

ment in inferior animals. Thus, according to this view, the human fœtus assumes successively the plan of the zoophyte, the worm, the fish, the turtle, the bird, the beast. But it has been well observed, that "in these analogies we look in vain for the precision which can alone support the inference that has been deduced;"¹³ and that at each step, the higher embryo and the lower animal which it is supposed to resemble, differ in having each different organs suited to their respective destinations.

Cuvier¹⁴ never assented to this view, nor to the attempts to refer the different divisions of his system to a common type. "He could not admit," says his biographer, "that the lungs or gills of the vertebrates are in the same connexion as the branchiæ of molluscs and crustaceans, which in the one are situated at the base of the feet, or fixed on the feet themselves, and in the other often on the back or about the arms. He did not admit the analogy between the skeleton of the vertebrates and the skin of the articulates; he could not believe that the tænia and the sepia were constructed on the same plan; that there was a similarity of composition between the bird and the echinus, the whale and the snail; in spite of the skill with which some persons sought gradually to efface their discrepancies."

Whether it may be possible to establish, among the four great divisions of the "Animal Kingdom," some analogies of a higher order than those which prevail within each division, I do not pretend to conjecture. If this can be done, it is clear that it must be by comparing the types of these divisions under their most general forms: and thus Cuvier's arrangement, so far as it is itself rightly founded on the unity of composition of each branch, is the surest step to the discovery of a unity pervading and uniting these branches. But those who generalize surely, and those who generalize rapidly, may travel in the same direction, they soon separate so widely, that they appear to move from each other. The partisans of a universal "unity of composition" of animals, accused Cuvier of being too inert in following the progress of physiological and zoological science. Borrowing their illustration from the political parties of the times, they asserted that he belonged to the science of *resistance*, not to the science of the *movement*. Such a charge was highly honorable to him; for no one acquainted with the history of zoology can doubt that he had a great share in the impulse by which the "movement" was occasioned; or that he him-

¹³ Dr. Clark, p. 114.

¹⁴ Laurillard, *Elog. de Cuvier*, p. 66.