Behavioral Economics

Third Edition

Edward Cartwright



Contents

Detailed contents	ix
List of figures	xvi
List of tables	xxiv
List of research methods boxes	xxviii
Preface	XXX
Part I Introduction	1
1 An introduction to behavioral economics	3
Part II Economic behavior	29
2 Simple heuristics for complex choices	31
3 Choice with risk	97
4 Choosing when to act	162
5 Learning from new information	206
6 Interacting with others	250
7 Social preferences	321
Part III Origins of behavior	371
8 Evolution and culture	373
9 Neuroeconomics	415
Part IV Welfare and policy	463
10 Happiness and utility	465
11 Policy and behavior	504
Bibliography	530
Index	550

Detailed contents

LIST OF HIG		XVI
List of tables		
	search methods boxes	xxviii
Preface		XXX
Part I	Introduction	1
1 An	introduction to behavioral economics	3
1.1	The history and controversies of behavioral economics	4
	1.1.1 Behavioral economics is reborn	6
	1.1.2 Behavioral economics and policy	9
	1.1.3 The different faces of behavioral economics	11
	1.1.4 Debate and controversy	13
	1.1.5 Too far or not far enough	16
1.2	Some background on behavioral economics methods	18
	1.2.1 Some background on experiments	18
	1.2.2 Some background on theory	22
1.3	How to use this book	24
	1.3.1 Chapter previews	25
	1.3.2 Behavioral finance	26
1.4	· · · · · · · · · · · · · · · · · ·	26
1.5	Online material	27
1.6	Review questions	27
Part II	Economic behavior	29
2 Sin	nple heuristics for complex choices	31
2.1	Utility and search	31
	2.1.1 How to search	33
	2.1.2 Choice arbitrariness	38
2.2	Mental accounting and framing	45
	2.2.1 Reference-dependent utility	46
	2.2.2 The endowment effect	47
	2.2.3 Willingness to pay or accept	49
	2.2.4 Transaction utility	51
	2.2.5 Narrow framing	52
	2.2.6 Hedonic editing	55
	2.2.7 Choice bracketing	55
2.3	The role of emotions	57
	2.3.1 Aversion to lying	58
	2.3.2 Deception	59

		2.3.3 Honesty and framing	63
	2.4	Summary	66
	2.5	Demand, supply and markets	67
		2.5.1 Double-auction markets in the lab	69
		2.5.2 Posted offer markets and market power	72
		2.5.3 The law of one price	73
	2.6	Labor supply and reference dependence	75
		2.6.1 A target income and target wage	76
		2.6.2 Taxicab drivers	77
		2.6.3 Female labor supply	79
	2.7	The housing market	81
		2.7.1 Reluctance to sell	82
		2.7.2 What are buyers willing to pay?	83
	2.8	The behavioral life cycle hypothesis	84
		2.8.1 Fungibility and mental accounting	86
	2.9	Saving for the future	91
		2.9.1 Let's diversify	92
		2.9.2 Let's not diversify	93
		Further reading	95
		Online material	96
		Review questions	96
3	Choic	ce with risk	97
	3.1	Expected utility	97
		3.1.1 The Allais paradox	102
		3.1.2 Risk aversion	103
		3.1.3 Risk-loving for losses	106
		3.1.4 When expected utility will work	107
	3.2	Independent and fanning out	108
		3.2.1 Disappointment	110
		3.2.2 Rank-dependent expected utility	112
	3.3	Reference dependence and prospect theory	115
		3.3.1 Reference-dependent utility	118
		3.3.2 The reference point and expectations	119
		3.3.3 Combined gambles	122
		3.3.4 Stochastic reference point	123
	3.4	Preference reversals	126
		3.4.1 Procedural invariance	130
		3.4.2 Regret theory	131
		3.4.3 Prospect theory and preference reversals	133
		3.4.4 Why preference reversals matter	135
	3.5	Summary	135
	3.6	Financial trading	136
		3.6.1 The equity premium puzzle	136
		3.6.2 The disposition effect	139
		3.6.3 The ostrich effect	142
	3.7	Insurance	144
	3.8	Tax evasion	146
		3.8.1 Standard model of tax evasion	148

