

April 2nd, 1973

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Dear Professors Künkel and Dolce,

I received your kind invitation to participate in the CEAN in 1974. The idea is timely and I look forward to participating.

The outline suggests that many interests will be discussed: the technical problems of data acquisition, reduction of EEG and statistical processing, equipment (particularly computers), and applications. Some issues, such as acquisition, data reduction and analysis, are similar for all projects. But the application of these methods differ widely, whether the subjects are man or animals. Should the conference focus on issues both in man and in animals, I fear that your wish for a "small" conference will be unfulfilled. I assume that your primary interest is in the application of these methods to studies in man.

As you know, my associates and I established a laboratory for computer analysis of EEG in St. Louis in 1963, and a second one in New York in 1967. We have been interested for these many years in applying the methods of computer analysis to different problems in psychopharmacology. We now use our methods to obtain the neurophysiologic profile of new compounds (phase I psychopharmacology); and to measure the bioavailability (neurophysiologic equivalence) of different formulations of psychotropic drugs. By these methods we have studied clinically accepted compounds, presumed compounds, and such esoteric topics as cannabis, opiates and their antagonists, and induced seizures (ECT).

We have devoted much time to many technical issues, as the different analytic programs (power spectra, period analysis, amplitude integration, variability measures), the problems of the sample size, statistics (univariate versus multivariate, regression versus discriminate function) etc.

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From the provisional outline, I am pleased to recommend a number of places where we might contribute to the program.

- 2.1 Comparison of power spectral density, ~~Period~~ analysis, and amplitude analysis. ✓
- 2.2 Processing EEG data - statistical applications. ✓
- 3.1 (3.5) EEG classification of psychoactive drugs.
- 3.6 EKG analysis.
- 4.3 and 4.4 The IBM 1800 statistical package; conversion to DEC - PDP 12 (and PDP 15).

Should you wish to have some of these technical subjects presented, I would recommend that you invite my coworker of many years, Donald M. Shapiro, D.Sc., for his knowledge of computer methods as applied to EEG. (He has programmed the IBM 1710, 1800, and 360/40; also DEC, PDP 12 and 15). ✓

Also, Dr. Shapiro and I have been instrumental in establishing a laboratory for EEG analysis at N. V. Organon in Oss, Holland. Their computer director, James Porzak, had programmed an IBM system in Detroit, and is responsible for programming the PDP 15 in Oss. He is very knowledgeable about issues in Sections 1, 2 and 4 of your outline, and I commend him highly. ✓

I am taking the liberty of enclosing a few reprints from this laboratory which may be relevant to your program. As you will find, the best is that which is as yet unpublished, and I am able only to send you preprints.

I commend you for undertaking such an organizational task, and I look forward to the CEAN meetings with great anticipation. I thank you for your invitation and trust that I will have an opportunity to discuss this with you on one of my trips to Europe in the forthcoming months.

My best regards.

Sincerely yours,

Max Fink, M.D.
Professor of Psychiatry

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Encs.