

The individuals comprising a species have a definite range of variation strictly limited by the circumstances under which the group of individuals is placed. Except in man, and in domesticated animals in which it is artificially increased, this individual variation is usually so slight as to be unappreciable except to a practised eye; but any extreme variation which passes the natural limit in any direction clashes in some way with surrounding circumstances, and is dangerous to the life of the individual. The normal or graphic line, or 'line of safety,' of the species, lies midway between the extremes of variation.

If at any period in the history of a species the conditions of life of a group of individuals of the species be gradually altered, with the gradual change of circumstances the limit of variation is contracted in one direction and relaxed in another; it becomes more dangerous to diverge towards one side and more desirable to diverge towards the other, and the position of the lines limiting variation is altered. The normal line, the line along which the specific characters are most strongly marked, is consequently slightly deflected, some characters being more strongly expressed at the expense of others. This deflection, carried on for ages in the same direction, must eventually carry the divergence of the varying race far beyond any limit within which we are in the habit of admitting identity of species.

But the process must be infinitely slow. It is difficult to form any idea of ten, fifty, or a hundred millions of years; or of the relation which such periods bear to changes taking place in the organic world.