TRANSACTIONS OF THE FIFTH
WORLD CONGRESS OF SOCIOLOGY

ACTES DU CINQUIÈME
CONGRÈS MONDIAL DE SOCIOLOGIE

VOLUME I
EDITORIAL NOTE

Contained in this volume are original studies presented in the plenary sessions of the themes on The Sociologists, the Policy-makers and the Public and The Nature and Problems of Sociological Theory.

The Theme, The Sociologists, the Policy-makers and the Public is sub-divided into two parts:

I. Professor A. Sauvy’s introductory essay concentrates on communications between the sociologists and the policy-makers. The national papers presented by Professor D. Ghosh (India), Professor R. Treves (Italy), Dr. A. Vratusa (Yugoslavia) and Dr. R. Weitz (Israel) illustrate concrete examples.

II. Professor E. Hughes’ introductory essay deals with communications between the sociologists and the public and is followed by examples from Latin America (Professor F. Fernandes), The Netherlands (Professor S. Groenman), Poland (Professor J. Hochfeld) and Scandinavia (Professor T. Agersnap).

It is regretted that Professor D. Glass’ paper on communications between sociologists and policy-makers in the United Kingdom was not available in time for inclusion in this volume.

The plenary session devoted to The Nature and Problems of Sociological Theory attempts to define the different types of sociological «explication» and to make an historical survey and estimation of their value. Mr. E. Gellner analyses concepts and society, Professor H. Lefebvre deals with Marx’s thought in sociology, Professor A. K. Saran’s paper criticises positivism in sociology, and certain theses on the role of historical method in the social sciences are explained by Professor P. Sorokin.

One working group for the first theme, and four for the second theme (Historical & Comparative Studies, Functionalism, Marxism and Models and Theory Formation) will use the papers of the plenary sessions as the starting point for their discussions. Some of the short papers of the working groups, together with a report on the proceedings, will be published after the Congress.
AVANT-PROPOS

Ce volume contient des études originales qui seront présentées au cours des séances plénières consacrées aux thèmes «les sociologues, les policy-makers et le public» et «la nature et les problèmes de la théorie sociologique ».


Les exposés qui se rattachent au premier thème majeur feront l’objet de discussions plus approfondies au cours de la journée du 3 septembre; ceux qui se rattachent au deuxième thème formeront le point de départ des discussions de quatre groupes de travail qui traiteront de l’explication historique de la sociologie, des hypothèses fondamentales et des méthodes d’investigation dans la sociologie marxiste contemporaine, des problèmes du fonctionnalisme et enfin du positivisme en sociologie.

Contents

EDITORIAL NOTE ................................................. V
AVANT-PROPOS ................................................ VII

THE SOCIOLOGISTS, THE POLICY-MAKERS AND THE PUBLIC
LES SOCIOLOGUES, LES POLICY-MAKERS ET LE PUBLIC

A. Sauvy, Sociologues et politiques
Exposé introductif ........................................... 3

D. Ghosh, The Sociologist and the Policy-maker in India

R. Treves, Sociologists and Policy-makers in Italy ........ 33

A. Vratusa, The Sociologists and the Policy-makers in Yugoslavia

R. Weitz, Sociologists and Policy-makers
A Case Study of Agricultural Settlement in Israel ........ 59

E. C. Hughes, Sociologists and the Public
Introductory Essay ............................................ 77

T. Agersnap, Sociology and the Public in the Scandinavian Countries

F. Fernandes, Sociologues et grand public au Brésil .. 97

S. Groenman, The Sociologists and the Public
Observations concerning the Dutch Situation ............. 123

J. Hochfeld, Sociology and the Public in Present-day Poland ............................................. 131
THE NATURE AND PROBLEMS OF SOCIOLOGICAL THEORY
LA NATURE ET LES PROBLÈMES DE LA THÉORIE SOCIOLOGIQUE

   Introductory Note ... 147

E. Gellner, Concepts and Society ... 153

H. Lefebvre, Marx et la sociologie
   La pensée de Marx en 1844 ... 185

A. K. Saran, Some Aspects of Positivism in Sociology ... 199

P. A. Sorokin, Theses on the Role of Historical Method in the Social Sciences ... 235
THESES ON THE ROLE OF HISTORICAL METHOD
IN THE SOCIAL SCIENCES

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I. HISTORICAL METHOD AS A PART OF PRACTICALLY ALL METHODS OF THE IDEOGRAPHIC AND NOMOTHETIC SCIENCES

1. By historical data are meant all data that involve the category of time. By sociocultural historical data are understood all sociocultural facts viewed in their time-occurrence.
2. By historical method of study and historical interpretation of sociocultural phenomena are meant all methods and interpretations that use and are based upon utilization of sociocultural historical facts.
3. Viewed so, this method (or interpretation) is possibly one of the most widely used methods in the ideographic as well as the nomothetic sociocultural sciences. Besides being a main method of investigation in a large number of studies, it enters as a part into almost all methods of exploration of sociocultural facts.

