

evidence that sensibility, contractility, and especially intellect and volition, are the result of any natural operations. In their properties they are so entirely diverse from all known physical effects, that we must impute them to some other than a natural cause. We must call in the power of a supreme intelligent Being. The laws of affinity, light, heat, and electricity, of endosmose and exosmose, may prepare the organization, but their power ends there; and hence true philosophy requires us to impute the phenomena of life and intellect to an extraneous and infinitely higher cause.

The case, then, stands thus: In ninety-nine cases out of a hundred, we are certain that organization requires the previous existence and agency of a being similarly organized, which we call the parent. But suppose that, in a very few cases, the laws of nature can produce the organization. It still demands another and a higher power, not a blind impulse, but an intelligent cause, to bestow life and intellect. To prove the existence of a natural cause for the arrangement of the atoms into an organic structure, does by no means prove the same for those higher and mysterious principles that make that structure a living, thinking being.

Such, however, are the strongest arguments by which the advocates of the law hypothesis sustain their views of the origin of organism, life, and intellect. The next step in their reasoning is to show how animals and plants may be transmuted from one species, or genus, or family, to another; so that the existing vast variety can be traced to a few original germs. They maintain that these developments of the more from the less perfect have proceeded along certain parallel lines; one series of developments, for instance, taking the line of the fishes, another of the reptiles, another of the birds, another of quadrupeds, and so on.

To prove these developments or transmutations, they appeal first to the physiological history of the mammalian embryo. In its earliest stages, it can hardly be distinguished, except in size, from the unborn polygastric infusoria. The brain of a human embryo appears at first like that of an invertebrate animal; next like that of a fish; then successively like that of a reptile, a bird, a rodent mammal, a ruminant, and a monkey. So the heart, at an early stage, looks like that of an insect; then it has two chambers, like that of a fish; then it becomes three