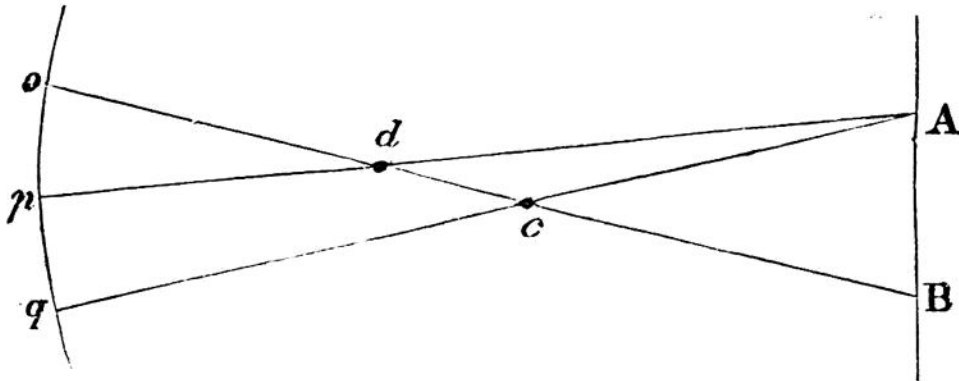


He must know, that when he is looking upon objects that are near him, they present different relative positions according to the situation of the point from which he views them. If he alter his position only a few feet, the relative places of the nearer objects will be greatly changed, but in those which are more distant the change will be less distinct. Acquaintance with this fact may have already induced him to imagine that the stars do not change their relative places, from whatever point he may view them, because they are so far distant that there can be no comparison between the distance of the stars and the distance from each other of the two places from which he views them. We are, in fact, accustomed to refer all objects to an imaginary sphere of indefinite radius, the eye being its centre; and in proportion to their nearness, their relations will change with an alteration of the place from which they are viewed.



Let A and B be two positions from which we view the two objects c and d . At B we should refer both the objects to the point o ; but, as we advance towards A , the objects apparently change their place; and at A we should refer the object c to the point q , and the object d to the point p , the nearer object subtending a greater angle, $A c B$, than the more distant, $A d B$.

This angular motion of an object on our sphere of vision, arising from our change of place, is called the parallax. But, as the amount of parallactic motion decreases as the distance of the object increases, it will cease altogether when the object is very far removed, and this is the case with the fixed stars. Were it not so, the stars would present different relative positions; on the horizon they would be crowded together, interfering the one with the other, and, as they approached the zenith, they would expand and come into view