II. THE COGNITIVE VALUE AND FUNCTIONS OF THE IDEOGRAPHIC HISTORICAL METHOD

4. a. In the ideographic investigation of unique, unrepeated, sociocultural phenomena — be it a unique person-group-event-institution-cultural object-value-or other individuality — the ideographic variety of historical method is the main method of cognition of especially the «origin, development, and changes» of such a phenomenon throughout its whole existence and in lesser degree of its specific less changeable characteristics — because without a study of its changes.

1 See the definition and analysis of the sociocultural phenomena as three componential phenomena ((physical-vital-meaningful) in difference from one (physical) componential structure of the inorganic and two componential (physical plus vital) structure of the organic phenomena in P. Sorokin, Society, Culture and Personality, ch. 3, New York, 1947. There are also Spanish and Japanese, Hindi, and Portuguese editions of this work.
we often cannot discover which of its traits are changeable and which are comparatively constant or static.

b. In addition to the ideographic knowledge of the life-course of a given unique phenomenon, and of its essential characteristics, the ideographic history delivers to us its vivid and concrete image or a living portrait, which are not given by the nomothetic disciplines.

c. These cognitive functions of the ideographic historical method will explain its use as the main method of ideographic historical science since the ancient times of the earliest chronicles and «histories» of Herodotus up to the «orthodox» ideographic histories of modern historians. Through use of this method «the primitive» *homo sapiens* obtained his earliest cognition of many phenomena important for his well being, activities, and survival. Its more scientific use by the modern historians continues to supply us with indispensable knowledge of the phenomena which appear to us particularly important for our «life, liberty, and pursuit of happiness.»

d. Further on, the ideographic historical data and their configurations once in a while serve as starters or suggesters of the initial ideas of several nomothetic generalisations or formulae of uniformities as illustrated by the works of such ideographic historians as Thucydides, Polybius, Gibbons, Mommsen, F. de Coulanges, M. I. Rostovtzeff, and other eminent historians. Their ideographic study of certain historical phenomena now and then led them to formulation of several nomothetic generalizations scattered throughout their «histories.»

e. Likewise, a detailed study of the concrete circumstances of a singular historical event sometimes led and can lead to a discovery of the significant cases of «the singularistic causality» meaning by it a specific combination of certain conditions explaining the why and how of the occurrence of the singular event studied. In its essentials this procedure is similar to the clinical investigations of the combination of the factors responsible for the illness or state of health of a given patient: correct etiology of his sickness represents in many cases the discovery of the singularistic combination of several variables responsible for the patient's sickness.

f. As a rule however an ideographic study of the unique historical phenomena rarely delivers to us valid nomothetic generalizations or formulae of uniformity. Neither such a study gives a solid basis for predictions of the future course of sociocultural phenomena. In this respect such unique or rarely repeated sociocultural facts are somewhat similar to the microphysical single atoms or elementary particles or to their small aggregations. Many an eminent physicist call
such a world of single or of small aggregations of atoms and particles as "the microcosm of lawlessness," "the realm of discontinuity, uncertainty, and unpredictability." ² For somewhat similar reasons the world of the unique or rare sociocultural phenomena can also be called "the realm of discontinuity, uncertainty and unpredictability."

III. COGNITIVE VALUE AND FUNCTIONS OF HISTORICAL METHOD IN THE NOMOTHEtic SOCIOCULTURAL DISCIPLINES

5. In discovery and formulation of all, including sociocultural, nomothetic generalizations and formulae of uniformities we can distinguish three different stages: a) emergence of the initial idea of generalization or uniformity, b) unfolding and development of this idea in its implications and consequences and c) empirical testing or verification of its validity or correctness. In great scientific discoveries and important achievements in all fields of creativity the initial idea is ordinarily inspired by supra-sensory and supra-logical intuition or genius as the way of cognition and creativity different from sensory observation or logical reasoning, while in mediocre discoveries, inventions, and achievements the initial idea often emerges as a result of sensory observation, logico-mathematical thought or of just a lucky chance. ³ The second stage of unfolding and development of the initial idea of nomothetic generalization or uniformity is ordinarily done through deductive and dialectic logic and "seductive" mathematical inferences and calculations. Finally, the developed hypothesis must be tested by the relevant empirical facts through experimental, statistical and other reliable methods of empirical verification.

In the stage of emergence and development of nomothetic theory historical method does not play an important role (except the infrequent role of a starter or suggester of the initial idea of generalization mentioned above). When however a nomothetic hypothesis reaches the stage of empirical verification, the role of historical method in that stage becomes quite important, often indispensable, no matter whether the nomothetic generalization or uniformity be of

² See on this P. Sorokin, Fads and Foibles in Modern Sociology and Related Sciences, pp. 151 ff. Chicago, 1956. There are French and Spanish translations of this work.
causal, or causal-meaningful, or probalistic, or immanent type. The historical method becomes a part and parcel of practically all methods of testing empirical correctness of a generalizing theory or formula of uniformity.

