only in that which follows. Call this vitalism, if you will; I do not, for objection to it can not be grounded in any violation or contradiction of the scientific or the experimental method. It meets opposition only in that unconscious, or subconscious, mysticism which is the source of our concept of cause and effect. The purely scientific method, dealing exclusively as it does with space-time relations, can not reject the future from its explanation of the present in behavior, because any event in an organismic cyclic system is an integral part of both the future and the past. Whatever time may be in the absolute, as a function in behavior it works backward as well as forward. Working forward it is memory; working backward it is anticipation or imagination. In fact, one might say that, other things being equal, the position of an organism in the scale of behavior is directly correlated with the degree to which the past and the future are integrated with its present.

In this statement I am distinguishing between absolute time and time as a function in behavior, or between metaphysical postulate and scientific method. This distinction appeals to me as useful in clearing the way for an unadulterated science of behavior.

In closing a series of lectures on "The Moral Ideal," the late James Seth, who was finally professor of metaphysics in the University of Edinburgh, appealed to his class of young men in these words: "I would remind you how much greater is our life itself than any philosophy of it can ever be. By the very nature of the case, philosophy must always be disappointing; and from its abstract formula we turn with relief to literature, and, above all, to the tasks of life itself—from the discords of the schools to the great unanimities of life. The true insight into the meaning of life is as much moral as intellectual: it is the obedience of the will that clarifies the intellect. And if we have found the difficulty of a philosophic definition of the moral ideal, let us remember that the true definition is that of life itself."

This was the plea of a great metaphysician for the validity and supremacy of living in charting a philosophy of life. From such metaphysics there can be nothing to fear in regard to the survival of life's practical values. But every one of us is in his own way a philosopher, and my fear is that by the covert filtration of our peculiar philosophy into our science of life we may destroy the sources of the sweetness, the richness and the "great unanimities" of living. My own working hypothesis holds that the relation of cause and effect, in a purely scientific discipline, is a space-time relation within a unitary system, that the living organism is such a system, and that I can not fully perceive any phase of this relation or part of this system without perceiving the system as a whole. Upon this hypothesis my understanding of an event scientifically or experimentally requires knowledge of the future as well as of the past of the system in which that event occurs. If this be philosophy, I would call it a philosophy, not of *being,* but of *becoming;* not of *life,* but of *living*—which is itself my supreme experiment.

SCIENTIFIC EVENTS

THE INTERNATIONAL ORNITHOLOGICAL CONGRESS

Nature reports that the eighth International Ornithological Congress is to be held at the University of Oxford in July, 1934, under the presidency of Dr. E. Stresemann, of Berlin. The congress was originally held every five years, but at the last meeting at Amsterdam in 1930, when the president was Dr. E. Lönnberg, of Sweden, it was decided to hold it every four years. The last meeting of the congress in England was at the Imperial Institute, London, in 1905, with Dr. R. B. Sharpe as president. In 1910 it was held in Berlin, and it was proposed to hold the 1915 congress at Sarajevo, Yugoslavia, but in the meantime the war broke out and no further meeting was held until 1926, when, mainly through the efforts of Dr. Ernst Hartert, keeper at Tring Museum, it was resumed at Copenhagen. Preliminary arrangements have already been made for the 1934 congress at Oxford, and the Rev. F. C. R. Jourdain, of the British Ornithologists' Union, has been elected honorary secretary. Dr. P. R. Lowe, of the British Museum, has been elected chairman of the executive committee, which includes Lord Rothschild, Lord Scone, Dr. C. B. Ticehurst, Dr. Sclater and Messrs. Stuart-Baker and H. F. Witherby, president of the British Ornithologists' Union.

