concerned, he was hampered by the formalism in the logic as well as in the psychology of his day, both of which he gratefully accepted.

In spite of the strong recommendation of the inductive methods by Bacon, the science of logic dealt, at that time, mostly only with deductive and syllogistic reasoning, without attempting to analyse the processes by which knowledge was extended in the natural sciences, such as the methods of inference and of proof. And Kant's psychology was the empirical faculty-psychology of the school of Wolff, improved by some of his followers, such as Tetens and Baumgarten.

32. Relation to Locke, Hume, and Leibniz.

The theory of Knowledge had been independently attacked by Locke and Hume; but Kant was able to go beyond the position they had reached, for he had before him the significant and suggestive answer which

phoronomy (kinematics), of dynamics (kinetics), and of physics (gravitational and other) were none of them clearly distinguished. That in each of these sciences an additional notion, principle, or axiom is involved was not clear to thinkers—certainly not to philosophers—of that age, nor for a long time after. Kant identified numbering with the temporal series in analogy with geometry, which deals with spatial series or dimensions. The purely phoronomical science of "kinematics," of which Kepler's Laws were the most brilliant example, was not separated from "kinetics," which is based on Galileo's experiments and Newton's laws of motion, implying the conceptions of force and inertia (mass). Again, Newton's natural philosophy, which to Kant was the ideal of a science, brought in the notion of attraction (action at a distance), a purely empirical fact, based upon a synthesis of Kepler's and Galileo's discoveries. To these notions Kant added in his cosmological theories the correlated notion of repulsion, following the vaguer theories of the ancients, and suggested also by elementary electric and magnetic phenomena. The modern conception of energy was, so far as mechanical phenomena are concerned, anticipated by Leibniz, who suggested a measure for mechanical action. That the celebrated controversy which raged over this matter between the Leibnizians and the Cartesians had been finally settled by d'Alembert in his 'Traité de Dynamique' (1743) seems to have been unknown to Kant ten years later. In the last chapter we have seen how Kant was also influenced by the traditional psychology of his day.