



The University of Chicago  
Department of Statistics

MASTER'S THESIS PRESENTATION

---

**BECKETT STERNER**

Department of Statistics  
The University of Chicago

**Psychology and Scientific Method  
in the Statistical Enlightenment**

**WEDNESDAY, February 16, 2011 at 1:00 PM**

110 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

Starting shortly before the twentieth century, the topics of probability and statistics expanded rapidly over several decades in scope and power. Statistics became a profession with abstract mathematical theories that could be applied across the different sciences and provide prescriptive norms for their researches. Probability acquired a set of axioms as well as a bouquet of interpretations, each competing for the affections of scientists. Stephen Stigler has called this period of flourishing between 1885 and 1935 the Statistical Enlightenment. The topic I discuss in this paper is the relation of the events of the Statistical Enlightenment to earlier approaches to probability and statistics. Although today the two topics are happily ensconced as their own discipline autonomous from the natural sciences, historically probability in particular was closely connected with psychological theories of learning and belief as well as issues in what were called the “moral sciences.” In order to better situate the events of the Statistical Enlightenment in the broader context of its time, I investigate how several major figures in the Statistical Enlightenment used and related their work in statistics to contemporary theories in psychology and socio-political movements. In specific, I argue that there is an intriguing correlation, exhibited through a contrast between Ronald Fisher and Harold Jeffreys, between belief in an objective (subjective) theory of probability and disapproval of (support for) introspection as a key tool in scientific method.

---

Information about building access for persons with disabilities may be obtained in advance by calling Sandra Romero at 773.702-0541 or by email ([sandra@galton.uchicago.edu](mailto:sandra@galton.uchicago.edu)).