6. It becomes an important part of a strictly experimental method of investigation of sociocultural phenomena if and when such a method is really applicable. In the terms of J. S. Mill's the experimental induction according to the canon of concomitant variation represents but the defined historical method in its experimental application. Such a canon requires an observation of the variations of the phenomena A and B at different moments or during certain period of time (with other conditions kept constant). Historical method quite frequently enters also the experiments using the inductive canons of identity, difference, and residue. If the experiment deals with the same phenomenon, most of the experimental studies consist in systematic observation of this phenomenon before it is exposed to Factor X and after such an exposure. Then in view of the extreme difficulty of keeping really constant all the other conditions of experimental situation from interference of unknown or unsuspected factors, experimenters usually find it advisable to repeat their experiment several times and at different moments of time. In these and other ways historical method in the defined sense enters almost all experimental studies based upon practically all canons of experimental induction.

7. Still more unavoidable is the use of historical method in pseudo-experimental research typified by a matched comparison of the experimental individual or group or phenomenon with a so-called «control» individual-group-or phenomenon, or by observation (in loosely experimental conditions) of the same person, group or phenomenon before and after exposing them to the variable X experimented with. So long as the «before and after» enter the experiment (and factually they enter almost all pseudo-experimental-psychological, sociological, economic, political and other investigations histo-

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4 Cf. on these forms of uniformities and relationships, rarely distinguished by social scientists, in P. SOROKIN, Fads and Foibles, pp. 151-60 and ch. 11; P. SOROKIN, Society, Culture and Personality, chps 3, 4, pp. 145-46; P. SOROKIN, Sociocultural Causality, Space, Time, chps 1, 2, Durham, 1943.

5 Unfortunately in sociocultural research its applicability is very limited and confined to a study of very narrow and simple psychological and sociocultural variables. Most of so-called «experimental» investigations in these disciplines are pseudo-experimental, having far relationship to the real experimental research. Cf. on that P. SOROKIN, Fads and Foibles, pp. 175 ff.
rical method becomes an essential part of pseudo-experimental procedures.

8. The same is to be said about an establishment of probabilistic (chance) nomothetic uniformities through statistical method. A systematic observation of large aggregations of atoms or of a large number of repeated sociocultural phenomena of the same kind (like deaths, births, marriages, divorces, suicides, crimes, etc., in sociology, perceptions, emotions, associations, and so on in psychology, now and then discloses an existence of certain uniformities in these phenomena and in their relationships to other phenomena (variables). Most of such probabilistic uniformities are not based upon experimental or pseudo-experimental evidence of the existence of causal ties in these phenomena and relationships; neither are they based upon a knowledge of the properties and movement of each single unit of a large aggregation or of a mass of these phenomena. The main basis of chance-uniformities is just the fact of their repeated recurrence "visible" to repeated observation. The probability of the recurrence of such uniformities is respectively measured by the coefficient of probability, that is by the ratio of all the cases where the observed uniformity occurs to the total known number of the occurrences of this phenomenon. The nearer this coefficient is to one the higher is the probability of the recurrence of the uniformity studied and the more certain is the prediction of its recurrence. In a study of probabilistic association and co-variation of two or more phenomena the closeness of their relationship is often measured also — rightly or wrongly — by the various coefficient of correlation, of contingency and by other quantitative indexes designed for that purpose.

For discovery and formulation of these probabilistic uniformities the investigator must often obtain the time series of the occurrences of such mass phenomena. Whether the time series represent the occurrences of the sun spots or meteorological conditions or fluctuation of business conditions or movement of specified morbidity, suicide, deaths, births, marriages, divorces, crimes, wars, revolutions, etc.,

6 In difference from strictly causal or causal-meaningful relationships and uniformities contemporary methodology of physical as well as psychosocial sciences distinguishes probabilistic or chance uniformities based upon an observation of vast aggregations of atoms or particles or of large number of biological, sociocultural and psychological phenomena of the same class. Most of the laws and uniformities of macrophysics are viewed by contemporary physicists as probabilistic (chance) uniformities. And such also are many psychological and sociocultural uniformities.
each of such time series is constructed through application of historical method in the defined sense of this term.

