

more probable, but the difficulty of criticizing the evidence becomes insurmountable, and the question remains open whether the persons become acclimatized because an acquired power of resisting the ill effects of the climate is transmitted to them, or whether a spontaneously inherited power in the survivors enables them better to resist the climate.

Heredity of Polydactylism is, of course, outside the question, as this is not an acquired peculiarity.

With reference to one instance adduced by Blumenbach, and quoted by Darwin, namely, that the practice of circumcision through many generations is responsible for the fact that many Jewish infants are born in Germany with defective foreskins, Virchow, though himself a strong opponent of Weismann's views, feels constrained to remark* that many little Christians "are also born in Germany with defective foreskins, but in the cases examined by him this abnormality was always found in combination with some defect in the urethra—a part not involved in circumcision—and yet circumcision has now been practised several thousand years."

In J. B. Sutton's recent papers upon "Pathology in Evolution,"† the conclusion that permanent peculiarities arise out of conditions which were pathological in some remote ancestor do not seem, although plausible, to be impartially drawn, and the possible objections thereto are not considered at all.

Prof. Weismann, in advancing his views, has endeavored to put the whole matter upon a different basis. He considers it now established through the recent researches upon the nature of nuclei that the nucleus is the only part of a cell which is concerned in reproduction, and therefore in questions of heredity. The protoplasm, on the other hand, regulates all relations of the cell with its external surroundings, and that these external conditions can in no way so influence the nucleus so as to cause their effects to be transmitted to succeeding generations.

Embryological studies on ecchinoderms show that the spermatozoa and germinal area are modified cells, the male and female

* Decendenz u Pathologie, Virchow's Archiv, B. CIII, s. 213.

† Erasmus Wilson, Lectures on Pathology, 1885.