

Index

- agreement on outcome 10–15
- agreement on procedure 15–18
- allocation of fractions under proportional representation
 - Jefferson's method 267
 - Webster's method 266–7
- alternative Schwartz rule 232–5
- alternative Smith rule 232–5
- alternative vote 193–5
- Andrae, Carl 270
- anonymity
 - as a condition for RBVPRs 149–50
 - in majority rule 85
- approval voting 170–4
- Arrow Theorem 123–37
- authority as a mode 16, 54, 66–7
- Bailey, Martin xiv–xv, 290–92, 295, 298, 300
- Bergson, Abram 26–8
- Black, Duncan 122 fn, 178, 195, 209, 213–15
- Black rule 209–11
- Blaug, Mark 23
- Borda, Jean-Charles de 176–7
- Borda rule 176–81
- Bordes, Georges xiii, 142 fn
- Buchanan, James 32–3, 36, 70, 73, 142 fn
- Bucklin system 203–206
- cardinal-weighted pairwise comparisons 235–6
- choice consistency
 - as a condition for RBVPRs 149, 151
 - in the Arrow theorem 126–7, 137–8, 140
- Clarke, Edward xiv–xv, 292
- collective decision
 - definition 5–6
 - taxonomy of procedures for 9
- collectivity, definition 4–5
- combinativity 158, 165–242
- Condorcet, Marquis de
 - development of Condorcet rule 182
 - justification for majority rule 84
 - supporter of Condorcet consistency 195
- Condorcet consistency 154, 158–9, 163, 165–242
- Condorcet rule 102–103, 106, 182–90
- consensus 10–11, 52–3, 64
- contest as a mode 17–18, 55, 68
- Coombs, Clyde 213
- Coombs rule 213–15
- Copeland rule 206–209
- cost of computation
 - definition 161
 - in rules for continuums of two or more dimensions 247–61
 - in rules for discrete options 165–242
- criteria for evaluating collective decision procedures
 - efficiency 36–7
 - equity 37–9
 - stability 39–40
- cumulative voting 265
- de la Vallee Poussin, D. 316
- decision
 - compared to judgment 6–7
 - definition 3–4
- demand-revealing process
 - multiple discrete options 304–10
 - one-dimensional continuums 311–16
 - two options 292–302
- Dodgson, Charles 195
- Dodgson rule 196–9
- dominance 153
- Dreze, J. 316
- Droop, H.R. 270–72
- dueling 17–18
- Dummett, Michael 268–9, 278–9

- ease of use
 - definition 161
 - in rules for continuums of two or more dimensions 247–61
 - in rules for discrete options 165–242
- estimated centrality rule 215–17
- extortion as a mode 12–13, 54, 66
- Gibbard–Satterthwaite theorem 143–8
- GOCHA set 154–5
- Green, Jerry 144
- Green-Armytage, James 235–6
- Gregory, J.B. 273
- Hare, Thomas 270
- Hicks, John 28–31
- Hill, David 100, 274, 278
- Hill, Roland 269
- Hill, Thomas Wright 269–70
- homogeneity 157–8, 165–242
- independence of clones 159–60, 165–242
- independence of irrelevant alternatives
 - as a condition for RBVPRs 149–51
 - in the Arrow theorem 132–3
- invariant loss consistency 155, 165–242
- Kaldor, Nicolas 28–31
- Kemeny rule 182
- knowing
 - applied to collective decisions 62–8
 - definition 57–61
- Laffont, Jean-Jacques 144
- Larson, J.A.O. 83–4
- lucidity 161, 165–242
- majority consistency 153, 165–242
- majority rule
 - justifications for 84–91
 - equal weights 84–8
 - unequal weights 88–91
 - disinterested judges 88–90
 - self-interested advocates 90–91
- Malinvaud, E. 317
- Mann, Irwin 272
- Margolis, Howard 294, 316
- material equality 49–50
- maximin rule 212–13
- May, K.O. 84–6
- median voter rule
 - in multiple dimensions 248–51
 - in one dimension 245–7
- Meek, Brian 274–5
- minimum sum of distances rule 254–6
- minimum sum of forces rule
 - multi-stage 259–60
 - single stage 256–8
- monotonicity
 - as a condition for RBVPRs 149–50, 157, 162, 165–242
 - connection to Arrow’s positive association 132
 - in majority rule 87
- multidimensional balanced pulls rule
 - multi-stage 258–9
 - single-stage 251–4
- multidimensional continuums 247–61
- multiple vote plurality rule 264–5
- mutual majority consistency 153, 165–242
- Nanson, E.J. 195, 201
- Nanson rule 201–203
- neutrality
 - as a condition for RBVPRs 149–50
 - in majority rule 85
- non-dictatorship
 - as a condition for RBVPRs
 - in Arrow theorem 133, 139–40
 - in Gibbard–Satterthwaite theorem 143, 148
- one-dimensional continuums
 - demand-revealing process 311–16
 - rules with equally weighted votes 245–7
 - Thompson insurance mechanism 311
- outcome efficiency 46–8
- Pareto, Vilfredo 24–6
- Pareto consistency
 - as condition for RBVPRs 149–50
 - in Arrow theorem 134, 140
 - in Gibbard–Satterthwaite theorem 146, 148
 - relation to k -PSC in STV 269
- Pareto improvement
 - as criterion for collective decisions 24–6

