

21 December 1932.

Professor E.W. MacBride, F.R.S.,
Imperial College of Science,
South Kensington,
London, S.W.7.

Dear Prof. MacBride:

Apologies about Daniel!

I shall, as you know, be extremely interested in the experiments you mention; but as you know also very sceptical, if only because you seem to be attempting, what has been so often attempted before, though always with inconclusive results. I do not mean, of course, as to details and technique, but as to general philosophy of the thing.

I have been thinking lately that the whole problem, including vitalism, is transformed, if not evaporated, by the position as to indeterminism. Not that the physicists have proved anything, but rather that they have not proved, what it was always taken for granted they had or could, that a rigid determinism exists in the physical realm, and by inference also in the biological. You have been inclined to attack that inference, but that is now unnecessary, for in an indeterministic world creative causation is everywhere, and it becomes the job of

science to locate the particular time and place of the causation of any particular group of phenomena. This is especially important, naturally, in respect of organic evolution.

I fancy that we should agree that this process must be located in the activation^{ethic} of living things, and the difference between Darwinism and Lamarckism may, I think, now be interpreted as the question whether it lies in the Will and Effort of living things or in their Acts and Deeds in the real world around them. Is it Theory or Practice which creates? Obviously if this point of view is right, all previous preconceptions need to be reconsidered, but for the moment I am inclined to argue the case for Practice, for doing and practical achievement, i.e. survival in the struggle for existence. This puts creation in the physical contact of the organism with its environment, not in its inner life, still less in its unwilled and inadvertent mutations. Especially I do not trust the tendency of palaeontologists to assume that^{they} can explain the evolution they observe, if they can explain heritable^{changes} things, (mutations) in individuals.

Yours sincerely,