

Index

NOTE: Page references in **bold** refer to figures.

```
accountability for actions, 106-7
                                                  Baseline Trust (BT) game, 144-5, 145, 178,
action
  action buttons (for games), 178
  in context, 9-11, 23, 46, 61-2, 78-9, 81-2,
                                                      new
  defined, 173-4
  modeling human action and fellow feeling,
  self-interest required for sociability, 69-71,
     111-12, 138-9, 148
adultery, gender inequity and, 201n.4
affections, meaning of, 19-27, 20
Alexander, Samuel, 13, 62, 74, 198
altruism, 9, 111
Annas, Julia, 83-5
approbation, 43-5, 44, 75
Aristotle, 28
Ashraf, Nava, 101n.5
asymmetric gains and losses (Principle 2)
  defined, 75-6
  derives from asymmetry of joy and sorrow,
    73, 76-7, 107, 200
  punishment and, 200
  rule-governed systems and, 107
axioms, 68-73. See also fellow feeling;
    gratitude; resentment; self-love
  fellow feeling (Axiom 1), 71
  gratitude and resentment (Axiom 3), 71-3
  individual's choice of actions (Axiom 4), 73
  judgment (Axiom 2), 71
  of new trust games, 146-7n.5
  self-love (Axiom 0), 69-71
                                                  Boeing, Carl, 111
```

```
202-4, 204, 205. See also human
    socioeconomic betterment; trust games,
behavioral economics
  goal of, 27 (See also conduct; scientific
    method in economics)
  located in the neoclassical Max-U tradition,
beneficence. See also human socioeconomic
    betterment; trust games; ultimatum
    games (UG)
  benevolence vs., 84-5
  corollary of, 86
  gratitude and reward (Beneficence
    Corollary 1), 156n.13, 156-8, 157,
     157n.14
  justice vs., 84n.1
  as negative virtue, 14, 90, 105-6, 199-200
  as pillar of society, 201-2
  propositions of, and new trust games,
     146-7n.5
  reciprocity (Beneficence Proposition 1), 85-7
  resentment and, 197-9 (See also human
     socioeconomic betterment)
  reward and punishment (Beneficence
     Proposition 2), 87-8
  rule-governed systems and, 105-6
  Smith on beneficence as always free, 128-30
  as virtue, 83-5
Berg, Joyce, 86-7, 109-12, 169-70
```



Bortoft, Henri, 56

Index 209

Bourgeois Equality (McCloskey), 5 Brown, Robert, 57 Burns, Robert, 11 Camerer, Colin, 27, 54, 70n.4, 101n.5 chance and sense of merit/demerit, 92-3 Cherry, Todd, 129n.2, 138 Cogan, Thomas, 22-3 commerce, 15n.23 conduct, 34-48 behavior as, 34-5 behavior in modern economics, 35-40 fellow feeling and, 42-5, 44 (See also fellow feeling) mathematical formalization of (See game theory structure) narratives and, 172-4, 195-6 (See also narratives in trust games) propriety and emergence of rules, 98-100 propriety of "consequent action" and, 45-7 recognizing patterns of conduct, 56 (See also scientific method in economics) rule-governed systems and accountability for actions, 106-7 rule-governed systems of, 40-2, 95-108 (See also rules governing human conduct) consumer preference, 36-40 context-specific action, 81-94 beneficence and justice as virtues of, 83-5 beneficence propositions, 85-8 chance and sense of merit/demerit, 92-3 injustice propositions, 88-90 rules as conventions, 81-3 Smith's theory of morality, 90-2 conventions, rules as. See context-specific action Cox, James, 115-16

deception, 116n.9
decision making. See conduct
Deck, Cary, 115–16
demerit
chance and, 92–3
rule-governed systems and merit/demerit in
judgments, 100–1
Descartes' Error (Damasio), 21n.3
de Waal, Frans, 42
Dickhaut, John, 64, 86–7, 87n.3, 109–12,
169–70

