



---

# Social and Cultural Dynamics

VOLUME TWO

## *Fluctuation of Systems of Truth, Ethics, and Law*

---

BY PITIRIM A. SOROKIN

---

AMERICAN BOOK COMPANY

NEW YORK

CINCINNATI

CHICAGO

BOSTON

ATLANTA

DALLAS

SAN FRANCISCO

COPYRIGHT, 1937, BY  
AMERICAN BOOK COMPANY

---

*All rights reserved*

---

SOROKIN, SOCIAL AND CULTURAL  
DYNAMICS, VOLUME TWO

W. P. 1

MADE IN U.S.A.

---

## PREFACE

---

Are there different systems of truth — the truth of faith, the truth of reason, the truth of the senses — and do they fluctuate in their influence and acceptability in the course of time? During which periods in the history of the Graeco-Roman and Western cultures from 600 B.C. to the present has each of these systems risen to importance or suffered decline? What is the dominant contemporary system of truth and how has it come to be dominant?

What has been the movement of discoveries in the natural sciences and of technological invention from 600 B.C. to the present? Which periods have been particularly fertile and which sterile in these respects, and why? Is the movement of discoveries and inventions connected with the rise and fall of the main systems of truth?

Have the main categories of human thought and the “first principles” of science, philosophy, and religion been fluctuating in acceptability and prestige during these twenty-five hundred years; and, if they have, which periods are marked by the domination of which of these categories and principles, and in what form? What is the reason for such dominance? How have the content and meaning of such categories as Causality, Space, Time, and Number been changing, and in which direction is the modification? Have concepts such as Idealism and Materialism, Eternalism and Temporalism, Being and Becoming, Realism and Nominalism, Universalism and Singularism, Determinism and Indeterminism, and many others that lie at the foundation of scientific, philosophical, and other theories, varied in their influence, now one, say Idealism, rising, now its opposite, Materialism, becoming dominant? And if they have varied in influence, when exactly did this take place and why? Have other general scientific and philosophical theories, such as cosmogonic hypotheses, Atomism, Vitalism, Mechanism, also been fluctuating with regard to their acceptability?

Do the main ethical systems, such as that of Absolute Principles, of Hedonism, Utilitarianism, Eudaemonism, fluctuate also in their comparative prestige and currency? If they do, when during the twenty-five hundred years under consideration was each of these systems dominant, and why? Similarly, do the moral codes and mores as they are incorporated in law, particularly in criminal law, also change?

These are the problems dealt with as the first object of this volume. The existence and the nature of long-time fluctuations are studied in the fields of the philosophy, religion, science, ethics, and law of the Graeco-Roman and Western cultures from about the year 600 B.C. Do such waves or fluctuations indeed occur? Which periods during these twenty-five hundred years have been marked by the rise or decline of the various main systems of truth, main competitive principles of science, philosophy, religion, ethics, and law? Is there in these fluctuations any steady tendency toward the disappearance of one of the currents, say of the truth of faith, or idealism, and toward an increase of some other, say of the truth of the senses, or materialism? Or does each of the competitive principles simply fluctuate, now rising, now declining, without any linear trend? Are these fluctuations periodical? The elucidation of these problems is the first task of the present volume.

The second object is to inquire, in conformity with the central idea of the entire work, whether the fluctuations in one compartment of the Graeco-Roman and Western cultures during the centuries involved are connected with fluctuations in their other compartments. Is a change in the system of truth always followed by changes in all the essential principles and theories of science, philosophy, religion, and ethics? Is it followed by analogous transformation in law; in painting, sculpture, architecture, music, literature (see Volume One); in the forms of social relationship, political and economic organization, and in the movement of wars and internal disturbances (see Volume Three)? Is culture a unified system in which a change in one compartment is accompanied by change in all the others? If it is, are all the modifications in all the compartments synchronous? Are they closely bound together? Or do they occur nonsynchronously? If they do not coincide in time, which compartment leads in the change and which lags behind? Is there any uniformity in the time and order of change in the various compartments of culture? What are the reasons for, and factors bringing about (*ratio sive causa*), all these fluctuations? These problems constitute the second task with which the present volume is concerned. And to this extent it deals with the sociology of cultural change, particularly in the fields of philosophy, religion, science, ethics, and law.

