

October 22, 1964

Dr. Fini Schulsinger
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Dear Fini:

It was a great pleasure to hear from you, and I am pleased to write you on the second anniversary of the establishment of our Institute. As you described the problems in establishing one study, you can well imagine the problems of establishing many. It has been an interesting time and during the past few months I find that I had a few occasions when I could return to the research world. I am very much interested in your study, for if you can separate the congenital problems from environmental in schizophrenia you will be doing much for our field. One of our studies is an attempt to measure neurophysiologic differences in those patients who are still in the institution and those who leave after relatively short periods of treatment. Our emphasis, as you can imagine, is to determine differences in responsivity in the subjects to external agents, and measure these differences in terms of EEG changes, tolerance and some biochemical measures.

I am pleased also to try to answer your question about ECT. This problem is an old one and when I did some studies in convulsive therapy looked seriously at the differences between direct current and alternating current instruments. You may recall that early in the 1950's there was a great deal of interest that subconvulsive or direct current treatment might have fewer side effects than the conventional alternating current methods. As a consequence, during one of our studies we compared the clinical, electrographic, and psychological test changes in a group of patients randomly assigned to subconvulsive, threshold convulsive using an alternating current instrument, a convulsive method using direct current (parathreshold--directional on the figure) and a supra-threshold-alternating current instrument. The results are summarized in the short report in the Diseases of the Nervous System, and in the figure which I am pleased to enclose. Depending on your

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theoretical model for the mode of action of convulsive therapy, you will either believe that high degree slow wave activity in the electroencephalogram is an important and variable index in the therapeutic response or you will believe that it is a side effect with negative connotations. If you believe the former, as I do, then the figure will demonstrate that high degree slow wave activity is achieved with suprathreshold alternating current instrument earlier and sustained better during a three times a week treatment period than with any other method. The differences between the three convulsive methods and subconvulsive is very significant. The differences between the convulsive treatment methods is slight. When Martin Green and I did this study, we used to say that therapists in private practice using unidirectional machines would on the average make \$25-50 more per patient than those using the alternating current machine! By this we meant that they would tend to see various clinical results three to five days later than those patients treated by suprathreshold alternating current methods. So, in answer to your question, if I had to buy a machine here I would insist on an alternating current instrument. However, if I had a unidirectional machine available at no cost, I would consider the difference so trivial that I would continue to use that machine.

What ever happened to your co-national Per Usden?

The summer is over here and we are rapidly approaching our winter season. Tennis is still my major pre-occupation, and when I do not travel for the National Institute of Health or for the Institute, I find the days in St. Louis pleasant and relaxing. I missed visiting you this summer, and I regret that my associate did not visit you because I feel that he could have learned much. However, there will be another summer and I will look forward to visiting with you at my earliest opportunity.

My best regards to your family and to Dr. Kety.

Sincerely yours,

Max Fink, M.D.
Director

mf/ls
encs.