Damasio, Antonio, 21n.3

dictator games. See also narratives in trust games earned money used in, 129n.2 overview, 161–2 reciprocity and, 86
Dictionary of the English Language,
A (Johnson), 5, 22, 29, 34–5
dignity of sellers, 82–3
disapprobation, 43–5, 44
econometrics, mapping outcomes with, 63n.21

Ellsberg, Daniel, 133n.6, 133 emotions meaning of, 19-27, 20 scientific method for study of, 64 empathy, 9. See also fellow feeling enviousness, as example of behavioral economics method, 50-5 equal split ("fair" split), 129, 137-8 equilibrium and mutual fellow feeling (Principle 7), 78 experimental economics early laboratory market experiments of, use of narratives by, 172-4, 195-6 (See also narratives in trust games) experiments, defined, 67-8. See also rules governing human conduct extensive form games (EFG), defined, 175 extortion, beneficence and, 123, 123-5 extortion, involuntary. See ultimatum games (UG) Fable of the Bees, The (Mandeville), 15n.24

fair and fairness concepts conflation with envy/enviousness, 50-5 "fairness" equilibrium in game theory, 168 - 9"fair" split (equal split), 129, 137-8 "fair" vs. "fairness," 101n.5 impartial spectator metaphor and negative justice, 200-1 Falk, Armin, 120n.13, 130-1, 137-8, 139 feeling-thinking experiences. See also fellow meaning of passions, emotions, sentiments, and affections, 19-27, 20 morality as, 31-2 trust games from, 23n.8 Fehr, Ernst on equal split in trust games, 137-8 on intention, 120n.13, 130-1



210 Index

Fehr, Ernst (cont.)	gravity, moral sentiments as, 61-3
on social preferences, 70n.4	Güth, Werner, 127-8
on threat of punishment, 154n.11, 155n.12	
on utility maximization and behavioral	Halley's comet, 40
economics method, 54-5	Hanley, Ryan, 4, 41n.5
fellow feeling	Hayek, F. A., 2, 16, 59, 97
as Axiom 1, 71	Helbing, Dirk, 87n.4
empathy and, 9	"History of Astronomy, The" (Smith), 40
equilibrium and mutual fellow feeling	Horowitz, Joel, 129
(Principle 7), 78	humanomics, defined, 2
as first key axiom of Smith's theory of	human socioeconomic betterment, 197-207.
morality, 29	See also beneficence; justice
impartial spectator metaphor, 101-3	beneficence and justice as pillars of society,
modeling human action and, 8–12	201–2
as primary connection of sociality, 46–7	beneficence vs. punishing injustice, 202–4,
Fischbacher, Urs, 70n.4, 120n.13, 130–1, 137–8	204 , 205
Fitzgerald, John, 111	negative justice in <i>Sentiments</i> and property
Folk Theorem of traditional repeated game	in Wealth, 200–1
theory, 164	punishment in proportion to resentment,
Forsythe, Robert, 129	199–200
"Forward and Backward Rationality in	resentment and, 197–9
Achieving Cooperation" (McCabe,	Wealth on nature of exchange, 205–7
Rassenti, Smith), 118n.11	Hume, David
Fouraker, Lawrence, 134–5	on market behavior, 5
Frykblom, Peter, 129n.2	propriety and, 29
117, ROTOTH, 1 CtC1, 12511.2	on rule-governed systems, 96
game theory structure, 161-71. See also	rules governing conduct and, 67, 68n.3
narratives in trust games	on utilitarianism, 12–13
•	Hutcheson, Francis, 29
applying to action in principles of Sentiments, 167–8	Hutton, James, 25
"fairness" equilibrium and, 168–9	Trutton, James, 23
	impartial enectator metaphor
Folk Theorem of traditional repeated game	impartial spectator metaphor fairness and, 200–1
theory, 164 one-shot play based on <i>Sentiments</i> in, 164–6	
- •	game theory structure and, 165–6
overview, 161–2	"mindreading" and, 119n.12 overview, 102–3
social preferences modification of, 163–4	
traditional game dynamic of, 162–3	rule-governed systems, 101–3
trust game research by Berg, Dickhaut,	two-choice alternatives in simple single-play
McCabe (1995 experiment), 169–70	trust games and, 112–19, 113, 117, 121
Gardner, Roy, 154n.11	impropriety. See injustice
Geanokoplos, Jean, 168	incentive compatibility, 200
gender inequity, 201n.4	income distribution
Gillies, Anthony S., 117, 117–19	inequality of, 2
Gintis, Herbert, 87n.4	property, exchange, and wealth creation,
gratitude	14-16
gratitude and resentment as Axiom 3, 71–3	individuals. See also conduct
(See also resentment)	individual's choice of actions, asymmetric
rule-governed systems and, 98–100	gains and losses from (Principle 2), 75-6,
rule-governed systems and merit/demerit in	107, 200
judgments, 100–1	individual's choice of actions (Axiom 4), 73
as sentiment, 24–5	propriety and emergence of rules, 98–100