In the third place the volume inquires how all these fluctuations are related to the central idea of the whole work, namely, to the fluctuations of Ideational, Mixed, and Sensate types of culture. It aims to show that most of the fluctuations in all the main compartments of culture are but manifestations and component parts of deeper, all-embracing trans-

formations of culture from one type to the others. When a culture passes from, say, the Ideational to the Sensate type, or vice versa, all its art, philosophy, religion, science, ethics, and law undergo the same profound transformation. From this standpoint the volume attempts to demonstrate that what a given society regards as true or false, scientific or unscientific, right or wrong, lawful or unlawful, beautiful or ugly, is conditioned fundamentally by the nature of the dominant culture. In the Ideational culture, Ideational science, philosophy, religion, law, ethics, and art triumph, and their Sensate forms are rejected as false, wrong, unlawful, sinful, heretical, and blasphemous. Contrariwise, in a dominant Sensate culture — such as we are now living in — Sensate forms of science, philosophy, religion, ethics, law, and art become dominant; and their Ideational forms are branded as superstition, prejudice, ignorance, and the like. In this aspect the volume represents a treatise in *Wissenssoziologie*, considered in its basic forms and principles.

The method, the material, the qualifications and reservations, remain the same here as in Volume One, to which the reader is referred for a discussion of them.

The importance of all these matters is evident. I have tried to avoid dealing with them flippantly, casually, fragmentarily, or in spectacular fashion. This volume, and the entire work of which it is a part, contributes something, I hope, to an understanding of the fundamental problems of social thought.

PITIRIM A. SOROKIN

Cambridge — Winchester

---

## CONTENTS

---

### PART ONE

#### FLUCTUATION OF IDEATIONAL, IDEALISTIC, AND SENSATE SYSTEMS OF TRUTH AND KNOWLEDGE (WISSENSSOZIOLOGIE)

*Chapter One.* FLUCTUATION OF IDEATIONAL, IDEALISTIC, AND SENSATE SYSTEMS OF TRUTH AND KNOWLEDGE (QUANTITATIVE) . . . . . 3

I. Ideational, Idealistic, and Sensate systems of truth. Logically Ideational, Idealistic, and Sensate mentalities, to be consistent with their major premises, must have different systems of truth: Ideational, the truth of faith; Idealistic, the truth of reason, organically unified with truth of faith and truth of senses; Sensate, the truth of senses. Factually, all these and many Mixed systems of truth have functioned in the mental history of mankind. So-called "scientific system of truth" is largely the truth of senses; as such, it has not been either a unique or even predominant system of truth. These systems of truth are profoundly different in their nature, subject matter, interests, method, and evidence. II. Fluctuation of the main systems of truth: empiricism, religious and Idealistic rationalism, mysticism, skepticism, fideism in the Graeco-Roman and European cultures from 580 B.C. to A.D. 1920. Are the foregoing propositions corroborated by the relevant facts? Have the main systems of truth fluctuated in influence? Have the periods of domination of Ideational culture been those of truth of faith; of Idealistic culture, those of truth of reason; of Sensate culture, those of truth of senses? Translating these systems of truth into the respective categories of: religious rationalism, Idealistic rationalism, empiricism, criticism, mysticism, fideism, and skepticism, the chapter traces quantitatively the fluctuation of the influence of each of these systems of truth from 580 B.C. to A.D. 1920. Methodological and explanatory preliminaries. Reservations and qualifications. III. Main results. During this period each of these systems of truth has been dominant. Why? Mental spectrum of each period. Comparative power of each of these systems of truth. Truth of faith and atheism. Predominant system of truth of the present time. IV. Corroboration of the propositions in social space. v. Summary.

