Index

abstraction, 1, 4, 8, 27
acyclicity, 54, 56
affine transformations, 51
aggregation, xxi, 1, 28, 32
Arrovian, 5, 11, 32, 33
classical, 33
coherent, 57
coordinated, 37
endogenous, 88
exogenous, 88
aggregation theorem, 59
agreement, 49
alternative set, 5
altruism, 8, 9, 12
atoms, 148
Bayes rule, 61, 172
Bayesian network, xxi, xxiii, 58–60, 76, 163
acyclic, 76
dynamic, 76
binary digits, 100
bivariate ordering, 49
boldness index, 147
Boolean algebra, 140, 145, 169
channel capacity, 101
collaboration, 82
commitment, 14, 16
communication theory, 99
comparisons
binary, 2
inter-alternative, 143
intra-alternative, 144
ordinal, 2
compromise, 9
Condorcet paradox, 1, 84
congruency, 51
conjecture, xxi, 18
conditioning, 18
rejecting, 151
selecting, 151
stochastic, 117
conjecture lottery, 124
conjecture profile, 18, 38
cooperation, 9
coordinatability, 108
coordination, xvii, xxii, 9
conflictive, 98
cooperative, 98
definition, 28, 37, 97
deliberative, 82
endogenous, 39, 60, 97
exogenous, 38, 97
satisficing, 156
stochastic, 117
coordination function
deterministic, 118
expected, 124
rejecting, 152
selecting, 152
steady-state, 94
coordination index, 111
coordination ordering, 38, 62
cost-benefit analysis, 150
cycles
$k$-cycle, 77
embedded, 91
non-root, 92
non-simple, 89
root, 92
simple, 77
subcycles, 89
degrees of comparison, 136
deliberation, xx, xxii, 74, 75
democracy, 1, 40, 75
deliberative, 82
operational, 45
pure, 40
dialogue, xxii, 74, 75
dictator, 41
dispersion, 110, 182
  relative, 110, 184
dispersion measure, 111
dispositional modes, 149
Dutch book, 158
Dutch book theorem, xxii, xxiii,
  46, 158
ecological fitness, 28, 37
effectiveness, 144
egoism, 3, 8
eigenvalue, 81
eigenvector, 81
Einstein’s razor, 20
emergence, 32, 37, 38, 40, 60, 62,
  72, 98, 114
entropy, 101, 104, 178
  chain rule, 179
  conditional, 179
  joint, 106
epistemic utility theory, 139
epistemology, 51
error avoidance, 138, 139
expected utility, 123
  conditional, 124
  coordination, 119, 124
  marginal, 125, 130
failure avoidance, 142
fairness, 12
Frobenius–Perron theorem, 174
game theory
  behavioral, 29
  psychological, 29
graph theory
  d-separation, 167
  acyclic, 17
  blocked vertex, 165
  child, 18
  closed path, 17
  connections
    converging, 165
    diverging, 165
    serial, 163
descendants, 18
directed, 17
edges, 17
parent, 18
vertices, 17
hypothetical proposition, 18, 19,
  44, 52
  antecedent, 19, 52
  consequent, 19, 52
impossibility theorem, 5, 6, 9, 26,
  33, 48
independence
  conditional, 77, 163
  random variables, 172
  social, 61
  statistical, 170
inefficiency, 144
information, 101
  definition, 104
  mutual, 101, 107
  self, 104
informational value of rejection, 139
interpersonal comparability, 51
invariance, 54, 56, 57
inverse image, 171
isomorphism, 47
  order, 44
  sure gain, subversion, 46
  sure loss, subjugation, 46
Jensen’s inequality, 180
linear ordering, 3
  conditional, 18
  social, 5
lottery, 47
majority judgment, 30
marginalization, 60
Markov chain, 176
Markov convergence theorem, 80, 174
Markov process, 77
material benefit, 13
mixed strategies, xxii
mixed strategy, 122
multiple selves, 148
mutual information, 101, 106,
  114, 180
negotiation sets, 63
network, 3
  acyclic, 59, 60
Index

Bayesian, 58
dynamic, 77
stable, 76
stationary, 76
stochastic, 117
trivial, 3, 17

Occam’s razor, 20
opportunity cost, 103
optimization, 133, 134, 136
constrained, 134