9. a. This probabilistic use of historical method has been one of the main methods for building and testing of a large portion of broad nomothetic generalizations in sociocultural sciences, particularly of the theories of so called factors of various sociocultural phenomena and of their allegedly uniform causal connections. Whether we take the existing generalizing theories of geographic, climatic, biological, demographic, economic, religious, technological, political and other interpretations of sociocultural phenomena as the dependent variables of one of these factors, a large portion of all such theories use historical facts (and historical method) for corroboration of their scientific validity. The same is true in regard to the theories of mutual interdependence of two or more of these «variables» in their causal co-existence and co-variation.  

b. Still greater is the use of such a method in sociological, anthropological, economic and other nomothetic theories dealing with the problems of various sociocultural and psychological trends and «Laws of Evolutions and Progress.» As a matter of fact all such theories and their «laws» are based mainly, sometimes exclusively, upon some sort of historical data allegedly confirming their «laws» of evolution and progress or their hypotheses of various «linear», «spiral», or «branching» social trends.

c. The same can be stated in regard to generalizing theories of sociocultural rhythms, cycles, and periodicities: economic, political, artistic, scientific, religious and others. Almost all such theories are based upon short or long time series of respective phenomena.

d. Historical method represents also one of the main methods of verification of the broadest nomothetic theories and philosophies of history. By this method, combined with its «immanent» variety (see on this variety next paragraph) Plato, Aristotle, and Polybius endeavored to test and confirm their generalizations concerning the main forms and their «immanent» uniform sequences in a change of

7 An overwhelming majority of the generalizing theories of this sort analyzed in P. Sorokin, Contemporary Sociological Theories, New York, 1938, display a use of historical data and method as corroborative evidence.


political regimes, forms of arts, revolutions, wars, mores, types of personality, movement of populations, cycles of the *annus magnus* and other periodical rhythms in historical processes. Essentially the same probabilistic and immanent varieties of historical method are used by G. Vico or Ibn-Khaldun for many generalizations given in their works. In recent times the same procedures are utilized for proving the validity of several nomothetic generalizations given in the works of F. de Coulanges, N. Danilevsky, O. Spengler, A. Toynbee, A. Kroeber, N. Berdyaev, S. C. Northrop, P. Sorokin and other sociologists, historians, anthropologists, and philosophers of history. Having formulated their nomothetic hypothesis and having given sometimes (but not always) some logical reasons for its validity, for its empirical verification all these scholars enumerate and analyze a long or short, complete or incomplete time-series of the relevant historical cases confirming their hypothesis.

10. Finally, historical method finds its wide application in testing and prediction of immanent nomothetic uniformities recurring in the life-course of the unified biological, personal, and sociocultural systems. By systems are meant biological or personal or sociocultural unities, *Ganzheiten*, whose important parts tangibly depend upon one another and upon the whole and the whole system is dependent upon its important parts. In biological systems the ties of this interdependence of the parts and the whole organism may be viewed as of vital-causal nature inherent to the whole organism while in the integrated human personality and sociocultural systems these unifying forces — still not fully known — are of vital-meaningful-causal kind. Such systems sharply differ from mere congeries or heaps of biological, personal, and sociocultural phenomena. The parts of such congeries or heaps do not show any causal interdependence and are «united» only by a mere spatial adjacency 10.

While many sociologists are still not fully aware of the essential difference between sociocultural systems and congeries, modern physicists, holistic biologists and psychologists are cognizant of it and of the deep difference between purely probabilistic uniformities dominant in the world of congeries and immanent uniformities prevalent in the systems. The modern physicists sharply separate the class of the systems from the phenomena of the «lawless microcosm» of single atoms and particles or of their small aggregations as well

10 See a detailed analysis of the profound difference between systems and congeries in P. Sorokin, *Society, Culture, Personality*, chps 3, 4, 8, 17, 18, 35.
as from large aggregations of macrocosmic physical phenomena and their relationships. While the subatomic phenomena display discontinuities, irregularities, and uncertainties; and while the large macrophysical aggregates manifest chance (statistical) uniformities, biological and psychosocial systems, no matter how small an aggregation of atoms they represent, display static and dynamic uniformities quite different from the above two classes. Physicists call these uniformities by terms ranging from «the inner law of direction» (A. Eddington) all the way up to the order determined by a «free will» (M. Planck), by «conscious, voluntaristic decision» (H. Margenau), and by «conscious mind» or Athman, or by the Cosmic Self or Braham (E. Schrödinger).

Schrödinger's analysis of genes and organism clearly shows the difference of the systems from the small congeries and large aggregates of atoms or elementary particles. Genes represent very small aggregations of atoms. As such, genes belong to a microphysical world and should display the discontinuity, uncertainty and «lawlessness» of subatomic phenomena. Instead genes appear to be highly integrated systems. They contain in themselves a «plenitude pattern» or «plenotype» of the respective organism. Even more, they preserve their specific individuality unimpaired from generation to generation of the respective organism. Amidst ever changing environment they carry on their integrity and plenotype, and thereby pre-determine the essential characteristics of an organism. Instead of chaotic «lawlessness», they display orderliness, regularity and predictability for the anatomical, physiological characteristics and for all the main states of the life cycle of the organism. Thus «incredibly small groups of atoms, too small to display exact statistical law, do play a domineering role in the very orderly and lawful events within a living organism» and through «astonishing gift of concentrating a 'stream of order' on itself» an organism «escapes the decay into atomic chaos». In the physical world there is nothing like this «organism's orderliness that maintains itself »and immanently bears in itself the reason of its individuality, perpetuation, and of self-directing orderly change».