*Chapter Two.* QUALITATIVE CLARIFICATION OF THE FLUCTUATION OF THE SYSTEMS OF TRUTH AND KNOWLEDGE . . . . . 61

Quantitative results of Chapter One are clarified and amplified by a concise qualitative analysis of the dominant systems of truth in each of the main periods studied. I. Ideational phase of Greek mentality. II. Idealistic phase of Greek thought: Socrates, Plato, Aristotle, and other thinkers of

the period. **iii.** Mixed phase of Graeco-Roman mentality. **iv.** The rising tide of Ideational truth of faith. The greatest mental revolution. System of truth of Christianity. Its struggle against the truth of senses and other Mixed systems of truth. **v.** Truth of faith triumphant. Its characteristics and its monopolistic domination during the Middle Ages. Middle Ages as an age of certainty. **vi.** The Idealistic phase: the end of the eleventh, twelfth, and thirteenth centuries. This period is not so much a climax of the medieval system of truth, as a fundamental deviation from it. Truth of Albertus Magnus, St. Thomas Aquinas, and of great Scholastics as Idealistic system of truth. **vii.** The crisis of the fourteenth and the fifteenth centuries and the *crescendo*, *forte*, and *fortissimo* of the empirical system of truth from the sixteenth to the twentieth century. **viii.** Truth of senses triumphant. Its characteristics. Scientism, quantitativism, objectivism, mechanisticism, cult of technique, imitation of the natural sciences, mentality of the "as if" (*als ob*) illusionism. **ix.** Forebodings. Why and how truth of senses is self-destructive. First signs of its crisis.

*Chapter Three.* MOVEMENT OF SCIENTIFIC DISCOVERIES AND TECHNOLOGICAL INVENTIONS . . . . . 125

**i.** Methodological preliminaries. From the nature of each main type of culture it follows that in Ideational culture natural sciences and inventions are likely to show little progress, while in Sensate culture they should show marked progress, Idealistic culture occupying an intermediary position. Are these logical expectations corroborated by the relevant facts? Materials, sources, and method of the study of the movement of scientific discoveries and inventions from 800 B.C. to the present time. **ii.** General character of the movement of scientific discoveries and inventions. **iii.** Main results. Systems of truth and scientific discoveries. In which branches of science has the increase of discoveries in the Western European world been most marked? Erratically parabolic direction of the movement of discoveries in the life process of a single culture. Erratically undulating movement of discoveries in the world at large, with a rapid rise for the last five centuries. Development in more recent times. Decrease in the rate of increase of discoveries and inventions. Symptoms of fatigue of the present time. Number and qualitative estimation of discoveries and inventions. **iv.** Summary.

*Chapter Four.* FLUCTUATION OF "FIRST PRINCIPLES": I. FLUCTUATION OF IDEALISM AND MATERIALISM . . . . . 181

**i.** Preliminaries. Since the main systems of truth fluctuate in their influence, the first principles of all branches of human knowledge should be expected to fluctuate in their acceptability and influence with the fluctuation of the systems of truth and of the corresponding types of culture. **ii.** Fluctuation in the influence of Idealism, Materialism, and Mixed theories from 580 B.C. to A.D. 1920. **iii.** Main results. Correlation with Ideational and Sensate culture. Is there a linear trend? periodicity? Comparative strength of each current. Variations in patterns of fluctuation. Diversity

of rhythms and beats. Contemporary situation. Rising tide of materialism and Sensate interpretation of man and culture. IV. Corroboration in social space.

*Chapter Five.* FLUCTUATION OF "FIRST PRINCIPLES": II. FLUCTUATION OF ETERNALISTIC AND TEMPORALISTIC MENTALITY . . . . . 211

I. Eternalism, temporalism, and Mixed theories. Their relationship to the main types of culture. Ideational mentality implies eternalistic; Sensate, temporalistic; and Idealistic, intermediary viewpoint. II. Fluctuation of the influence of eternalism, of temporalism, and of the intermediate mentality (580 B.C. to A.D. 1920). III. Main results. Periods of rise and decline in each mentality. Contemporary temporalistic mentality and its aspects: *temporalismus*; "Time is money"; *physicismus*; *biologismus*; *historismus*; cult of evolution, progress, linearism, change, dynamism; overestimation of the specious present and underestimation of the past and the future. Prevalence of short-time view. Clock-time tyranny. Fashion. Modernism. Comparative strength of each current. Corroboration in social space.