Index 211

injustice. See also human socioeconomic	Knight, Frank
betterment; trust games	behavior as utility maximization problem,
negative justice in Sentiments and property	49-50
in Wealth, 200–1	conduct and motive, 159
propositions of, and new trust games, 146–7n.5	example of behavioral economics method, 50–5
punishment response to, 14n.22	scientific method and norm compliance in
reciprocity (Injustice Proposition 1),	behavioral economics, 60-4
88-9	scientific method and recognizing patterns
resentment of, 197-9 (See also human	of conduct, 56
socioeconomic betterment)	"The Limitations of Scientific Method in
reward and punishment (Injustice	Economics," 49
Proposition 2), 90	Knight, Simon, 138
Inquiry into the Nature and Causes of the Wealth of Nations, An (Smith)	knowing from feeling and thinking, i, 32, 36, 42–5, 55, 63, 73, 79, 99
human socioeconomic betterment and,	Krupka, Erin, 60
200-1, 205-7	
overview of, 5	language. See words and meaning
on rule-governed systems, 96	Lectures on Jurisprudence (Smith), 90,
Sentiments themes interconnected to,	197-8n.1, 199n.2, 201n.4
205-6n.7	LePore, Michael, 119n.12, 123 , 123-5
sociality and economy in, 2-16	"Limitations of Scientific Method in
intention	Economics, The," 49
binary choice forms of ultimatum games,	List, John, 129n.2, 138, 155n.12
130-1	Locke, John, 13, 29
opportunity cost and, 119–20, 120	Loewenstein, George, 54, 101n.5
as Principle 6, 78	love
reciprocity and, 87	self-love, 69–71, 79–80, 100–1
in strategic form trust games,	as sentiment, 24
120n.13	M J 11. D 15 24. 20
invisible hand theory, 5, 12n.19	Mandeville, Bernard, 15n.24, 29
Larrana Milliam Stanlar 7n 11 26 27	marginal utility concept, 37–8
Jevons, William Stanley, 7n.11, 36, 37	market behavior
Johnson, Samuel, 5, 22, 29, 34–5	dignity of sellers and, 82–3
judgment (Axiom 2), 71 justice. See also human socioeconomic	experimental economics and early laboratory market experiments, 173n.1
betterment; injustice	Hume on, 5
beneficence vs., 84n.1	rules governing conduct and, 70–1
defined negatively, 14, 90, 105–6, 199–200,	Wealth (Smith) on rule-governed systems,
206–7	96
nature of exchange and, 205–7	Max-U. See utility maximization (Max-U)
as pillar of society, 201-2	theory
as property, 14, 96, 197–200	McCabe, Kevin
rule-governed systems and, 105–6	on beneficence, 86–7, 123 , 123–5
as virtue, 83–5	on defection rate in trust games, 152n.9, 155–6
Kahneman, Daniel, 200	"Forward and Backward Rationality in
Kames, Lord, 21	Achieving Cooperation," 118n.11
kindness	game theory structure, 169-70
begets kindness, 121-2n.14, 156	on "mindreading," 119n.12
as necessary for happiness, 114	repeat-play trust games, 120, 120-3



