

tory theory was, like the atomic theory of Dalton, driven out of the country. Little was heard of it, or of Young's great contribution, till it was taken up abroad, and in the very place where the brilliant development by Laplace of one side of Newton's suggestions had given plausibility to that form of the projectile theory of light according to which its material particles were supposed subject to attractive forces when they arrived in the neighbourhood of ponderable matter. Young had indeed shown that the introduction of such forces could easily be dispensed with as a basis of many of Laplace's calculations, and that the results could be got without making use of molecular attraction. He had emancipated himself from a belief in the infallibility of Laplace's methods.¹ He was also one of the first to

¹ On the 20th December 1804, Young presented to the Royal Society his important "Memoir on the Cohesion of the Fluids." It was printed in the 'Transactions' in 1805. In December 1805 Laplace read before the Institute of France, and subsequently published in a supplement to the 'Mécanique céleste,' his celebrated theory of capillary attraction. Young bases his investigation entirely on the existence of a surface tension, an observable and measurable property; whereas Laplace falls back upon the hypothesis of an attraction of the smallest particles of matter, just as he had employed the idea of an attraction of matter on the smallest particles of light to explain atmospheric refraction according to the projectile theory adopted by him. In the sequel this attraction is reduced to an action which is insensible at sensible distances. In a supplement to his memoir, which

appeared anonymously in the first number of the 'Quarterly Review' (1809), Young, evidently annoyed that some of his results had been reproduced without acknowledgment (see Peacock, 'Life of Young,' p. 205), reviewed the treatise of Laplace "with a severity which, though excessive, can hardly be considered unprovoked or unmerited" (ibid., p. 206). *Inter alia* he says: "The point on which M. Laplace seems to rest the most material part of his claim to originality is the deduction of all the phenomena of capillary action from the simple consideration of molecular attraction. To us it does not appear that the fundamental principle from which he sets out is at all a necessary consequence of the established properties of matter; and we conceive that this mode of stating the question is but partially justified by the coincidence of the results derived from it with