*Chapter Six.* FLUCTUATION OF "FIRST PRINCIPLES": III. FLUCTUATION OF THE INFLUENCE OF REALISM, CONCEPTUALISM, AND NOMINALISM 243

I. Preliminaries. Conflict of realism and nominalism was not invented by the Scholastics; it existed before Scholasticism, exists now, and will exist in the future. It is a perennial problem. Its meaning and importance, particularly for the social sciences. Relationship of each of these mentalities to the main systems of truth and culture. Movement of the influence of realism, nominalism, and conceptualism from 580 B.C. to A.D. 1920. II. Main results. As other "First Principles" the influence of each of the currents fluctuates trendlessly. No linear trend; no Spencian evolution. Comparative strength of each current. Contemporary domination of nominalistic mentality and its by-products.

*Chapter Seven.* FLUCTUATION OF "FIRST PRINCIPLES": IV. FLUCTUATION OF THE INFLUENCE OF SOCIOLOGICAL UNIVERSALISM AND SINGULARISM . . . . . 261

I. Main currents in the field. Universalism and singularism are specific varieties of the general problem of realism and nominalism in the field of the social sciences and humanistic disciplines. Society and the individual. Is society the primary reality or is it a derivative reality of its singularistic members? Theoretical and practical importance of the problem. II. Fluctuation of the influence of singularism, universalism, and mystic integralism (560 B.C. to A.D. 1920). III. Main results. In which periods was each current dominant? Why? Relationship to main types of culture and systems of truth. Other reasons. Comparative strength of each current. Contemporary situation. How the dominant singularistic-nominalistic mentality reflects itself in the field of theoretical science and practical social

ethics and affairs. Dominant singularism of contemporary sociology and of the social sciences. Contemporary crisis of nominalistic singularism in science and social conduct.

<i>Chapter Eight.</i>	FLUCTUATION OF "FIRST PRINCIPLES": V. FLUCTUATION OF REALISTIC, NOMINALISTIC, AND MIXED CONCEPTIONS OF THE REALITY OF JURIDICAL PERSONALITY: CORPORATIONS ( <i>Universitas Personarum</i> OR <i>Collegia Personalia</i> ) AND INSTITUTIONS ( <i>Universitas Bonorum</i> OR <i>Collegia Realia</i> ) . . . . .	305
-----------------------	---	-----

I. Main types of conceptions. The problem as a more restricted variety of the general problem of realism and nominalism, universalism and singularism. Its practical importance. II. Fluctuation of the domination of the main conceptions. Greece. Rome. The Middle Ages. Transitional period. After the thirteenth century. The nineteenth and twentieth centuries. Relationship to sociological universalism and singularism. III. Main conclusions.

<i>Chapter Nine.</i>	FLUCTUATION OF "FIRST PRINCIPLES": VI. FLUCTUATION OF THE INFLUENCE OF DETERMINISTIC AND INDETERMINISTIC MENTALITIES . . . . .	339
----------------------	--	-----

I. Determinism and indeterminism. Theoretical and practical importance of the problem. Its perennial character. Its relationship to the main systems of truth and culture. Fluctuation of the influence of each mentality (580 B.C. to A.D. 1920). II. Main results. As other "First Principles," determinism and indeterminism fluctuate in their influence according to the dominant type of culture. Contemporary situation. Weakening of deterministic conceptions at the present time.

<i>Chapter Ten.</i>	FLUCTUATION OF "FIRST PRINCIPLES": VII. FLUCTUATION OF THE LINEAR, CYCLICAL, AND MIXED CONCEPTIONS OF THE COSMIC, BIOLOGICAL, AND SOCIOCULTURAL PROCESSES . . . . .	351
---------------------	---	-----

I. Introductory. The answer to "Whither mankind?" seems also to have been conditioned by the dominant type of culture. II. Domination of the cyclical and trendlessly undulating theories in the Hindu and Chinese (and Babylonian) cultures. III. Fluctuation of the main conceptions in Graeco-Roman and Western cultures. In which periods was each conception dominant and why? Evolutionary linearism in physicochemical, biological, and social sciences of modern times as a consequence of the dominant Sensate culture. IV. The beginning of reaction. Contemporary crisis of "linearism" in science generally and in the social sciences particularly. V. Conclusion.

