks." [Direct translation].

SECTION 2. LIST OF REFERENCES NOT AVAILABLE OR NOT REVIEWED

36. Akademiya nauk SSSR. Doklady, v. 17, nos. 1-2, 1937, 19.

Not available.

37. Ayrapetyants, E. Sh., and K. M. Bykov. Knowledge of interoceptors and the psychology of the subconscious. Uspekhi sovremennoy biologii, v. 15, no. 3, 1942, 273-281.

Not available.

38. Ayrapetyants, E. Sh., and K. M. Bykov. Physiological experience and the psychology of the unconscious. Revue internationale, no. 8, 1946, 111.

Not reviewed.

39. Arkad'yev, V. [Article]. Zhurnal prikladnoy fiziki, no. 1, 1924, 215.

Not available.

40. Bekhterev, V. M. [Article]. Journal of parapsychology, v. 13, 1949, 166.

Available in English; not reviewed.

41. Bekhterev, V. M. [Article]. Voprosy izucheniya i vospitaniya lichnosti, no. 2, 1920, 270.

Not available.

42. Bykov, K. M., et al. Uchebnik fiziologii (Textbook of physiology). 1955.

Not reviewed.

43. Chagovets, V. Yu. Izbrannyye trudy v odnom tome (Selected writings in one volume). Kiyev, Izd-vo AN UkrSSR, 1957. 514 p.

Not reviewed.

44. Chizhov, A. L. Thought transmission over a distance. Ekho, no. 20, 1925.

Not available.

45. Dolgo-Saburov, B. A. Future developments in neuron theory. IN: Akademiya nauk SSSR. Doklady, v. 103, no. 3, 1955, 521-524.

Not reviewed.

46. Kazhinskiy, B. B. Biological radiocommunication. Nauka i zhizn', no. 11, Nov 1960, 46.

Not reviewed (missing from shelf).

47. Kazhinskiy, B. B. Peredacha mysley (Thought transference). Moscow, 1937.

Not available.

48. Krayukhin, B. V. Is electroinduction in the tissues of living organisms possible? Zbirnyk, prysvyachennyi pamyati O. V. Leontovycha, 1948, 83.

Not available.

49. Krayukhin, B. V. On the problem of the oscillatory character of nervous excitation. Zbirnyk, prysvyachennyi pamyati O. V. Leontovych, 1948, 100.

Not available.

50. Leontovich, A. V. [Article]. Fiziologicheskiy zhurnal SSSR, v. 22, nos. 3-4, 1937.

Not available.

51. [Leontovich, A. V.] Leontovych, O. V. Structure of pericellulars as a proof of the problem of "the neuron as an alternating-current device." IN: Akademiya nauk URSR. Yuvileynyi zbirnyk, v. 1. Ufa [Kuybyshev], 1944. 339-358.

Not reviewed. In Ukrainian.

52. Petrovskiy, A. A. [Article] Telegrafiya i telefoniya bez provodov, no. 34, 1926, 61.

Not reviewed.

53. Prakticheskaya laboratoriya po zoopsikhologii vedeniya. Trudy, no. 1, 1928.

Not available.

54. Reutler, R. Long-distance effects of living organisms on isolated living organs. "R. M.," no. 3, 1928, 197.

Not available.

55. Turlygin, S. Ya. On the emission of the nervous system. IN: Biofizika: sbornik statey po istorii biofiziki pod redaktsiyey P. P. Lazareva (Biophysics: a collection of articles edited by P. P. Lazarev). 1940. 72.

Not reviewed.

56. [Unsigned article]. Parapsychology in Russia. Parapsychology bulletin, no. 57, May 1961, 1.

Available in English; not reviewed.

57. Vasil'yev, L. L. The effect of magnetism on somnabulistic hallucinations. Russkiy fiziologicheskiy zhurnal, 1921.

Not available.

58. [Vasil'yev, L. L.] Wassiliew, L. L., et al. Investigations of mitogenetic emissions of nerves. Biologische Zentralblatt, v. 51, no. 5, 1931, 225.

In German. Not reviewed.

UNCLASSIFIED