ROTHAMSTED EXPERIMENTAL STATION
(LAWES AGRICULTURAL TRUST)

Director : Sir WILLIAM G. OGG

HARPENDEN
HERTS.

24th November, 1954

My dear Ron,

You will already have had my message that I shall be coming over by road tomorrow and plan to arrive about 6 o'clock. I will call round to your rooms in college on arrival.

I am returning your paper on scientific induction herewith, also an earlier version you sent me in the summer. I agree with every word of it except your statement that I discovered the solution of the 2 x 2 table independently of you. In fact, as I believe I stated in my paper, you suggested it to me. I have a vague memory that Roach stumbled on the solution for the case when a = 0 a short time before and wrote to you about it. This may have suggested the full solution to you.

The one point which you haven't treated in your paper but which might be worth some discussion either there or in some other place is the question of efficiency of tests of significance. This is implicit in your approach, but the fact that it has not had explicit mention still appears to cause trouble amongst the younger generation. Thus, for example, Box and Andersen in a recent paper given to the Research Section of the Royal Statistical Society stated:

> "   The points of view expressed by Fisher and Pearson are of course in no way contradictory. Fisher is concerned with the validity of the test of the null hypothesis, while Pearson is concerned with the power of the test when some alternative hypothesis is true."

As I see it this implies that you would regard a test based on a statistic having say 10% efficiency as perfectly satisfactory.

Yours,

Frank.

Professor Sir Ronald Fisher