> 212 Index

McCabe, Kevin (cont.) Paradise Lost (Milton), 22n.6 research procedures of, 121-2n.14 Paradox of Preferences, 38-40 trust game research by Berg, Dickhaut, and Paradox of Value, 37 passions, meaning of, 19-27, 20 (1995 experiment), 109-12 two-choice alternatives in simple single-play Pearce, David, 168 Pecorino, Paul, 140-1 trust games, 112-19, 113, 117 voluntary trust game, 119-20, 120 Philosophical Treatise on the Passions, McCloskey, Deirdre, 5 The (Cogan), 22-3 Meardon, Stephen, 170 Plotinus, 28 preference Menger, Carl, 37 "mere want," 88 of consumers, 36-40 merit measuring, 55 chance and, 92-3 Principia (Smith), 46 rule-governed systems and merit/demerit in principles, 74-80 judgments, 100-1 actions and propriety (Principle 5), 77-8 Milton, John, 22n.6 actions in response to pleasure and pain, morality, not derived by reason, 68, 96-8. 79-80 See also conduct; context-specific action; asymmetric gains and losses (Principle 2), feeling-thinking experiences 75-6, 107, 200 motivation and praise (Principle 4), 77 equilibrium and mutual fellow feeling motives, recognizing, 58-60 (Principle 7), 78 intentions (Principle 6), 78 motivation and praise (Principle 4), 77 narratives in trust games, 172-96 experimental economics and, 172-4, 195-6 of new trust games, 146-7n.5 extensive form game (EFG) tree, self-command (Principle 1), 74-5 experimental design and procedures, sympathy and envy (Principle 3), 76-7 "Private Game," 117, 117-19 175-85, 177, 179, 180, 182, 184 extensive form games (EFG), 175 Proposers. See ultimatum games (UG) overview, 174-5 propriety. See also beneficence "payoffs" and "moves," 174 actions and propriety (Principle 5), 77-8 results and, 185-95, 187, 189, 191, 193, 195 civil vs. social propriety order, 13-14 neoclassical model of "consequent action," 45-7 Hume and, 12 emergence of rules, 98-100 utility maximization (Max-U) theory and, and property, 13-14 sense of, 1-2, 14, 29-32, 49, 50, 51, 55, 80, 82, 6 - 892, 110, 118 Newton, Isaac rule-governed systems and, 95 words and meaning of, 29-32 rules governing conduct and, 67n.1 Punish Injustice (PI) game, 152-6, 153, Smith influenced by, 40 154-5n.12, 202-4, 204, 205 new trust games. See trust games, new punishment. See also human socioeconomic non-satiation, 29, 59, 61-2, 81, 89 betterment; reward and punishment norma agendi, 85-8 beneficence vs. punishing injustice, 202-4, norm compliance, 60-4 204, 205 North, Douglass, 5 in proportion to resentment, 199-200 "notice of a General Mathematical Theory of Political Economy" (Jevons), 7n.11

Quarterly Journal of Economics, 54-5, 60-1

Rabin, Matthew, 168-9 Rassenti, Stephen, 118n.11, 155-6 reciprocity Beneficence Proposition 1, 85-7

