

designed work of a Creator building up according to a definite purpose, but as the necessary consequence of active causes, which are inherent in the chemical combination of matter itself, and in its physical properties.

In fact, we can most positively assert, and I hope to justify this assertion in the course of these pages, that by the Doctrine of Filiation, or Descent, we are enabled for the first time to reduce all organic phenomena to a single law, and to discover a single active cause for the infinitely intricate mechanism of the whole of this rich world of phenomena. In this respect, Darwin's theory stands quite on a level with Newton's Theory of Gravitation; indeed, it even rises higher than Newton's theory!

The grounds of explanation, moreover, are equally simple in the two theories. In explaining this most intricate world of phenomena, Darwin does not make use of new or hitherto unknown properties of matter, nor does he, as one might suppose, make use of discoveries of new combinations of matter or of new forces of organization; but it is simply by extremely ingenious combination, by the synthetic comprehension, and by the thoughtful comparison of a number of well-known facts, that Darwin has solved the "holy mystery" of the living world of forms. The consideration of the interchanging relations which exist between two general properties of organisms, viz. *Inheritance and Adaptation*, is what has here been of the first importance. Merely by considering the relations between these two vital actions or physiological functions of organisms, also further by considering the reciprocal inter-action which all animals and plants, living in one and the same place, necessarily exert on one another—solely by the