

the object and the nerve on which the impression is to be made. The object is never allowed to come into direct contact with the nerves; not even in the case of touch, where the organ is defended by the cuticle, through which the impression is made, and by which that impression is modified so as to produce the proper effect on the subjacent nerves. This observation applies with equal force to the organs of taste and of smell, the nerves of which are not only sheathed with cuticle, but defended from too violent an action by a secretion expressly provided for that purpose. In the senses of hearing and of vision, the changes which take place in the organs interposed between the external impressions and the nerves, are still more remarkable and important, and will be respectively the subjects of separate inquiries. The objects of these senses, as well as those of smell, being situated at a distance, produce their first impressions by the aid of some medium exterior to our bodies, through which their influence extends; thus, the air is the usual medium through which both light and sound are conveyed to our organs. Hence, in order to understand the whole series of phenomena belonging to sensation, regard must be had to the physical laws which regulate the transmission of these agents. We are now to consider these intermediate processes in the case of each of the senses.