April 20, 1939

Dear Mahalanobis,

Thanks for your letter of April 13th. I am certainly
very glad to hear that the Government of India has given
you, this year at any rate, the additional grant that you
needed. If support at this rate is continued your
Laboratory will be in a very good position.

It is most interesting that S.N.Roy has been working
so nearly on the same problem as myself. My new dis-
tribution gives the simultaneous distribution of all the
latent roots, from which, of course, the partial dis-
tributions can be obtained by integration, though this is
not in all cases an easy process, or one leading to very
simple results. However, the means are now available
for finding whether, in any important class of cases, the
simple analysis of variance allowance for adjustable
constants is an inadequate approximation, and for
correcting it where it needs correction.

The new result is interesting in another way, namely,
in bringing to light a class of definite integrals
expressible in products of factorial or gamma functions,

which is new to me, and is a natural extension of the
original Eulerian integrals. It will, I am afraid, be
many years before adequate tables covering the whole range
of this new distribution are constructed, though, in a
small way, I am making a start at that now.

Yours sincerely,