

June 28 1921 /

12 ~~th~~ EGERTON PLACE,  
S.W.3

My dear Fisher.

Now for your letter about my paper  
for which many thanks.

As to the inheritance of acquired characters.

I was in truth arguing in my mind with those who  
(like my father & brother)  
believe in it without believing in vitalism. Your suggestion

is that when a muscle is at the optimum size it  
should secrete a secretion of such concentration as to  
produce no effect on the germinal substance. This  
being the case, with the other suppositions as to the  
effect of secretions above and below standard  
density, then all muscles will grow to optimum size.

But this optimum size will depend on many factors,  
differing in every muscle, and could not be the  
result of a broad general law. As you in effect  
say, one must be a vitalist to believe in such  
an effect. As far as I can see, say quantum idea  
would also work with the aid of some vitalistic  
guide without natural selection; and the two  
ideas do not seem to me fundamentally different.

Perhaps I can meet the point by inserting some

Such sentence as the following. It would come in best when dealing with direct effect, as I think touch on vitalism. "Those who rule out Entelechy, or any vitalistic factor inherent in the nature of living matter (as I have ~~also~~ <sup>facily</sup> done with regard to the inheritance of acquired characters) must maintain de de". I think this is a right use of Entelechy, is it not?

Before I go on to your second point, which I have not yet studied, I want to make a general remark or two. I leave London on the 15<sup>th</sup> of July, and shall be little back after then. I should like to get this pamphlet business settled before then if I can. I have seriously thought of scrap-heaping the whole thing, and that thought is not quite abandoned. It would save us all a lot of bother!! The main objection is that the Cambridge Press people will regard me as an ass! Now could we have a talk about it, instead of writing? We could do much more in the time. When are <sup>you</sup> coming to London naturally? Could we fix something up? I am busy packing up things here so as to let my London house for the

winter, and this driving me into a lunatic  
asylum.

Now as to your second point. It is that  
interbreeding between 2 varieties, when the cross  
is not so good as the 2 types, will make for  
the appearance of infertility of ~~the~~ some kind  
appearing. This is a point I had not thought of.  
But - it is your point, not mine! And I don't  
see that it destroys what I say on page 10.  
Whilst the infertility was slowly arising the  
smaller group would be injured, and if the  
infertility did not arise quick enough it would  
be exterminated. It seems to me your point  
is more relevant to page 19, where I suggest a  
reason for infertility arising. Your suggestion  
may be a better one; but it would be difficult  
to incorporate it now. The use of a paper  
like mine - if of any use - is to stimulate  
thought, and create rival suggestions like  
yours. Your suggestion shows how infertility

may tend to arise between divergent <sup>types</sup> ~~individuals~~ belonging to the same species when the mediocre type is less well adapted to the environment. It seems to me, on first thoughts, to be a very useful suggestion. Is it purely your own?

To put it bluntly, I think the choice before me is to publish, cutting out ~~any~~ regular howlers, or to scrap keep the whole. I am quite ready to bag some of your ideas, but that must not go too far! That might result in complete disintegration.

Anyhow, can we have a talk, which might to me be very useful?

Yours sincerely

J. Darwin