Observational Studies () Submitted ; Published

Psychohistorical Equations for Observational Studies

Hari Seldon **hseldon@streeling.edu**
Department of Psychohistory
Streeling University
Trantor, Center of the Galaxy 94830, Galactic Empire

Mitch A. Taylor **mtaylor@pacifictech.edu**
Department of Physics
Pacific Tech
Los Angeles, CA 90001, USA

Abstract

Psychohistory combines history, sociology, and mathematical statistics to make general predictions about the future behavior of very large groups of people. There are two axioms of psychohistory: (1) the population whose behaviour is modeled should be sufficiently large; (2) the population should remain in ignorance of the results of the application of psychohistorical analyses. In this paper, we use psychohistory to predict the results of large observational studies.

Keywords: Mass Action, Prime Radiant, Survival Analysis

1. Introduction

Psychohistory depends on the idea that, while one cannot foresee the actions of a particular individual, the laws of statistics as applied to large groups of people can predict the general flow of future events (Asimov, 1951). As an analogy, consider a gas. It is difficult to predict the motion of a single molecule in a gas, but we can predict the mass action of the gas to a high level of accuracy. In this paper, we apply psychohistory to predict the results of observational studies. Cochran (1965) defined an observational study as an empiric investigation in which "...the objective is to elucidate cause-and-effect relationships[in which] it is not feasible to use controlled experimentation, in the sense of being able to impose the procedures or treatments whose effects it is desired to discover, or to assign subjects at random to different procedures."

...

Acknowledgments

We would like to acknowledge support for this project from Obi-Wan Kenobi of the Galactic Republic.

Appendix A.

In this appendix we prove the following theorem from Section 6.2:

...

References

I. Asimov. *Foundation.* Gnome Press, New York, 1951.

W.G. Cochran. The planning of observational studies of human populations. *Journal of the Royal Statistical Society. Series A (General)*, 128(2):234–266, 1965.