<i>Chapter Eleven.</i>	FLUCTUATION OF THE BASIC CATEGORIES OF HUMAN THOUGHT: CAUSALITY, TIME, SPACE, NUMBER . . . . .	385
------------------------	--	-----

I. Introductory. If the main thesis of this work is correct, we should expect that, with the fluctuation of the main types of culture, not only would the systems of truth and the "First Principles" fluctuate in their influence

and credibility, but also the basic categories of human thought, such as causality, space, time, number. II. Fluctuation of Ideational, Idealistic, and Sensate conceptions of causality. This category is in a sense common to all mentalities, but in its meaning and content it is fundamentally different in Ideational, Sensate, and Mixed mentalities. Mixed idea of causality among primitive peoples. Chinese Mixed Causality. Hindu Ideational conception of causality. Fluctuation of the conceptions in Graeco-Roman and Western mentalities (580 B.C. to A.D. 1920). Contemporary situation. Crisis of Sensate conception of causality at the present time. Its suicidal immanent trend. III. Fluctuation of Ideational and Sensate conceptions of time. *Aeternitas*, *aevum*, and *tempus*. Periods of domination of each conception from 580 B.C. to A.D. 1920. Modern times. Domination of Sensate temporalistic *tempus*, the mechanistic clock time of modern culture. Its contemporary crisis. IV. Ideational and Sensate categories of space. Their fluctuation in acceptability and credibility. Contemporary crisis of Sensate category of space. V. Ideational and Sensate conceptions of number. Fluctuation of the influence of each conception.

*Chapter Twelve.* FLUCTUATION OF GENERAL AND SPECIAL SCIENTIFIC THEORIES 439

If the systems of truth, "First Principles," and basic categories of human thought fluctuate in their acceptability and influence according to the rise and decline of the main types of culture, various scientific theories of a more or less general nature should fluctuate all the more in credibility and prestige. Each of these should be, like fashion, generally accepted today and rejected tomorrow. The proposition is validated by a study of fluctuation of the influence of several typical theories in the field of the natural and social sciences. I. Fluctuation of atomistic theories (580 B.C. to A.D. 1920). Relationship to the dominant types of culture and systems of truth. Modern materialism, empiricism, nominalism, singularism, and atomism. Contemporary crisis. II. Fluctuation of vitalism and mechanism in biology. III. Fluctuation in the theory of abiogenesis. IV. Oscillations of the theories concerning the nature of light. V. Fluctuation of cosmogonic theories. VI. Some general remarks on the long- and short-time fluctuations of prestige of the natural-science theories. VII. Fluctuation of the influence of Prout's theory. VIII. Fluctuation of theories in the social sciences and humanities. IX. Concluding remarks.

PART TWO

FLUCTUATION OF IDEATIONAL AND SENSATE FORMS OF ETHICAL AND JURIDICAL CULTURE MENTALITY (DYNAMICS OF ETHICAL VALUES)

*Chapter Thirteen.* FLUCTUATION OF IDEATIONAL, SENSATE, AND MIXED SYSTEMS OF ETHICS IN THE GRAECO-ROMAN AND WESTERN CULTURES 479

I. Preliminaries. Every culture has a set of ethical values, though not all reach the stage of development of consistent ethical systems. II. Idea-

tional, Idealistic, and Sensate systems of ethics. Ethics of absolute principles is implied in Ideational mentality, while the relativistic ethics of happiness in its hedonistic, utilitarian, and eudaemonistic varieties is logically demanded by the Sensate mentality. Idealistic mentality occupies an intermediary position. III. Fluctuation of the influence of Ideational, Idealistic, and Sensate systems of ethics (580 B.C. to A.D. 1920). Periods of domination of each system. Its reasons. Growth of ethics of happiness with the rise of the Sensate culture. Ethical Ideationalism of despair and Epicureanism of despair. Contemporary hedonistic-utilitarian ethical mentality, its characteristics and satellites: utility as the supreme category pervading all cultural values from God to science and art; hedonism; money madness; wealth as the measure of all values; contemporary leadership; rule by force and coercion; overestimation of the specious present. Its immanent self-destruction. Signs of reaction against it. IV. Main results.

*Chapter Fourteen.* FLUCTUATION OF ABSOLUTISM AND RELATIVISM, OPTIMISM AND PESSIMISM, IN ETHICOPHILOSOPHICAL THOUGHT . . . 515

- I. Pulsation of the influence of absolutism and relativism. Contemporary relativistic mentality. Its relationship to Sensate culture. Its characteristics, by-products, and self-destruction. Revolt against relativism.
- II. Pulsation of optimism and pessimism. Their Ideational and Sensate forms.

