different forms, had been, that it was true; nor had the most persevering cross-examination been able to establish any thing of contradiction or prevarication. The same question was also to be put to the Earth and the Ocean, and we must briefly notice the result.

According to the Newtonian principles, the form of the earth must be a globe somewhat flattened at the poles. This conclusion, or at least the amount of the flattening, depends not only upon the existence and law of attraction, but upon its belonging to each particle of the mass separately; and thus the experimental confirmation of the form asserted from calculation, would be a verification of the theory in its widest sense. The application of such a test was the more necessary to the interests of science, inasmuch as the French astronomers had collected from their measures, and had connected with their Cartesian system, the opinion that the earth was not *oblate* but *oblong*. Dominic Cassini had measured seven degrees of latitude from Amiens to Perpignan, in 1701, and found them to decrease in going from south to north. The prolongation of this measure to Dunkirk confirmed the same result. But if the Newtonian doctrine was true, the contrary ought to be the case, and the degrees ought to increase in proceeding towards the pole.

The only answer which the Newtonians could at this time make to the difficulty thus presented, was, that an arc so short as that thus measured, was not to be depended upon for the determination of such a question; inasmuch as the inevitable errors of observation might exceed the differences which were the object of research. It would, undoubtedly, have become the English to have given a more complete answer, by executing measurements under circumstances not liable to this uncertainty. The glory of doing this, however, they for a long time abandoned to other nations. The French undertook the task with great spirit.[40] In 1733, in one of the meetings of the French Academy, when this question was discussed, De la Condamine, an ardent and eager man, proposed to settle this question by sending members of the Academy to measure a degree of the meridian near the equator, in order to compare it with the French degrees, and offered himself for the expedition. Maupertuis, in like manner, urged the necessity of another expedition to measure a degree in the neighborhood of the pole. The government received the applications favorably, and these remarkable scientific missions were sent out at the national expense.

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[40] Bailly, iii. 11.