1	Intro	duction .		1
	1.1	What A	.m I?	1
	1.2	A Note	on Terminology	2
	1.3	Skinner	's Perspective	2
	1.4	Physics	Perspective	5
	1.5	Self-Or	ganization, Pattern Formation, and Synergetics	5
	1.6	Human	Pattern Formation Reaction Model	8
		1.6.1	Component and System Dynamics Descriptions	8
		1.6.2	Ordinary State and Grand State	12
		1.6.3	Circular Causality	13
	1.7	Forces.		15
		1.7.1	Fundamental and Auxiliary Forces	15
		1.7.2	Reaction to Forces Versus "Stimulus-Response	
			Theory"	18
	1.8	Levels of	of Analysis	20
		1.8.1	Psychophysics	20
		1.8.2	Neuroscience Research	22
	1.9	Why Sy	nergetics and the Theory of Pattern Formation?	24
	1.10	Organiz	zation of This Book	26
	1.11	Mathen	natical Notes	28
		1.11.1	Human Pattern Formation Reaction Model	28
		1.11.2	Miscellaneous	32
2	Deter	·minism		33
-	2.1		cal Conditioning"	33
	2.2		nt Conditioning"	37
	2.3		's Conceptualization of Humans and Animals	40
	2.4		Perspective	41
		2.4.1	Physics Perspective: Two Remarks	41
		2.4.2	Definition of the Physics Perspective	42
			FF	

		2.4.3	Some Facts About the Schrödinger Equation	42
		2.4.4	Physics-Based Determinism	43
	2.5	"Free W	'ill' [*]	47
		2.5.1	Physics-Based Determinism Versus "Free Will"	47
		2.5.2	We Do Not "Choose". We Are in the Condition	
			of Doing Something: The Shoe Example	51
		2.5.3	What Do You Want? Chicken or Fish?	52
	2.6	Internal	States	53
	2.7	Scope of	f Physics	55
		2.7.1	What Physics Does and What It Does Not Need	
			То Do	55
		2.7.2	Physics and Other Perspectives: Second Look	56
	2.8	Mathem	atical Notes	59
		2.8.1	Schrödinger Equation	59
		2.8.2	Ground State of the Electron of the Hydrogen Atom	59
		2.8.3	Two-Body System	60
		2.8.4	Miscellaneous	61
3	Fron	Solf-Ore	ganizing Systems to Pattern Formation Systems	63
5	3.1	-	cation of Systems	63
	5.1	3.1.1	Thingbeings	63
		3.1.2	Self-Organizing Systems	65
		3.1.2	Pattern Formation Systems	66
	3.2	• • • • •	ransitions and Bifurcations	67
	5.2	3.2.1	About Jumps and Kinks	67
		3.2.2	Bifurcation Parameters and Bifurcation Points	70
		3.2.3	Examples of Phase Transitions and Bifurcations	71
		3.2.4	Not a Bifurcation	75
		3.2.5	Strong and Weak Categories: Physics Perspective	76
		3.2.6	How to Decide? Critical Phenomena	77
	3.3		d Time	78
	5.5	3.3.1	State and State Space	78
		3.3.2	Time and Dynamical Systems	79
		3.3.3	Phase Portrait	79
	3.4		rs and Repellors: A First Look	81
	5.4	3.4.1	Single Variable Case	82
		3.4.2	Two Variables Case	83
		3.4.3	Limit Cycle Attractors	86
		3.4.4	General Attractors and State Spaces	87
		3.4.5	Globally Stable Systems	88
	3.5		ions and Pattern Formation Systems: A Second Look	88
	5.5	3.5.1	Definition of Bifurcations	88
		3.5.2	Two Types of Bifurcation Diagrams	89
		3.5.3	Definition of Pattern Formation Systems Revisited	92
		5.5.5	2 channel of a week a channel of books to hold a channel	72

