

THE RIDDLE OF THE UNIVERSE

philosophers. For these the peculiar "spiritual forces" of human nature are a group of "free" forces, not subject to the law of energy; the idea is closely connected with the dogma of the "freedom of the will." We have, however, already seen (p. 204) that the dogma is untenable. Modern physics draws a distinction between "force" and "energy," but our general observations so far have not needed a reference to it.

The conviction that these two great cosmic theorems, the chemical law of the persistence of matter and the physical law of the persistence of force, are fundamentally one, is of the utmost importance in our monistic system. The two theories are just as intimately united as their objects—matter and force or energy. Indeed, this fundamental unity of the two laws is self-evident to many monistic scientists and philosophers, since they merely relate to two different aspects of one and the same object, the *cosmos*. But, however natural the thought may be, it is still very far from being generally accepted. It is stoutly contested by the entire dualistic philosophy, vitalistic biology, and parallelistic psychology; even, in fact, by a few (inconsistent) monists, who think they find a check to it in "consciousness," in the higher mental activity of man, or in other phenomena of our "free mental life."

For my part, I am convinced of the profound importance of the unifying "law of substance," as an expression of the inseparable connection in reality of two laws which are only separated in conception. That they were not originally taken together and their unity recognized from the beginning is merely an accident of the date of their respective discoveries. The earlier and more accessible chemical law of the persistence of matter was detected by Lavoisier in 1789,