

correct estimate of these simple facts, and by skilfully combining them, Darwin has succeeded in finding the true active causes (*causæ efficientes*) of the immensely intricate world of forms in organic nature.

In any case we are in duty bound to accept this theory till a better one be found, which will undertake to explain the same amount of facts in an equally simple manner. Until now we have been in utter want of such a theory. The fundamental idea that all different animal and vegetable forms must be descended from a few or even from one single, most simple primary form, was indeed not new. This idea was long since distinctly formulated—first by the great Lamarck, at the beginning of our century. But Lamarck in reality only expressed the hypothesis of the Doctrine of Filiation, without establishing it by an explanation of the active causes. And it is just the demonstration of these causes which marks the extraordinary progress which Darwin's theory has made beyond that of Lamarck. In the physiological properties of Inheritance and Adaptation of organic matter, Darwin discovered the true cause of the genealogical relationship of organisms. It was not possible for the genius of Lamarck in his day to command that colossal material of biological facts which has been collected by the patient zoological and botanical investigations of the last eighty years, and which has been used by Darwin as an overpowering apparatus of evidence.

Darwin's theory is therefore not what his opponents frequently represent it as being—an unwarranted hypothesis taken up at random. It is not for zoologists or botanists to accept or reject this as an explanatory theory, as they please; they are rather compelled and obliged to accept it,