

phenomena, and which seem to be their immediate results. From the instance we have just given, we may perceive that every inquiry into the intimate nature of a complex phenomenon branches out into as many different and distinct inquiries as there are simple or elementary phenomena into which it may be analyzed ; and that, therefore, it would greatly assist us in our study of nature, if we could, by any means, ascertain what *are* the ultimate phenomena into which all the composite ones presented by it may be resolved. There is, however, clearly no way by which this can be ascertained *à priori*. We must go to nature itself, and be guided by the same kind of rule as the chemist in his analysis, who accounts every ingredient an *element* till it can be decomposed and resolved into others. So, in natural philosophy, we must account every phenomenon an elementary or simple one till we can analyze it, and show that it is the result of others, which in their turn become elementary. Thus, in a modified and relative sense, we may still continue to speak of causes, not intending thereby those ultimate principles of action on whose exertion the whole frame of nature depends, but those proximate links which connect phenomena with others of a simpler, higher, and more general or elementary kind. For example : we may regard the vibration of a musical string as the proximate cause of the sound it yields, receiving it, so far, as an ultimate fact, and waving or deferring inquiry into the cause of vibrations, which is of a higher and more general nature.

(84.) Moreover, as in chemistry we are sometimes compelled to acknowledge the existence of elements different from those already identified and known, though we cannot insulate them, and to perceive that substances have the characters of compounds, and must therefore be susceptible of analysis, though we do not see how it is to be set about ; so in physics, we may perceive the complexity of a phenomenon, without being able to perform its analysis. For example ; in magnetism, the agency of electricity is clearly made out, and they are shown to stand to one another in the relation of