

of the knowledge which, through them, we can acquire, must necessarily come from some extraneous source. It is certain, therefore, that the mathematician and the logician must derive from some process different from their own, the substance and material of all our knowledge, whether physical or metaphysical, physiological or moral. This process, by which we acquire our first principles, (without pretending here to analyse it,) is obviously the general course of human experience, and the natural exercise of the understanding; our intercourse with matter and with men, and the consequent growth in our minds of convictions and conceptions such as our reason can deal with, either by her systematic or unsystematic methods of procedure. Supplies from this vast and inexhaustible source of original truths are requisite, to give any value whatever to the results of our deductive processes, whether mathematical or logical; while on the other hand, there are many branches of our knowledge, in which we possess a large share of original and derivative convictions and truths, but where it is nevertheless at present quite impossible to erect our knowledge into a complete system;—to state our primary and independent truths, and to show how on these all the rest depend by the rules of art. If the mathematician is repelled from speculations on morals or politics, on the beautiful or the right, because the reasonings which they involve have not mathematical precision and conclusiveness, he will remain destitute of much of the most valuable knowledge which man can acquire. And if he attempts to mend the matter by giving to treatises on morals, or politics, or criticism, a form and a phraseology borrowed from the very few tolerably complete physical sciences which exist, it will be found that he is compelled to distort and damage the most important truths, so as to deprive them of their true shape and import, in order to force them into their places in his artificial system.

If therefore, as we have said, the mathematical