- Pareto improvement (continued)
 - relation to criterion of stability 39
 - relation to demand-revealing process 297–9, 310
- party-list systems 265–7
- perfect-tie responsiveness 157, 165–242
- plurality 165–70
- Polinsky, Mitchell 31
- positive responsiveness
 - as condition for RBVPRs 149, 151, 156, 158, 162–3, 165–242
 - in majority rule 85–7
- preservation 51–2
- procedural efficiency 43–6
- productivity-based inequality 50
- properties of vote-processing rules, table 236–7
- proportionality for solid coalitions 268–9
- pseudo-consensus 11–12, 53, 64–5
- random process 16–17, 54, 67
- range voting 174–6
- ranked pairs rule 219–23
- Rawls, John 32–3
- RBVPR, defined 137
- reciprocity 21
- resolvability
 - as a condition for RBVPRs 149, 151, 156–7, 162, 165–242
 - in majority rule 87
- resistance to strategy
 - definition 161–2
 - in rules for continuums of two or more dimensions 247–61
 - in rules for discrete options 165–242
- restoration 50–51
- Samuelson, Paul 26–8
- Schulze, Markus 228, 230
- Schulze method 228–32
- Schwartz consistency 154–5, 165–242
- Scitovsky, Tibor 30
- Senatorial rules 273
- simplified Dodgson rule 199–201
- single transferable vote 267–79
 - comparison of versions 276–9
 - paired comparisons by 279–86
- Smith consistency 154, 165–242
- social welfare function 27–8
- stability 39–40
- strategy proofness
 - as a condition for RBVPRs 149, 151
 - in the demand-revealing process 292–3
 - in the Gibbard–Satterthwaite theorem 143–8
- supportable vote-processing rules 236, 238–42
- symbolic equality 48–9
- Thompson, Earl 290–91
- Thompson insurance mechanism
 - multiple discrete options 302–304
 - one-dimensional continuum 311
 - two options 291–2
- trade as a mode 12, 53–4, 65–6
- Tullock, Gordon 32–3, 36, 263, 292
- two- or more-dimensional continuums
 - single-stage rules for 247–58
 - multi-stage rules for 258–60
- two-ballot majority rule 190–93
- universal domain
 - as a condition for RBVPRs 149, 151–3, 162, 165–242
 - in majority rule 85
- Vickrey, William 143
- voting
 - attraction of, in light of the Arrow theorem 140–1
 - compared to other modes 54–5, 67–8
 - definition of 17
 - dimensions of 78–80
 - elements of 77–78
 - historical origin of 83–84
 - voting cycles 93–122
 - conditions that preclude and promote 95–9
 - frequency of 99–115
 - probability tables for 116–122
 - significance of 115
- Warren, C.H.E. 274–5
- weighted Condorcet rule 223–7
- Young rule 217–18
- Zeckhauser, Richard 163 fn, 260