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Nota di contenuto	The Construction of Optimal Stated Choice Experiments; Contents; List of Tables; Preface; 1 Typical Stated Choice Experiments; 1.1 Definitions; 1.2 Binary Response Experiments; LIST OF TABLES; 1.1 Attributes and Levels for the Survey to Enhance Breast Screening Participation; 1.3 Forced Choice Experiments; 1.2 One Option from a Survey about Breast Screening Participation; 1.3 Six Attributes to be Used in an Experiment to Compare Pizza Outlets; 1.4 One Choice Set in an Experiment to Compare Pizza Outlets; 1.4 The ""None"" Option 1.5 Attributes and Levels for the Study Examining Preferences for HIV Testing Methods1.5 A Common Base Option; 1.6 One Choice Set from the Study Examining Preferences for HIV Testing Methods; 1.6 Avoiding Particular Level Combinations; 1.6.1 Unrealistic Treatment Combinations; 1.7 Five Attributes to be Used in an Experiment to Investigate Miscarriage Management Preferences; 1.6.2 Dominating Options; 1.8 Five Attributes Used to Compare Aspects of Quality of Life; 1.7 Other Issues; 1.7.1 Other Designs; 1.7.2 Non-mathematical Issues

for Stated Preference Choice Experiments

1.7.3 Published Studies 1.8 Concluding Remarks; 2 Factorial Designs; 2.1 Complete Factorial Designs; 2.1.1  $2^k$  Designs; 2.1.2  $3^k$  Designs; 2.1 Values of Orthogonal Polynomials for  $n = 3$ ; 2.2 A, B, and AB Contrasts for a  $3^2$  Factorial; 2.1.3 Asymmetric Designs; 2.3 A, B, and AB Contrasts for a  $3^3$  Factorial; 2.1.4 Exercises; 2.4 Main Effects Contrasts for a  $2 \times 3 \times 4$  Factorial; 2.2 Regular Fractional Factorial Designs; 2.2.1 Two-Level Fractions; 2.5 A Regular  $24-1$  Design; 2.2.2 Three-Level Fractions; 2.2.3 A Brief Introduction to Finite Fields; 2.2.4 Fractions for Prime-Power Levels 2.2.5 Exercises 2.3 Irregular Fractions; 2.3.1 Two Constructions for Symmetric OAs; 2.3.2 Constructing  $OA[2^k; 2k_1; 4k_2; 4]$ ; 2.3.3 Obtaining New Arrays from Old; 2.3.4 Exercises; 2.4 Other Useful Designs; 2.5 Tables of Fractional Factorial Designs and Orthogonal Arrays; 2.5.1 Exercises; 2.6 References and Comments; 3 The MNL Model and Comparing Designs; 3.1 Utility and Choice Probabilities; 3.1.1 Utility; 3.1.2 Choice Probabilities; 3.2 The Bradley-Terry Model; 3.2.1 The Likelihood Function; 3.2.2 Maximum Likelihood Estimation; 3.2.3 Convergence; 3.2.4 Properties of the MLEs 3.2.5 Representing Options Using  $k$  Attributes 3.2.6 Exercises; 3.3 The MNL Model for Choice Sets of Any Size; 3.3.1 Choice Sets of Any Size; 3.3.2 Representing Options Using  $k$  Attributes; 3.3.3 The Assumption of Independence from Irrelevant Alternatives; 3.3.4 Exercises; 3.4 Comparing Designs; 3.4.1 Using Variance Properties to Compare Designs; 3.4.2 Structural Properties; 3.4.3 Exercises; 3.5 References and Comments; 4 Paired Comparison Designs for Binary Attributes; 4.1 Optimal Pairs from the Complete Factorial; 4.1.1 The Derivation of the A Matrix 4.1.2 Calculation of the Relevant Contrast Matrices

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## Sommario/riassunto

The most comprehensive and applied discussion of stated choice experiment constructions available The Construction of Optimal Stated Choice Experiments provides an accessible introduction to the construction methods needed to create the best possible designs for use in modeling decision-making. Many aspects of the design of a generic stated choice experiment are independent of its area of application, and until now there has been no single book describing these constructions. This book begins with a brief description of the various areas where stated choice experiments are applicable, includ

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