17th February, 1961

Professor J.W.H. Lugg,
Department of Biochemistry,
University of Western Australia,
NEDLANDS, W.A.

Dear Lugg,

Thanks for your long and interesting letter. I am in some doubt as to the considerations discussed between yourself and Constantine. Certainly you are right in distinguishing the Test of Significance used for judging if an observed value is exceptional, from such tests as Chauvenet's in which a decision as to rejection is in view.

I believe the problem, which Constantine must have thought had not been discussed is that of pp.115-116 of Statistical Methods and Scientific Inference, the book so heavily abused by Pitman in an American Journal. At least it is on these pages in the first edition, and I suppose not far off in the second (1959). This may be what you refer to as method (ii) your p.3. If so, I should explain that I had published it many years before. I will try to locate it (1948) Annales de l'Institut Henri Poincaré X, pp.191-215. p.208 treats only a somewhat more general problem.

An earlier paper (1935) which only recently is beginning to be appreciated, "The Fiducial Argument in Statistical Inference", Annales of Eugenics 6, pp.391-398, pp.393-394 give the method under the heading of "Posterior Fiducial Inference". I enclose the paper, though it is getting rare.

Sincerely yours,

Ronald A. Fisher