

THE UNITY OF NATURE

the famous embryologist, Karl Ernst Baer, published a work in 1876 which, together with the article on Darwinism which accompanied it, proved very acceptable to our opponents, and is still much quoted in opposition to evolution. It was a revival of the old teleological system under a new name, and we must devote a line of criticism to it. We must premise that, though Baer was a scientist of the highest order, his original monistic views were gradually marred by a tinge of mysticism with the advance of age, and he eventually became a thorough dualist. In his profound work on "the evolution of animals" (1828), which he himself entitled *Observation and Experiment*, these two methods of investigation are equally applied. By careful observation of the various phenomena of the development of the animal ovum Baer succeeded in giving the first consistent presentation of the remarkable changes which take place in the growth of the vertebrate from a simple egg-cell. At the same time he endeavored, by far-seeing comparison and keen reflection, to learn the causes of the transformation, and to reduce them to general constructive laws. He expressed the general result of his research in the following thesis: "The evolution of the individual is the story of the growth of individuality in every respect." He meant that "the one great thought that controls all the different aspects of animal evolution is the same that gathered the scattered fragments of space into spheres and linked them into solar systems. This thought is no other than life itself, and the words and syllables in which it finds utterance are the varied forms of living things."

Baer, however, did not attain to a deeper knowledge of this great genetic truth and a clearer insight into the real efficient causes of organic evolution, because