

is any evidence whatever of intermediate links ever having existed, we see what a great number of small mutations, of which no trace has been left, would have been necessary in order to bring into existence all these different types of life, according to the Neo-Darwinian theory. The probability that all the many kinds of plants and animals could have been produced in such fashion thus becomes very small indeed.

An even greater difficulty arises from the fact that according to the Neo-Darwinian theory it would be necessary that every one of the various intermediate steps would itself be an aid to the survival of the organism. It is easy to imagine that the addition of a certain complete new organ, or the elimination of one, or some other rather great change, might make such a difference that the new form would have a real advantage for survival. If, however, this change were made through a series of very small mutations it would be necessary to assume that every one of these small changes would also be sufficiently beneficial to provide its possessor with a definite advantage and thus enable it not only to survive but to produce sufficient progeny that eventually there would be a large group among which the next step in the series might happen to occur. It would not be at all unlikely that one of the steps that would be necessary to make the large change would in itself be not in the least beneficial; in fact, it might even be harmful. In such a case there would be no way that natural selection could cause it to continue and to be extended to other members of the species. Thus the Neo-Darwinian view involves so great an element of extreme chance as to make it highly questionable whether such a development would be apt to occur in any one case, to say nothing of the thousands of situations where Neo-Darwinians assume that it must have occurred. Thus the Neo-Darwinian idea that major divisions of plant and animal life have come into existence by natural selection from an extensive series of accidental small mutations is extremely conjectural and raises many difficult problems.