*Chapter Fifteen.* FLUCTUATION OF ETHICOURIDICAL MENTALITY IN CRIMINAL LAW . . . . . 523

- I. Introduction. Law and criminal law as the best reflectors of the changes in mores and ethicojuridical mentality on its daily routine level. Reservations and qualifications. The reasons why criminal law is subjected to detailed study. Method of procedure: 104 forms of actions and relationships as the main fund of criminal actions. Material and codes studied: France, Germany, Austria, Italy, Russia. II. Fluctuations in the size of the class of criminal actions. Number of types of actions qualified as criminal in the Barbaric codes, in the Canon law, and in all the subsequent codes of the countries studied. What are the main changes in this respect from each code to the subsequent code in each country? Connection with the dominant type of culture and ethical mentality. Changes in the post-war criminal codes of Soviet Russia, Fascist Italy, and of the Third Reich. Meaning of these changes. Summary. III. Which types of actions are criminal in all codes studied and which are variable? and to what extent? "Absolute crimes." Their relationship to the "natural law." Underestimation of the uniformity, and overestimation of ethical and juridical relativity, in contemporary theory and practice. IV. Fluctuation of intensity of punishment, from the Barbaric codes to the postwar criminal codes. Does severity of punishment tend to decrease? The data and the answer. Which periods and codes were particularly stern and in regard

to what crimes? Why? Summary. v. Fluctuation of extension and severity of punishment in social life. Law codes do not give an adequate answer to this problem. The main hypothesis and its corroborations. Relationship to the main types of culture and of ethical mentality. Other factors. When and where the severity and quantity of punishment increase and why. Contemporary situation viewed in the light of the hypothesis suggested. Its sinister and promising aspects. Summary. vi. Entr'acte: coefficients of correlation between the variables.

<i>APPENDIXES</i>	633
APPENDIX TO CHAPTER ONE	635
APPENDIX TO CHAPTER FOUR	648
APPENDIX TO CHAPTER FIVE	663
APPENDIX TO CHAPTER SIX	676
APPENDIX TO CHAPTER SEVEN	685
APPENDIX TO CHAPTER NINE	697
APPENDIX TO CHAPTER THIRTEEN	704
<i>INDEXES</i>	713
INDEX OF AUTHORS	715
INDEX OF SUBJECTS	720

### *LIST OF TABLES*

---

1. Indicators of Fluctuation of the Influence in Main Systems of Truth by 20-Year Periods	29
2. Indicators of Fluctuation of Influence in Main Systems of Truth by Century Periods	31
3. Number of Scientific Discoveries and Inventions: Indicators of Empiricism	39
4. Sums of the Indicators of Sociocultural Processes	53
5. Western World Output of Natural Science, Technological, and Geographical Discoveries and Inventions by 100-, 50-, and 10-Year Periods	134
6. Number of Important Scientific, Technologic, and Geographic Discoveries and Inventions, by 10-Year Periods, 1401-1900	136
7. Space Devoted by <i>Encyclopaedia Britannica</i> to Cultural Achievements of Various Countries from 1800 to 1849	143
8. Curve of Scientific Development from 800 B.C. to A.D. 700 by Centuries	148
9. Important Discoveries and Inventions, Distributed by Country of Origin	150
10. Number of Patents Issued in the United States and Great Britain	164
11. Average Annual Rate of Increase of Patenting in United States, 1841-1930	164
12. Number of Patents Issued in Various Fields in the United States from 1846 to 1930	166