		3.8.2 Behavioral theories of tax evasion	150
		3.8.3 Taxes and reference points	152
		3.8.4 Tax evasion in the laboratory	152
	3.9	Legal settlements	155
		3.9.1 Fourfold pattern of risk attitudes	156
		3.9.2 Frivolous litigation	158
	3.10	Further reading	160
		Online materials	160
	3.12	Review questions	160
4		sing when to act	162
	4.1	Exponential discounting	162
		4.1.1 The discount factor	164
		4.1.2 The utility of sequences	168
	4.2	Hyperbolic discounting	170
		4.2.1 Quasi-hyperbolic discounting	172
		4.2.2 The consequences of time inconsistency	174
		4.2.3 Temptation and self-control	176
	4.3	Loss aversion and sequences	179
		4.3.1 Reference dependence	179
		4.3.2 Preferences for sequences	182
	4.4	Time and risk	184
	4.5	Summary	189
	4.6	Borrowing and saving	190
		4.6.1 Saving equals growth or growth equals saving?	191
		4.6.2 Why save when you have debts?	192
	4.7	Exploiting time inconsistency	193
		4.7.1 Time inconsistency and consumer behavior	193
		4.7.2 Firm pricing	194
		4.7.3 Choosing the correct calling plan	197
	4.8	Environmental economics	198
		4.8.1 Inter-generational discount factor	199
		4.8.2 Reducing CO ₂ emissions	201
	4.9	Further reading	203
	4.10	Online materials	204
	4.11	Review questions	204
5	Lear	ning from new information	206
	5.1	Bayesian updating and choice with uncertainty	206
		5.1.1 Models of choice with uncertainty	208
		5.1.2 The Ellsberg paradox	210
	5.2	Two cognitive biases	212
		5.2.1 Confirmatory bias	212
		5.2.2 A model of confirmatory bias	214
		5.2.3 Law of small numbers	216
		5.2.4 A model of the law of small numbers	218
		5.2.5 Generating random sequences	220
		5.2.6 Do biases matter?	221
	5.3	Learning from others	222
		5.3.1 To conform or not	222

		5.3.2	Cascade experiments	2	223
			What happened to conformity	y? 2	226
		5.3.4	Signaling games	2	228
	5.4	Sumn		2	231
	5.5	Healtl	n care	2	231
		5.5.1	Patients	2	231
		5.5.2	Practitioners	2	234
	5.6	Bubbl	e and bust	2	236
		5.6.1	Bubbles in the lab	2	236
		5.6.2	Experience and bubbles	2	240
		5.6.3	Explaining bubbles	2	244
	5.7	Voting	ı in elections	2	245
	5.8	Furth	er reading	2	247
	5.9	Online	e materials	2	248
	5.10	Revie	w questions	2	248
6	Intera	acting v	with others	2	250
	6.1	The b	eauty contest	2	250
		6.1.1	Strategy and Nash equilibriu	m 2	251
		6.1.2	Choice in a beauty contest	2	253
		6.1.3	Learning in a beauty contest	2	255
	6.2	Playin	g for the first time	2	256
		6.2.1	Level-k thinking	2	256
		6.2.2	Sophisticated beliefs	2	258
		6.2.3	Focal points	2	260
		6.2.4	Equilibrium refinement	2	265
		6.2.5	Nash equilibrium with mistal	kes 2	269
	6.3	Learn	ing from experience	2	272
		6.3.1	Reinforcement learning	2	273
		6.3.2	Belief-based learning	2	274
		6.3.3	Experience-weighted learning	ig 2	278
			Learning and prediction		279
	6.4	Teams	s make decisions	2	283
		6.4.1	Teams and the beauty contest	it 2	285
		6.4.2	The sophistication of teams	2	288
		6.4.3	Are teams smarter?	2	289
	6.5	Sumn	nary	2	290
	6.6	Auctio	ons	2	290
		6.6.1	Revenue equivalence	2	291
			Winner's curse	2	293
	6.7	Learn	ing to coordinate	2	296
			Weakest link games	2	297
			Threshold public good games	5	303
			Coordinating on networks		305
	6.8		tary policy by committee	3	309
	6.9		trial organization		310
			Limit pricing		311
			Market entry		314

