

[PPX 1.05]  
Chapter 5  
**Of Motion<sup>1</sup>**

As there is but one only matter, so there is but one only motion, which is the only moving part of only matter, but as there are several degrees and several parts in only matter, so there are several degrees and several changes in only motion. But to conclude this short chapter, there is not any part or degree in only and infinite matter, but is either moving or moved by the mover, which is the innate motion in animate matter.

[PPX 1.06]  
Chapter 6  
**Of Vacuum<sup>2</sup>**

To treat of vacuum, whether there be any or not, is very difficult, for there is as much to be said of one side as of the other. For if there be no vacuum, all the matter would be dense as glass, and so there could be no agile motion, but if a vacuum be allowed, how can a place be and no matter, for nothing is nothing. Wherefore, human sense and reason informs that matter and motion doth create place and space in itself, as it doth in all figures and divisions in the infinite body.<sup>3</sup>

[PPX 1.07]  
Chapter 7  
**Infinite Matter Cannot Have an Exact Figure or Form**

The infinite and only matter cannot have an exact form or figure by reason it is infinite, but the infinite matter being divided by self-motion into creatures or parts, these creatures or parts may have exact figures according to their proprieties. Yet those figures or parts are as infinite as infinite matter of which they were made. Neither can those creatures, figures, or parts be taken from the infinite body. For though parts may be divided and composed infinite, several ways or manners or fashions in the infinite body, yet infinite can neither be increased nor diminished. For though the several changes of motions, which are the several actions, and the several figures, which are the several parts of the only infinite matter, be all infinite, yet those infinities are but as one infinite, being inherent in the only infinite matter and being not divided from the only infinite matter. For the several infinities conclude in one infinite.

[PPX 1.08]  
Chapter 8  
**Of the Degrees, Changes, Parts, Divisions, and Compositions in Infinite Matter**

Although in nature there is but one kind of matter, yet there are infinite degrees and infinite motions and infinite parts in that only matter; and though infinite and eternal matter hath no perfect figure,

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<sup>1</sup> Revised from PPO 013/PhF 013 “Of Matter and Motion,” which had combined this subject with a treatment of matter as well (see PPX 1.01, “Of Only Matter”).

<sup>2</sup> Revised from PPO 024 (“There is No Vacuity”) and PPO 026 (“Of Vacuum”), verse treatments of the vacuum debate which appeared on the same page with Cavendish’s marginal note “The readers may take either position.” (Appeared as PhF 024 and PhF 026 on facing pages).

<sup>3</sup> “Infinite body” refers to Cavendish’s model of nature as an infinitely diverse material whole.

yet there being infinite parts made by infinite motions in infinite matter, these parts have perfect figures; and if there be infinite degrees, motions, parts, divisions, compositions, and changes, then there are infinite figures; if infinite figures, infinite sizes; if infinite sizes, infinite smallness, infinite bigness, infinite lightness, infinite weightiness, infinite rarity, infinite density, and if infinite degrees of motion, then there be infinite degrees of strengths and if infinite degrees of strengths, then infinite degrees of power, and if infinite degrees of animate matter, then there are infinite degrees of life, and infinite degrees of knowledge; but yet in infinite, there is no such thing as biggest or smallest or lightest or heaviest or softest or hardest or quickest or slowest or strongest or weakest or least knowing or most knowing, for there is no such thing as most and least in infinite, nor no such things as time made by motion, for time is only the variation of motion. But to conclude this chapter, all those several infinities conclude in one infinite, like as several letters conclude in one word, several words in one line, several lines in one speech, and these several letters, several words, several lines in one chapter, so several parts, several figures, several motions in one matter, and several infinities in one infinite body.