TABLE OF CONTENTS

	ACKNOWLEDGEMENTS	vii
1.	INTRODUCTION	1
	1. Concept Explication	1
	2. Objectives and Survey	4
2.	COGNITIVE RATIONALITY	8
	1. On the Explication of the Concept of Rationality	8
	2. Cognitive Rationality and Patterns of Expectation	10
	3. Inductive Reasoning and Inductive Probability Theory	12
3.	LOGICO-MATHEMATICAL PRELIMINARIES	16
	1. Logical Vocabulary	16
	2. Set-theoretical Vocabulary	17
	3. Some Elements of Probability Theory	19
4.	FORMALLY RATIONAL EXPECTATION IN A PARADIGMATIC Context	24
	1. Paradigmatic Contexts	24
	2. Two Conditions for Rational Expectation	25
	3. A Framework for a Paradigmatic Context	27
	4. First Analysis of a Rational Expectation Pattern	29
	5. A Framework for a Paradigmatic Context (continued)	33
	6. Third Formal Condition for Rational Expectation	35
	7. Decidable Contexts	36

5.	GEI	NERALIZED CARNAPIAN SYSTEMS	38
	1.	Introduction	38
	2.	Constitutive Principles and Definition of GC-systems	38
	3.	General Analysis of GC-systems	44
		1. Some Direct Consequences	44
		2. Generalized Special Values	45
		 First Interpretation of GC-systems: the Urn-model (w < ∞) 	46
		4. Mathematical Expectations According to GC-systems	49
		5. Non-inductive $(\lambda = \pm \infty)$ and Extreme-inductive $(\lambda = 0)$ GC-systems	51
		6. Carnapian Systems (C-systems)	52
	4.	Analysis of Positive Inductive GC-systems ($0 < \lambda < \infty$)	54
		1. Possible Reformulations	54
		2. Generalized Special Values as Weighted Means	56
		3. Second Interpretation of GC-systems: Repeated Experiments Governed by a Density-function $(w < \infty)$	57
		 Principle of Structural Indifference (w < ∞): C*-systems (λ = w) 	59
	5.	Analysis of Negative Inductive GC-systems ($\lambda < 0$)	61
		1. Possible Reformulations	61
		2. Generalized Special Values as Weighted Means (continued)	62
		3. Hypergeometric Systems	64
	A	opendix to Section 2 (Proof of T2)	66
6.	HIN	NTIKKA AND UNIVERSALIZED CARNAPIAN SYSTEMS	71
1. Introduction			
	2.	NH-systems	71
	3.	Hintikka-systems (H-systems)	75
	4.	Some Fundamental Properties of H-systems	79

х

	5.	An Urn-model for H-systems	82
	6.	The Equivalence of NH- and SH-systems: Universalized	
		Carnapian systems (UC-systems)	83
	7.	Analysis of UC-systems	90
		1. General	90
		2. Structurally Indifferent UC-systems: UC*-systems	02
		($\rho = 1$) 3. Extreme UC-systems: $\rho = \infty$, $\rho = 0$	93 94
	8.	Fundamental Discussion Related to Applications	96
	9.	Finite Parameters for H-systems	99
	10.	Reformulation of H-systems; $k \rightarrow \infty$	101
	11.	GH-systems and GUC-systems	104
	12.	Survey of Systems	106
	Ap	pendix to Section 2 (Proof of T1)	109
7.	R A'	TIONAL EXPECTATION IN MULTINOMIAL CONTEXTS	112
	1.	Carnap's Intended Application	112
	2.	The Multinomial Context	114
	3.	Formally Rational Patterns for Open Multinomial Contexts	116
	4.	Material Conditions of Adequacy; UC-systems as	
		Expectation Pattern for Open Multinomial Contexts	117
	5.	Constitutional Distributions for Open Multinomial Contexts	123
	6.	The Hypergeometric Context	127
8.	SON	ME PROBLEMS AND RELATED TOPICS	129
	1.	PER-systems	129
	2.	On Weakening WPERR	131
	3.	*UC*-systems and $k \to \infty$	132
	4.	Confirmation Theory	133
	5.	Falsification	135
	6.	Rules of Acceptance in UC-systems	136

9. CONCLUDING REMARKS	139
REFERENCES	141
INDEX OF NAMES	143
INDEX OF SUBJECTS	144
Recurring Symbols	145
Conditions/Principles/Axioms	145
Definition of Systems	145