

4. We come next to "those activities which are involved in the maintenance of proper social and political relations,"—to the functions of the citizen. The need of knowledge to fit a man for these functions is not, as in the last case, utterly ignored, such a study as history bearing, nominally at any rate, upon political and social duties. But, as taught, it is valueless for purposes of guidance. It is a catalogue of names, dates, battles, plots, and intrigues; a mass of facts "from which no conclusions can be drawn—*unorganizable* facts; and therefore facts which can be of no service in establishing principles of conduct, which is the chief use of facts." To be of practical value, history should "help us to understand how a nation has grown and organized itself." It must become a descriptive sociology, and furnish materials for a comparative sociology. But in any case historical knowledge, to be really serviceable, requires a key. "And the key is to be found only in Science. Without an acquaintance with the general truths of biology and psychology, rational interpretation of social phenomena is impossible."

5. The last division of human life is that which includes its relaxations and pleasures, "the enjoyments of Nature, of Literature, and of the Fine Arts." Here again, however surprising the statement may appear, the knowledge which is most requisite is that of Science. It underlies all the arts. The sculptor must know something of anatomy; the painter will blunder whose method is not based on science; the musician and the poet, even, cannot reach perfection without it. "Only when Genius is married to Science can the highest results be produced." In a very beautiful passage, too long for quotation, Mr. Spencer next reminds us that Science is itself poetic, "and opens up realms of poetry, where to the unscientific all is a blank."

Having thus far considered the value of different kinds of knowledge for purposes of *guidance*, he next proceeds to estimate them as they fulfil the object of *discipline*; and finds that the study of language, so prominent in our school courses, is far inferior in this respect to that of Science. The latter gives the better training to the memory, and at the same time exercises the understanding; and it cultivates the judgment as no extent of linguistic acquirement could do. Science affords also the best moral discipline, developing a spirit of self-reliance, of perseverance, and of complete sincerity. Lastly, Mr. Spencer boldly declares "that the discipline of science is superior to that of our ordinary education, because of the *religious* culture that it gives," and no one can read the eloquent sentences by which he follows this assertion without concurring with them.

"Thus to the question with which we set out—what knowledge is of most worth?—the uniform reply is—Science. This is the verdict on all the counts. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is—Science. For that indirect self-preservation which we call gaining a livelihood, the knowledge of greatest value is—Science. For the due discharge of parental functions, the proper guidance is to be found only in—Science. For that interpretation of national life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is—Science. Alike for the most perfect production and highest enjoyment of art in all its forms, the needful preparation is still—Science. And for purposes of discipline—intellectual, moral, religious—the most efficient study is, once more—Science. . . . And yet the knowledge which is of such transcendent value is that which, in our age of boasted education, receives