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THE CHEMICAL PHILOSOPHY OF THE HIGH-SCHOOL TEXT-BOOKS¹

At the present time the conception of continuity or unity or uniformity plays a great part in all departments of science; not only that continuity in time postulated by geologists and paleontologists, but the idea that all the divisions and classes established by science are but convenient though perhaps indispensable tools of the human mind, while nature, the object of our study, is one and indivisible.

To take examples from biology: modern systematists agree that the conceptions genus, species, variety, race, shade into one another, so that what in one group are regarded as generic distinctions, in another are hardly allowed to differentiate species; the very word biology recognizes the non-existence of a boundary between animal and vegetable; and a group of workers of the present day are busy removing even the distinction between inanimate and animate.

This view of nature, though now so widely accepted, is by no means contemporaneous with the birth of modern science; it came in only when the study of the most striking—because extreme—objects or relations had been followed by that of the less strongly characterized connecting links; and its acceptance has been hindered, in many cases, by the prevalence of certain extra-experimental or extra-observational “explanations” made up to account for the earliest studied, exceptional, phenomena.

¹ Address of the vice-chairman of the Division of Inorganic and Physical Chemistry, American Chemical Society, Indianapolis meeting, 1911.