

FEDERAL FARM BOARD

WASHINGTON, D. C.

April 23, 1930.

Dr. R. A. Fisher,
Rothamsted Experimental Station,
Harpenden, Herps, England.

Dear Dr. Fisher:

Several months ago I wrote asking your advice to make sure that I was correctly interpreting the new methods you developed in your paper "The General Sampling Distribution of the Multiple Correlation Coefficient," a reprint of which you sent me a year ago. As apparently my letter has failed to reach you, I am writing again.

The particular point on which I am uncertain is the exact meaning of the parameter n_2 , in entering the table of the 5% points of B and β_1 . I understand that n_1 represents the number of independent variables; that is, $n_1 = 1$ is for simple correlation r ; $n_1 = 2$ is for $R_{1.23}$, $n_1 = 3$ is for $R_{1.234}$, etc. But I have not been able to be quite certain whether n_2 should be taken as the total number of paired observations in the sample (n' , as used in your text book), whether it should be $n' - 1$, or whether $n_2 = n' - n_1$.

As I would like to make use of this latest development of your methods for judging the reliability of observed multiple correlations in some material which I am about to publish, I am anxious to make exactly the right interpretation of your conclusions. For that reason I would appreciate as early a reply as is convenient for you.

With much appreciation for the pioneer work you have been doing, and for your help, I am

Sincerely yours,

Mordecai Ezekiel

Mordecai Ezekiel.
Assistant Chief Economist.

Fig. 13.

Probable true correlation
1.00

Probable minimum correlation in universe, for
varying observed correlations and size of sample

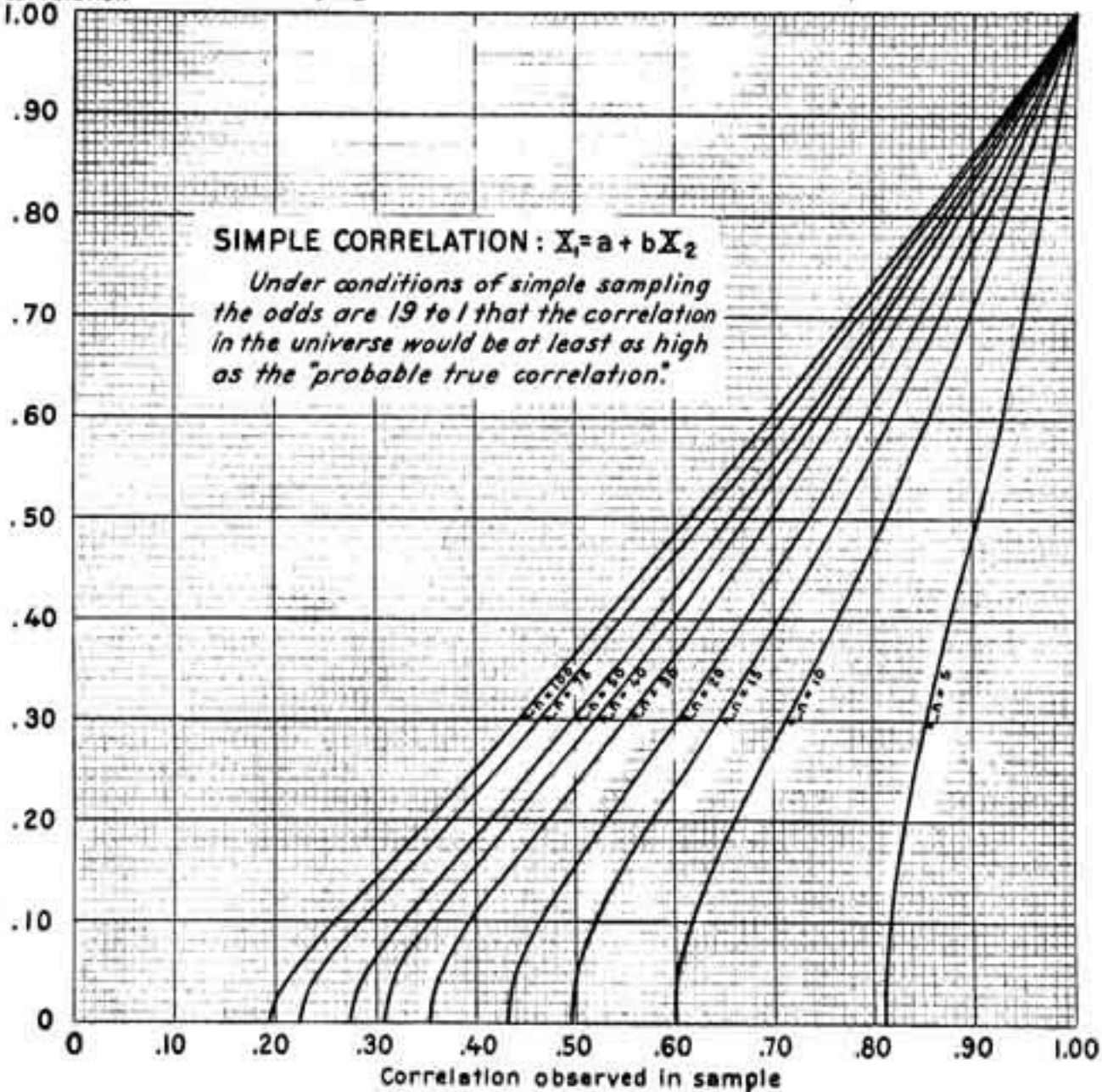


Fig. c.

