

THE RÔLE OF THE CONCEPT OF INFINITY IN
THE WORK OF LUCRETIUS.

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No doubt there will one day be written the history of the concept of infinity. If it is to be done by an American scholar, it will probably not be done in the present generation, for the doing of it calls for a kind of composite scholarly preparation—linguistic, historical, philosophical, scientific, and especially mathematical—which our American universities have indeed the machinery but not yet, it seems, the spirit or the purpose or the atmosphere or the temper to provide.

In any adequate historical survey of the rôle of the notion of infinity in our human thinking a consideration of the *De Rerum Natura* of Lucretius will have to be accorded the position of an important chapter. Most of the many great merits of the work have been long, if not generally nor even widely, recognized. One of its recognized merits is its superb daring and the unsurpassed magnificence of its enterprise; another is its probably unmatched union of literary excellence with scientific spirit and aim; still another, which includes many, being a highly composite merit, is its confident and often acutely argued presentation, sometimes in detail and sometimes in clear and striking outline, of ideas and doctrines that came into their own only in modern science. I refer to such concepts and dogmas as natural law, the atomic constitution of matter, the conservation of mass and of energy, organic evolution, spontaneous or chance variation of life forms, struggle for existence, survival of the fit, and sensation as the ultimate basis of knowledge and the ultimate test of reality, not to mention other equally brilliant anticipations of modern scientific thought.

In attempts to appraise the work of Lucretius his employment of the notion of infinity is commonly indicated, but only more or less incidentally. For example, in Masson's large volume, *Lucretius, Epicurean and Poet*, the term infinite has only a subordinate place in the index of important terms; in