

Cripps's Corner. Forest Row - Sussex. 16.1.29

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 shake about what I want to say later. I have not got "Darwinism".

"In the future the great merit of Mendelism will be seen to rest on the <sup>explanation</sup> 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 amongst our countrymen, Bateson played the leading part in its <sup>and adjustment</sup> rediscovery. Unfortunately he was <sup>unfortunate in his</sup> 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 <sup>his interpretation of</sup> ~~has~~ <sup>has</sup> ~~been~~ <sup>been</sup> ~~known~~ <sup>known</sup>

Mendelian facts was from the first too exclusively coloured  
 can come from following Bateson in regard  
 of his earlier theory of the discontinuous origin of specific forms, though  
 to evolutionary theory, though his name will  
 come to be honoured for his pioneer work  
 in Mendelianism when what he failed to do  
 as regards theory has been accomplished".

*And influence upon evolution, though some of the chief ingredients, the ~~genetic~~ <sup>genetic</sup> ~~steps~~ <sup>steps</sup> of the evolution  
 remarks throughout the article has evidently, undergone the following with what is now at least looked  
 also former; ~~the~~ <sup>genetic</sup> ~~has~~ <sup>has</sup> ~~done~~ <sup>done</sup> ~~more~~ <sup>more</sup> ~~the~~ <sup>the</sup> ~~definitely~~ <sup>definitely</sup> ~~the~~ <sup>the</sup> ~~work~~ <sup>work</sup> ~~fulfilling~~ <sup>fulfilling</sup> ~~of~~ <sup>of</sup> ~~the~~ <sup>the</sup> ~~mission~~ <sup>mission</sup>  
 enough to)*

Harry writes it, I daresay I should  
 tear it up, and advise you to do ditto.  
 There is what seemed to me on the whole a  
 good, though too laudatory article on him - in  
 the current Science Progress.

The other point I want to say a word  
 or two about, I am on still more shaky ground.  
 Do you mean that few genes comparatively have  
 any allomorphs in nature? If so, and if there  
 had been such things as unit character, 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 allomorphs, would not  
 vast delay be caused before the various

allotomorphs appeared in the same individual?  
It seems to me one needs somehow to have  
concurrent variance in the different things  
which have to be simultaneously altered by  
natural selection. If the variance comes  
from added genes, and not allotomorphs, I do  
not see it makes things easier. Now I am  
nearly 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 & correcting letter  
in our review. I think it should be kept  
well in view.

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

Yours sincerely,

Leland D. Daws

21st. January 1939.

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,