

# Index

- Absences, 15–19, 51
- Actions, 157, 166, 227–229, 296–297
  - goal-directed, ch. 8 *passim*
- Adaptability, 35
- Agent, 119, 158–165, 296–297
- Aggregation, 64
  - preference, 237
- Antirealism, 172, 177
- Aquinas, 40, 41, 291
- Aristotle, 40, 41, 119, 292, 299, 307–308
- Artificial intelligence, 26
- Associationism, 1–2, 12, 16, 19, 20, 22, 24, 25, 29
  
- Bayes' theorem, 179, 181, 183
- Bayesian network, 14, 236, 237
- Belief revision, 174
- Ben-Menahem, Y., 177–179
- Bias, 2, 173–177
- Boolean network, ch. 3 *passim*
- Brownian motion, 182
- “Brute fact” account, 144–145
  
- Cartwright, N., 207–208, 298
- Causal
  - assumptions, 21, 23–25
  - asymmetry, ch. 1 *passim*, 192
  - attribution, 25
  - claims (*see* Claims, causal)
  - compatibility, 224, 226, 229, 231–233
  - decision theory, 210–213, 236
  - dependence, 81, 225, 228
  - direction, 9–11
  - entailment, 114
  - explanation, 2, 124–125, 128–129
  - graph, 76–79, 88–89, 234
  - history, 229
  - independence, 221
  - inference, 1, 26, 51
  - influence, 4, 12, 29, 110–116
  - judgment, 24, 25, 44, 62, 65
  - learning, 2
  - model, 76, ch. 10 *passim*, 229–235
  - overdetermination (*see* Overdetermination, causal)
  - power (*see* Power, causal)
  - principle, 292–294, 297–301
  - processes, 129, 180
  - properties, 44
  - relations, 1, 3, 9, 21–23, 29, 30, 43, 69, 120, 124, 128–130, 191, 197, 219
  - strength, 11, 25, 26, 28
  - structure, 72–76, 80–84, 88–89, 224
  - sufficiency, 110–111, 113–116
  - supervenience, 272–273
  - support model, 21–23
- Causation
  - actual, ch. 3 *passim*
  - correlation, distinct from, 108–111
  - deterministic, 33, 36, 37, 62, 296–297
  - indeterministic, non-, 292, 296

- Causation (cont.)  
 Mackie's theory of, ch. 5 *passim*  
 potential, ch. 3 *passim*  
 probabilistic, 192, 212  
 production model of, 120–125, 129–130  
 regularity model of, 128–130
- Cause  
 conjunctive, 1, 15, 16, 25  
 definition, 1  
 occasional, ch. 6 *passim*  
 physical, 33, 35, 119  
 possible, 211, 294  
 producing, 98–99  
 secondary, 120, 125  
 simple, 1, 15, 25
- Ceiling effect, 13, 14
- Ceteris paribus conditions, 37, 294, 298–299
- Chancy events, 136–142, 145–147, 149, 152
- Cheng, P., 62, 65
- Chi-square test, 2, 11, 14, 16, 20, 21
- Choice, 217, 219, 228, 295–297
- Claims, causal  
 counterfactual accounts, 93–97  
 difference-making accounts, ch. 5 *passim*  
 INUS account, ch. 5 *passim*  
 Mackie's account, ch. 5 *passim*  
 role in understanding, 111–112
- Clamping, 57–59
- Cognitive dis-ease, 133, 137, 142
- Coherence, 25–29, 180
- Completeness, 45
- Complexity, 20
- Computations, ch. 2 *passim*
- Computers, 35
- Concrete realizers, 98, 109
- Conditioning, 2
- Confirmation, Bayesian account, 173
- Conservatism, 180, 182
- Constant conjunction, 128–129
- Constitution/composition distinction, 265, 267
- Cooperative principle (Grice), 226
- Counterfactuals, 77–79, 84–87, ch. 10 *passim*, 128, 221, 224, 225, 234, 299–306  
 might-conditionals, 302, 305
- Cross-product ratio, 2, 16
- Davidson, D., 155, 157, 158, 159
- Dawkins, R., 159–165
- Day, T., 177–180, 182
- Decisions, 241–245, 249, 251–258  
 distal, 243  
 proximal, 243, 255
- $\delta P$  model, 2, 3, 10–12, 14, 16, 20–24
- Descartes, R., 120, 122
- Desire(s), 242–243, 245, 250, 254, 257–258  
 proximal, 243, 250, 254, 257–258
- Diogenes Laertius, 222–225, 227, 228, 233–235, 239
- Douven, I., 177, 186
- Dutch book, 172–174, 180, 181, 185–187
- Eliminativism, 271–272
- Emergentism, 268, 279
- Epidemiology, 26
- Error, 33
- Events, 49–50, 53, 58, 62, 71–72, 85–88, 124, 126–130, 296, 298, 300, 302
- Exclusion thesis, 269
- Experiment, 51–53, 57, 59–62, 202, 204–205, 212–213, 299
- Explanation(s)  
 brute fact, 144–148, 150  
 conspiracy, 135–136, 140–142, 144, 146–147, 150–151  
 contrastive, 138–140, 142–148, 151–152  
 covering-law, 135  
 deductive, 138–140, 144–145, 151–152