Ortmann, Andreas, 111, 170

Ostrom, Elinor, 154n.11

Oxoby, Robert, 129n.2

Osborn, Jan, 175, 176-8, 183-6, 196



Index 213

Injustice Proposition 1, 88–9	for recognizing patterns of conduct, 55–60
in ultimatum and dictator games, 86	"The Limitations of Scientific Method in
repeat-play trust games, 120, 120-3	Economics" (Knight) and, 49
resentment. See also gratitude	Scottish Enlightenment, 5
beneficence and injustice, 197–9	Sefton, Martin, 129
gratitude and resentment as Axiom 3, 71-3	self-command in moral conduct, xv, 10, 13, 71,
punishment in proportion to, 199–200	74–5, 79, 101, 106, 111, 116, 146–7, 155,
rule-governed systems and, 98-100	165–70
rule-governed systems and merit/demerit in	self-deceit, avoiding, 103
judgments, 100–1	self-evaluation, 104–5
as sentiment, 24, 25	self-interest, 4–6
Responders. See ultimatum games (UG)	self-love
reward and punishment. See also trust games,	actions in response to pleasure and pain,
new	79–80
as Beneficence Proposition 2, 87–8	as Axiom 0, 69–71
as Injustice Proposition 2, 90	rule-governed systems and merit/demerit in
Rietz, Thomas, 122n.15	judgments, 100–1
Rigdon, Mary, 117 , 117–23, 120 , 121–2n.14	sense
Rockenbach, Bettina, 154n.11	English sense of "right" and "wrong," 91
rule-governed systems, 95–108	meaning of, 29–32
accountability for actions in, 106–7	sentiments
asymmetry in gains and losses, 75–6, 107, 200	defined, 21n.5
	meaning of, 19–27, 20
beneficence and justice for, 105–6 impartial spectator metaphor, 101–3	Sentiments (Smith). See Theory of Moral Sentiments, The (Smith)
merit and demerit in judgments, 100–1	severe test, 112n.5
propriety and emergence of rules, 98–100	Sheremeta, Roman, 122n.15
rules of natural order vs. socioeconomic life,	Sherwood, Bradley, 175, 176–8, 196
96–8	Shields, Timothy, 122n.15
self-deceit and, 103	Shipman, Barbara, 59
self-evaluation for, 104–5	Shogren, Jason F., 129n.2
social foundations of rules, 95–6	Siegel, Sidney, 134–5
rules governing human conduct, 67	Simon, Herbert, 97
conduct of groups vs. individuals, 41	Smith, Adam. See also human socioeconomic
Smith on "experiments," 67–8	betterment; impartial spectator metaphor;
Smith's axioms and, 68–73	Inquiry into the Nature and Causes of the
Smith's principles of, 74–80	Wealth of Nations, An (Smith); Theory of
	Moral Sentiments, The (Smith); words and
Salmon, Timothy, 134, 139-40	meaning
Savin,n.E., 129	conduct vs. behavior references by, 34-5
Schliesser, Eric, 22n.7, 26n.11, 28	on human socioeconomic betterment,
Schmidt, Klaus M., 54-5	197–207
Schmittberger, Rolf, 127–8	invisible hand theory of, 5, 12n.19
Schmitter, Amy, 19–21	Lectures on Jurisprudence, 90, 197–8n.1,
Schwarze, Bernd, 127–8	199n.2, 201n.4
scientific method in economics, 49-66	morality theory of, 90-2 (See also context-
behavior as utility maximization problem,	specific action)
49-50	on Paradox of Value, 37
example of behavioral economics method,	Principia, 46
50-5	on social maturation, 169-70
norm compliance and, 60-4	"The History of Astronomy," 40



214 Index

Smith, Charles John, 21, 23, 35, 43, 84 Smith, Kip, 64 Smith, Vernon on beneficence and extortion, 123, 123-5 on cooperation in single play vs. repeat play, on defection rate in trust games, 152n.9, 155 - 6on "fairness," 101n.5 "Forward and Backward Rationality in Achieving Cooperation," 118n.11 on "mindreading," 119n.12 repeat-play trust games, 120, 120-3 research procedures of, 121-2n.14 two-choice alternatives in simple single-play trust games, 112-19, 113, 117 voluntary trust game, 119-20, 120 Sobel, Joel, 162, 163 sociality and economy, 1-18 civil order of propriety and social order of propriety, 13-14 humanomics, defined, 2 modeling human action and, 8-12 property, exchange, and wealth creation, Smith on "experiments" (See rules governing human conduct) social foundations of rules, 95-6 (See also rule-governed systems) social order and, 4-6 utilitarianism and, 12-13 utility maximization (Max-U) theory, overview, 6-8 social maturation, 169-70 Spraggon, John, 129n.2 Stacchetti, Ennio, 168 subgame perfect equilibrium, 52n.10, 110 sympathy conduct and impulse for sociality, 43 sympathy and envy (Principle 3), 76-7 words and meaning of, 27-9

