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Autore	Hong Guanglei
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Nota di contenuto	Cover; Table of Contents; Title page; Preface; Part I: OVERVIEW; 1 Introduction; 1.1 Concepts of moderation, mediation, and spill-over; 1.2 Weighting methods for causal inference; 1.3 Objectives and organization of the book; 1.4 How is this book situated among other publications on related topics?; References; 2 Review of causal inference concepts and methods; 2.1 Causal inference theory; 2.2 Applications to Lord's paradox and Simpson's paradox; 2.3 Identification and estimation; Appendix 2.1: Potential bias in a prima facie effect Appendix 2.2: Application of the causal inference theory to Lord's paradox References; 3 Review of causal inference designs and analytic methods; 3.1 Experimental designs; 3.2 Quasi-experimental designs; 3.3 Statistical adjustment methods; 3.4 Propensity score; Appendix 3.A: Potential bias due to the omission of treatment-by-covariate interaction; Appendix 3.B: Variable selection for the propensity score model; References; 4 Adjustment for selection bias through weighting; 4.1 Weighted estimation of population parameters in survey sampling

4.2 Weighting adjustment for selection bias in causal inference 4.3 MMWS; Appendix 4.A: Proof of MMWS-adjusted mean observed outcome being unbiased for the population average potential outcome; Appendix 4.B: Derivation of MMWS for estimating the treatment effect on the treated; Appendix 4.C: Theoretical equivalence of MMWS and IPTW; Appendix 4.D: Simulations comparing MMWS and IPTW under misspecifications of the functional form of a propensity score model; References; 5 Evaluations of multivalued treatments; 5.1 Defining the causal effects of multivalued treatments
5.2 Existing designs and analytic methods for evaluating multivalued treatments 5.3 MMWS for evaluating multivalued treatments; 5.4 Summary; Appendix 5.A: Multiple IV for evaluating multivalued treatments; References; Part II: MODERATION; 6 Moderated treatment effects: concepts and existing analytic methods; 6.1 What is moderation?; 6.2 Experimental designs and analytic methods for investigating explicit moderators; 6.3 Existing research designs and analytic methods for investigating implicit moderators
Appendix 6.A: Derivation of bias in the fixed-effects estimator when the treatment effect is heterogeneous in multisite randomized trials Appendix 6.B: Derivation of bias in the mixed-effects estimator when the probability of treatment assignment varies across sites; Appendix 6.C: Derivation and proof of the population weight applied to mixed-effects models for eliminating bias in multisite randomized trials; References; 7 Marginal mean weighting through stratification for investigating moderated treatment effects; 7.1 Existing methods for moderation analyses with quasi-experimental data
7.2 MMWS estimation of treatment effects moderated by individual or contextual characteristics

Sommario/riassunto

Causality in a Social World introduces innovative new statistical research and strategies for investigating moderated intervention effects, mediated intervention effects, and spill-over effects using experimental or quasi-experimental data. The book uses potential outcomes to define causal effects, explains and evaluates identification assumptions using application examples, and compares innovative statistical strategies with conventional analysis methods. Whilst highlighting the crucial role of good research design and the evaluation of assumptions required for identifying causal effects in