In terms of O. Spengler this immanent orderliness, self-determination, self-direction and uniformities in the life-course of a sociocultural system is a «living potentiality (life, soul) in a state of

incessant becoming that fulfills its unique life-course or Destiny in the Timeprocess... flowing from the past through the present to the future. It has destiny as its organic necessity of potentiality passing into actuality. ¹²

What Schrödinger and other physicists say of a biological organism can be said, with some modifications of an integrated personality, organized group, and unified cultural system. Whether we take an integrated personality whose "self", values, ideas and overt acts are unified into a consistent system; or we take an organised social group, be it an harmonious family, a school, a business enterprise, the state, an occupational union, a political party, or religious organization; or we consider a consistent system of scientific, philosophical, religious, aesthetic, ethical and other cultural ideas "objectified" in their "material" vehicles and operated and used by its human agents—each of these systems, like genes, has its own individuality, interdependence of its parts and the whole, a margin of autonomy from environmental forces, immanent self-determination and self-direction of the main phases of its life-course. The forms of change of a "univariant" system are different from those of "bivariant" or "multivariant" systems; the forms, phases, rhythms, periodicities, and directions of their changes differ in each system according to its nature. In this sense any personal or sociocultural system largely (though not so rigidly as a biological system) moulds its own destiny. ¹³

The order and uniformities of these systems are not of a chance character but of "vital-meaningful-causal nature" inherent in the systems themselves since the moment of their inception and emergence. They are of sui generis-immanent-kind. For this reason their study requires a combination and modification of the methods used in a research of the sociocultural congeries or heaps. ¹⁴ One of these requirements is that they always have to be treated as Ganzheiten, as the unified wholes, even when we study their parts and smallest elements.

Among the combined methods of their cognition historical method plays again an important part especially at the stage of testing the empirical validity of the tentatively formulated nomothetic generali-


¹³ A detailed development and analysis of sociocultural systems and their characteristics is given in my Dynamics and Society, Culture and Personality.

zations and uniformities. The theories of Danilevsky, Spengler, Toynbee, Northrop, Kroeber, O. Anderle, Sorokin and of the «Organicist» and «Holistic» schools in sociology give an example of this use. All these theories deal with «Society», «Civilization», «High Cultures», or «Cultural Systems and Supersystems» as Ganzheiten or integrated wholes. And all of them for empirical corroboration of their generalising theories and uniformities lay down a series of the relevant historical facts as the proof of their empirical correctness.

To sum up: this concise survey shows that in its modifications historical method is indeed one of the most widely used methods in cognition and interpretation of sociocultural phenomena. Besides being the main method of study in the ideographic disciplines, it enters as an essential part practically of all methods of nomothetic sciences: experimental, pseudo-experimental, statistical, and immanent-holystic in all their variations. Whether we are interested to know the realm of unique and rare sociocultural and personal phenomena in all their individuality and concreteness or we aim to discover the main types of «singularistic causal complexes», or endeavor to formulate strictly causal and causal-meaningful uniformities or «probabilistic (statistical) uniformities», or «laws of evolution and progress», or various «trends and tendencies», or immanent regularities, repeated rhythms and periodicities-in all these studies historical method is regularly used especially for empirical verification of respective nomothetic theories and uniformities.

IV. SCIENTIFIC VALIDITY OF HISTORICAL METHOD AND INTERPRETATIONS

The wide use of historical method does not necessarily mean that it always delivers scientifically valid results. Depending largely upon the manner and conditions of its use, this method, like practically all the other methods of cognition, yields different results ranging all the way from the comparatively correct up to the grossly fallacious ones. In a concise formulation here are some of the important conditions of its comparative scientific fruitfulness.

1. In its ideographic application, typified by the best historical studies, it gives to us a comparatively reliable, concrete knowledge of its ideographic phenomenon, if and when the hard core of the relevant facts is more or less complete, well ascertained, and accurately described. (Modern ideographic history has an elaborate set of techniques of a sound historical research for meeting these basic conditions.) The more fragmentary and defective this hard core of
relevant facts, the less carefully they are authenticated and less accurately described, the more unreliable is the knowledge delivered by the ideographic historical method.

Its further limitations are, first, that even a best ideographic historical study does not deliver to us a nomothetic knowledge nor can it serve as a solid basis for nomothetic generalizations. Second, its hard core of relevant facts does not preclude a wide diversity of evaluations and broad interpretations of these facts. The hard core of facts about Caesar or A. Lincoln, or Lenin; about the Great French Revolution or the Italian Renaissance or the German Reformation is essentially the same in all competent histories of these phenomena; but their evaluations and broad interpretations are almost as many and as different as there are the outstanding historians of these phenomena. And these evaluations and interpretations undergo a substantial change from period to period: in ideographic history, as in the field of women's and men's apparel, there are also the waves of different "fashions" that follow one another in the course of time. This means that the nomothetic generalizations derived from an ideographic historical study and the above evaluations and interpretations are much less scientific than the knowledge of the hard factual core supplied by the ideographic historical method.

