My own views emphasise the presence of a peculiar process of development of the internal organs, running parallel to this predisposition for rupture in a particular spot —the spot which will correspond to the outwardly visible demarcation between the future segments. They thus go one step further—and, in my opinion, a very essential step—in the attempt to explain the origin of metamery in the lower Platyelminthes, these bilateral descendants of radiate Cœlenterata, and at the same time predecessors of both Chordata and Appendiculata.[1]

This view of the origin of metamery also affords an explanation for the very different degrees in which we find metamery or segmentation expressed in the different divisions of the animal kingdom. The incipient metamery which we have traced (and which we have pictured to ourselves as arising through natural selection amongst those forms, which, while developing in length, find metamery to be a protective peculiarity) immediately creates, by the fact of its existence, new and variable material for selection, again to be acted upon. And whilst metamery develops in one direction in one line of descendants, the other line brings to the foreground a different set of advantageous combinations, each of them again the stock of new and varied forms. In other words, metamery once established in its most primitive form, and intimately connected with spontaneous fission under the influence of external agents, has been of very great moment in the bringing about of new and endless variations of animal life. And it is irrational, when we have before us, say one of the lowest Vertebrata, in which nobody will deny the presence of distinct metameric segmentation, to conclude that this metamery must necessarily be in many respects reduced, and that in the ancestral forms it must have been far more complete, must have stretched forwards along the whole of the head, must have been more forcibly expressed than it is now—in all the cephalic nerves, in the nephridia, the gill-slits, &c.;—all this on the presumption of the existence of an ancestor so completely and exemplarily segmental as to throw no light on the origin of segmentation and metamery, unless by the aid of Perrier's and Cattaneo's exaggerations. Such conclusions must, however, necessarily be made by those who follow Dohrn's and Semper's lead concerning the phylogeny of the Chordata.

Bateson, in taking *Balanoglossus* as his starting-point, finds the acknowledged points of resemblance in the metamerous gill-slits, &c., and adds to them important data concerning the metamerous cœlomic diverticula. Still, for a general view on the origin of metamery, *Balanoglossus* offers no points that we do not find more strongly represented and more forcibly expressed in the Nemertea. It certainly deserves mention that long

[1] Gegenbaur, in his Grundriss der Vergleichenden Anatomie (1878), hints at similar explanations to those advocated by Emery and myself, when he says (p. 64):—"Die Metamerie . . . . lässt Zustände des Beginnes und der nicht ausgeführten Beendigung mannichfach erkennen . . . . In dem Maasse als ein Metamer die Abhängigkeit vom Gesammtorganismus durch die Ausbildung seiner eigenen Organe aufgiebt emancipirt er sich vom Ganzen und gewinnt die Befähigung freier Existenz." Further on he speaks of incipient metamery as "eine stellenweise, für den Organismus praktisch werdende Ausbildung" of the different organ systems.