

one, for example, doubted that the tides were somehow or other influenced by the moon: and, perhaps no one who had adopted the Copernican system, and speculated on the nature of mechanical motion, could doubt that the planets were affected by some action or power emanating from the sun. Before the time of Newton, no one had, however, ventured to promulgate any definite or numerical law of gravitation; still less had any one, on the assumption of a definite law, demonstrated a single fundamental proposition in astronomy. What had been done by preceding philosophers, takes no more from the glory of Newton than the predictions of Seneca take away from the honour of Columbus.

If any one anticipated Newton, in the application of the law of gravitation to the system of the Universe, it was Kepler, and not Hook, as has been sometimes erroneously asserted. Hook did not demonstrate a single fundamental proposition in astronomy; and Newton, I believe, preceded him in the very speculations on which his claims have been sometimes set up. For we must remember that Newton, when a very young man, had just notions of the nature of a central force; and that he endeavoured to prove, by calculation, that the moon was held in its orbit by the sole force of the earth's attraction; and failed, only because the distance of the moon had been falsely estimated by practical astronomers. Leaving, however, mere historical discussion, let us consider one or two of the early steps of his philosophic progress.

He first appeared as the improver of the elements of mechanical philosophy, giving the laws of motion a generality they had not before, and extending their application to the investigation of motions