2. The experimental variety of historical method in the form of a use of the inductive canons of concomitant variation, identity, difference and residue delivers a relatively reliable nomothetic knowledge if and when all the requirements of a genuine experimental setting are met, particularly the requirement of keeping «all the other conditions constant» and applying the inductive canons as rigorously as the genuine experimental methods demands. Unfortunately, as mentioned above, such a rigorous application of experimental method, including the historical experimental method as its part, is rarely possible in nomothetic investigations of the broad and important classes of sociocultural phenomena.

I hardly know any single experimental study of such broad sociocultural «variables» as: «religion», «science», «economics», politics», «wars», «revolutions», «fine arts», «law and ethics», «Wirtschaftsethik», «Capitalism», «Democracy», and so on. All the existing so called «experimental» studies of this sort of variables are in fact «pseudo-experimental»; often even do not deserve this name. Only in regard to very narrow and simple «variables» the experimental method has been more or less successfully applied; but a study of such narrow «variables» gives, at the best, only narrow and simple generalizations and uniformities frequently representing «an expe-
ritional elaboration of the obvious». Furthermore due to the extreme complexity and variability of sociocultural phenomena and to a continuous operation of the factor of creativity in human affairs — the factor which by its very nature often defies and transcends rigid determination and invariant uniformities, — even this sort of experimental uniformities can hardly be considered as universal, perennial, and invariant. We should be satisfied if they are roughly correct and valid for a large portion of occurrences of the events with these variables during comparatively long periods of human history.

3. As to the pseudo-experimental application of historical method its results are almost always uncertain so long as the total pseudo-experimental setting notably differs from the genuine experimental situation. Here again I hardly know any single study of this sort which meets the elementary requirements of a real experimental method. Only a small fraction of such investigations somewhat approximates these requirements, especially the requirement of «keeping all other conditions constant». 15 Greater part of pseudo-experimental research essentially fails in this matter. Therefore the results of such investigations are hardly more reliable than those of a systematic non-experimental observations of the phenomena studied.

4. Validity of the nomothetic theories and their uniformities, derived through probabilistic and immanent use of historical method, is hardly ever certain, universal, perennial, valid for all times and all parts of the human universe. Their comparative accuracy however widely fluctuates from approximately valid for, at least, a large portion of the phenomena whose observation led to a discovery and formulation of a given nomothetic theory up to the outright fallacious hypotheses and generalizations. In order to be approximately correct the probabilistic and immanent theories must meet a number of conditions concerning the logical clarity of the hypothesis itself as well as the procedures of its empirical verification. Not entering here into an analysis of all the detailed requirements of this sort (which for purely statistical studies are minutely specified by modern statistics and mathematics), I would mention only those conditions which appear to me basic.

15 Perhaps my «Experimental Study of Efficiency of Work under Various Specified Conditions», American Journal of Sociology, March, 1930, and «an Experimental Study of the Influence of Suggestion on the Discrimination and Valuation of People», American Journal of Sociology, March 1932, approximate the conditions of a real experimental study to a considerable extent; but even so these studies do not meet fully the requirements of a real experimental research.
a. First of these is that the nomothetic hypothesis must be clearly formulated and the phenomena whose uniformity is going to be tested by the relevant empirical facts must be defined. Otherwise neither the hypothesis, nor uniformity can be well understood, nor their sound empirical verification is possible. For instance, Marxian concept of «economic factor», («means and instruments of production» etc.) or M. Weber Wirtschaftsethik and «rationality» or Danilevsky-Spengler-Toynbee's concept of «Culture-Historical Type», and «High-Culture-Civilisation», or the Freud's «Id», libido and «unconscious», not to mention the concepts of «social class», «functionalism», «democracy», «freedom», «capitalism», «progress», and many other concepts current in sociocultural and psychological sciences, are very vaguely defined and for this reason have been quite differently interpreted and could not be adequately tested, either decisively confirmed or repudiated, by the relevant empirical facts. This uncleanness makes exceedingly difficult, practically impossible, to decide even what sort of empirical facts are relevant or irrelevant for their empirical verification. This initial vagueness is also responsible for ambivalence and doubtful character of a large part of generalizations and uniformities built upon such vague concepts.

b. Second important condition of empirical verification of nomothetic-probabilistic and immanent-uniformities, via of historical method, is that the total body of verifying empirical facts — confirming and especially contradicting the tested generalization — would be as complete as possible and that each of these facts would be well ascertained in its occurrence as well as in its relevancy to the tested hypothesis.

This requirement has not been met by an overwhelming majority.