3.6		natical Notes	93
	3.6.1	Definition of Fixed Points, Attractors, and Repellors	93
	3.6.2	Globally Stable Systems: Definition and Example	95
	3.6.3	Limit Cycle Attractor Example:	
		The Canonical-Dissipative Oscillator	96
	3.6.4	Miscellaneous	97
Patte	rn Form	ation	99
4.1	Fixed P	oint, Attractor, and Repellor Patterns	100
4.2	Basis Pa	atterns, Eigenvalues, and Pattern Amplitudes	103
	4.2.1	Discrete Pattern Formation Systems	103
	4.2.2	Amplitude Space	109
	4.2.3	Spatially Extended Pattern Formation Systems	109
	4.2.4	The Human Body and the Scale of Patterns	111
	4.2.5	Interim Summary and a Second Look at Attractors	
		and Repellors	112
4.3	Ampliti	ude Equations	113
	4.3.1	Bifurcations of Two Variable Systems Involving	
		a Single Positive Eigenvalue	113
	4.3.2	Dominance of Unstable Patterns Over Stable	
	1.5.2	Patterns and Order Parameter Concept	116
	4.3.3	Derivation of Amplitude Equations	117
	4.3.4	Reduced Amplitude Space	117
	4.3.5	Dominance of Unstable Patterns Over Stable	117
	4.5.5	Patterns: A Second Look	119
	4.3.6	Bifurcations for Multi-Variable Systems Involving	119
	4.5.0	a Single Positive Eigenvalue	119
	4.3.7	Outstanding Properties of Unstable Basis Patterns	119
	4.3.7	e .	120
	120	and Order Parameters	120
	4.3.8	Dynamics of Unstable Amplitudes and Order	100
	D. //	Parameter Amplitudes	122
4.4		Formation in Reduced Amplitude Spaces	104
		veral Amplitudes	124
	4.4.1	Symmetric Systems with Homogeneous Groups	
		of Positive Eigenvalues	125
	4.4.2	Asymmetric Systems with Inhomogeneous Groups	
		of Positive Eigenvalues	128
4.5		Volterra-Haken Amplitude Equations	131
	4.5.1	Model Components	132
	4.5.2	Model Parameters	134
	4.5.3	Lotka-Volterra-Haken Model and Human Pattern	
		Formation Reaction Model	134
	4.5.4	Lotka-Volterra-Haken Model and Attractor Patterns	135
	4.5.5	Two Examples	135

	4.6	General	Properties of the Lotka-Volterra-Haken Model	138
		4.6.1	Determinism and the Shoe Example Revisited	138
		4.6.2	Haken's Principle for Winner-Takes-All Dynamics	140
		4.6.3	Stability Band	143
		4.6.4	Degree of Multistability and Eigenvalues	
			as Pumping Parameters	146
		4.6.5	Stationary Amplitudes and Eigenvalues	146
		4.6.6	Stationary Amplitudes and Nonlinearity Exponent	148
		4.6.7	Model Parameters Revisited	149
	4.7	Mathem	natical Notes	150
		4.7.1	Fixed Point, Attractor, and Repellor Patterns	150
		4.7.2	Eigenvalues, Eigenvectors, Eigenfunctions,	
			and Amplitude Space	151
		4.7.3	Eigenvalue Characterization of Fixed Point	
			Attractors and Repellors in Arbitrary Dimensions	152
		4.7.4	Formal Derivation of Amplitude Equations	153
		4.7.5	Reduced Amplitude Equations: Cases I, II, III	154
		4.7.6	Dependencies of Stable and Unstable Amplitudes	157
		4.7.7	Lotka-Volterra-Haken Amplitude Equations	160
		4.7.8	Mathematics of the Stability Band	161
		4.7.9	Mathematics of Attractor Patterns	162
		4.7.10	Nonlinearity Exponent and Quantitative Aspects	
			of Winner-Takes-All Fixed Points	163
5	Hum	an React	ions	167
5			ions d Second Laws	167 168
5	Hum 5.1		d Second Laws	168
5		First and 5.1.1	d Second Laws First and Second Laws of Classical Mechanics	
5		First an	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal)	168
5		First and 5.1.1 5.1.2	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation	168 168
5		First and 5.1.1 5.1.2 5.1.3	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems	168 168 169
5	5.1	First and 5.1.1 5.1.2 5.1.3	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation	168 168 169 174
5	5.1	First and 5.1.1 5.1.2 5.1.3 Classes	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex	168 168 169 174 174
5	5.1	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body	168 168 169 174 174
5	5.1	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex	168 168 169 174 174 174
5	5.1	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns	168 169 174 174 174 174
5	5.1	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation	168 169 174 174 174 174
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction	168 169 174 174 174 174 177 181 182
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces	168 169 174 174 174 174 177 181 182
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces Attractor Patterns as Reactions to Forces, Objects,	168 169 174 174 174 174 177 181 182 187
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human 5.4.1	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces Attractor Patterns as Reactions to Forces, Objects, and Events	168 169 174 174 174 174 177 181 182 187
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human 5.4.1 5.4.2	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces Attractor Patterns as Reactions to Forces, Objects, and Events Attractor Patterns Specific to Produced Forces	168 169 174 174 174 174 177 181 182 187
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human 5.4.1 5.4.2	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces Attractor Patterns as Reactions to Forces, Objects, and Events Attractor Patterns Specific to Produced Forces Skinner's Perspective and Patterns Specific	168 169 174 174 174 174 177 181 182 187 190
5	5.15.25.3	First and 5.1.1 5.1.2 5.1.3 Classes 5.2.1 5.2.2 5.2.3 Basins of Human 5.4.1 5.4.2 5.4.3	d Second Laws First and Second Laws of Classical Mechanics First and Second Laws of (Human and Animal) Pattern Formation First and Second Laws of Dynamical Systems of Human Pattern Formation Systems Classes and Subclasses Ax to Ex Brain Activity Patterns and Brain and Body Activity Patterns Neuroanatomy and Pattern Formation of Attraction Reactions to Forces Attractor Patterns as Reactions to Forces, Objects, and Events Attractor Patterns Specific to Produced Forces Skinner's Perspective and Patterns Specific to Produced Forces	168 169 174 174 174 174 177 181 182 187 190

