

OUR EMBRYONIC DEVELOPMENT

already contained in the ovum of animals, only it was so minute and transparent that it could not be detected; that, therefore, the whole development was nothing more than a *growth*, or an "unfolding," of the parts that were already "infolded" (*involutae*). This erroneous notion, almost universally accepted until the beginning of the present century, is called the "preformation theory"; sometimes it is called the "evolution theory" (in the literal sense of "unfolding"); but the latter title is accepted by modern scientists for the very different theory of "transformation."

Closely connected with the preformation theory, and as a logical consequence of it, there arose in the last century a further theory which keenly interested all thoughtful biologists—the curious "theory of scattulation." As it was thought that the outline of the entire organism, with all its parts, was present in the egg, the ovary of the embryo had to be supposed to contain the ova of the following generation; these, again, the ova of the next, and so on *in infinitum*! On that basis the distinguished physiologist Haller calculated that God had created together, 6000 years ago—on the sixth day of his creatorial labors—the germs of 200,000,000,000 men, and ingeniously packed them all in the ovary of our venerable mother Eve. Even the gifted philosopher Leibnitz fully accepted this conclusion, and embodied it in his monadist theory; and as, on his theory, soul and body are in eternal, inseparable companionship, the consequence had to be accepted for the soul; "the souls of men have existed in organized bodies in their ancestors from Adam downward—that is, from the very beginning of things."

In the month of November, 1759, a young doctor of twenty-six years, Caspar Friedrich Wolff (son of a Berlin