16 Not only the anti-Marxians but the Marxians also are still disagreeing about what K. Marx exactly meant by «economic factor»; in M. Weber's works one finds from six to nine different definitions of «rationality» and several of the Wirtschaftsethik. S. Freud gives, at least, three mutually contradictory definitions of the unconscious id; an unclearness of Toynbee's earlier concept of «civilisation» made him change several basic points of his theory of history (including a new classification of civilizations and admission of three models of the life-course of civilizations instead of one given in the first six volumes of his work). See A. J. TOYNBEE, Reconsiderations. A Study of History, vol. XII, Oxford University Press, 1961.

17 Glaring examples of this defect can be found in statistical studies published almost in each copy of the American Sociological Review, American Journal of Sociology and in other journals of sociology and psychology. See a criticism of several defective studies of this kind in my Fads and Foibles, chps. 3-7, et passim.
of the generalizing theories in psychosocial sciences. Empirical corroboration of many of such theories and uniformities consists merely in mentioning some favorable illustrative cases or in giving fragmentary time-series representing only a fraction of the total relevant facts available and often completely disregarding the facts contradicting the contended uniformity. There is no need to stress that such an evidence is scientifically worthless: anyone can pick up a few illustrative cases for confirming all sorts of fallacious theories and generalizations.

No wonder therefore that when such defective generalizations have been tested by a more systematic, more complete, and better analyzed series of relevant facts, including also the facts contradicting the generalizations, most of such theories and their uniformities have partly been found to be either inadequate or wrong. This can be said, first, of a majority of various nomothetic theories claiming diverse «laws of social, mental, and cultural evolution and progress», various perennial social trends, cycles, rhythms and periodicities, such as: Herder-Fichte-Kant-Hegel's theory of the central trend of human history as a progressive decrease of violence and war and systematic increase of freedom; as Turgot-Condorcet-Saint Simon-Comte's «law of the three stages»: theological, metaphysical, and positive; as Novicow-Ogburn-Hart's «law of acceleration of the tempo of change» in the course of human history; as Ratzenhofer-A. Small's historical trend from «the conquest state» to «the culture state»; as Bahofen-McLennan-Lubbock-L. Morgan's historical trend from «the primitive, promiscuous family» to the monogamic family; as the theories of evolutionary trends from «religiosity to irreligiosity», from «autocracy to democracy» (or vice versa), from primitive poverty to bigger and better prosperity, from Gemeinschaft to Gesellschaft; as the theories of a uniform sequence of blossoming of the fine arts in time order: architecture-sculpture-painting-literature-music, F. Petrie and P. Ligeti; or of a uniform sequence of the stages: lyric, epic, and dramatic in development of literature, V. Hugo and E. Bovet; and so on. A more careful test of all these theories by a more complete series of the relevant facts has clearly shown their inadequacy, their illegitimate elevation of a few temporary and local cases observed into universal and perennial uniformity.

The same can be said of many theories of uniform cycles, rhythms, time-sequences and periodicities in sociocultural processes.¹⁸

¹⁸ See the factual data, analysis, and criticism of these theories in P. Soro-kin, Social and Cultural Dynamics, on fluctuation of wars, revolutions, totali-
A more complete series of the relevant facts has largely invalidated also all the univariant theories of the life-cycle of civilizations or the *Hochkulturen* developed by N. Danilevsky, O. Spengler and A. Toynbee. 19

This statement applies also to a multitude of generalizing theories of various causal uniformities in relationship of two or more socio-cultural variables contended by many a social scientist. When, for instance, M. Weber's theory of Protestantism-Capitalism has been tested by an incomparably more complete series of the relevant facts than those given by Weber and when the emergence and development of European Capitalism, Protestantism, with their *Wirtschaftsethik* and satellites has been studied in a larger and more adequate framework of the dominant sociocultural supersystem of Europe of the centuries from the thirteenth to the twentieth, (in which supersystem Capitalism and Protestantism have been just two «variables» among several subordinated systems and sub-systems of this supersystem,) the inadequacy of Weberian as well as of the opposite Marxian theory has become transparent.

«In a somewhat simplified form Marxism offers the equation: Protestantism is the function of capitalism: \( P = f(C) \). Max Weber turns it around making capitalism the function of Protestantism and its *Wirtschaftsethik*: \( C = f(P) \). As a matter of fact both equations and related theories are untenable. The adequate formula is: capitalism, Protestantism, utilitarian ethics and law, science and technology, rationalism, individualism, contractual relations, visual-sensate art, materialistic philosophy, empiricism, singularism, nominalism and relativism—all are the manifestations of the decline of the ideational and rise of the sensate supersystems. As parts of one supersystem they are all dependent upon one another and upon the whole supersystem. Protestantism was not the preponderant factor of capitalism, nor was capitalism the cause of Protestantism; both were interdependently changing in togetherness with the supersystem as a whole. The situation is analogous to a large number of anatomical, physiological, and psychological changes experienced by an organism when it passes from childhood to youth and maturity; weight and stature increase; muscles, glands, and organs undergo important changes. All these changes


