

that there is centralized control over all molecular forces, determining the limits, nature and condition of the organism.¹⁰

I would not be understood as including Man's higher nature among the attributes that can be developed out of simple matter and cephalized life. For Man evinces in his power to comprehend Nature's laws and use them for his physical, intellectual and moral progress, that he is *above* Nature. He shows in his thoughts of the infinite—in his recognition of an omnipotent Creator, (or, as well, in his efforts to reason himself out of this recognition, or into the substitution of an infinite Nature)—in his sense of obligation to moral law, and law as emanating from an infinite God—in his aspirations towards the infinite—in his hopes reaching into the indefinite future—and in his capability of indefinite development, that he has within him an element of the infinite, a spiritual element, which places him above nature, constitutes his likeness to his Creator, and assures him of a future of spiritual existence apart from matter and its inferior developments.

6. *Distinction of Megasthenes and Microsthenes.*—The fact stated with regard to the powerful life-system of the Whale affords aid towards a definite understanding of the distinction between the great groups of Megasthenes and Microsthenes. The subdivisions of these groups are mentioned in a note to page 159, and in a manner to exhibit their parallelism:—the Quadrumanes and Chiropters being in one line, since they have long been regarded as correlates in many of their characters; so Carnivores and Insectivores in the second; Herbivores and Rodents in the third; and Mutilates and Edentates in the fourth. Carnivores and Insectivores are both carnivorous and both prosthenic tribes. Herbivores and Rodents are both herbivorous, and the larger and most characteristic part of the former and all of the latter are metasthenic. Mutilates and Edentates are both degradational types; the latter, like the former, sometimes multiply and elementalized in their teeth, sometimes wholly elliptical as to teeth, sometimes vast in amplification; and bearing, through all their structure, evidence of great inferiority among the placental Mammals. The mean sizes of the Megasthenes and Microsthenes have been shown to be about as 1 : 4.

Now the Whales, by their enormous muscular power, make it manifest, as has been explained, that they are true Megasthenes, or that the life-system is really large, not very much smaller perhaps than that of the higher Herbivores. Although degradational species, they still retain this peculiar feature of the Megasthenic type.

¹⁰ This idea is illustrated by reference to the nature of coral polyps in the writer's Report on Zoophytes, 4to, 1846.