

According to the present opinion of most zoologists, which we also share, the low sessile Hydropolyp form is the more primitive; the higher Hydromedusa form has been secondarily developed at a much later stage, and that by adaptation to a free-swimming mode of life. In this way has the characteristic swimming organ of the Medusæ arisen, namely, the umbrella, with its radially constructed gelatinous disc, which was entirely absent in the primitive ancestral forms—the Polyps. The most important structure of the latter, however, the gastral tube (inherited from the Gastræa), has been transmitted to the Medusæ, and has become the “manubrium,” in the wall of which the generative products are developed.

If we apply this fundamental and firmly based conclusion to the two theories of Siphonophore organisation, the following is evidently the antithesis in regard to the question of origin. According to the poly-organ theory the primitive form of Siphonophoræ was a simple Medusa and already possessed an *umbrella*; from this established swimming organ the various locomotor organs of the Siphonophoræ (swimming-bells and air-chambers) are derived by multiplication and modification. According to the poly-person theory, on the other hand, the primitive form of the Siphonophoræ was a Hydropolyp colony, and possessed *no umbrella*; the locomotor organs which are present are therefore new structures, not to be derived from any pre-existing swimming organ of the primitive form. And this leads to a weighty contrast in regard to the Medusiform larvæ, which arise directly from the gastrulæ of Siphonophoræ. According to the poly-organ theory, such a larva possesses essentially the morphological value of a simple Medusoid person, and as the hereditary repetition of the original primitive form has the greatest palingenetic importance. According to the poly-person theory, on the contrary, it possesses no such importance; it is merely of subordinate kenogenetic value, and is to be regarded as a peculiarly modified Hydroid polyp.

Both these opposing theories have been for forty years supported with much acuteness by distinguished zoologists, but yet without decisive conclusion; both are in fact partially justified; both contain a mixture of truth and error. According to my own opinion, which is based on an extensive comparative investigation of the entire class, and on numerous new facts discovered in the process, the truth lies midway between the two interpretations. The poly-organ theory is right in starting in its whole interpretation and rationale of the Siphonophoræ from a Hydromedusoid type, in regarding the primary medusiform larva as *palingenetic*, and further in supposing an extensive *multiplication* and *dislocation* of the several Medusa organs. It is wrong, however, in attributing to the fully developed Siphonophoral corm the value only of a person, and in regarding the persons which compose the stock purely as organs in the morphological sense. The poly-person theory, on the other hand, is right in explaining the fully developed Siphonophore as a *corm* (colony or stock), composed of many *polymorphic persons*. It goes, however, much too far, and is in error when it seeks to