

QUOTATION

JAMES CLERK MAXWELL ON SINGLE-SUBJECT DESIGN

I think the most important effect of molecular science on our way of thinking will be that it forces on our attention the distinction between two kinds of knowledge, which we may call for convenience the Dynamical and Statistical.

The statistical method of investigating social questions has Laplace for its most scientific and Buckle for its most popular expounder. Persons are grouped according to some characteristic, and the number of persons forming the group is set down under that characteristic. This is the raw material from which the statist endeavours to deduce general theorems in sociology. Other students of human nature proceed on a different plan. They observe individual men, ascertain their history, analyse their motives, and compare their expectation of what they will do with their actual conduct. This may be called the dynamical method of study as applied to man. However imperfect the dynamical study of man may be in practice, it evidently is the only perfect method in principle, and its shortcomings arise from the limitation of our powers rather than from a faulty method of procedure. If we betake ourselves to the statistical method, we do so confessing that we are unable to follow the details of each individual case, and expecting that the effects of widespread causes, though very different in each individual, will produce an average result on the whole nation, from a study of which we may estimate the character and propensities of an imaginary being called the Mean Man.

From: Campbell, L., & Garnett, W. (1882). *The life of James Clerk Maxwell*. London: Macmillan, pp. 438-439. (Part of a lecture, "Does the progress of Physical Science tend to give any advantage to the opinion of Necessity (or Determinism) over that of the Contingency of Events and the Freedom of the Will?" given at the Eränus Club on February 11, 1873.)

Contributed by Susan M. Schneider, Department of Human Development, University of Kansas, Lawrence, Kansas 66045. This quotation was cited in 1951 by A. W. Halpin (James Clerk Maxwell on the dynamical and the statistical modes of thought about man, *Journal of Abnormal and Social Psychology*, 46, 257).