	5.4.5	Neuroanatomically Defined But Not Further	
		Specified Attractor Patterns	192
	5.4.6	Failure of One-to-One Mappings Between Patterns	
		and Forces	192
	5.4.7	Physical Systems React to Forces But Do Not	
		Have "Representations" of Forces: Why Humans	
		Have as Much "Representations" as Billiard Balls	195
5.5	Brain A	Activity Dynamics of Human Isolated Systems	197
5.6	Mather	natical Notes	199
	5.6.1	Single Particle Movement: Under the Impact	
		of External Forces and Isolated Case	199
	5.6.2	First Law of Human Isolated Systems	200
	5.6.3	Second Law: Pattern Formation Systems Under	
		External Forces	200
	5.6.4	The Fundamental Systems Class A1	201
	5.6.5	Two Fundamental Mechanisms Leading	
		to Structural Changes	201
Datta	un Four	nation of Ondinamy States	203
6.1		nation of Ordinary States	203
0.1	-	stems	204
	6.1.1	Emergence of Single Attractor Patterns	204
	6.1.2	External and Internal Forces Produced by Attractor	204
	0.1.2	Patterns	208
	6.1.3	Supplementary Pattern Components and Stable	200
	0.1.5	Basis Pattern	209
	6.1.4	Type 1 Pattern Sequences and Cycles	210
6.2		Formation Involving Muscle Force Production: B1	210
0.2			213
6.3	-	s As Reactions to External Forces Inducing Initial	215
0.5		ions: B2 Systems	214
	6.3.1	Reactions to Objects	
	6.3.2	Reaction Patterns	217
	6.3.3	Multistable, Winner-Takes-All Human Pattern	217
	0.5.5	Formation Systems Subjected to Several Forces	217
	6.3.4	Multistability, Winner-Takes-All Dynamics,	217
	0.3.4	and "Selective Attention"	226
	6.3.5	Moving Dots Brain Activity Patterns in Monkeys	
6.4		on Patterns Involving Force Production to External	220
0.4		: B and D Systems	230
	6.4.1	Shoe Example Revisited Again: B1, B3, D1	250
	0.4.1	Systems Approach	230
	6.4.2	Why Physical Systems Do Not Make "Decisions"	230
	6.4.3	Reactions of Tolman's Rats to Mazes	232
	0.4.3	Nearmons of Tonnan's Rais to Wazes	233

