

SCIENCE

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THE DIRECTION OF THE EVOLUTION OF SCIENCE AND THE PLACE OF SIGMA XI IN SUCH EVOLUTION¹

I RECENTLY read Professor Conklin's book "The Direction of Human Evolution" and his thesis so impressed me that I wish to apply his methods of analysis to-night to the subject of the evolution of science.

Dr. Conklin believes that the direction which human evolution will travel can be more or less accurately predicted by studying the path that evolution has already traveled and analyzing such knowledge so as to arrive at the basic laws which have governed the evolution of the past and presumably will govern the evolution of the future. Let us therefore apply his methods to the general field of science and view in retrospect the past and attempt to postulate the future.

When science actually began will probably never be known. It probably began in a rudimentary form soon after man evolved into a more or less intelligent being, for the discovery of the art of making fire was a scientific discovery of exceedingly great value to the human race. The recording of scientific observations probably goes back nearly to the beginning of written history, and when one contemplates the contributions of some of the earlier workers to science, one wonders whether or not we ourselves have actually progressed very far. We are accustomed to ascribe to Copernicus and his school the belief that the earth was not flat but a sphere and that it revolved about the sun and yet 1800 years before Copernicus was born Heraclites of Pontus (about 375 B.C.) stated that the earth revolved on its axis from west to east once in twenty-four hours and that the earth, Mercury and Venus revolved about the sun. Aristarchus of Lamos (about 270 B.C.) found

¹ Presidential address, University of Minnesota chapter of Sigma Xi, June 13, 1921.