

Contents

Foreword	vii
Preface	ix
Acknowledgments	xiii
List of Figures	xix
List of Tables	xxi
1 The Search for Causes: An Overview	1
2 The Controlled Randomized Experiment	5
2.1 A nearly perfect experiment	6
2.2 Eliminating bias in selecting subjects	8
2.3 Limits to experimentation	10
2.4 The half-a-loaf experiment	12
2.5 Simulation	14
2.6 Limits to extrapolation	21
Critical questions	24
Bibliography	25
3 Inferring Causes from Observational Studies	27
3.1 Diphtheria antitoxin	29
3.2 The Connecticut crackdown on speeders	29
3.3 Capital punishment in Florida	32
3.4 Polio vaccines	33
3.5 Police intervention and domestic violence	35
3.6 No-fault divorce	37
3.7 Statistical “control” for known confounders	38
3.8 Summary	41
Critical questions	42
Bibliography	42
4 Epidemiologic Studies	45
4.1 Types of studies	46
4.2 Agent Orange	50
4.3 Breast implants	53

4.4 Tobacco smoke	57
4.5 Asbestos	60
4.6 Bendectin	62
4.7 Electromagnetic fields	65
4.8 Summary	68
Bibliography	68
5 Summing Up: Replication and Triangulation	69
5.1 Estimating socially significant numbers	70
5.2 Triangulations in the census	71
5.3 Unanimity and hung juries	74
5.4 Opposition to the death penalty and the propensity to vote guilty	75
5.5 Sentence variation from judge to judge	76
Bibliography	77
6 Coincidence and Significance	79
6.1 P-values	80
6.2 Significance	85
6.3 Power	88
6.4 One-tailed and two-tailed tests	89
6.5 Multiple testing	92
6.6 Interval estimates	94
6.7 Other hypotheses	96
6.8 Posterior probabilities	97
Critical questions	99
Bibliography	100
7 Sampling	101
7.1 The road to the acceptance of sampling	101
7.2 The miracle of sampling	103
7.3 Some sources of bias	105
7.4 Drawing a probability sample	107
7.5 Sample size	108
7.6 The danger of mail surveys: nonresponse bias	110
7.7 Quota samples	116
7.8 Convenience samples	117
7.9 Summary	118
Critical questions	119

Bibliography	119
8 Content Analysis	121
8.1 A study of the House Un-American Activities Committee	122
8.2 Pretrial publicity	128
8.3 The Federalist Papers	132
Bibliography	134
9 Surveys and Change of Venue	135
9.1 History of survey acceptance	136
9.2 Change of venue law	138
9.3 Mitsubishi in Silicon Valley	141
9.4 The Pontiac prison cases	142
9.5 Civil litigation	143
9.6 The limits of voir dire	144
Bibliography	146
10 Trademark Surveys: Genericness	147
10.1 The Thermos surveys	148
10.2 The Teflon surveys	150
10.3 Variations of the Teflon survey	152
Bibliography	153
11 Trademark Surveys: Confusion	155
11.1 Realism	156
11.2 How close a look?	158
11.3 Who puts out this design?	162
11.4 Altering the specimen	164
11.5 Controlling for “top of mind” responses	165
11.6 Anticipating market entry	166
11.7 Addressing the relevant issue	167
11.8 Depressors and aggrandizers	170
11.9 Summary	172
Bibliography	174
12 The Jury: Composition and Selection	175
12.1 Jury size	175
12.2 Selecting the jury venire	177

12.3 Selecting from the venire	184
12.4 Juror selection surveys	191
Bibliography	197
13 DNA Profiling: Probabilities and Proof	199
13.1 VNTR profiling	200
13.2 Match windows	204
13.3 Match probabilities and the basic product rule	206
13.4 Objections to the basic product rule	212
13.5 Ceiling frequencies	214
13.6 Uniqueness	216
13.7 Random match probabilities and prejudice	217
13.8 Beyond matching and binning	220
Bibliography	223
Notes	225
Glossary	321
List of Cases	347
Index	351