

February 26, 1971

Dr. Frederick Gibbs
1427 N. Astor St.
Chicago, Illinois 60610

Dear Dr. Gibbs:

Your recent editorial (Clinical EEG, I: 127) asserts that "cannabis indica produces no marked or consistent changes in the EEG" and "... the changes they [psychotomimetic drugs] produce in the electrical activity of the cortex are of the same minor order as are produced by tobacco". It is difficult to see how you can arrive at such sweeping conclusions, based on the data printed.

The report by Deliyannakis et al., finds large effects of cannabis, in a few subjects, with equipment of limited frequency response. They make no effort at quantification and we have no idea about the sample size, stability over time, artefact control, filtering, etc. Despite the limitations of equipment and technique, they report large changes, albeit not in every subject.

In numerous studies of the EEG effects of heroin, LSD, major changes have been observed and related to drug dosage, pre-existing EEG and clinical effects (for examples, see Ann. Rev. Pharmacology, 9: 241-258, 1969; Neuropharmacology, 9: 539, 1970). Such studies show that large EEG changes are common, drug and dose related, and interestingly related to the behavior of the subject.

Considering the major strides made in quantitative EEG, it does neither the science of EEG nor clinical practice a service to make such sweeping assertions as "Let's face it, disordered psychic function, either spontaneous or drug induced, commonly does not correlate with major abnormalities in the waking electroencephalogram".

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Years ago we looked at the moon and saw a fairly flat surface with a few ridges. With better tools, it became obvious that the ridges, mountains and valleys were substantial. How substantial was recently demonstrated by the astronauts limited ability to climb a small ridge. The surface EEG is not a homogeneous, insensitive flat surface, but a sensitive, ever-changing reflection of mood, memory, and alertness. Our tools do decode differences already, were we to use them. Particularly, were we to look carefully, with the tools of the 1970's not those of the 1940's.

Sincerely yours,

Max Fink, M.D.
Professor of Psychiatry

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