

a genuine new departure, while the mathematical method of Descartes and Leibniz degenerated with Christian Wolff into mere external form.

The only constructive thinker of first importance who was not overawed by the mathematical method, for which he had indeed no real appreciation, was Bishop Berkeley, and it is worth noting that his contribution to philosophical thought was not truly appreciated in its originality till late in the nineteenth century.

Special scientific formulæ, such as the Newtonian law of gravitation or the atomistic theory of chemistry, were, in many cases, taken as models—the former by Hume in putting forward the laws of association; the latter by the British School of Psychology in succession to Hartley. Hartley himself had sought to connect these laws with physiological processes in the brain. Kant's earlier works are full of quasi-mathematical reasoning; but, unlike Newton, he exaggerated the importance of gravitation as a fundamental principle, as did Laplace; and he did not understand the Newtonian laws of Motion which were clearly set out by his contemporary d'Alembert in France.

In the beginning of the century there existed only a very small number of strictly-defined scientific principles. The laws of attraction and repulsion and those of atomic grouping and combination stand out prominently; to these were added, about that time, the principle of polarity and that of vital forces—the former through the sciences of magnetism and electricity, the latter through the biological sciences.

6.
Scientific
principles
at the
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These two conceptions, familiar in earlier times, ac-