

Instead of considering the orders as founded upon a repetition of the characters of higher groups, as Oken would have it, Fitzinger adopts series, as founded upon that idea, and subdivides them further into orders, as above. These series, however, have still less reference to the systems of organs, which they are said to represent, than either the classes or the higher divisions of the animal kingdom. In these attempts to arrange minor groups of animals into natural series, no one can fail to perceive an effort to adapt the frames of our systems to the impression we receive from a careful examination of the natural relations of organized beings. Everywhere we notice such series; sometimes extending only over groups of species, at other times embracing many genera, entire families, nay, extending frequently to several families. Even the classes of the same branch may exhibit more or less distinctly such a serial gradation. But I have failed, thus far, to discover the principle to which such relations may be referred, as far as they do not rest upon complication of structure,¹ or upon the degree of superiority or inferiority of the features upon which the different kinds of groups are themselves founded. Analogy plays also into the series, but before the categories of analogy have been as carefully scrutinized as those of affinity, it is impossible to say within what limits this takes place.

CLASSIFICATION OF McLEAY.

The great merit of the system of McLeay,² and in my opinion it has no other claim to our consideration, consists in having called prominently the attention of naturalists to the difference between two kinds of relationship, almost universally confounded before: *affinity* and *analogy*. Analogy is shown to consist in the repetition of similar features in groups otherwise remote, as far as their anatomical characters are concerned, whilst affinity is based upon similarity in the structural relations. On account of the similarity of their locomotion, Bats, for instance, may be considered as analogous to Birds; Whales are analogous to Fishes on account of the similarity of their form and their aquatic mode of life; whilst both Bats and Whales are allied to one another and to other Mammalia on account of the identity of the most characteristic features of their structure. This important distinction cannot fail to lead to interesting results. Thus far, however, it has only produced fanciful comparisons from those who first traced it out. It is assumed, for instance, by McLeay, that all animals of one group must be analogous to

¹ Compare Chap. II., Sect. 3, p. 153.

² I have introduced the classification of McLeay in this section, not because of any resemblance to

those of the German physiophilosophers, but on account of its general character, and because it is based upon an ideal view of the affinities of animals.