

it prevented him from clearly defining and accurately gauging the validity of the purely mechanical conceptions which he had expounded in his 'First Principles.' This task has since been performed by a large amount of penetrating criticism, and not least by the change which has come over scientific thought itself.

The main result of this may be stated in the thesis that all purely mechanical processes are reversible and, as Spencer himself stated, rhythmical, and in the long-run self-repeating. In consequence of this property—the property of all so-called conservative systems—mechanism, however complicated, is incapable of explaining that peculiarity of organic and mental life which is the main characteristic of progress, and which consists in something more than mere change or rearrangement. Now it was just this something more in which the mechanical scheme of Spencer was deficient, but which seemed to be supplied by the principles of natural selection and adaptation introduced into biology by Darwin and Lamarck. What thinkers of the older and idealistic schools had tried to define by various terms such as "vital force" (Stahl and Bichat), "purpose and finality" (Kant), "nisus formativus" (Blumenbach), "the Idea" (Hegel, Lotze, Claude Bernard), "inherent tendency" ('Zielstrebigkeit,' von Baer), seemed to be supplied by the conception of an inherent teleology of nature which found expression in an entirely novel vocabulary such as "natural selection," "adaptation," "survival of the fittest," "struggle for existence," &c., terms which received a purely causal or mechanical explanation on the foundation of two empirical facts

71.
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