

The part of the argument from recapitulation that pertains to vestigial organs may be countered by the observation that 'as our knowledge increases, our stock of useless organs decreases.' The over 100 useless organs in man once enumerated by Weidersheim has been decreased to five or six, and it is by no means certain that these are vestigial. To illustrate this point, note the following excerpt from an article in Newsweek of November 8, 1965:

TONSILLECTOMY -- IN OR OUT?

Doctors used to take out tonsils at the first flush of a sore throat. Those two small clumps of spongy pink flesh lying on either side of the throat, so the doctrine went, were nothing more than traps for germs and a constant source of trouble. Nowadays, doctors are losing their contempt for tonsils as expendable tissue; last week, in fact, a University of Minnesota investigator presented evidence that, in childhood at least, the tonsils may be vital organs.

At the annual meeting of the American Academy of Pediatrics in Chicago, Dr. Robert A. Good suggested that during infancy the tonsils help establish the body's ability to produce disease-fighting antibodies. In experiments with chickens, Good found that the thymus, a gland in the chest, seems to trigger the development of immunity, and plays a special role in teaching the tissues how to produce certain needed antibodies in the cells. Another organ, called the bursa of Fabricius, is responsible for the animal's ability to produce "circulating" antibodies in the blood. Experimental removal of either organ in the young animal, said Good, produces "an immunologic cripple."

Such findings, Good believes, have important application to humans. He is convinced that the tonsils are the human equivalent of the chicken's bursa. Both the tonsils and bursa, he notes, develop embryologically from the intestine and share similarities in structure. In trying to relate the tonsils to disease in humans, the Minneapolis physician has studied children with an inability to produce antibody-carrying gamma globulin. In some he found the tonsils were poorly developed.

In the normal child, Good believes, the tonsils have probably completed the task of initiating the production of circulating antibodies by the age of 5. But he argues that until more is known about the role the tonsils play, tonsillectomies should not be done indiscriminately at any age. "We should be extremely conservative," he told the pediatricians in Chicago, "in dealing with these systems which we do not understand."

C. THE EVIDENCE FROM BLOOD PRECIPITATION (SEROLOGY)

1. The Argument Stated

In 1904, G. H. F. Nuttall of Cambridge University published the results of his experiments in blood precipitation as an indicator of blood (and therefore genetic) relationship. He reported that the strength of the chemical reaction in each experiment was very closely related to the nearness of genetic relationship (as previously determined by comparative anatomy and paleontology). Thus blood tests were viewed as bringing very strong confirmation to the theory of evolution, even coming as near to giving a definite demonstration of the theory as was likely to be found.