

1. Record Nr.	UNINA9910787222603321
Autore	VanderWeele Tyler
Titolo	Explanation in causal inference : methods for mediation and interaction // Tyler J. VanderWeele
Pubbl/distr/stampa	New York : , : Oxford University Press, , 2015 ©2015
ISBN	0-19-932588-X
Descrizione fisica	1 online resource (729 p.)
Classificazione	PSY031000
Disciplina	001.4/22
Soggetti	Social sciences - Research Social sciences - Methodology Causation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Explanation in Causal Inference; Copyright; Dedication; Contents; Preface; Part 1 Mediation Analysis; 1 Explanation and Mechanism; 1.1 Causal Inference and Explanation; 1.2 Forms of Explanation and Types of Mechanisms; 1.3 Motivations for Assessing Mediation, Interaction, and Interference; 1.4 Organization of this Book; 2 Mediation: Introduction and Regression-Based Approaches; 2.1 Classic Regression Approach to Mediation Analysis; 2.2 Counterfactual Approach to Mediation Analysis: Continuous Outcomes; 2.3 Assumptions about Confounding; 2.4 Binary and Count Outcomes 2.5 Binary Mediators 2.6 Comparison of Approaches: Product-of-Coefficient and Difference Methods; 2.7 Description of the SAS Macro; 2.8 Description of the SPSS Macro; 2.9 Description of the Stata Macro; 2.10 Hypothetical Example with Output; 2.11 Empirical Example in Genetic Epidemiology; 2.12 When to Include an Exposure--Mediator Interaction; 2.13 Proportion Mediated; 2.14 Proportion Eliminated; 2.15 Study Design and Mediation Analysis; 2.16 Counterfactual Notation for Natural Direct and Indirect Effects; 2.17 An Alternative Regression-Based Estimation Approach Using Simulations 2.18 Code for the Simulation-Based Approach in R 2.19 Discussion; 3 Sensitivity Analysis for Mediation; 3.1 Sensitivity Analysis for Unmeasured Confounding for Total Effects; 3.2 Sensitivity Analysis for

Unmeasured Confounding for Controlled Direct Effects; 3.3 Sensitivity Analysis for Unmeasured Confounding for Natural Direct and Indirect Effects; 3.4 Sensitivity Analysis Using Two Trials; 3.5 Sensitivity Analysis for Direct and Indirect Effects in the Presence of Measurement Error; 3.6 Discussion; 4 Mediation Analysis with Survival Data  
4.1 Earlier Literature on Mediation Analysis with Survival Models  
4.2 Mediation Analysis with an Accelerated Failure Time Model; 4.3 Mediation Analysis with a Proportional Hazards Model; 4.4 Mediation with an Additive Hazard Model; 4.5 A Weighting Approach to Direct and Indirect Effects with Survival Outcomes; 4.6 Sensitivity Analysis with Survival Data; 4.7 Discussion; 5 Multiple Mediators; 5.1 Regression-Based Approaches to Multiple Mediators; 5.2 A Weighting Approach to Multiple Mediators; 5.3 Controlled Direct Effects and Exposure-Induced Confounding  
5.4 Effect Decomposition with Exposure-Induced Confounding  
5.5 Path-Specific Effects; 5.6 Sensitivity Analysis for Exposure-Induced Confounding; 5.7 Discussion; 6 Mediation Analysis with Time-Varying Exposures and Mediators; 6.1 Notation and Definitions; 6.2 Controlled Direct Effects with Time-Varying Exposures and Mediators; 6.3 Natural Direct and Indirect Effects and their Randomized Interventional Analogues with Time-Varying Exposures and Mediators; 6.4 Counterfactual Analysis of MacKinnon's Three-Wave Mediation Model; 6.5 Discussion; 7 Selected Topics in Mediation Analysis  
7.1 Other Estimation Approaches

---

Sommario/riassunto

The book provides an accessible but comprehensive overview of methods for mediation and interaction. There has been considerable and rapid methodological development on mediation and moderation/interaction analysis within the causal-inference literature over the last ten years. Much of this material appears in a variety of specialized journals, and some of the papers are quite technical. There has also been considerable interest in these developments from empirical researchers in the social and biomedical sciences. However, much of the material is not currently in a format that is accessible t

---