

is nothing more than the resultant of the forces which maintain the *chemical species* of which the organism is composed."

What may be called the dominant modern view is summed up in the word *organization*. What the germ-cell inherits from the parental germ-cells is an organization of great complexity. Of the nature of this organization we know nothing, but it is possible to think of it as an intricate architecture of minute particles which are the material bearers of particular qualities. To these hypothetical units numerous names have been given—biophors, pangenes, idiosomes, &c. &c.

The doctrine of the continuity of the reproductive protoplasm not only answers the first question as to the uniqueness of the germ-cell, but thereby casts a new light upon the problem of reconstruction. The problem is simplified, and, The Problem of Reconstruction. to a certain extent, disappears. Why should the germ-cell divide, redivide, and build up an embryo in the precise way in which it does? Because it is virtually continuous with the parent germ, which behaved in a precisely similar fashion. Thus the question ceases to be particular, and becomes general—ceases, in fact, to be a problem in heredity, and becomes a subject for investigation under the mechanics of development.

This, it need hardly be said, is to refer to a field of investigation which has been but little worked. In spite of the luminous suggestions of His, Rauber, Roux, and others, there are few general facts on which one can find foothold for further construction. Yet the task has been more than begun in the investigations of the enthusiastic modern school of experimental embryologists. Such current phrases as "cellular dynamics", "protoplasmic mechanics", "developmental mechanics", "physiological morphology", indicate the trend of modern research.

"To think that heredity will build organic beings without mechanical means is a piece of unscientific mysticism", as Professor His has said, and yet the tendency does not rapidly disappear from even scientific literature. To say that "ontogeny recapitulates phylogeny", or