

ment than to Polypi? I hardly believe it; for, as the mouth is transverse in many Echini, so also do their anterior and posterior extremities differ more and more, in the same proportion that the bilateral symmetry is increased and made more prominent. It seems to me, therefore, more natural to compare Pleurobrachia with the other Radiata in a position in which the split of the mouth will indicate the antero-posterior diameter, even though the diameter considered as the transverse be thus greater than the longitudinal. This, however, is not the only instance of such a disposition in the animal kingdom. In many Mollusca of the class of Acephala, in the family of Cardiacea, we have numbers of genera and species in which the longitudinal axis is shorter than the transverse. Though the vertical chymiferous tubes with their rows of locomotive fringes are homologous with the ambulacra of Echinoderms, I hold that the position I assign to the Ctenophoræ is in perfect accordance with the general progress of symmetry among Radiata; for the anterior position of the mouth in the Spatangoids does not interfere with its being the centre of radiation, as in all other Echinoderms. The first tendency, beyond a perfectly radiated arrangement, which is introduced among the Radiates, is to a symmetrical disposition and parity between right and left, when the anterior and posterior extremities may be marked by this lateral symmetry only, and not made to differ from each other. Next, the two ends of the antero-posterior diameter are made to differ; and this we see introduced among the higher Echinoderms only. For, though bilateral symmetry can be recognized among Star-fishes and Echini proper, their anterior row does not yet differ from the others; and the first appearance of such a difference is introduced in the Clypeastoids, and more developed in the Spatangoids. If, therefore, the Echinoderms, which as a whole rank above Medusæ, still retain so completely the radiated type, and the bilateral symmetry is developed in them, among so many of their types, solely in their perfect symmetry of right and left, without a difference between forward and backward, why should we expect this in the class of Acalephæ, especially when we are able so easily to refer this type to that of Polypi? I assume therefore decidedly, that the diameter which corresponds to the split of the mouth indicates the longitudinal axis, and shall, in the following pages, describe all parts with reference to this view. I thus consider the halves of the body which would be divided by a plane passing through the split of the mouth and through the opposite oblong area as the right and left halves of this animal, and therefore the tentacles as being placed right and left. But I must for the present leave it doubtful which is right and which is left; for the sides are so completely identical, the two angles of the mouth so absolutely equal, and the prominent projections of the opposite area so uniform, as to afford no indication upon this point. This is a very remarkable circumstance to occur in a class intermediate between two others, in which, notwithstanding their