

value, the more safely we are guided by it, and the more strongly are we bound to adopt it.

Let us call to mind, for example, that theory which has ranked up to the present time as the greatest achievement of the human mind—the Theory of Gravitation, which Newton, two hundred years ago, established in his *Mathematical Principles of Natural Philosophy*. Here we find that the object to be explained is as large as one can well imagine. He undertook to reduce the phenomena of the motion of the planets, and the structure of the universe, to mathematical laws. As the most simple cause of these intricate phenomena of motion, Newton established the law of weight or attraction, the same law which is the cause of the fall of bodies, of adhesion, cohesion, and many other phenomena.

If we apply the same standard of valuation to Darwin's theory, we must arrive at the conclusion that this theory, also, is one of the greatest achievements of the human mind, and that it may be placed quite on a level with Newton's Theory of Gravitation. Perhaps this opinion will seem a little exaggerated, or at any rate very bold, but I hope in the course of this treatise to convince the reader that this estimate is not too high. In the preceding chapter, some of the most important and most general phenomena in organic nature, which have been explained by Darwin's theory, have been named. Among them are the variations in form which accompany the individual development of organisms, most varied and complicated phenomena, which until now presented the greatest difficulties in the way of mechanical explanation, that is, in the tracing of them to active causes. We have mentioned the *rudimentary organs*,