

to infections. Thus, the Chinaman is immune to typhoid fever—not that typhoid is unknown in China. However, on inquiring into the habits of these people and their modes of living, the fact is laid open as to the most potent factor which tends to guard them against the disease. It is that for hundreds of generations back they have rarely used milk; and, similarly, have they abstained from eating vegetables, or if they did help themselves to the later they were always cooked beforehand. And it is now well-known that the typhoid bacillus can subsist for a very long time in vegetables; and milk is a good medium for its growth and multiplication. It may also be well to mention here that during the late South African war statistics compiled with regard to typhoid fever showed the following:—Of the British soldiers who contracted the disease the large majority were immigrants to South Africa, whereas the minority were natives (or, at least, those who had lived there for a very long time). Similarly, the statistics of the Royal Victoria Hospital and the Montreal General Hospital show that the majority of typhoid cases are Englishmen and people who came only lately to Montreal. That is, those who have lived in the presence of the disease all their lives have gradually become inured to these bacilli, and thus they have been able to resist the attacks better than strangers.

According to the teachings of Waismann and his school, acquired properties are non-hereditary. The above expositions, however, tend to gainsay this statement. Another distinguished investigator, who also upholds this theory, gives the following statement to prove the point in question. He says that if a mouse's tail were cut off, it would be necessary to keep cutting off the stump, just as fast as it grows, in thousands of generations, in order that a hereditary tailless mouse be born. This illustration is quite valid. Indeed, we have it exemplified in a practical manner among the Jews and Turks. For, although their male children have invariably been circumcised for the past three or four thousand years, yet each male at birth still possesses the prepuce, just the same as the uncircumcised gentile's offspring. But this simply proves the non-heredity of acquired properties that are of an *anatomical* character only; and it does *not* eliminate the possibility—nay, the probability—of the heredity of acquired *physiological* properties. The third division of this essay attempts to prove the latter. As to whether it has succeeded will be left to the reader's own judgment.

The preceding congenital immunities (that have been detailed in brief) may be termed absolute immunities. In other words, the individual members of certain respective species possess the same, unchangeable, respective immunities. But, there is a further sub-division of