8

	6.5	Reactio	on Patterns to Forces That Change Structure: D Systems	236
		6.5.1	Categorical Reactions to Objects About Force	
			Production	237
		6.5.2	X0 and X2 System BBA Patterns and "Judgments"	241
		6.5.3	Hysteresis, Bistability, and the Human Pattern	
			Formation Reaction Model for Hysteresis	242
		6.5.4	Examples of Human Hysteretic Systems	248
		6.5.5	Relational Character of Bifurcation Parameters	257
		6.5.6	Bifurcation Parameters and "Information Variables"	262
	6.6	Mather	matical Notes	264
		6.6.1	LVH Model of Type 1 Sequences	264
		6.6.2	Formation of Winner-Takes-All BBA Patterns	
			in Reactions to Several Objects	264
		6.6.3	Event-Related/Force-Induced Brain Activity:	
			Pattern Formation Perspective	267
		6.6.4	Human Pattern Formation Reaction Model	
			for Reactions with Positive Hysteresis	268
7	Patte	rn Forn	nation of Grand States	271
•	7.1		inary Remarks	272
		7.1.1	Type 2 Pattern Sequences and Cycles	272
	7.2		nics of Isolated Human A2 Systems	273
		7.2.1	Type 2 Pattern Sequences in A2 Systems	273
		7.2.2	Hierarchical Structures in Self-organizing Systems	2.0
		1.2.2	and Freud's Concepts of "Consciousness",	
			"Unconsciousness", and "Drive"	276
		7.2.3	Physics Perspective Versus Freud's	270
		1.2.5	Psychoanalytical Goal to Become "Master	
			of Your Life"	280
	7.3	Dattern	Formation Involving Force Production Neglecting	200
	1.5		al Forces: C1 Systems	281
		7.3.1	The Lonely Speaker	281
		7.3.1		283
		7.3.3	Freud's Slips of the Tongue	285
	7 4		Child Play	
	7.4		as as Reactions to External Forces in C2 and C3 Systems	288
		7.4.1	Emerging Patterns Increasing Eigenvalues:	
			State-Induced Restructuring and	200
			"Retrieval-Induced Forgetting"	289
		7.4.2	Emerging Patterns Decreasing Eigenvalues: From	207
			Scene Decomposition to "Functional Fixedness"	295
		7.4.3	Oscillatory Human Reactions to the Visual World:	
			Emerging Patterns Decreasing Eigenvalues in	
			Bistable Systems	303
		7.4.4	Pattern Formation in C3 Systems: A Second Look	
			at Tolman's Rats	309

7.5	Pattern	Formation of Grand States in D1 and D3 Systems	312
	7.5.1	Pattern Sequences of D and E Systems That	
		Cannot Be Produced by A,B,C Systems	312
	7.5.2	"Travel Light" Hypothesis or the Hypothesis	
		of Life Determined by Environment-Body	
		Interaction Forces	314
	7.5.3	Physics Versus "Tacit Knowledge" and "Embodied	
		Cognition"	315
	7.5.4	Skinner's Three Components Model as a D1, D3,	
		E1, or E3 System	315
	7.5.5	Brain Activity Patterns as Reactions to Moving	
		Dots: A Second Look	319
7.6	E1/E3 S	Systems and Negative Hysteresis	321
	7.6.1	Positive and Negative Hysteresis	321
	7.6.2	Experimental Studies on Negative Hysteresis	326
	7.6.3	The Human Pattern Formation Reaction Model	
		of Negative Hysteresis	330
7.7	Summa	ry: LVH Model and Structural Dynamics	338
7.8	Mathen	natical Notes	339
	7.8.1	Mathematics of Type 2 Pattern Sequences	
		in C1 Systems	339
	7.8.2	Scene Decomposition in C2 Systems	341
	7.8.3	LVH Limit Cycle Oscillators in A2, Cx, D1, D3,	
		and Ex Systems	342
	7.8.4	Mathematics of Further C2 and C3 Systems	343
	7.8.5	Mathematical Considerations on D Systems	343
	7.8.6	Mathematics of the Human Pattern Formation	
		Reaction Model for Negative Hysteresis	344
	7.8.7	Positive and Negative Hysteresis Models	346
Patter	rn Form	ation and Continuous Reactions	347
8.1		nental Designs in Human Subjects Research:	-
	-	ics Perspective	347
	8.1.1	Experimental Designs	347
	8.1.2	Physics Perspective: Illustration for Stretching	
		Rubber Strings	350
8.2	Continu	ous Observables of Pattern Formation Systems	352
		Continuous Observables	352
	8.2.2	Pattern Amplitudes	354
8.3	Pattern	Formation Perspective of Experiments in Human	
		s Research	356
	8.3.1	Limit Cycle Oscillator Example	356
	8.3.2	Differences Within and Between Pattern Categories	358
	8.3.3	On a Fundamental D0/D1 System Mechanism:	
		IV-DV Relationships	358
		-	

