

The paper is Dr Mayr's letter returned to Dr. Ford.

1st. March 1949.

My dear Henry,

As I am sure you find controversial writing as troublesome and painful as I do, I have tried to do my best with this objectionable business by drafting a note to Mayr, intended to be civil without being servile, and which could very well go under my own name only, if you thought it in any way profitable to write separately.

You will see I have quoted from an old paper of Wright's, the first I happened to pick out of my pamphlet case, which seems to show how much in the dark Mayr must be as to what opinions Wright has advocated. So that you may judge whether I have treated him fairly I am setting four quotations from which I think you can judge the framework of ideas in which each particular sentence is to be interpreted.

I do hope, Henry, you will not let this business bother you, as I think it might quite unduly. After all, it is an essential part of scientific work that it leads to a better understanding of some situations which is always and necessarily unwelcome to many whose previous ideas were not quite so good. One hates to seem to contradict, but there is no improving the ideas of the human race on any subject short of doing something rather like it.

Yours sincerely,

P.S. Thanks for your reply about
Linn & Lathrop. I have now
visited the U.S.A., Australia,
Denmark & Canadian Committees.

Sewell Wright. American Statistical Journal. Supplement of
March 1931. The Statistical Theory of Evolution.
pp. 201-208.

p. 203

"Dr. R.A. Fisher, to whom I referred at the beginning, has made a mathematical investigation which leads to the conclusion that natural selection is enough, that such selection must inevitably lead the species along the road of increasing fitness even in the minutest detail, assuming that the environment does not deteriorate. I have been led to somewhat different conclusions."

p. 207

"Each sub-group has a system of frequency arrays for the genes from which they drift about at random and at rates determined not by the size of the whole system and mutation pressure, but by the size of the sub-group and migration pressure The result is a geological rapid drifting apart of the various sub-groups, even under uniform conditions. This is a non-adaptive radiation, but, on the average, not such as to lead to appreciable deterioration."

p. 208

"In short this seems from statistical considerations to be the only mechanism which offers an adequate basis for a continuous and progressive evolutionary process."

p. 208, concluding sentence of article.

"In particular, a state of sub-division of a sexually reproducing population into small, incompletely isolated groups promotes the most favourable conditions, not merely for branching of the species, but also for its evolution as a single group."

NW sent

[In Fisher's file, with his letter of 11 March 1977
to E. L. Ford]
-JRC

Extract from Dr. Mayr's letter

1st. paragraph.

"There seem to be a number of contradictions which I have been unable to dissolve. With the same breath you say that random fixation occurs, but that it is of no evolutionary significance. I have always considered it axiomatic that anything that leads to a deviation from the present gene ratio is automatically of evolutionary significance. I fail to see any refutation of this point in your note."

Mayr's statement that we say that random fixation occurs must, I suppose, refer to our statement "we presume that random sampling fluctuations must always be present, but that other causes must be active too." Of course, I should not hesitate to say that occasionally random extinction of a gene occurs. It had not occurred to me that Dr. Mayr or anyone else should think it axiomatic that such an event should be of evolutionary importance. If Dr. Mayr imagines his supposed axiom was accepted by other evolutionary writers he must have overlooked the point we have been insisting on for more than twenty years, that the majority of mutations, which, of course, involve a change of gene ratio when they occur, are of no direct evolutionary significance, though in the mass and occurring over long periods they may produce indirect effects.