



Preface and Introductory Comments

This project came about because of my desire to encourage mediation and moderation analyses in program evaluations and to increase applications of SEM to such analyses. I came to realize that the “gap” I had identified in such applications was of a nature that my only feasible outlet for the book was as a webbook of my own creation. For cost reasons, print publishers have constraints on page limits and design features of a book. I knew the project I had in mind would be lengthy and simply not feasible for a traditional publishing company. The marketplace for academically oriented books also has changed so radically in recent years that older publishing models have become outdated, especially for books that target more advanced students and colleagues.

One frustration I have had with structural equation modeling (SEM) oriented books on mediation and moderation is their failure to provide detailed and well annotated computer code for the different ways of attacking mediation and moderation in program evaluation. I fully understand that space demands are at work and a webbook does not have those demands. To be sure, the chapters in my book will seem long because they have extensive code in them, but they typically are such that you can skip around to different sections within a chapter, skimming them until you need to “get into the weeds” and conduct learn issues for your own analytic efforts. At such points, I think you will appreciate the detail I provide.

Another frustration I have had is that many of the methodological or statistical books I read refer me elsewhere to obtain or learn about software that I need to secure to get my analyses done. I rectified this by providing almost all of the software you will need on my webbook site. To be sure, I feature the SEM-based Mplus software in my book because I believe it is the most state-of-the-art SEM package available. You will need to purchase this software to take full advantage of my book. However, I provide an extensive library of supplementary programs that are written in R that are available on my website and that have a point-and-click type, user-friendly

interface. You do not even have to know how to program R to use the programs. I have found that having these resources easily accessible on the web is a real plus.

Another advantage of a webbook is that I can make use of additional tools that the web offers as opposed to a traditional, more passive print book. I include links to other sites for purposes of getting immediate access to other resources. I include pop-up videos. I provide “tool tips” that appear when you hold your mouse over text. To be sure, my ability to use such tools is limited by my programming skills with HTML, but as you will see as you explore my website, I have made what I think is effective use of all of these pedagogical devices. I have an extensive *Resources* page on the webbook site that allows me to provide useful links, data sets, supplementary text and materials, and other resources that you should find helpful.

I have written the book at what I consider to be a more introductory, reader friendly level – not too introductory but not too advanced relative to a doctoral student who has had an introductory statistic course and perhaps a course in linear regression. I tried not to get too wrapped up in equations but it is inevitable that I do so in some places. I am certain that some readers will object to the more informal and introductory approach I have taken, but my goal is to make the material relatively accessible to typical researchers. Bear with me in this regard.

In working through relevant literatures, I have been impressed by how diverse and demanding it can be. In ways, I view my book as a way of encouraging people to begin a conceptual and methodological journey that I believe is worthwhile but that ultimately will not necessarily be an easy one. I cover considerable ground in this book but there is much left untouched.

Mediation and moderation are controversial topics and the relevant literatures about them are filled with conflicting advice. This also is true of SEM more generally. I have tried to make the reader aware of these controversies. I provide my own perspectives on them but realize not everyone will agree with my arguments. All I can say is that reasonable people can disagree about the best way to do things.

This book covers conceptual, design, measurement and analysis issues in the formulation of randomized trials that include mediation and/or moderation. In my view, it provides an overview of critical issues in such matters. I am an applied researcher at heart and that focus comes through in this project. I try to keep matters practical and focused toward real world applications, somewhat at the cost of elaborating statistical theory. Chapters 2 through 8 provide material that lays the conceptual, measurement, methodological and analytic foundations for the

remainder of the book on mediation and moderation analyses in randomized trials. I felt it important to make this foundational material accessible to readers.

The “cover” of my book is a shout out to the classic and highly influential monograph by Donald Campbell and Julian Stanley on experimental and quasi-experimental design. This book was a staple of my methodological training as a doctoral student and has retained its value over the many years since its publication. It is well worth a read.

[TO BE COMPLETED]

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