

20th November 1933.

A.E. Watkins Esq.,  
School of Agriculture,  
Cambridge.

Dear Watkins,

You are altogether too logical for me. I took your example for discussion because I thought I understood that, and did not at all understand your statement of the three assumptions.

You say now that the Biologist considers and that you agree with him that there is a fundamental reality which the word vigour is intended to designate and which manifests itself in pugnacity resistance to disease, growth rate, ect..

Now, my point is a very simple one, that is, if this is so, then vigour as defined must often be a disadvantageous character, and still more often one which though neutral or slightly advantageous in small increments, would be disadvantageous if greatly increased.

The illustration may as you say be not very important, however, you chose it, and I am entitled to point out how well it illustrates my own argument. I myself do not profess to agree with the alleged Biologists. that there is such a thing

a thing as vigour corresponding to your definition.

You say later that allopolyploids, which are common in flowering plants, are obvious examples of successful large changes. I think there is genetic philo-evidence of allopolyploids having occurred and established itself though with a frequency rather trifling compared with that with which point mutations have done so, but what you seem to believe, and I should be glad to know if you do really believe it, is that all allopolyploids which could be made, or all which are variable on horticultural conditions, would establish themselves in competition with the wild population, and this because allopolyploids are endowed by some mysterious ordinance with more vigour than other plants. All this, of course, I should not agree to in the least, but you are mistaken in thinking that the existence of particular examples of successful allopolyploids is contrary to any theorem I have established.

It is very sporting of you to attempt a critical reading of my book. I should judge though

that you would be making it unnecessarily difficult by reading into my words meanings beyond those which they were put down to convey. Your phrase for example "Obvious examples for successful large changes" suggests that you have not considered the difficulty of showing that where allopolyploid~~g~~ has been successful the morphological and physiological changes brought about have really been large compared with those produced by Genetical differences in the depl~~o~~id populations.

One always suspects the word obvious.

Yours sincerely,