

PREFACE

A preface is the place where an author traditionally offers excuses and apologies, extends thanks, professes gratitude, and often suggests some justification for the book that follows. I have no reason to diverge from that tradition except that I will reverse the order.

When I started to work out Boole's theory of probability quite a few years ago I was familiar with the fact that this theory was considered to be wrong by everyone who commented on it. The theory as Boole presented it is remarkably difficult and, frankly, today as I look back on my efforts I wonder why I persisted. Mostly, I was sustained by the belief that a person of Boole's level of genius simply could not have created a theory quite as bad as the comments about it would suggest. It therefore gives me considerable pleasure to demonstrate in this book that Boole's theory is not only consistent and reasonable - it actually works on real-life problems. In this same context I am pleased to be able to show that Boole's method is equivalent, in a large class of real-world problems, to the application of Jaynes' Principle, which has, seemingly, a completely different logical underpinning.

When I began writing this book I was unaware of any book dealing with Boole's theory of probability since John Maynard Keynes's "A Treatise on Probability", published in 1921. I had not discovered the first edition (1976) of Theodore Hailperin's fine book, "Boole's Logic and Probability". I became aware of the second edition (1986) when I was well into writing a preliminary version of the present book. My initial trepidation that my own work might already have been done disappeared when I found that Professor Hailperin's goals were quite different than mine. I have devoted a Section of the present book to my comments about his book so I need not discuss it further here.

I was pleased to discover Hailperin's book because it showed me that there **were** people still interested in the remarkable structure of Boole's thought. When one concentrates attention on the title of Boole's *opus major*, "An Investigation of the Laws of Thought on Which are Founded the Mathematical Theories of Logic and Probabilities", it is evident that he considered his theory of probability to be on an equal level with his theory of logic. Many early commentators thought that Boole developed his logical theory precisely so he could use it in his probability theory. This granted, there has been more than 100 years in which there has been no positive assessment or use of his probability theory whatsoever. I certainly do not know of any comparable instance where the major contribution of a great thinker has been so consistently ignored.

Of course, there have always been a few lovers of Boole - although it seems to be very few. One such person that I must mention is Herbert F. Ayres. His untimely death was a great loss to the management science profession. He had one of the finest minds I have ever known and he was devoted to Boolean thinking in every area. The very many hours of discussion I had with Herb about the Boolean approach to just about everything were a major reason why I was sure there had to be a meaningful probability theory in Boole's structure. I feel a very deep sense of loss in not having the opportunity to have Herb comment on this book.

I must express my thanks to my family. My daughter, Rachael, helped me with design questions, including the title page. My son, Jason, handled all of the computer and printer hook-ups that permitted me to finish this book and he also taught me how to use them. Finally, my wife, Lisa Evered, offered constant encouragement and help as well as providing a sympathetic ear when my conceptualizations

crumbled.

Finally, I should make a few comments about the publication of this book. Mentioned in the third paragraph is that I was working on a preliminary version of this book in the late 1980's. I was quite dissatisfied with my attempt - for example, I had not yet worked out the relationship between Boole's method and Jaynes' Principle - and the ordinary banalities of life have prevented me from producing a more satisfactory version until now. This, therefore, is the first edition.

Probably I should - and I certainly will - offer an apology for the fact that I am publishing this book myself. This automatically means that there will be no professional distribution and, hence, some persons who might have wanted to read this book will not have the opportunity. I will mention that I have had quite a few books published over the years but in the present instance I considered that writing this book was a labor of love, overused though that phrase is. I wanted the price to be as low as possible so that no one would be prevented from reading the book because of its cost. Therefore, I decided to publish it myself. Probably there are very few persons who would want to read the book anyway. The choice, or so it seems to me, is to prevent such persons from reading it by its price or by its lack of publicity. I prefer the latter.

This book is distributed by, and can be ordered from:

www.zeteticleanings.com/boole

I welcome your questions, comments and feedback at:

info@zeteticleanings.com

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