	8.4	Stevens	' Psychophysical Power Laws	362
	8.5	Further	Applications	364
		8.5.1	Confidence Ratings	364
		8.5.2	Oxygen Consumption in Gait Transitions Close	
			to Walk-Trot Transitions	366
		8.5.3	Example from "Social" Psychology: Malicious	
		01010	Pleasure (Schadenfreude)	368
	8.6	Mathem	natical Notes	370
	0.0	8.6.1	Shape of IV-DV Cause-and-Effect Relationships	
		8.6.2		570
		0.0.2	Psychophysic Power Laws of Human Pattern	271
			Formation Systems	371
9	Restr	ucturing	Humans and Animals	375
	9.1		turing Brains by Paired Forces and "Classical	
			oning" Experiments	375
		9.1.1	Component-Shift Model	
		9.1.2	Eigenvalue-Shift Model	
	9.2		turation in E1 Systems, "Operant Conditioning",	505
	9.2		sinforcement"	384
	9.3			388
			Look at Tolman's Experiments with Animals	200
	9.4		earning", "Forgetting", and "Knowledge" Are	20.4
			ssary Concepts	394
		9.4.1	The "Learning" Seesaw	394
		9.4.2	Who Says That the Air over the Atlantic Ocean Is	
			"Learning" and "Forgetting"?	396
		9.4.3	Why Brain Activity Patterns Are Not Neural	
			Correlates of "Knowledge"	
	9.5		natical Notes	402
		9.5.1	Mathematics of Dual-Forces C3 System	
			Restructuration	402
		9.5.2	Mathematics of Reward-Induced E1 System	
			Restructuration	404
10	A 14		n Clinical Developer	407
10			n Clinical Psychology	407
	10.1	•	ical Diseases	407
		10.1.1	Disease Development, Therapy, and Relapse	407
		10.1.2	Risk Factors	408
		10.1.3	Dynamical Disease Scenarios	408
		10.1.4	Smoking Addiction and the Mystic Concepts	
			of "Decision Making" and "Vitalism"	411
	10.2	Disease	s as Categories and Disease Definition: Physics	
		Perspec	tive	412
	10.3		Disorder (BD)	412
		10.3.1	BD as a Dynamical Disease	412
		10.3.2	Structural Oscillation Hypothesis	413
		10.3.3	Disease Development and Therapy: Cellular Level	417

		10.3.4	BD Pattern Formation Model: Amplitude Equations	418
		10.3.5	Disease Development and Therapy: Amplitude	
			Equations	421
		10.3.6	Relapse Due to Medication Non-adherence	422
	10.4	Obsess	ive Compulsive Disorder (OCD)	423
		10.4.1	Pattern Formation Perspective of OCD	424
		10.4.2	Type 2 Pattern Sequences with "Directional"	
			and "Non-directional" Transitions and Rituals	425
		10.4.3	OCD Rituals	427
		10.4.4	OCD Ritual Simulations	428
		10.4.5	OCD and the Human Emotional System	430
		10.4.6	OCD as Dynamical Disease	432
	10.5	Schizoj	phrenia	433
		10.5.1	Medical Hypothesis	433
		10.5.2	"Perceptual Inflexibility" Under Schizophrenia	435
		10.5.3	Motion-Induced Blindness Under Schizophrenia	442
		10.5.4	Instruction-Induced "Recognition Failures"	444
		10.5.5	Proximity Principle Under Schizophrenia	447
		10.5.6	Concluding Remarks	451
	10.6	Further	• Applications	453
		10.6.1	Motivation and Depression	453
		10.6.2	Expressing Emotions to Cope with Stress and Cancer	455
	10.7	Mather	natical Notes	456
		10.7.1	OCD Rituals as Type 2 Sequences	
			with "Directional" Transitions	456
		10.7.2	Model-Based Analysis of Human Reactions Under	
			Schizophrenia	459
		10.7.3	LVH Oscillator Model for Reward-Related Animal	
			Body Dynamics	464
11	Life '	Fraiecto	ries and Pattern Formation Sequences	467
	11.1		Formation Sequences of a Single Day	467
	1 1	11.1.1	An Example	467
		11.1.2	Sequences of the Awake, Dreaming,	107
		11.1.2	and Hallucinating Individual	471
	11.2	Life Tr	ajectories	471
	11.2		ories of Two People Systems	473
	11.5		Hierarchical Patterns and Haken's Order Parameters	475
		-		
12	Ethic	s "Beyo	nd" Physics	479

13	Арре	ndix	. 483		
	13.1	Key Concepts of the Physics Perspective	483		
	13.2	Unnecessary Concepts Within the Physics Perspective	485		
	13.3	My Bifurcations	494		
Ref	erence	S	503		
Ind	ex		519		