Probable true
correlation
1.00

Probable minimum correlation in universe, for
varying observed correlations and size of sample

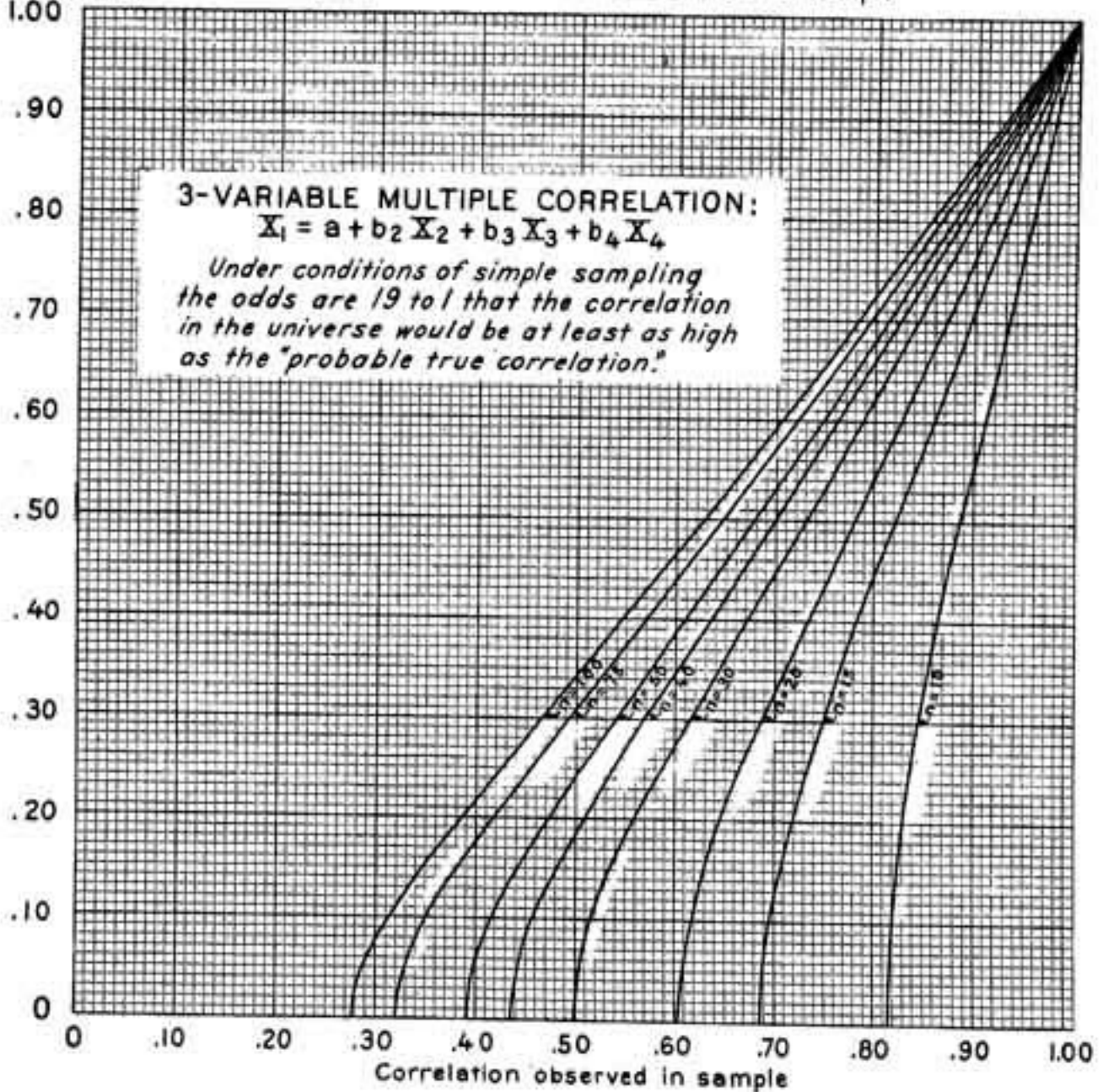


Fig. 3.

Probable true correlation
1.00

Probable minimum correlation in universe, for
varying observed correlations and size of sample

