

Quite as mysterious is the fact that this minute cluster of molecules called a human germ—apparently a mere atom of jelly—not only comprises the beginning of all the vessels, tissues and organs of the matured body, but it brings forth the special characteristics of the parents, holding the potentiality of father and mother wherein heredity is involved, the mental and physical peculiarities, the general bent of disposition, the special traits, tastes, preferences and idiosyncrasies, and often the particular marks, growths, and physical and mental expression. Shakespeare says: "There's a divinity that shapes our ends, rough-hew them how we will." Can anyone doubt it?

Now, since we know that with judicious exercise and normal nutrition there will be normal growth and development, and consequently a normal body, we also know that with normal growth and development and a normal body, it naturally follows that there will be a normal reproduction; for, if the ancestor is normal, the offspring, which is a part of it, must be normal. But if any function of the organism is varied from the normal, it follows that the others will vary from the normal. If there is abnormal exercise, there will be abnormal nutrition; there being abnormal exercise and nutrition, there will be abnormal growth and development, and consequently an abnormal body. With all these abnormal conditions there will be abnormal reproduction; for, if the ancestor is abnormal, the offspring, which is a part of it, must be abnormal, and we call this heredity.

There is a mysterious principle in every living organism that enables it to select from its environment such ingredients as are necessary to produce the different tissues and organs peculiar to its own nature. Thus, if we plant a rose, or a lily, or a grain of corn in the same soil, and give them the same care, each one will select the ingredients from its environment that are essential to its growth and development, and with that subtle chemistry that is everywhere at work in the organic world, will produce its kind. This law holds good in the animal kingdom as well as among plants. If a number of animals of different species are taken in their infancy and subjected as nearly as possible to the same influences, it will be observed that each will develop into a distinct type, differing in almost every respect from the others. The observance of this law convinces us that the principle of each plant or animal, which enables it to preserve the peculiarities of its species, is an inherent principle which is part of its nature, inherited from its ancestors, and by it given to its offspring. Thus we have a universal law which enables each individual to transmit to its offspring certain essentials that are common to all the individuals of its species. Yet there are differences or peculiarities that distinguish each member of a species from all others. Now, how are we to account for these individual differences? This is