

aggregation as to the habit of observation which is believed to be developed by the study of external facts. The elements of geology are taught to our pupils of the sixth class. "Silicious stones," says the programme, "rock crystal, agate, silix, flints, millstones, sandstone, granite, the complex structure of granite, sand, pebbles, plaster of Paris." In the programme for the fifth form we find, "Stratified and unstratified rocks, trilobites, mollusks and fossil fishes, silurian strata, slate, Devonian strata, the marbles of the Pyrenees, secondary strata, ammonites, belemnites, triassic formation, rock salt, and gypsum, jurassic formation, oolitic limestones." The best thing in this programme is the excursions into the country, for which it affords the pretext. But we are no better able "to observe men,"—to discern and direct character—because we can tell the nature of a stratum, or distinguish a piece of quartz, or have learnt all sorts of learned names, or have made a herbarium, or counted the petals of a flower. To have acquired the power of carefully examining the world around us does not by any means imply that we have also acquired the power of looking within us. A great naturalist may be the most ingenious of men and of psychologists. This is by no means of rare occurrence. The study of animals indeed may approach more nearly the study of man, but we can scarcely expect that children should be careful students of animals. Besides, animal psychology is more difficult than human psychology. The studies of natural history, which are of all the most passive, on account of the purely descriptive and narrative character which they assume in a course of instruction, constitute knowledge rather than science. They serve the purpose of exercising the memory, of affording amusement, and of driving away *ennui*, or we may regard them

as studies of practical utility, but they have no educative value, unless it be on their poetic and philosophic side—a point of view from which they are not considered.

The third defect which ought to be avoided in teaching the sciences is that which we call particularism, which confines each science within its own domain, without connecting it with others, or regarding it from a synthetic point of view. As it is at present our teaching of the sciences in their multiplied and isolated forms, is a second Tower of Babel, added to that of the course of ancient and modern languages, or of ancient and modern history. Taught each in its own idiom they present a series of specialties which unroll themselves before the pupil. The knowledge which consists of facts furnished in a fragmentary form and detached from one another has no longer a scientific consistency, nor an educative value. Just as our intellectual faculties seek for a unity of principle, so our moral faculties seek to bring various ends under the unity of the highest good. If the instruction which is given does not lead to that unity whence comes our conception of the great laws of the world and society, it will fail to make us understand the ideal end of life, and cannot make science lead us to it. But in this way the different scientific studies lose not only their supreme verity and beauty, but also their morality. They are in danger of falling into the same evils as at present affect literature and art. We must be struck with what is called the "subjectivism" of our *litterateurs*, our poets, our artists, our critics, each occupied with the *Ego*, with his own impressions, with his own personality more or less limited. There is an egoism in literature, in poetry, in art; it is to be hoped that this intellectual egoism may not at length find its way even into science.