positive matrices, 174
praxeology, 51, 53
preference
  conditional, xxi
cyclic, xxii, 83
preference profile, 5, 11,
  26, 33
conditional, 20
preferences
  ex ante, xix, 6, 37
categorical, 6, 9, 16, 37
conditional, 18, 26
coordination, 60
cyclic, 74, 85
randomized, 122
stationary, 76
price system, 10
probability mass function, 171
conditional, 172
joint, 171
marginal, 172
probability mass vector, 176
steady-state, 177
transition, 176
probability measure, 169, 170
conditional, 170
probability space, 170
probability theory, 72
axioms, 48, 160
chain rule, 54, 59, 170
frequentist, 52
subjective, 52
profile
  conditional, 20
  conjecture, 18
  stochastic, 117
random variable, 116, 117,
  121, 171
randomization, xxii
rationality
  expanded, 9
  group, 1, 5
  individual, 1–3, 6, 7
  operational definition, 2–4
  satisficing, 149
  social, 5, 6
Rawlesianism, 25, 37, 63,
  135
reactive behavior, 11
reframing, 69
resource conservation, 143
responsive behavior, 13
sample space, 121, 169, 173
satisficing, xxii
neo, 137
Simonian, 135, 136
satisficing set, 147
  compromise, 153
  individual, 153
  network, 152
scoring rule, 35
  Borda rank-order rule, 36
  plurality rule, 35
self-interest, 2, 3, 8, 9, 15
Shannon information theory,
  xxii, 99
singleton set, 34, 142, 147, 170
small groups, 29
social benefit, 13
social choice function, 34, 62
Arrovian, 40
  Borda, 36
  plurality, 35
  rejecting, 152
  selecting, 152
  social justice, 37
  utilitarian, 36
social choice model
  dynamic, 76
  stable, 76
social choice rule, 33
  consistent, 34
  symmetry, 34
  anonymity, 34
  neutrality, 34
<table>
<thead>
<tr>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>social choice theory</td>
</tr>
<tr>
<td>Arrovian, 33</td>
</tr>
<tr>
<td>behavioral, 30</td>
</tr>
<tr>
<td>coordinated, xx</td>
</tr>
<tr>
<td>deliberative, 75, 82</td>
</tr>
<tr>
<td>deterministic, 132</td>
</tr>
<tr>
<td>randomized, 115</td>
</tr>
<tr>
<td>satisficing, 151</td>
</tr>
<tr>
<td>stochastic, 116</td>
</tr>
<tr>
<td>social coherence, 39, 42, 43, 45, 46, 48</td>
</tr>
<tr>
<td>social evolution, 30</td>
</tr>
<tr>
<td>social framework</td>
</tr>
<tr>
<td>anarchy, 10</td>
</tr>
<tr>
<td>collective, 10, 11</td>
</tr>
<tr>
<td>network, 20</td>
</tr>
<tr>
<td>social influence, xix, xx, 12, 17, 20, 28, 37, 38, 106, 108, 111, 115</td>
</tr>
<tr>
<td>cyclic, 76</td>
</tr>
<tr>
<td>dynamic, 76</td>
</tr>
<tr>
<td>social influence propagation, xxi, 17, 76, 83</td>
</tr>
<tr>
<td>social model, 4, 24, 28, 38</td>
</tr>
<tr>
<td>endogenous, 4, 27, 60, 72</td>
</tr>
<tr>
<td>exogenous, 4, 27</td>
</tr>
<tr>
<td>social welfare function, 5, 33</td>
</tr>
<tr>
<td>solution concept, 34, 40, 62</td>
</tr>
<tr>
<td>compromise, 63</td>
</tr>
<tr>
<td>coordination, 62</td>
</tr>
<tr>
<td>satisficing, 133</td>
</tr>
<tr>
<td>subjugation, 42, 44, 46</td>
</tr>
<tr>
<td>subordination function, 103</td>
</tr>
<tr>
<td>subversion, 41, 44</td>
</tr>
<tr>
<td>suppression, 42</td>
</tr>
<tr>
<td>sure loss, 46, 47</td>
</tr>
<tr>
<td>sure win, 48</td>
</tr>
<tr>
<td>surprise function, 102</td>
</tr>
<tr>
<td>sympathy, 14, 16</td>
</tr>
<tr>
<td>team reasoning, 30, 82, 97</td>
</tr>
<tr>
<td>transition mass function, 116, 117</td>
</tr>
<tr>
<td>transition matrix, 176</td>
</tr>
<tr>
<td>closed-loop, 79</td>
</tr>
<tr>
<td>regular, 80, 176</td>
</tr>
<tr>
<td>state-to-state, 78</td>
</tr>
<tr>
<td>transition probability measure, 172</td>
</tr>
<tr>
<td>unanimity principle, 42</td>
</tr>
<tr>
<td>utilitarianism, 25, 36</td>
</tr>
<tr>
<td>utility</td>
</tr>
<tr>
<td><em>ex ante</em>, 61</td>
</tr>
<tr>
<td><em>ex post</em>, 61</td>
</tr>
<tr>
<td>categorical, 60</td>
</tr>
<tr>
<td>conditional, 60, 62</td>
</tr>
<tr>
<td>satisficing, 147</td>
</tr>
<tr>
<td>steady-state, 81</td>
</tr>
<tr>
<td>utility density function, 125</td>
</tr>
<tr>
<td>utility mass function</td>
</tr>
<tr>
<td><em>ex post</em> marginals, 61</td>
</tr>
<tr>
<td>categorical, 50</td>
</tr>
<tr>
<td>conditional, 50</td>
</tr>
<tr>
<td>rejecting, 148</td>
</tr>
<tr>
<td>selecting, 148</td>
</tr>
<tr>
<td>utility mass vector, 78</td>
</tr>
<tr>
<td>von Neumann–Morgenstern theorem, 123</td>
</tr>
</tbody>
</table>