

body, or from one part to another of the same, we shall perceive that it is again resolvable into several other phenomena:—1st, The original setting in motion of a material body, or any part of one. 2dly, The behavior of a particle set in motion, when it meets another lying in its way, or is otherwise impeded or influenced by its connection with surrounding particles. 3dly, The behavior of the particles so impeding or influencing it under such circumstances; besides which, the last two point out another phenomenon, which it is necessary also to consider, viz. the phenomenon of the connection of the parts of material bodies in masses, by which they form aggregates, and are enabled to influence each other's motions.

(80.) Thus, then, we see that an analysis of the phenomenon of sound leads to the inquiry, 1st, of two *causes*, viz. the cause of motion, and the cause of sensation, these being phenomena which (at least as human knowledge stands at present) we are unable to analyze further; and, therefore, we set them down as simple, elementary, and referable, for any thing we can see to the contrary, to the immediate action of their causes. 2dly, Of several questions relating to the connection between the motion of material bodies and its cause, such as, *What will happen* when a moving body is surrounded on all sides by others not in motion? *What will happen* when a body not in motion is advanced upon by a moving one? It is evident that the answers to such questions as these can be no other than *laws of motion*, in the sense we have above attributed to laws of nature, viz. a statement in words of what will happen in such and such proposed general contingencies. Lastly, we are led, by pursuing the analysis, and considering the phenomenon of the aggregation of the parts of material bodies, and the way in which they influence each other, to two other general phenomena, viz. the cohesion and elasticity of matter; and these we have no means of analyzing further, and must, therefore, regard them (till we see reasons to the contrary) as *ultimate phenom-*