I xiii

392

		6.9.3 Quantity leadership	316
	6.10	Further reading	319
	6.11	Online materials	319
	6.12	Review questions	319
7	Socia	l preferences	321
	7.1	The experimental evidence for social preferences	321
		7.1.1 The nice side of social preferences	322
		7.1.2 The nasty side of social preferences	327
		7.1.3 Reciprocity	330
		7.1.4 Fairness and competition	334
		7.1.5 The terminology of reciprocity	335
		7.1.6 Social preferences and teams	335
	7.2	Inequality aversion	338
		7.2.1 Inequality aversion with incomplete information	338
		7.2.2 Inequality aversion with complete information	341
		7.2.3 An evaluation of inequality aversion models	345
	7.3	Intentions and social norms	346
		7.3.1 A model of fairness based on intentions	347
		7.3.2 What is fair?	349
		Summary	353
	7.5	Giving to charity	354
		7.5.1 Crowding out	354
		7.5.2 Who is watching?	356
		7.5.3 Why do people give?	358
	7.6	Price and wage rigidity	358
		7.6.1 A model of worker reciprocity	360
		7.6.2 Wage stickiness in the lab	362
		7.6.3 How long to forget a wage change?	363
		7.6.4 Firm pricing	363
	7.7	Contract theory	365
		7.7.1 Contracts for loss-averse workers	366
		7.7.2 Exploitation of an overconfident worker	368
	7.8	Further reading	369
	7.9	Online materials	369
	7.10	Review questions	369
Part	III O	rigins of behavior	371
8	Evolu	ition and culture	373
	8.1	Evolution and economic behavior	373
		8.1.1 Looking for food and finding a utility function	374
		8.1.2 Choosing when to have children	376
		8.1.3 Aggregate risk	377
		8.1.4 Competing with others	380
	8.2	Culture and multi-level selection	385
		8.2.1 Cross-cultural comparisons	385
		8.2.2 Group selection	389
		8.2.3 Gene-culture coevolution	392

		8.2.4 Reciprocity in children and chimpanzees	393		
	8.3	Summary	396		
	8.4	The gender gap	397		
		8.4.1 Attitudes to risk	398		
		8.4.2 Attitudes to competition	399		
		8.4.3 Social preferences	401		
		8.4.4 Why are men and women different?	402		
	8.5	The economics of family	403		
	8.6	Development economics	407		
		8.6.1 The education production function	407		
		8.6.2 Microfinance	410		
	8.7	Further reading	413		
	8.8	Online materials	413		
	8.9	Review questions	414		
9	Neu	roeconomics	415		
	9.1	An introduction to the brain	415		
		9.1.1 An economist's map of the brain	418		
		9.1.2 Brain processes	421		
		9.1.3 Executive control systems	422		
	9.2	3	424		
		9.2.1 Reward evaluation	424		
		9.2.2 Learning about rewards	427		
		9.2.3 Risk and uncertainty	430		
		9.2.4 Different types of reward	432		
	9.3	Making decisions	433		
		9.3.1 Choice and strategy	434		
		9.3.2 Framing effects	437		
		9.3.3 Strategic behavior	438		
		9.3.4 Fairness and norms	440		
		9.3.5 Punishment and inequality aversion	443		
		9.3.6 Present bias and a brain in conflict	445		
		9.3.7 Multiple-self models	449		
		Summary	450		
	9.5	Addiction	451		
		9.5.1 A model of rational addiction	452		
		9.5.2 Biases and addiction	454		
		9.5.3 Cues and addiction	457		
	۰,	9.5.4 Addiction and neuroscience	459		
	9.6	Further reading	460		
	9.7	Online materials	461		
	9.8	Review questions	461		
PAR		Welfare and policy	463 465		
10		Happiness and utility			
	10.1	What makes us happy?	465		
		10.1.1 Happiness is relative	468		
		10.1.2 Adaption and habituation	471		

	10.2	Do we know what makes us happy?	473		
		10.2.1 Remembered utility	474		
		10.2.2 Projection bias	477		
	10.3	Choice and commitment	480		
		10.3.1 Does present bias matter?	481		
		10.3.2 Pre-commitment	483		
		10.3.3 Do people like having choice?	484		
	10.4	Summary	486		
	10.5	Health and happiness	487		
		10.5.1 Measuring the value of treatment	487		
		10.5.2 Improving the remembered utility of treatment	490		
	10.6	Saving and retirement	492		
		10.6.1 Projection bias in saving	492		
		10.6.2 Investor autonomy	494		
	10.7	Welfare trade-offs	495		
		10.7.1 The inflation-unemployment trade-off	495		
		10.7.2 Tax saliency	497		
	10.8	Further reading			
	10.9	Online materials	502		
	10.10	10.10 Review questions			
11	Policy and behavior				
	11.1	Designing good institutions	504		
		11.1.1 The tragedy of the commons	505		
		11.1.2 Matching markets	508		
		11.1.3 Spectrum auctions	512		
		11.1.4 Behavioral economics and institution design	516		
	11.2	Nudge and behavior change	517		
		11.2.1 Savings accounts	518		
		11.2.2 A default to save	519		
		11.2.3 Nudge	521		
		11.2.4 Nudge and behavior change	524		
		11.2.5 Consumer protection, health and the environment	525		
	11.3	Summary	528		
	11.4	Further reading	528		
	11.5	Online materials	529		
	11.6	Review questions	529		
Biblios	graphy		530		
Index) /		550		