

externally no visible departure from the normal form. Thus, in one region a species may possess peculiar medicinal qualities which it wants in another, or it may be hardier and better able to resist cold. The average range in altitude, says Hooker, of each species of flowering plant in the Himalayan Mountains, whether in the tropical, temperate, or Alpine region, is 4,000 feet, which is equivalent to twelve degrees of isothermals of latitude. If an individual of any of these species be taken from the upper limits of its range and carried to England, it is found to be better able to stand our climate than those from the lower or warmer stations. When several of these internal or physiological modifications are accompanied by variation in size, habits of growth, colour of the flowers, and other external characters, and these are found to be constant in successive generations, botanists may well begin to differ in opinion as to whether they ought to regard them as distinct species or not.

### *Alternate Generation.*

Hitherto, no rival hypothesis has been proposed as a substitute for the doctrine of transmutation; for what we term 'independent creation,' or the direct intervention of the Supreme Cause, must simply be considered as an avowal that we deem the question to lie beyond the domain of science.

The discovery by Steenstrup of alternate generation enlarges our views of the range of metamorphosis through which a species may pass, so that some of its stages (as when a Sertularia and a Medusa interchange) deviate so far from others as to have been referred by able zoologists to distinct genera, or even families. But in all these cases the organism, after running through a certain cycle of change, returns to the exact point from which it set out, and no new form or species is thereby introduced into the world. The only secondary