

14th March 1934.

Dear Professor Frechet,

I have now read through the proposed motion and on the first point discussed I think there is no question that the statement is correct. The penultimate paragraph, however, opens with words which seem to suggest that the only use of the coefficient correlation is that which a man makes who finding an insignificant value, concludes that the variates are statistically independent. This as far as I can judge is the converse of the usual procedure in this country, where it is more usual, on finding a significant value for the correlation to conclude that the variates are not statistically independent. In fact, logically all the tests of significance are means whereby the facts are allowed to disprove some definite hypothesis, and not means whereby they are ever allowed to prove such a hypothesis.

Apart from tests of significance, however, the correlation coefficient is used as a means of estimating the value of a parameter, by means of which the hypothetical population, from which the sample is drawn, is believed to be specified and this use appears

proper when, as for e.g. in anthropometry the population sampled can be specified in this way, but illegitimate in many cases where either one of the regression coefficients and the variance about the corresponding regression line that represent objective quantities, which are proper subjects for estimation, but where the correlation coefficient if used in such specification is no more than mathematical fiction.

I am,

yours sincerely,