

as our power of foreseeing danger and avoiding it. To see and know these intertwinings of movement is to possess prevision in corresponding degree. To hold such power of foresight is to be able to make our adjustments wisely. He is a wise man whose mind is so ordered that its contents match accurately with the conditions of the world around him. Insanity, idiocy, and all forms of mental aberration are but misadjustments of minds with things. Such misadjustments within limits are tolerated for a time, but their tendency is always toward the injury and final extinction of the person. Thus the mind is forced to place its contents parallel with the contents of the world without. As the contents of the material world are all traveling, incessantly toward greater and greater harmonic diversity and cohesive unity, the contents of mind must do the same thing or perish. If "Outsider" will scan this last sentence he will observe that it is a very positive prophecy and one of millions on which evolutionists unreservedly stake the fortune of their law. If he will read "First Principles," "Principles of Biology," "Principles of Psychology," and, in fact, all the works of Spencer, without prejudiced eyes, he will find them teeming with prophecies, hundreds of which have already met fulfillment. If he will inquire of any scientific discoverer of the century what ideas were actuating his mind when he made his discoveries, he will soon learn that he had evolutionary notions concerning the little corner of nature where he was working, and that these notions led to the discoveries. He may have been as far from an avowed evolutionist as "Outsider," but, in spite of that, the thought that gave him a leverage to pry into the secrets of nature, we venture to predict, would, on analysis, prove to be one of pure evolution. Mr. Spencer's great work in promulgating this law simply consisted in telling every human being that his useful knowledge that governed his movements intelligently began as discrete, inharmonious facts or experiences that in time unified themselves into a harmonic system having various unlike parts; that what was true of his was true of every other person's, and that such a harmonic unification of experiences was a picture of a precisely similar arrangement of things in the world without.

Let, then, those who would oppose evolution or test its prowess bring forth cases of progress that do not accord with this law, or of retrogression that do accord with it. Let them show us, if they can, anything that has reached a high stage of development without unification of interests and division of functions. Where can they find an organism, a society, or a theory adjusted in perfect accord with a changing environment that has been sessile or retrogressive? Until these are found, Mr. Herbert Spencer is in no danger of being supplanted from his position as chief among philosophers.

R. G. E.

Messenger, H. J., Jr.  
1890

"Two Points Fairly Met,"  
The New York Times, vol. 39 (Sunday, 30 March),  
page 13, column 4.

## TWO POINTS FAIRLY MET.

MR. SPENCER RELIES UPON ACKNOWLEDGED SPECIALISTS--THE SOUNDNESS OF HIS CONCLUSIONS ATTESTED.

To the Editor of the New-York Times:

A complete answer to all the questions raised by "Outsider" in his recent article in THE TIMES on "Herbert Spencer's Philosophy" would require too much of your valuable space and would take me out of my special line of study. I shall therefore confine myself almost entirely to the question asked in the first paragraph, as follows:

"But what we would like to have told us is whether the pretensions of Mr. Spencer are well founded; whether, for example, since his doctrine partly rests upon mathematical considerations, he ranks high as a mathematician among mathematicians; whether biologists have awarded him those tokens of respect (such as medals and foreign memberships of academies) which usually mark the recognition of a leader; whether the modern school of psychology reckons him as one of its chiefs, and whether anthropologists hold that his sociological tables have been drawn up in a truly scientific and critical method, or whether, on the other hand, each of these specialists is accustomed to think of Mr. Spencer as eminent in every branch but his own."

The answer to this is, first, that Mr. Spencer does not make any pretensions of being one of the greatest mathematicians, one of the greatest biologists, one of the greatest psychologists, and one of the greatest anthropologists, "all at one fell swoop"; second, that he is not, and, third, that according to the fundamental principles of the theory of evolution no human being can be. The possibilities of the mind are limited; human energy is finite, not infinite; and any development in one direction means at least some sacrifice of development in every other direction, the amount of sacrifice in any particular case depending upon the difference in directions. There is a certain Western college with a man on its Faculty whose title is Professor of Mathematics, Chemistry, and Oratory, but "Outsider" would add one more subject and expect a man to be master of mathematics, biology, psychology, and anthropology.

But the fact that Mr. Spencer, being human, is not complete master of some half a dozen distinct sciences does not weaken his philosophy, and this statement will become more evident upon looking a little more closely into his qualifications and methods. Surely any reasonable person will readily admit that few, if any, persons can be found whose learning is more accurate, varied, or comprehensive, and whose mind is better

constituted for the development of a scientific philosophy than Mr. Spencer's. More than this, it is his invariable habit to rely for data upon the authority of the most eminent specialists, and particularly so whenever he is in a field of work where his own knowledge must necessarily be limited. For instance, in the preface to one of his volumes on biology can be found the following: "For aid in executing it I owe many thanks to Prof. Huxley and Dr. Hooker. They have supplied me with information where my own was deficient, and in looking through the proof sheets have pointed out errors of detail into which I had fallen." Now, the fact that a man is not a specialist in some particular department of learning does not invalidate his conclusions based upon data drawn from that department, provided he obtains the data from some specialist directly, or, having worked them out himself, has them corroborated by some competent authority. Speaking from the standpoint of mathematics, the writer does not hesitate to say that the synthetic philosophy is by far the most satisfactory that has been enunciated up to the present time, and he will be glad to have pointed out to him any definite mathematical errors which Mr. Spencer has taken for fundamental data or has been drawn into in the course of his reasoning. The writer has not been able to find any such errors, although he has read Mr. Spencer's writings with considerable care and completeness.

Another point should be borne in mind when considering the reason why Mr. Spencer has not been covered with the honors which the learned societies generally shower upon many other men who have not done one-tenth as much for the progress of science. Every one knows that Mr. Spencer is one of the boldest and most original of thinkers. As a natural result, he has arrived at, and given expression to, conclusions which have brought upon him the hostility of the orthodox element, and nearly every learned society has an orthodox element large enough and hostile enough to prevent it from giving the great philosopher a single honor, and so he, like all great reformers, will have to be content with being called infidel, atheist, materialist, godless, in his own lifetime, and will have to wait for the next generation to sing his praises.

Time remains for only one more point, and that will be the relation of an incident tending to show that the theory of evolution, like the theory of gravitation, has borne fruit. The first volume of Mr. Spencer's biology, written some twenty-five years ago, deals very largely in the introductory chapters with the subject of organic chemistry. The professor of chemistry in one of our leading medical colleges, who was reading the volume last year, recently said to me that the one thing in the book which particularly impressed him was the very large number of correct conclusions drawn, and the very large number of possibilities and probabilities hinted at in the chapters referred to, which were not known when the book was written, but which recent work in the chemical laboratory has shown to be true.

H. J. MESSENGER, Jr.  
DEPARTMENT OF MATHEMATICS, NEW-YORK UNIVERSITY, Monday, March 24, 1890.