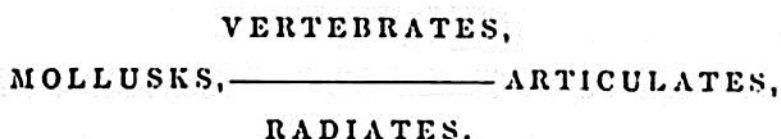


of these two branches. The most natural view seems to me to be that which assigns to them an equal standing, and recognizes their difference in the different tendencies of their plan; so that, taking the sum of their characteristics, the four primary branches of the animal kingdom should not be placed in one series. Their true relations seem to be best expressed by a diagram like this:—



Again, the different classes of each branch show a relative superiority one above the other. Polyps as a class are certainly inferior to Acalephs as a class, and these, again, inferior to Echinoderms. Acephala as a class are unquestionably inferior to Gasteropoda, and these, again, inferior to Cephalopoda. Worms as a class are certainly inferior to Crustacea, and these in their turn inferior to Insects, etc. And yet there are Worms, such as the higher Annelids, in which the structural complication much exceeds that of the lowest Crustacea, such as the Rotifera. Some Lamellibranchiates are much more highly organized than some of the Phlebenterate Gasteropods. Some of the Fishes may be considered superior to some Batrachian Reptiles; but no Reptile seems to rise to a level with Birds. Here again we see, therefore, that difference of rank is only a secondary feature for classes. The same may be said of families and of genera, as well as of species, and it is much to be lamented that our language has not a greater variety of words to express the many shades of relative standing; so that we are limited to the almost exclusive use of the words *superior* and *inferior*, which are inadequate to render the comparative relations of beings in themselves so exquisitely organized as are the representatives of every class in the animal kingdom. In the groups called orders, however, the idea of superiority and inferiority seems to be the prevalent feature. Yet orders themselves exhibit also another kind of relations, to which I have already incidentally alluded in an article on the Categories of Analogy, added to the London edition of my *Essay on Classification*.<sup>1</sup> It is curious to observe how the views entertained by Oken<sup>2</sup> respecting certain affinities among animals, resulting, in his opinion, from the repetition of the same principle in groups of different value, loom up again in the relations of the orders of certain classes to other groups, to which they themselves do not belong.

If it be true that Hydroids, Discophoræ, and Ctenophoræ are three distinct orders among Acalephs, it cannot be overlooked, that, by their general appearance,

<sup>1</sup> *Essay on Classification*, by L. Agassiz, London, 1849, 8vo., pp. 271–284.

<sup>2</sup> Compare vol. 1, p. 211. See also OKEN'S *Physio-philosophy*, London, 1847, 1 vol. 8vo.