

opposed to the *teleological* conception. If we compare all the ideas of the universe prevalent among different nations at different times, we can divide them all into two sharply contrasted groups—a *causal* or *mechanical*, and a *teleological* or *vitalistic*. The latter has prevailed generally in Biology until now, and accordingly the animal and vegetable kingdoms have been considered as the products of a creative power, acting for a definite purpose. In the contemplation of every organism the unavoidable conviction seemed to press itself upon us, that such a wonderful machine, so complicated an apparatus for motion as exists in the organism, could only be produced by a power analogous to, but infinitely more perfect than, the power of man in the construction of his machines.

However sublime the former idea of a Creator, and his creative power, may have been; however much it may be divested of all human analogy, yet in the end this analogy still remains unavoidable and necessary in the teleological conception of nature. In reality the Creator must himself be conceived of as an organism, that is, as a being who, analogous to man, even though in an infinitely more perfect form, reflects on his constructive power, lays down a plan of his mechanisms, and then, by the application of suitable materials, makes them answer their purpose. Such conceptions necessarily suffer from the fundamental error of *anthropomorphism*, or man-likening. In such a view, however exalted the Creator may be imagined, we assign to him the human attributes of designing a plan, and therefrom suitably constructing the organism. This is, in fact, quite clearly expressed in that view which is most sharply opposed to Darwin's theory, and which has found among