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Telegrams: "MEDRESCO HAVER, LONDON."

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NATIONAL INSTITUTE

FOR MEDICAL RESEARCH,

HAMPSTEAD,

LONDON, N.W. 3.

29.11.32

Dear Doctor Fisher

I am taking advantage of your offer to read what I have written. The criticisms you made before were very helpful. The paper is a good deal longer than the last one you saw & is now supposed to be intelligible to pharmacologists, as it is supposed to be a contribution to pharmacology, and not to statistics, I don't expect you to read it all - but I should be very grateful for your criticisms of pp 21-26. I realize that my treatment is sketchy. Phillips (whom I believe you met the other day) has developed for me a method of obtaining successive approximations to the maximum likelihood solution. I have not put this in, because it is, at present, rather complicated - & also because it is not yet ripe & I want to get the rest of the paper published.

I want to ask you about goodness of fit. Is it not possible to adopt some criterion depending on likelihood for testing the validity of an hypothesis?

Am I wrong in feeling that this would be the logical thing to do? The usual method has the advantage that the result has a meaning which is readily intelligible. - but if one considers very asymmetrical distributions, it is not difficult to invent examples where an hypothesis might be very likely, although the probability of it producing an observed result beyond the actually observed result was very small. It seems to me that such an hypothesis ought not to be rejected. The probability of observing results beyond the observed result is really irrelevant because it is known that such values have not in fact been observed. I hope you will know what I mean.

yours sincerely John Gaddum.