

# CONTENTS

PREFACE . . . . .	v
ACKNOWLEDGEMENTS . . . . .	xi

## 1: Introduction

I Historical Background . . . . .	1
II Methods, Procedures, and Definitions . . . . .	3
III Theoretical Analysis . . . . .	6

## 2: Classical Conditioning: Basic Operations

I Basic Phenomena of Classical Conditioning . . . . .	8
II Categories of Conditioning . . . . .	16
III Parameters of Conditioning . . . . .	41
IV Summary . . . . .	75

## 3: Classical Conditioning: Theoretical Analysis

I Introduction . . . . .	78
II The Elements of Association . . . . .	78
III The Conditions of Association . . . . .	91
IV Theory of Reinforcement in Classical Conditioning . . . . .	98
V The Relationship between Classical Conditioning and Instrumental Learning . . . . .	124
VI Summary . . . . .	140

## 4: Instrumental Learning: Basic Operations

I Introduction and Definitions . . . . .	143
II Basic Phenomena . . . . .	146
III Parameters of Instrumental Learning: Single Responses . . . . .	150
IV Free-operant Schedules of Reinforcement . . . . .	164
V Parameters of Instrumental Learning: Choice Behaviour . . . . .	182
VI Summary . . . . .	195

## **5: Theoretical Analysis of Appetitive Instrumental Learning: Incentive, Conditioned Reinforcement and Frustration**

I Law of Effect: Empirical and Theoretical . . . . .	197
II The Elements of Association in Instrumental Learning . . . . .	198
III Incentive Theory . . . . .	222
IV Conditioned Reinforcement . . . . .	233
V Inhibition in Appetitive Instrumental Learning: Frustration Theory . . . . .	259
VI Summary . . . . .	268

## **6: Instrumental Learning: Avoidance and Punishment**

I Introduction . . . . .	271
II Background to the Study of Punishment . . . . .	272
III Theories of Punishment . . . . .	277
IV Empirical Evaluation of Theories of Punishment . . . . .	282
V The Study of Avoidance Learning . . . . .	299
VI Theoretical Analyses of Avoidance Learning . . . . .	301
VII Issues in the Study of Avoidance Learning . . . . .	310
VIII Summary . . . . .	345

## **7: Contrast Effects: Interactions between Conditions of Reinforcement**

I Introduction . . . . .	348
II Transient Contrast Effects . . . . .	354
III Transient and Permanent Contrast Effects . . . . .	367
IV Positive Behavioural Contrast . . . . .	371
V Simultaneous and Successive Negative Contrast . . . . .	387
VI Summary . . . . .	402

## **8: Extinction**

I Theories of Extinction . . . . .	405
II Variables Affecting Extinction: Constant Acquisition Conditions . . . . .	419
III Extinction after Variable Conditions of Reinforcement . . . . .	434
IV Changes in Performance Over Time . . . . .	468
V Summary . . . . .	481

## **9: Generalization**

I Generalization and Generalization Gradients . . . . .	484
II The Theoretical Analysis of Generalization . . . . .	485

III Problems of Measuring Generalization . . . . .	490
IV Discrimination Training and the Suppression of Incidental Stimuli . . . . .	498
V Some Variables Affecting the Slope of Excitatory Gradients . . . . .	514
VI Inhibitory Gradients of Generalization . . . . .	525
VII Interactions between Gradients . . . . .	531
VIII Summary . . . . .	539

## **10: Discrimination Learning**

I Introduction . . . . .	543
II The Nature of the Response in Discrimination Learning . . . . .	544
III The Nature of the Effective Stimuli in Spatial Discriminations . . . . .	553
IV The Effective Stimuli in Visual Discriminations . . . . .	556
V Discriminations with Redundant Relevant Stimuli: Selective Learning and Control . . . . .	570
VI Transfer Effects in Discrimination Learning . . . . .	589
VII Summary . . . . .	616
REFERENCES AND AUTHOR INDEX . . . . .	621
SUBJECT INDEX . . . . .	711