LOGIC, INDUCTIVE AND DEDUCTIVE; AN INTRODUCTION TO SCIENTIFIC METHOD

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Logic, Inductive and Deductive; An Introduction to Scientific Method by Adam Leroy Jones

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ADAM LEROY JONES

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LOGIC

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AN INTRODUCTION TO SCIENTIFIC METHOD

BY

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PREFACE

THIS book is intended as a text-book and not at all as a contribution to logical theory. It aims to present an outline of scientific method as briefly and as concretely as possible. It is not designed to serve as an introduction to general philosophy. Its chief claim to novelty is in the arrangement of the subject matter. The traditional arrangement in which the deductive processes are presented first usually leaves with the student the impression that method is chiefly deduction, and that there is no very close connection between this and the rest of subject. The arrangement, which is here adopted, was selected on pedagogical grounds and not in the interests of any epistemological theory.

The justification for dogmatic statements on disputed points is also pedagogical. Argument on such points in a text-book usually fails to interest the student and often tends to make him think that the whole subject is in an uncertain state and mostly a matter of opinion. Some subjects are treated much more briefly than they deserve, but I wished to keep them in due proportion with the rest.

Fallacies are first discussed along with the processes with which they are connected, but they are all brought together in a later chapter. Many of the exercises are new, but I have also drawn freely from other text-books. The longer exercises at the end of the book give the student an opportunity to bring to bear al-

most the whole of scientific method, and for this reason they seem to me to be very important.

My indebtedness to Jevons, Hyslop, Mill, and Bowley will be obvious. I owe much to Aikins' Principles of Logic; his broader treatment of many topics and his chapters on Testimony, Averages, Statistics, etc., were very suggestive. Sidgwick's The Use of Words in Reasoning, Creighton's treatment of the Figures of the Syllogism in his Introduction to Logic, Hibben's use of the idea of system in his Logic and Cramer's The Method of Darwin, were also suggestive. I have tried to give credit in each case in which I am conscious of having borrowed.

I am much indebted to three of my former colleagues in Princeton University: to Professor W. T. Marvin for going over the whole of the copy and giving me much useful advice, and to Professors W. H. Sheldon and E. M. Rankin for assistance with the proof; and to my colleagues, Professors Woodbridge and Montague, for many valuable discussions of logical problems.

A. L. J.

NEW YORK, *April*, 1909.

CONTENTS

PART I

AN OUTLINE OF SCIENTIFIC METHOD

CHAPTER I

INTRODUCTORY

PAGE

Science and Common Sense—Induction and Deduction included in Scientific Method—The Beginning of knowledge—Natural Sciences and others—The Sources of Knowledge, Direct and Indirect—Organizing knowledge—Classification as a preliminary step—Language as a necessary instrument—Further steps in organized knowledge—What is presupposed? 1

CHAPTER II

FIRST STAGES IN KNOWLEDGE

Facts and the ways in which they are known—Perception and what it includes—Indirect means to knowledge of facts 13

CHAPTER III

CLASSIFICATION

Types of Classification—Division—Requirements of Classification 32

CHAPTER IV

THE USE AND MISUSE OF WORDS

Discrimination, Conception, Abstraction—Necessity for Language—Terms—Kinds of Terms—Definition—Defects of Definitions 45

PAGE

CHAPTER V

PROPOSITIONS

Kinds of Propositions—Propositions and Terms—The Relation of Subject and Predicate—The Distribution of Terms in a proposition—Euler's Method—Ambiguous Propositions 66

CHAPTER VI

INDUCTION

Generalization and what it includes—Causal Connection—Testing Inductive inferences—Complete Enumeration—How Generalizations are verified—Observation and Analysis are pre-supposed—Postponing inference till test conditions are present—The Inductive Methods. . . 79

CHAPTER VII

VERIFICATION AND DEDUCTION

Verification and Deduction—Systematic Knowledge—How propositions are related to each other—Relations of Opposition among propositions which have not identical terms—Conversion—Obversion—Contraposition . . . 110

CHAPTER VIII

THE SYLLOGISM

The Principles of Syllogistic Reasoning—The First Figure and its Principles—The Second Figure—The Third Figure—The Fourth Figure 126

CHAPTER IX

TRADITIONAL TREATMENT OF THE SYLLOGISM

Traditional treatment—Moods—Figures—Note on the Reduction of the Moods and Figures 137

CHAPTER X

ABBREVIATED AND COMPLEX FORMS OF REASONING—HYPOTHETICAL AND DISJUNCTIVE SYLLOGISMS

The Enthymeme—Prosyllogism and Episyllogism—The Sorites—Hypothetical Reasoning—Disjunctive Reasoning—More Complex Forms—Extra-syllogistic Reasoning . 151

CHAPTER XI PAGE

I. PROOF AND DISPROOF II. FAILURE TO PROVE

Various Kinds of Proof—Failures to Prove—Fallacies . . 166

GENERAL EXERCISES 177

PART II

SUPPLEMENTARY METHODS

CHAPTER I

STATISTICS

Statistics, their uses and limits—Correlation—The Processes used in Statistical Investigations 189

CHAPTER II

AVERAGES

The Arithmetical Average—The "Weighted" Average—The Mode—The Median—The Geometrical Average—Measuring Deviations from an average—Measurement of phenomena—The Comparison of quantities which cannot be measured 198

CHAPTER III

PROBABILITY

The Meaning of Probability—Deducing the probability of a phenomenon—Dangers to be avoided in interpreting probability 213

SUPPLEMENT TO PART II

The Graphic Method of Representing Data and Their Relations 226

PART III

THE CONSTRUCTION OF SYSTEMS

CHAPTER I

EXPLANATION

What is Explanation? 237

PAGE

CHAPTER II

HYPOTHESIS

What is an Hypothesis?—The Value of Hypotheses—How are Hypotheses suggested to us?—Requisites of a good hypothesis 246

CHAPTER III

TYPICAL SYSTEMS OF KNOWLEDGE

The Geometric System—Others closely related to this—Systems which are more concerned with concrete phenomena—Systems of Historical Facts 257

EXERCISES IN THE EXAMINATION OF COMPLEX REASONING

Professor James's Argument for his Theory of the Emotions—A. H. Fison on "The Evolution of Double Stars"—Huxley on "The Demonstrative Evidence of Evolution" 279