

less expenditure of time and energy in defending the object of one's own pursuit from the unsympathetic attacks of others. I do not think this is a pleasant or a satisfactory state of things, and I would like to say a word that may help to bring out the real unity of the sciences, whether these are concerned with nature or with human life.

I say "whether these are concerned with nature or with human life." But of course I have here made an assumption. I have assumed that there is such a thing as a *science* or *sciences* of human life. And this assumption, as I am aware, may be called into question. It may be said that there is no "science" of human life that does not fall within the domain of the science of nature. This is a view with which the late Professor Huxley threatened us, though he still had a certain reverence—or it may be superstition—for philosophy that prevented him from carrying out his threat. For Professor Huxley, I fear, there was no science, strictly so called, of human life, but only of man as a part of nature. Now, I have no desire to dispute about words. If "science" is a body of facts, ascertained by the application of quantitative measurement, I think we must admit that there is no "science" of human life. But, before we give this limited application to the term "science," we had better be clear as to the results of the limitation. It is usually thought that the biological law of development is a "scientific" doctrine. But that law is not based upon anything that can be stated in quantitative terms. The principle upon which it rests is that

the various so-called species have originated by the accumulation of slight differences; but this law cannot be formulated in a quantitative way, in the precise way, *e.g.*, in which the law of gravitation can be formulated. Yet surely there is a law of the *evolution* of living beings. Why, then, should there not be a law of the evolution of the spiritual side of man's nature—a law, *e.g.*, of the evolution of his intellect, his morality, his religion, his art, and a law of social evolution? And whence did Darwin get the materials for his law of development? He drew them from the observations of stock-breeders and gardeners, as well as of naturalists, and from every available source that gave a hint of the manner in which plants and animals vary. In this mass of material he recognized, by the insight of genius, the principle at work, and thus he raised botany and zoology beyond the stage of classification and united them in the single science of Biology. If Biology is a science, it is not because its principle admits of precise quantitative statement, but because it has a *principle*. That this is a principle of developing beings, not of things that may be treated as unchanging, does not remove it from the rank of science. I don't think, therefore, that we can exclude the sciences dealing with the spiritual life of man from the domain of science, on the ground that exact quantitative measurement is impossible, without removing Biology along with them.

But the case for the sciences of human life is stronger than this. By a long process of inferences we may