19 March 1934.

Whateley Carrington, Esq., M.Sc.,
Calandstraat, 64,
ROTTERDAM,
Holland.

Dear Whateley Carrington:

I think you have made out your point all right, that W/WP can be regarded as a measure of similarity between two personalities - though I really would think straighter if I had the analyses in front of me and I do feel quite strongly that WP/OWP is more what you want. Could you tell me, by the way, if OWP is fairly uniform, as I hope it may be, in the different cases?

The double z distribution in its exact form is an awkward one and cannot be tabulated as in general it would involve 4 different degrees of freedom, two for each z, but you can probably satisfy yourself as to significance by taking a midway point as origin and considering the deviations of z from it unless both of these a re within sight of the significant point the difference is not significant. If

If they are one can obtain approximate values of P by supposing log P to be a linear function of z and extrapolating or interpolating for the values of P corresponding to your two deviations. One of your deviations will be negative,

and in this case you change its sign and interchange n_1 and n_2. Then you have two probabilities which may be combined, as in section 21.1 of my book, where if you use natural logs, the process will give little trouble.

The W/WP and WP/OWP are independent in the sense that the test of significance of each is independent of the test of significance of the other. But undoubtedly if WP happens to be small, the first will be large and the second small, and vice versa. If OWP looks like being the same for all personalities, as I hope may prove to be the case then the WP/OWP test is merely a measure of WP, i.e. of the differences between the pairs of personalities chosen.

I suppose, but do not feel very confident that W is greatest when the personalities are least different.
I think your calculations are all right in your third paragraph from the end, though they take no account of the non-coincidence in each series. One way of looking at it is that there are 720 ways of arranging 6 things in order and a certain number of them which one can enumerate <u>seriatim</u> which show more coincidence than you have observed or at least as much. If there are not more than 24 of these the odds would be as high as 1 : 30.

Thanks for letting me know the date and place.

Yours sincerely,