My dear Fisher,

I thought you would like Galton's letter, and am glad you have a copy.

As to Bateson, if I had to write, I should write something like the following. But I am not well up in what he did do, and may well blunder, as I think I certainly shall about what I want to say later. I have no got Darwinism.

"In the future the great merit of Mendelism will be seen to rest on the proof that the ingredients of the germ plasma on which heredity depends are located in pairs in each organism, one of each pair selected by chance disappearing at each sexual union. On this fact a rational system of evolution can be based, and it is, therefore, of enormous importance. The merit for this discovery must mainly rest with Mendel, whilst among our contemporaries, Bateson played the leading part in its rediscovery. Unfortunately, he was unable to grasp the mathematical or statistical aspects of biology, and from this and other causes, he was not only incapable of framing an evolutionary theory himself, but entirely failed to see how Mendelism supplied the missing parts of the structure first erected by Darwin. Nothing but learning..."
Mendelian facts were from the first too exclusively attended to arise from following Bateson in regard to the earlier theory of the discontinuous origin of useful forms. Though to evolutionary thinkers, though his name has been too often casually applied, it is probable that his time to be honoured for his pioneer work in Mendelism when what he failed to do as regards theory has been accomplished.

Many written it, I despair I should fear it up, and advise you to do better. Here is what seemed to me in the whole a good, though too laudatory article on him in the current Science Progress.

The other point I want to say a word on far above, I am on still more shaky ground. Do you mean that few genes compared, have any allelomorphs in nature? I propose, and if there had been such things as unit characters, most of them ought to have no more variance than the characters of identical twins. I presume most characters are dependent on many genes. If an alteration in any one of them could affect the character in a marked fashion, it is like a unit character. I have imagined that it would need the simultaneous change in a number of genes to produce a progressive suitable change in a character. If so, and if most of them have no allelomorphs, would not vast delay be caused before the various
alcoholism appeared in the same individual?
It seems to me one needs somewhere to have
contemplative variance in the different things
which have to be simultaneously altered by
natural selection. If the variance comes
from added genes, and not alcoholmorphs, I do
not see it makes things easier. Now I am
merely sure I have gone off the track
somewhere, but it seemed fair to put down
what is in my mind.

Take the series of horse-like animals,
illustrated at New York. Here is a long series,
all in a sense admirably adapted to their
environments, and yet a slow progressive change
apparently always going on. This was the sort
of fact needing explanation which I had in
my mind in my article at correcting Elton
in our reviews. I think it should be kept
well in mind.

Did you notice in today's papers the
tragic instance of the identical behaviour
of identical twins?

Yours sincerely,

[Signature]
Major Leonard Darwin,
Cripps's Corner,
Forest Row,
Sussex.


Dear Major Darwin,

Many thanks for the note on Bateson, it puts the point admirably, and though I have already altered the wording somewhat, it seems to me just what was wanted.

The only thing to do is to commend Bateson's enthusiasm for genetics, without saying, which would rather comfort my conscience "while greatly retarding its progress in his own country". But it is difficult to be sure. How far did he alienate the better biologists, e.g. Poulton, Goodrich, from Genetics, and how much did it matter? I wish one could deal frankly with peoples' ideas without seeming to asperse their august persons, but then a man's value as a man of Science lies in his contribution to Science.

I have just been reading Samuel Butler's "Luck or Cunning"; what a malignant knave he must have been, yet Bateson borrowed his sneers and quoted his opinions.

Yours sincerely,