by a conjuncture of circumstances, which almost of necessity obliges us to take a *coup-d'œil* of the whole subject, and make up our minds, not only as to the validity of what is done, but of the manner in which it has been done; the methods employed; the direction in which we are henceforth to proceed, and the probability of further progress.

(2.) The subject to which this lecture is devoted affords an instance of a conjuncture of this kind. We have already had occasion incidentally, in Lect. III. § 9, to call attention to the change which it has been found necessary to make (at present of a provisional rather than a definitive character) in our estimate of the distance of the sun—a change, implying of course the necessity of a proportionate alteration in all those statements of the dimensions of our system, such as the diameters of the planetary orbits; of the sun and the planets themselves; and the distances of their satellites from the primary, and even the estimate of the masses of all these bodies and the dimensions of the cometary orbits: all those elements, in short, which assume directly or indirectly the mean distance of the sun as their unit of scale. There is reason to believe, too, that the distance of the moon (our knowledge of which does *not* assume that of the sun as known) has been somewhat misestimated, and that an alteration (though not nearly to so great a proportional extent), bringing our nearest celestial neighbour into somewhat closer proximity than heretofore supposed, is required.

(3.) The dimensions and figure of the earth itself too,

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