

March 18th, 1936

Dear Professor Frechet,

The test of significance mentioned in my letter is somewhat less restricted in its application than you suggest in your reply of March 13. I mentioned that the ~~formal~~ ^{of one} unconventional test of significance of the correlation coefficient was, in fact, equivalent to the test whether the linear regression ^{from} variate, y , ^{on} the other, x , differed significantly from zero. The test is, therefore, exact, not only for the case of a normal bivariate distribution, but also for one in which one variate is distributed in any manner whatever, while for given values of x the second variate, y , is distributed normally about a mean which is a linear function of x . The marginal distributions of both x and y may, therefore, both be far from normal, and for the test of significance it is immaterial which of the variables is regarded as the independent, and which as the dependent variate.

Yours sincerely