Theory of Moral Sentiments, The (Smith). See also conduct; context-specific action; game theory structure; rule-governed systems; rules governing human conduct; scientific method in economics; sociality and economy; trust games; trust games, new; words and meaning mapping outcomes in, 61–3 (See also scientific method in economics)

overview, 2-16 sociality and economy in, 3n.3 Wealth themes interconnected to, 205-6n.7 "Theory of the Reluctant Duelist" (Ellsberg), 133n.6, 133 trade, nature of exchange and, 205-7, 206n.8 Trend in Economics, The (Tugwell), 49 trust games, 109-26. See also narratives in trust games; trust games, new beneficence and extortion, 123, 123-5 Berg, Dickhaut, and McCabe (1995 experiment) on, 109-12 designing, predicting, and evaluating trust games, new (See trust games, new) feeling-thinking experiences leading to, 23n.8 opportunity cost and intention, 119-20, 120 propriety and emergence of rules, 99 repeat-play trust and trust vs. deflection, **120**, 120–3 subgame perfect equilibrium, 110 traditional vs. Sentiments model, 146-7, two-choice alternatives in simple single-play trust games, 112-19, 113, 117 trust games, new, 143-60 Baseline Trust (BT) game, overview, 144-5, describing trust/trustworthy action in, 146-7n.6, 146-7 designing, 143-4 gratitude and reward (Beneficence Corollary 1), 156n.13, 156-8, 157, 157n.14 making predictions with, 159-60 No Punish Pass (NPP) game, 151, 151-2, 152n.9 propriety and emergence of rules, 99 Punish Either (PE) game, 158, 158-9 Punish Injustice (PI) game, 152-6, 153, 154n.11, 155n.12 (See also narratives in trust games) Punish "Want of Beneficence" (PWB) game, 149-51, **150**, 198 PWB as "what is not," 152n.10, 152 traditional vs. Sentiments model, 146-7, trustworthiness, 174-5 Tugwell, Rex, 49 Tversky, Amos, 200 Two Treatises of Government (Locke), 13



Index 215

ultimatum games (UG), 127-42. See also narratives in trust games binary choice forms of, 130-1 causality investigations with, 128-30 equilibrium play, voluntary play with gains from exchange, 134-5 equilibrium play in voluntary UG, beneficence cannot be extorted, 131-4, 132n.5, 133n.6 overview, 127-8 propriety and emergence of rules, 99 prudence in absence of extortion, 138-41 reciprocity and, 86 scientific method and measurement for, 52-3, 56-7 (See also scientific method in economics) sociality and economy, 10 voluntary UG for division of fixed sum and variable sum, 135-8, 136, 137 utilitarianism, Hume on, 12-13 utility function behavior in modern economics and, 35 - 40defined, 27 utility maximization (Max-U) theory. See also trust games behavior as utility maximization problem, 49-50 (See also scientific method in economics) games and failure of, 173-4

overview, 6-8 preference expressed through choice, 38-40 Van Boening, Mark, 140-1 Van't Wout, Mascha, 138 Varian, Hal, 36 Viner, Jacob, 3 voluntary trust game, 119-20, 120 Walker, James, 154n.11 Walras, Léon, 37 Watson, John, 49 Wealth (Smith). See Inquiry into the Nature and Causes of the Wealth of Nations, An (Smith) Weber, Roberto, 60 Wierzbicka, Anna, 24-5, 29-30, 90-1, 201 Wilson, Bart narrative treatments by, 175, 176-8, 196 (See also narratives in trust games; trust games, new) voluntary variable-surplus ultimatum game by, 134, 139-40 words and meaning, 19-33 language for "right" and "wrong," 90-1 passions, emotions, sentiments, and affections, 19-27, 20 as passive vs. active, 26

sense of propriety and, 29-32

sympathy and, 27-9