

there is no *a priori* improbability against an environmental influence of some strength saturating through the entire organism, affecting one system by another, till eventually the reproductive cells share in the change. Weismann does not hold that the germ-plasm leads a charmed life in the symbiosis of the organism. It is not insulated from the general metabolism, in fact the germ-plasm may be stimulated to vary by nutritive changes. But to admit this is very different from admitting that a change in the body of a parent can so specifically affect the germ-plasm that a similar change, corresponding in direction though not in amount, is inherited by the offspring.

Apart from the general connectedness of the different parts of the body, and the common medium of the lymph and blood, it seems worth while to refer to the frequent occurrence of protoplasmic continuity within the system. In plants the intracellular connections by means of protoplasmic bridges are wide-spread; this is true in many cases in regard to the cells of animals. This is one of the various possible ways by which influences might pass from body to reproductive organs. That important influences, inciting change, pass in the opposite direction is well known. But it must be clearly understood that Weismann is quite willing to admit that changes in the body may stimulate the germ-plasm to change.

It is useful, also, to recall the numerous experiments which have been made on the determination of sex. Take only one example, the familiar case of Yung's tadpoles, where, by altering the quantity and quality of the food, he was able, for instance, to raise the percentage of females from the normal of about fifty to the abnormal of about ninety. Here, then, an environmental influence, playing in the first place on the nutritive system, saturated throughout the organism, and affected the reproductive-system so as to swing the balance emphatically to the female side. General hypertrophy brought out of the primitive indifference an emphatic predominance of females. In this case the reproductive system was unquestionably reached, and