31 March 1933.

Major L. Darwin, Sc.D.,
    Cripps's Corner,
        Forest Row,
            Sussex.

Dear Major Darwin:

Wilful modification of the past is a magnificent notion, but
in the name of ~~Adam~~ *Occam* is it necessary?   From several passages I
believe you are putting *or* "the regularity of vital statistics"a
burden which it will not bear.   There are irregularities, small
perhaps in the mass, unimportant to the official, if there is
one, who decides how many beds shall be set apart for maternity
cases, but quite big enough to the individual to accommodate
his freedom of choice.   Your argument, as far as I have grasped
it, would have weight if the regularity were so austere that one
could say "The number of suicides this year in London <u>cannot
possibly</u> exceed 150."   For, if that could be said, and the
quotum was filled by the end of November, we should really none
of us be able to commit suicide before January 1st., which would
not be freedom.   But in reality the regularities that can be
observed do not imply any such individual restraint at all.
What is sometimes forgotten about statistics is that, from a
vast number of independent facts, after some restatement, we

select one or two as relevant to our purpose and reject all the rest as irrelevant.   The ones which we choose as relevant are those which depend on general causes, or, in other words, the ones which are useful for predicting future experience.   What we reject (if the statistical processes are successful) are the facts which arise from particular causes, and which are useless for the prediction of future events.

You feel that the individual is constrained by the total to which he belongs and so he would be if the total were rigidly fixed.   But to give the total a little latitude is to give him a lot; and to give the total, what do we give our totals is to give him full liberty.

Even if you admit this I believe you will still feel that the individual must be constrained in order that the aggregate he belongs to may conform satisfactorily to other aggregates. Suppose we offer 10,000 school-girls a choice between pink and yellow sweets and about 7,000 choose pink sweets.   In doing this we have our eye on another 10,000 school-girls not yet tested. You say "they cannot really be free to choose, because you know as well as I that the number choosing pink will be within 100 of what it was last time".   As a libertarian I can be more sceptical, but 1 admit freely that if there is more than 100 difference there must be some cause for it, meaning by that that with sufficient

patience and observation of relevant details some genetic or
environmental difference between the two groups could really be
found that could account for their difference in behaviour.
But I admit that for this back-handed reason, which shows how
very far I am from admitting any lack of free choice, the
argument goes like this—In the total 20,000 there must be some
number who will choose pink say 14,022 to be exact.   It is
possible to divide the 20,000 into two lots of 10,000 each in
a very large number of ways which can be enumerated.   And each
way of dividing the total will correspond to a particular discrepancy
between the numbers choosing pink in the two lots.   In 99 ways
out of 100, or some such calculable fraction, this discrepancy
will not exceed 100.   If it were to exceed 100, therefore, we
must choose between two conclusions.   Either something has
occurred by chance which we know would only happen once in 100
trials, or the children have been divided into lots by some process
which is not quite independent of choosing pink or yellow.   To
trace the nature of this dependence, if it exists, is what we
call finding the reason why one lot behaved differently from the
other; and it is clear, whatever view you hold about free-will,
that to search for such a case would be a hopeless undertaking
only in the one case in 100 in which the disparity has occurred
by chance.

Consequently if we have reason to know that the second lot

of girls is homogeneous with the first, we can predict fairly
nearly what their aggregate choice will be simply from experience
with the first lot; for by homogeneous we mean in practice either
that they have been chosen at random out of the same total, or that
they are so much alike as if they had been.   In these circumstances
our prediction is an example of purely inductive reasoning and is
independent of all theories of the causes behind our observations.

        I feel I am labouring the point, but it usually happens   that
one labours the wrong point.

                          Yours sincerely,