

7th February 1934.

Whately Carrington Esq.,
Calandstraat 64,
Rotterdam,
Holland.

Dear Whately Carrington,

On your first point each word gives four degrees of freedom, making 200 in all, but the total of all words gives four degrees of freedom which are included in the 200 above. This lot is therefore sub-divided as

0	4
0 x W	<u>196</u>
Total	200

and the same for the differences between the personalities. In other words, the number of degrees of freedom in 0 x W is one less than the number of occasions multiplied by one less than the number of words. You will notice too, that the sum of squares is obtained first for the total of 200 degrees of freedom, and the sum of squares for four degrees of freedom is deducted from it.

Point two, one may say that the personalities are somewhat alike, though not strikingly, from the fact that the mean square for W is greater than the mean square

for P x W. It is quite probable that all different subjects are somewhat alike in this sense, or that some words produce a longer reaction time than others among subjects in general. The data of course cannot say whether G and U are more alike than different subjects usually are, because no other subjects appear in the experiment.

The other comparison P x W against O x P x W shows that the differential response to different words by these two personalities in the aggregate of all occasions is greater than can be accounted for by the discrepancies between different occasions. Substantial equality between these two mean squares would mean that though on a particular occasion the two personalities gave somewhat different responses, to different words, yet that these differences showed no consistency on different occasions. If P x W were significantly less than O x P x W the result would not be easily intelligible for it would show that the differences observed on one occasion tended to compensate those on another, or that the words which on one occasion showed a longer reaction time for G than for U were those which on another occasion gave a difference in the opposite direction. Such a result would, I think, be difficult to make sense of.

On the basis of your experience it should later, if not now, be possible to shorten the list of words by using only those words which seem to be good for picking out personality contrasts. Perhaps this is not feasible yet, but I mention it not only because shortening the setting may facilitate amplifying the data in other ways, but because the contrasts among the mean squares would be heightened by any successful selection.

Yours sincerely,