

230 INTRODUCTION TO SCIENCE

At the same time we feel bound to admit that the endeavour to formulate practical lore is not likely to have more than partial success, for there is an unanalysable element in its higher reaches. This is well known in the case of some of the experienced physicians of the older school whose insight in diagnosis has often excited the wonder and envy of their more scientific successors. Perhaps there was sometimes more hard work behind it than was usually supposed, but it seems certain that in many fields there are men with a remarkable power of intuition, born not made, of whose methods even self-analysis can give no account.

There is no doubt that all the sciences—not excepting psychology and sociology—sprang from concrete experience. Mathematics is abstract enough, but what does its history show? “Man began arithmetic with experience of the number of his fingers and toes, and geometry with experience of the magnitude of his hands, feet, and arms. He went on to use these concrete bodies as standards to measure other bodies. Geometry means the measurement of lands; and the most ancient Egyptian book of mathematics, the papyrus of Ahmes, about 1700 B.C., measures barns, pyramids, and obelisks, and treats solid bodies before proceeding to abstract surfaces. Mathematics, in short,