

[late 1922 or early 1923?] 1923

Dear Fisher.

Very well then; I will inflict on you another
Evolutionary letter. Your blood be in your own health.

(1) I send herewith 2 pamphlets, not to be returned. Read them
or not as you like. But anglers look at the table on page
127-13 of Pearl's paper. It is undersound ^{the figures} ~~from~~ ^{an} ~~angle~~, I find
them difficult to correlate with urepiness.

(2) I have been writing on racial poisons lately. Assuming them
to exist (which seems to me on the whole probable) I come to
the conclusion that if the poisonous effect, as it probably usually
the case, either diminishes fertility or increases the death rate,
then one of two things must happen: - (a) the poisonous effect
be wide spread universally and uniformly through the race or
interbreeding group; or (b) die out altogether. If so racial
poisons are not such serious matters as they seem at first
sight.

(3) There was a pleasant little review of ^{my} Evolution pamphlet in
a Dublin scientific journal, which reminded me of that work,
and led me to turn it up in connection with one point.
I cite you there as giving an explanation of the way sterility
between neighbouring varieties or varieties generally may arise -
because the intermediate forms are generally less fit. When
I put that in I somehow did not notice that that explanation
fits in with the way species may split in two.
It may, for example, be a near thing whether it is best policy
normally for an animal to fight its enemy or bolt. But if a
little stronger & heavier it might be clearly best to ^{fight} ~~bolt~~, or if
lighter and more agile to bolt, and both of these alternatives

might be better than the intermediate position. In such cases would not natural selection favour sterility between the extremes just in the way in which you suggest? And if the qualities were due to many Mendelian factors, the divergence between the extremes would be increased without the aid of mutations. Beyond a certain point that substitution went to - I mean mutation must come in sooner or later.

One is inclined to think that negatively correlated characters, such as those above mentioned, would not frequently be found. But why should a species ever split in two if all the characters could be changed beneficially in one direction and one direction only? I think they must really be very common.

Bateson says that infertility has never been produced artificially. ~~This is a statement which is not surprising~~ That is not surprising; for no experimentalist has tried for sufficiently long a time - or never tried at all - to breed or select for infertility. I was almost tempted to write to Nature on this point not long ago. But such letters don't attract much attention.

Yours sincerely,
 Leonard Dawson