nomical phenomena.[1] And recent most remarkable studies of the stars have enabled astronomers to account for obscure events in far distant parts of the universe by the application of the principles of dynamics. Similarly light, heat, and chemical energy, as we know them, are unquestionably universal.

No doubt the manifestations of energy within the sun and stars, like the accompanying material phenomena there, can to-day only be surmised. For aught we know, these places may, as has been guessed, be the birthplace of elements and the seat of manifestations of energy quite different from

[1] "What the Occasion of Sir *Isaac Newton's* leaving the *Cartesian* Philosophy, and of discovering his amazing Theory of Gravity was, I have heard him long ago, soon after my first Acquaintance with him, which was 1694, thus relate, and of which Dr. *Pemberton* gives the like Account, and somewhat more fully, in the Preface to his Explication of his Philosophy: It was this. An Inclination came into Sir *Isaac's* Mind to try, whether the same Power did not keep the Moon in her Orbit, notwithstanding her projectile Velocity, which he knew always tended to go along a strait Line the Tangent of that Orbit, which makes Stones and all heavy Bodies with us fall downward, and which we call *Gravity?* Taking this Postulatum, which had been thought of before, that such Power might decrease, in a duplicate Proportion of the Distances from the Earth's Center." — "Memoirs of the Life of Mr. William Whiston by Himself." London, 1749, Vol. I, pp. 35–38. Quoted by Ball. "An Essay on Newton's Principia." London, 1893, p. 8.