- deterministic, 138  
 historical, 43, 291–298, 307–308  
 Humean, 134–136, 144–149, 151–152  
 inductive, 137–138, 140, 142, 144  
 statistical mechanics, 136–137, 140–141, 143–148, 150  
 surprise-reducing, 133–135, 140–142, 144, 151  
 teleological, ch. 8 *passim*  
 understanding-conveying, ch. 7 *passim*  
 Explanationism, ch. 9 *passim*  
 Explanatoriness, 171, 172, 175, 178, 187  
 Explanatory  
   deductivism, ch. 5 *passim*  
   parity, thesis of, 139  
   presupposition, 142  
   relevance, 137–138, 142–143
- Freedom, 34
- Goals, ch. 8 *passim*  
 Griffiths, T., 21–24  
 Group effects, 64
- Hall, N., 80, 85, 88  
 Halpern, J., 45, 50–51, 88  
 Harman, G., 178–180, 182  
 Hausman, D., 192, 194, 197, 199, 207, 214n3  
 Heckman, J., 191, 193, 200, 202–208, 212, 214n8, 215n11  
 Hitchcock, C., 51, 74, 78, 139–140, 142–144  
 Hoover, K., 196, 197  
 Howson, C., 180, 187  
 Hume, D., 121, 127, 129–130, 134, 300
- Impossibility, 295, 300, 306–307  
 Inference  
   ampliative, 175  
   to the best explanation, 171–173, 178, 179, 182–186, 298
- Intention(s), 44, 157, 166, ch. 12 *passim*  
   distal, 243, 248  
   proximal, 243–244, 248–256  
   specific, 243–245  
   unspecific, 243–245  
 Intentional states, 159, 163, 164, 165  
 Interventions, 52–53, 59–60, 62, 123–124, 234  
 INUS account, ch. 5 *passim*  
 Invariance, principle of, 13
- James, W., 40  
 Jeffrey, R., 228, 229
- Kant, I., 34, 127–128, 130  
 Kim, J., 265, 272  
 Kincaid, H., 177–180, 182
- Lagnado, D., 65  
 Laws of nature, 26, 43, 119–120, 124–130, 201, 203, 207, 294, 298–299  
 Layered world model, 265–268, 271–273, 278–280, 283, 285  
 Leibniz, G., 123–128, 130, 291, 295  
 LeRoy, S., 191, 197–202, 206, 215n5  
 Lewis, D., 44, 50, 69–70, 72, 75–76, 80, 85, 87, 193, 203, 302–307  
 Libet, B., ch. 12 *passim*
- Mackie, J., ch. 5 *passim*  
 Malebranche, N., ch. 6 *passim*  
 Markov processes, 36  
 Maximal compliance, 225, 226, 229  
 McDermott, M., 75–76  
 Mele, A., ch. 8 *passim*  
 Methodological behaviorism, 218
- Necker cube, 13, 15  
 Neural systems, ch. 4 *passim*  
 Neuron diagrams, ch. 3 *passim*, ch. 4 *passim*  
 “No confounding” condition, 6, 12, 26–28