Delegates to the congress will include, according to *Nature,* the leading ornithologists from all parts of the world, including Australia, New Zealand, Argentina, Brazil, Japan, India, the United States, Canada and all European countries. The problem of oil pollution of the sea, whereby hundreds of sea-birds, including many rare species, are annually being destroyed, especially on the North Atlantic shores, will be a prominent feature of the section on bird protection, while the practise of "ringing" as a means of tracing bird migrations will also be discussed. One of the most important items is the project for founding an Institute of Ornithology at the University of Oxford, which it is hoped to develop out of the existing scheme of research in economic ornithology at Oxford, the grant for which expires in September,

1933. The new institute is intended to be a national center for field ornithologists as the British Museum is for systematists. £8,000 is needed to run the institute for a preliminary five years while steps are being taken to put it on a more permanent basis. An appeal will be made not only for funds but also for gifts of books, field notes and photographs, etc., for equipping it. It is also proposed to arrange at least one long excursion to study British bird life, and South Wales will probably be chosen as the area to visit, though several shorter excursions are to be made. The lectures and papers are to be given in English, French, German and Italian.

THE FIRST TEN YEARS OF THE NORTHEASTERN FOREST EXPERIMENT STATION

JULY 1, 1933, marked the tenth birthday of the Northeastern Forest Experiment Station, which serves all New England and New York. During its first ten years the station has established itself in the region as an agency for leadership and coordination in the advancement of technical forestry practises and has made notable contributions to the knowledge of forest management.

Starting in 1923 with four technical men and a clerk, the station had twelve technical men and five clerks on its staff during its tenth year, including, in addition to the Forest Service men, representatives of the Bureaus of Plant Industry, Entomology and Biological Survey. Originally occupying offices at the Massachusetts Agricultural College, at Amherst, the station moved its headquarters in 1932 to New Haven, Connecticut, where a building was made available by Yale University.

Since its establishment the station has had the advice and help of the Northeastern Forest Research Council, which is composed of representative forest land owners, business men, educators, state forest officials and others interested in the development of the forest resources of the region.

Much of the work of the Northeastern Station has consisted of the establishment, treatment and subsequent remeasurement of permanent sample plots, the number of which has now reached 545, involving altogether about 437 acres. These long-time experiments are being concentrated in so far as practicable on a few representative areas. Two experimental forests, together comprising about 4,000 acres, have been set aside for this purpose in the White Mountain National Forest, New Hampshire, and cooperative agreements have been entered into for the use of two other areas of between 500 and 600 acres each in New York State. Continuous meteorological records are being obtained on the experimental forests in the White Mountains and intensive development of these areas is being pushed through federal unemployment relief activities.

The station's research program has covered in a broad way the following subjects: growth and yield of spruce and fir, management of spruce and fir for pulpwood production, decay of slash, deterioration of birch on cut-over lands, development of form class volume tables, analysis of forest fire statistics, relation of weather to inflammability of forest fuels; control of spruce budworm, white pine weevil, European larch canker and other forest insects and diseases, relation of light and soil moisture to tree growth, growth and yield of northern hardwoods, forest planting and phenology of forest trees and shrubs. A list of the major publications of the staff of the station during the past ten years would include 85 titles, comprising about 1,300 printed pages.

Although the station's activities have covered a variety of subjects there is need for a still more comprehensive program. It is perhaps most urgent at this time that provision be made for a systematic survey of the forest resources of the region and for studies in the field of the economics of forestry. Basic knowledge is also needed on how various types of growth and methods of forest management influence the quantity and quality of water supplies, and the character and abundance of game and wild life in the forest. It is apparent that, because of the long-time element in forestry and the diversity of the problems demanding attention, it will be difficult to keep the advance of knowledge ahead of the actual need for results.—*C. Edward Behre, director.*

THE COST OF GERMAN MEDICAL AND SCIENTIFIC PERIODICALS

THE Medical Library Association, including 156 American and 6 Canadian libraries, in convention assembled in Chicago, June 19, 1933, passed the following resolutions:

1. It is recommended that no library subscribe to any periodicals that do not have a fixed annual subscription price for the entire annual output of volumes or parts. That such price be stated in advance, and also a statement of the number and parts to be issued per year.

2. That the Committee on the Cost of Current Medical Periodicals be empowered to invite the various library groups of this and other countries to cooperate with us in the above-mentioned and other measures, necessary to establish more equitable prices for medical and other scientific journals, and that the approach to library organizations in other countries be made first through the president of the International Federation of Library Associations.

3. We believe there is wide-spread opinion that there must be a substantial reduction in extent of, and in subscription prices for, the most expensive medical and other scientific periodicals, and we further recommend that, un-