All page numbers greater than 351 are taken from the Epilogue and should be increased by 70.

In separate roles for additional names and pages.
Subject Index

action, 20, 206-6, 208-8
actions
consumer and therapeutic, 118-20
conditional, 119-120, p. 104 - 105
and counterfactual, 112, 120, 211
in decision theory, 119-22
effects of, definition, 204
effects of evaluation, 209
branding of, 214
in mental models, 225-8
vs. observations, 23, 45-8
response vs. observation, 196-8, 340
reasoning about, 85-6, 86-11, 208, 225-5
specification by, 231
substantive, 71, 113-14
so on, 8, 82, 214
see also innovation
actual execution, 340-9
dependence, 312-13, 314
observational, 313-325
ex post prediction, 311-13, 320-7
probability of, 320
prediction, 316, 329
prospect, 317-20
see also, 318-19
see also simple cause
adjacency (in graph), 13
adjacency for covariates, 78-81, 255-6
affected by treatment, 76, 81, 119, 140a, 170b
physical contact vs. 199, 170a
efficient act, 80, 157, 344
see also confirming bias
block, 14
attribute bias, 200
Bayesian estimation, 280-1
Bayesian inference, 271-2
Bayesianism, 13, 18, 65, 344

actions
of causal refinement, 214-3
of change-world counterfactuals, 240
of conditional independence, 11, 195
of do-calculus, 65-7
of path independence in graphs, 236-7
of probability calculus, 7
of structural counterfactuals, 225-8

back-door criterion, 74-6
adjustment size, 79
counterfactual and, 190
ex post estimation, 91
parameter identification, 189-90
background knowledge
Bayesian approach, 90
expressed in causal assertions, 25, 96-7
expressed as conditional independence, 21-2
cases, 180, 199
Bayesian combination of, 72, 191, 212, 215
Bayes' inverse formula, 5, 20
Bayesian inference, 5-8
Bayesian network model
and background knowledge, 96, p. 325-28
causal discovery with, 64
diagnosing, 5, 38
for estimating effects, 25-7, 34
nodes, 7, 34
parameters, 96-7
Bayesian networks, causal, 21-6
definition, 21-4
example, 21-4
properties, 24
combining probabilities, 13-21
computation, 13
definition, 11
example, 11
inference with, 29
Bayes' inequality, 275

457
A statistical parameter, 37
A definition, 38, 160, 292, p. 322, p. 523, p. 567
A representation, 986
A statistical test, 50, 217, 530, p. 130, p. 139
A synthetic model, 26, 5, 223, 531, 396
A synthetic policy, 75, 110, 120
A structural equation, 37, 130, 476
A t distribution, 75, 1, 68, 9, 95, 135, 212, 213, 214
A second degree, 361, 215
A regression equation, 27, 26, 26, 205, 205
A multiple regression, 98, 263
A square root, 71, 103, 3
A approximation, 91, 105, 113, 3
A 150, 60, 151, p. 381, p. 131, 132, 3
A approximation, 91, 105, 113, 3
A internal integration, 117, 130, 130
A covariance, 161
A historical perspective, 134, 4, p. 385, 3
A multiple, 20, 20, 23, 205
A regression, 80, 106, 6
A structural definition, 174, 160, 3, p. 365
A correlation coefficient, 87
A structural model, 27, 44, 282
A Markovian, 90, 99
A structural parameter, 99
A identification by regression, 109, 106, 3, 367
A covariance of 150, 60, 151, 131, 132, 3
A policy implications of 116, 117, 1, 135, 3
A single figure, 115
A rational, causal, causal
A sufficient set, 81
A constraints and, 195
A representativeness, see representativeness
A causal impact, 119
A see also Causality, causality
A world causal, 207

Subject Index

surgical experiments, 15, 3
surgery, 15, 3
survivorship, 39, 132
survival, 37, 17
surviving, 32, 243
surgical bias, of statistical association, 39
surgical information, 56
surgical procedure, 220, 7
surgical vs. usual ordering, 62, 209, 3
TETRAD II program, 41, 42, 44
total effect, 131, 17
the also causal effect
transitivity of causal dependence, 207, 208
of probabilistic dependence, 15, 37
transmit, time varying, 34, 4, 15, 4, 18, 30
see also intervention
transmission of 38, 53, 54, 57, 78
in networks, 31, 53, 14
transmits, 19
variable, 9
variable control, 40
variable constrained, 217
variable, 90, 153, 166, 287, 5, 274, 3
item, 44, 45
narcotic, 183, 3
animal, 8
natural number, 14, 27, 6
nature, 9