- Noisy gate, 3, 6, 24, 61–62
- Non-contrastivity, thesis of, 139–140, 152
- Non-identity of reasons, thesis of, 140
- Nonredundancy, spurious, 112–115
- Norms, 37–39
- Occasionalism, ch. 6 *passim*
- Okasha, S., 179, 180, 182
- Oppenheim, P., 266–269
- Oppenheim-Putnam model, 266
- Overdetermination, causal, 72, 75, 84, 85–88
- constitutive, ch. 13 *passim*
- symmetric, 104–107, 268–277
- Parameter estimation, 21–24
- Parents, 44–45
- Parity, explanatory, 139–144, 152
- Pearl, J., 28, 45, 50–51, 88, 191, 192, 194–195, 202–203, 205, 207, 229
- Possibility
- branching, 302
  - causal, 223, 224, 232, 235, 236
  - epistemic, 304
  - logical, 81, 221–224, 300
- Possible worlds, 77, 124, 199, 298, 300, 303–306
- Power, causal, 1, 3, 4–7, 11, 26, 28, 29, 62, 120, 295, 299
- generative, 4, 12, 13, 25–27
  - model, 21, 22
  - preventive, 3, 5–7, 12, 13, 25
  - theory, 3, 11, 25
- Preemption, cases of, 93–107, 115–116
- early, 99–102
  - late, 102–104
- Preference(s), ch. 11 *passim*
- Preference approach
- absolute, 220, 221
  - ceteris paribus, 221–223
- Preference attribution, principle of, 218–220, 224, 229, 235
- Prevention, 43
- Probabilistic contrast model, 3, 11
- Programs, 38
- Prospects, 218–220, 222, 225, 227, 237
- Putnam, H., 266–269
- Quantum mechanics, 36, 292, 296
- Rationality, 172, 181
- Realism
- causal, 204, 207
  - modal, 306
  - scientific, 172, 173, 177, 181
  - teleological, 155, 156, 168, 169
- Reductionism vs. nonreductionism, ch. 13 *passim*
- Relativity, 36
- Rescher, N., 236, 308
- Rescorla, R., 2, 3
- Responsibility, 43
- Salmon, W., 128–129
- Simplicity, 127–128, 178, 180, 182
- principle of, 158
- Sinai billiards, 36, 37
- Sloman, S., 65
- Strevens, M., 140–142, 144–147
- Structure learning, 21–24
- Sufficient reason, principle of, 83, 126, ch. 14 *passim*
- Superimposition, principle of, 16–19
- Teleological
- explanation, ch. 8 *passim*
  - interpretation, 162, 163
  - realism, 155, 156, 168, 169
- Teleology, epistemology of, 157, 158–165, 167, 169
- Tenenbaum, J., 21–24
- Transitivity, causal, 51, 58, 63, 74–76, 78, 192
- Trapp, R., 226, 236

- Urbach, P., 180, 187
- Urge, 242, 244–253, 256–258  
distal, 248  
proximal, 249–250, 253, 256, 258
- Urge\*, 250–251, 253–255  
hypothesis, 250–251  
proximal, 250
- Utility function, 159–162
- van Fraassen, B., ch. 9 *passim*
- van Inwagen, P., 292–293, 295–297
- Variables  
intervening, 59–60  
policy, 60
- von Neumann, J., 33, 38, 39
- Wagner, A., 2, 3
- Wanting, 241–245, 247, 249–250, 256–  
257
- Woodward, J., 194, 207, 214n3
- Will  
free, 40, 252–254, 295–297  
God's, ch. 6 *passim*  
theory of the, 40, 121–122, 296

