

Preface

Raymond J. Carroll's impact on statistics and numerous other fields of science is far-reaching and substantial. His vast catalog of work spans the spectrum from fundamental contributions to statistical theory to innovative methodological development to new insights in a number of subject matter areas. From the outset of his career, rather than taking the "safe" route of pursuing incremental advances, Ray has focused on tackling the most important statistical research challenges of our time, and in doing so it is fair to say that he has literally shaped and defined a host of areas of statistics, including weighting and transformation in regression, measurement error modeling, quantitative methods for nutritional epidemiology, and non- and semi-parametric regression. It is indisputable that Ray is one of the giants of the field, and we are honored to have had the opportunity to prepare this volume, which highlights some of his most influential work.

The book is organized into seven main parts, each focused on a key area in which Ray has made significant contributions. The seven subject areas reviewed in this book were chosen by Ray himself, as were the articles representing each area. Each part is focused around these key papers, and, for each, we asked distinguished researchers in the area to provide a commentary giving insight into not only the significance of the featured papers but also on Ray's impact on the area more broadly. The commentaries not only review Ray's work, but they also are filled with history and anecdotes that reflect the fact that Ray is also a really nice guy! Indeed, as former students and collaborators of Ray, we are pleased that the personality, generosity, friendship, and enthusiasm we know so well emerge throughout all of the commentaries, whose authors have almost all had the pleasure of working with Ray firsthand as we have. We are deeply grateful to these contributors, whose thoughtful, insightful commentaries provide an inspiring roadmap to Ray's achievements. Due to their extraordinary efforts, this book is a fitting tribute to a scholar and educator whose influence on not only science but also on the individual students, postdocs, and junior colleagues he has mentored is legendary.

Our elation with the authors who contributed their insights into Ray's work and personality is tempered by the death of George Casella. George provides an entertaining overview of Ray's work in a hodgepodge of "Other" areas. He was both a

close friend and colleague of Ray. We are grateful that George was able to contribute his personal reflections before his passing.

Putting together this volume was made even easier by Ray himself, and we cannot thank him enough. He provided us with extensive materials, including not only the list of articles around which the book is focused but also a detailed narrative of his own thoughts on his work, his biography, and other resources.

We would also like to acknowledge Jennifer Moy, a student at North Carolina State University, whose assistance in preparing Ray's complete bibliography was invaluable.

At the beginning of each commentary, the articles included in this volume that form the basis for the commentary are listed and are identified by acronyms in brackets; for example, "MEM" for Measurement Error Models." The second number in brackets is the number of citations reported by Google Scholar at the time Ray compiled the list (2011).

Of course, a book devoted to the contributions of Raymond Carroll cannot possibly provide a full accounting of his work. Despite approaching the start of his fifth decade as a researcher, Ray has not slowed his pace one bit, and he continues to produce and inspire and mentor students and postdocs unabated. We fully expect to be called upon to put together "Volume 2," featuring still other areas Ray has already influenced and forthcoming contributions in areas that have yet to be defined.

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The Work of Raymond J. Carroll

The Impact and Influence of a Statistician

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