

finality which appears, at least by contrast, to characterize the greater body of opinions in physical science.

In particular two extreme views, though often commingled, have continually striven for the mastery. The one of these, purely scientific and wholly positive, declares the phenomena of life to be, while partly unknown, ultimately knowable as manifestations of matter and energy. According to this view life is a mechanism and nothing more, in its positive scientific aspects at least. Without necessarily denying such assertions, the other view sees the unique properties of life to be dependent upon an equally unique force or tendency, operating in or through its physico-chemical organization. Either there is a peculiar vital force; or there is manifest in the organism a peculiar tendency; or at any rate life patently follows the path into which it was propelled by an original impetus, peculiar to life, unknown in other phenomena. All such views inherently partake of metaphysics, and have, therefore, ever aroused most determined opposition among the more orthodox devotees of science.

Descartes appears to have been the first person to adopt the modern scientific attitude toward life, and from him a very large pro-