

THE CENTRAL NERVOUS SYSTEM AND BEHAVIOR

TRANSACTIONS OF THE FIRST CONFERENCE
FEBRUARY, 23, 24, 25 and 26, 1958

CONTENTS

Russian Contributions to an Understanding of
the Central Nervous System and Behavior —
A Pictorial Survey

The Nineteenth Century Background of the Russian
Neurophysiologists, and Sechenov

Danilevsky, Wedensky, Ukhtomsky, Pavlov, and Bechterev

Post-Pavlovian Developments in Conditional Reflexes

Brain Stimulation and Conditional Reflexes

Electroencephalographic Studies of Conditioned Learning

Electrical Correlates of Conditioned Learning

Editor

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Sponsored by

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and

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THE JOSIAH MACY, JR. FOUNDATION CONFERENCE PROGRAM

DURING THE PAST fifteen years the Josiah Macy, Jr. Foundation has organized more than twenty conference groups, each group meeting for at least two days annually over a period of five or more years. Each meeting is limited to twenty-five participants (members and guests), selected to represent a multidisciplinary approach to some urgent problem in the field of medicine and health. The goal of this conference program is the promotion of communication, the exchange of ideas, and the stimulation of creativity among the participants. The purpose of the publication of the Transactions of the meetings is to share, as far as possible, the conference process with a larger audience than could participate personally in the discussions.

These conferences provide an opportunity for informal give and take among the participants. To further this purpose the number of presentations planned for each day is generally restricted to one or two. The member, or guest, selected to give such a presentation is requested not to "read a paper," but rather to highlight, in an informal manner, some of the more interesting aspects of his or her research, with the expectation that there will be frequent interruptions by participants in the form of questions, criticism, or comment. Such interruptions during the course of a presentation are encouraged and form an essential part of the "group interchange."

The conference program has always been viewed by the Foundation as an experiment in communication in which there is room for improvement and need for frequent reappraisal. Sufficient experience has already been gained to justify the conclusion that this type of conference is an effective way of improving understanding among scientists in medicine and allied disciplines, of broadening perspectives, of changing attitudes and of overcoming prejudices. The further conclusion has been reached, as the result of this experiment, that a major obstruction to understanding among scientists lies in the resistance of human attitudes to change, rather than in difficulties of technical comprehension. Less extensive experience with non-scientists has indicated that the effectiveness of this type of conference is not limited to groups of scientists, but will function in any group meeting where more effective communication is the primary goal. It is also clear that the same con-

ference technique, with minor changes, is readily adapted to small international conferences.

The style of publication of the Transactions has aroused considerable interest and some criticism. The criticism has been directed primarily to editorial permissiveness which has allowed in the final text, in some instances, too many questions, remarks, or comments which, although perhaps useful during a heated discussion, seem out of context and interrupt the sequence of thought. A few have objected to the principle of publishing in this style and would prefer a depersonalized summary without interruptions.

The Foundation Staff and the Scientific Editors of these volumes welcome criticism and hope to profit thereby in increasing the usefulness of the Transactions to scientists in this country and abroad.

FRANK FREMONT-SMITH, M.D.

Medical Director



Ivan Mikhailovich Sechenov (1829-1905) as portrayed by Repin, the great Russian painter. The portrait reveals the forceful personality of this dynamic, liberal figure with whom Russian neurophysiology began.

INTRODUCTORY REMARKS

Fremont-Smith: I would like to take a moment to explain that the Josiah Macy, Jr. Foundation is holding this series of conferences on The Central Nervous System and Behavior at the suggestion of The National Science Foundation. As the N. S. F. has pointed out, and as we all know, there exists among scientists in this country a considerable degree of ignorance as to scientific developments in the Soviet Union and, in addition to this, a kind of apathy or psychological block that prevents us from doing much about it. The National Science Foundation has suggested that the type of conference the Macy Foundation is in the habit of holding might be a quick and effective way of gaining familiarity with an area of scientific advance and then sharing it with a larger audience by means of the published transactions. The National Science Foundation has offered to defray the cost of publication.

The Macy Foundation is happy to cooperate with the N. S. F. on this enterprise. At this time I would like to introduce Dr. Burton Adkinson, Head of the Office of Scientific Information of the National Science Foundation.

Adkinson: One of the purposes of The National Science Foundation is to assist in meetings of this kind. In cooperation with the National Library of Medicine, we make translations available and we also help in the publication of the transactions of meetings such as this, so that others who cannot be present may benefit from them.

We are an agency that has been set up in the Federal Government to nurture scientific research and to assist the Government to cooperate more effectively with research that is going on outside its confines. We have also been assigned responsibility for the programming and planning of scientific research in the Federal Government.

As far as the over-all program of The National Science Foundation is concerned, there are a number of divisions under the direction of Dr. Alan T. Waterman: These are the Divisions for Biological and Medical Sciences, for Mathematical, Physical, and Engineering Sciences, and for Scientific Personnel and Education. There are also other units which include the Office of Special Studies, The Social Science Research Program, and the Office of Scientific Information. The last is the Office in which I have an interest, and I am responsible for its program.

As to the translations, the National Science Foundation is trying to make the publications of Soviet science available to scientists in this country. This work is being done in cooperation with professional societies and with other government agencies. Three years ago we began translating journals from cover to cover. At this time, we are translating sixteen, and the National Institutes of Health are translating eight. In addition to these, there are twenty journals that are being translated commercially, making a total of forty-four Russian scientific journals that are now available in translation. The National Science Foundation hopes to increase this number. From talking to professional groups, we believe that if we are able to provide in translation some seventy to eighty journals we would be covering the more important journals in all fields of science.

In addition to these cover-to-cover translations, we, and a number of other Government agencies, are also making some translations of monographs. There is, in addition, a considerable amount of translation, by both Government agencies and others, of occasional papers, such as an article in a journal, a part of a chapter or a whole chapter of a book, or a small pamphlet. A central information center for these translations has been set up at the John Crerar Library* in Chicago, and it is called The Special Libraries Translation Center. This center issues a monthly bulletin, which is a listing under broad subject categories of the translations they receive. They are also making an index.

The Government plans to issue yearly, through the Office of Technical Services in the Department of Commerce, approximately 50,000 abstracts of Soviet journals in the field of science and technology, and about 10,000 translations of books or parts thereof. These translations have been going on for a few years but they have not yet been distributed.

Leake: Might I add a slight historical note to this? In 1944, many of the libraries of medical schools in this country began to receive Russian medical publications in the medical sciences and also in clinical medicine. This material appeared either in English, French, or German or, if published in Russian, with English, French, or German summaries. These continued to be received without charge. At the University of Texas Medical Branch, we were receiving 26 such journals. Suddenly they stopped, in April 1947. When I was in Russia in 1956, I asked about this. I said that these had helped materially, and we were glad to receive them. Why had they stopped? The answer was short and direct. "You did not reciprocate."

*86 East Randolph Street, Chicago, Illinois.