

the brain and heart, causeth there a resistance, or counter-pressure, or endeavour. . . . And because *going, speaking,* and the like voluntary motions, depend always upon a precedent thought of *whither, which way, and what*; it is evident that the imagination [or idea] is the first internal beginning of all voluntary motion. And although unstudied men do not conceive any motion at all to be there, where the thing moved is invisible; or the space it is moved in is, for the shortness of it, insensible; yet that doth not hinder, but that such motions are. These small beginnings of motion, within the body of man, before they appear in walking, speaking, striking, and other visible actions, are commonly called ENDEAVOUR<sup>1</sup>.

These quotations are sufficient to show that the system of Hobbes was prophetic of a revelation afterwards declared by two centuries of scientific research. For they show how plainly he taught that all our knowledge of the external world is a knowledge of motion; and, again, that all our acquisitions of knowledge and other acts of mind themselves imply, as he elsewhere says, some kind of 'motion, agitation, or alteration, which worketh in the brain.' That he conceived such motion, agitation, or alteration to be, from its extreme minuteness, 'invisible' and 'insensible,' or, as we should now say, molecular, is likewise evident. I can therefore imagine the delight with which he would hear me speak when I say, that it is no longer a matter of keen-sighted speculation, but a matter of carefully demonstrated fact, that all our knowledge of the external world is nothing

<sup>1</sup> *Leviathan*, pt. i. chaps. i. and vi.