13. Number of Fundamental Inventions in the United States from 1846 to 1915	179
14. Indicators of Fluctuation of Idealism, Materialism, and the Mixed Systems, by 20-Year Periods from 580 B.C. to A.D. 1920	185
15. Movement of Idealism, Materialism, and the Mixed Systems, by 100-Year Periods from 600 B.C. to A.D. 1900	188
16. Relative Influence of the Three Major Systems	200
17. Fluctuation of Eternalism and Temporalism from 560 B.C. to A.D. 1920 by 20-Year Periods	221
18. Fluctuation of Eternalism and Temporalism from 600 B.C. to A.D. 1900 by 100-Year Periods	225
19. Comparative Strength of All Eternalisms and All Temporalisms	240
20. Movement of Nominalism, Conceptualism, and Realism from 540 B.C. to A.D. 1920 by 20-Year Periods	252
21. Movement of Nominalism, Conceptualism, and Realism from 600 B.C. to A.D. 1900 by 100-Year Periods	255
22. Currents in Nominalism, Conceptualism, and Realism	259
23. Movement of Singularism, Universalism, and Mystic Unity by 20-Year Periods, 580 B.C.—A.D. 1920	274
24. Movement of Singularism, Universalism, and Mystic Unity by Century Periods, 580 B.C.—A.D. 1920	278
25. Currents in Singularism, Universalism, and Integralism	296
26. Indicators of the Fluctuation of Determinism and Indeterminism from 540 B.C. to A.D. 1920 by 20-Year Periods	342
27. Indicators of the Fluctuation of Determinism and Indeterminism from 600 B.C. to A.D. 1900 by Century Periods	344
28. Indices for Determinism and Indeterminism	345
29. Indicators of the Fluctuation of the Influence of Ethical Systems and Mentality by 20-Year Periods, 580 B.C.—A.D. 1920	486
30. Indicators of the Fluctuation of the Influence of Ethical Systems and Mentality by Century Periods, 600 B.C.—A.D. 1920	489
31. Sum of Indices for Each System for the Specified Period	513
32. Sum of Indices for Relativism and Absolutism for the Specified Periods	518
33. Indicators of Fluctuation of Pessimism and Optimism, 600 B.C.—A.D. 1920	520
34. Sum of Indices for Optimism and Pessimism for the Specified Periods	521
35. Main Codes and Sources	540
36. Common Teutonic Basis of Criminal Law	543
37. Canon Criminal Law	544
38. Fluctuation of the Number of Types of Criminal (Punishable) Actions in the Specified Countries	567
39. Homogeneity of the Total Class of Crimes	570
40. Fluctuation of the Main Tendencies in the Change of Criminal Law from Period to Period	573
41. Values Assigned to the Main Types of Punishment	582
42. Average Punishability of 104 Types of Crimes	584
43. Average Punishability of 28 Types of Crimes for All the Countries Studied by the Main Periods	586
44. Punishment of Comparable Crimes in Two Adjacent Periods	589

*LIST OF FIGURES*

---

1. Fluctuation of the Influence in Systems of Truth by Century Periods . . . . .	32
2. Comparative Intellectual Development of Arabian Civilization, A.D. 700-1300 . . . . .	127
3. Number of Scientific Discoveries and Inventions from 800 B.C. to A.D. 1900 by Centuries . . . . .	137
4. Number of Scientific Discoveries and Inventions from 800 B.C. to A.D. 1900 by Centuries . . . . .	138
5. Number of Scientific Discoveries and Inventions from 1500 to 1900 by 20-Year Periods . . . . .	139
6. Number of Scientific Discoveries and Inventions from 1400 to 1900 by 20-Year Periods . . . . .	140
7. Important Discoveries and Inventions from 700 to 1908 Distributed by Country of Origin . . . . .	141
8. Number of British Patents Granted Annually from 1449 to 1921 . . . . .	168
9. Cole-Eales Data on Literature of Anatomy . . . . .	170
10. Fluctuation of the Main Systems by Their Weight and by 20-Year Periods . . . . .	189
11. Fluctuation of the Three Main Systems by Their Weight and by Centuries . . . . .	190
12. Temporalism, Eternalism, Equilibrium of Both . . . . .	226
13. Movement of Nominalism, Conceptualism, and Realism . . . . .	256
14. Movement of Singularism, Universalism, and Mystic Unity . . . . .	279
15. Fluctuation of Determinism and Indeterminism . . . . .	345
16. Fluctuation of Ethical Currents . . . . .	489
17. Movement of Relativism and Absolutism . . . . .	516
18. Movement of Optimism and Pessimism . . . . .	520
19. Movement of Eight Ideational Variables . . . . .	629
20. Movement of Eight Sensate Variables . . . . .	630

## PART ONE

---

*Fluctuation of Ideational, Idealistic, and Sensate Systems  
of Truth and Knowledge (Wissenssoziologie)*

