

13th March 1934.

Dear Professor Frechet,

Many thanks for your letter, and for your kindness in writing in English. I will try to do what you want about the wording of the motion.

I had not realised that there were other members of the Commission besides yourself and Professor Gini, and I should be much obliged if you would have a copy of my letter sent to the other members of the Commission. I should also be glad to receive a copy of Professor Gini's comments which I have not received from him direct. Of course I agree that as a parameter specifying the constitution of an infinite hypothetical normal population, from which our data are interpreted as a sample, the correlation ratio is equivalent to the absolute value of the correlation coefficient. Both terms, however, in addition to their corresponding symbols, have been used by followers of Pearson in two distinguishable meanings, (1) as a parameter of the population and (2) as a definite function calculable from the observations, a statistic as I call it, designed to supply an estimate of the unknown parameter. The

statistics to which the terms correlation coefficient and correlation ratio have been applied are fundamentally different, and the correlation ratio statistic, which is simply the ratio of two sums of squares, has when allowance is made for the number of degrees of freedom, analogies with similar ratios in a vast variety of data. It is in its capacity as an imitation of  $r$  that I criticise it.

Yours sincerely,