

*direction*, to account for the phenomenon. Its adequacy is another consideration.\*

(141.) Whenever, therefore, any phenomenon presents itself for explanation, we naturally seek, in the first instance, to refer it to some one or other of those real causes which experience has shown to exist, and to be efficacious in producing similar phenomena. In this attempt, our probability of success will, of course, mainly depend, 1st, On the number and variety of causes experience has placed at our disposal; 2dly, On our habit of applying them to the explanation of natural phenomena; and, 3dly, On the number of analogous phenomena we can collect, which have either been explained, or which admit of explanation by some one or other of those causes, and the closeness of their analogy with that in question.

(142.) Here, then, we see the great importance of possessing a stock of analogous instances or phenomena which class themselves with that under consideration, the explanation of one among which may naturally be expected to lead to that of all the rest. If the analogy of two phenomena be very close and striking, while, at the same time, the cause of one is very obvious, it becomes scarcely possible to refuse to admit the action of an analogous cause in the other, though not so obvious in itself. For instance, when we see a stone whirled round in a sling, describing a circular orbit round the hand, keeping the string stretched, and flying away the moment it breaks, we never hesitate to regard it as retained in its orbit by the tension of the string, that is, by a *force* directed to the centre; for we feel that we do really exert such a force. We have here *the direct perception* of the cause. When, therefore, we see a great body like the moon circulating round the earth and not flying off, we cannot help believing it to be prevented from so doing, not indeed by a material tie, but by that which operates in the other case through the intermedium of the string,—a *force* directed con-

\* The reader will find this subject further developed in a paper lately communicated to the Geological Society.