19 See analysis and criticism of these theories in P. SOROKIN, *Social Philosophies of an Age of Crisis*, chps 3, 4, 5, 12.
proceed interdependently, in togetherness, as manifestations of the basic change of the whole organism. It is ridiculous to take one of these changes, like the increase in stature or the appearance of a moustache as the cause or «preponderant factor» of all the other changes. And that is exactly what Marx and Weber do.20

Similarly when, for instance, such opposite generalized theories as the proposition: «frustration, calamity, catastrophe uniformly generate aggressiveness, increase of criminality, demoralization and irreligiosity» and the proposition: «these factors uniformly generate and reinforce sympathy, benevolence, decrease of criminality, moral and religious ennoblement», when these mutually contradictory generalizations have been tested by a more complete series of the relevant facts, both theories have been found to be onesided and superseded by a more adequate theory of moral and religious polarization according to which mass-frustrations and calamities fairly uniformly produce an increase of the more religious and more moral as well as the more irreligious and more criminal persons and processes at the cost of the majority of the members of such a society which in normal times is neither intensely religious or atheistic, criminal or virtuous. In regard to various individuals, these factors make some of them more creative, moral and religious while some other individuals are effected by these factors in the opposite way of increasing their mental disease, suicide, criminality, cynicism, atheism and decreasing their creativity.21 In a similar manner a more careful and complete series of the evidential empirical facts have made untenable such nomothetic theories of causation as: that strikes uniformly increase in the periods of economic depression (or the opposite theories); that revolutions uniformly tend to explode and criminality tends to increase in the times of economic impoverishment; that democracies are more peaceful than autocracies (or the opposite theories); that progress of science and school education uniformly leads to a decrease of wars, internal disturbances and crimes; that an increase of economic prosperity (without any limits) uniformly


leads to an increase of creativity of such a society; that the main factor of suicide or mental disease is either climate or biological heredity, or economic conditions or irreligiosity or the sun spots, etc; that the essential characteristics of an individual or of a nation are largely determined by the ways of the infants' swaddling and training in micturition or defecation (the Freudians, M. Mead, G. Gorer, J. Rickman), — "swaddling and defecative philosophies of history"; and so on and so forth. This sort of generalizations and uniformities still occupy a large place in the nomothetic parts of sociology, psychology, economics, philosophy of history, and other social sciences. The sooner they are tested by more adequate series of relevant facts, the quicker their fallacies will be exposed and the defective theories will be replaced by the more sound and scientific ones.

Unfortunately, for empirical testing of a number of probabilistic uniformities sometimes the more or less complete sets of the relevant facts is unobtainable simply because no complete records of these exist and no adequate ascertainmet of the real occurrence of the facts and their exact location, and time is possible. Likewise, due to the complexity of these phenomena their adequate quantification and measurement often meets insuperable difficulties. In all such cases we seem to have to be satisfied with the very tentative hypotheses backed up with the completest set of the fragmentary data available.

As mentioned before, even the documented probabilistic uniform-

22 Exactly the desire to avoid this important defect was one of the reasons of why in my Dynamics I gave for empirical test of my hypothesis instead of just illustrative and fragmentary samples, practically the complete series of all the known scientific discoveries and inventions, almost of all the known important paintings and sculptures in European culture, of all the wars and important internal disturbances recorded in Greco-Roman and the Western history from 600 B. C. to A. D. 1925; of all the historical persons mentioned in the Encyclopedia Britannica and so on.

Further on, to avoid the personal biases in the phase of collection of the relevant facts in each field, I asked the internationally known leading specialists to do this task without informing them for what purposes I needed each series of the relevant facts. This precaution and much greater completeness and accuracy of the relevant facts in all fields of culture (studied in the Dynamics) clearly disclosed many inadequacies of the respective nomothetic theories based upon a few fragmentary data.

23 In many such studies the complete series of the relevant facts cannot be replaced by their «representative samples». Even in simpler, purely statistical studies frequently it is exceedingly difficult, even impossible, to find out what samples are representative and what are not. Still less possible to find «representative samples» in time-series of complex sociocultural phenomena.
ities give to us the important knowledge of these uniformities but they rarely deliver to us the knowledge of the reasons (or causes) of their occurrence or the reliable explanation of their why. The scholars discovering the valid uniformities tend naturally to answer also these why in the form of this or that hypothesis. Many of these are suggestive and in their own way enrich our understanding of these uniformities. As such they deserve our attention and further exploration. But most of them usually remain uncertain in their validity. A mere discovery of even sound probabilistic uniformity and of its how does not necessarily disclose the secrets of its why.

c. Third important condition of the correctness of probabilistic and immanent uniformities (derived via of historical method) is that their formulae would indicate the limits within which respective uniformity of either historical trends or association of the variables is valid and beyond which the uniformity ceases to be observable or existent. Not only all probabilistic and immanent but practically all the causal and causal-meaningful relationships between two or more variables A and B have certain definite limits: beyond a given value of A and B the uniform-probabilistic, causal and causal-meaningful relationship ceases to exist or undergoes a radical change. Within certain limits the more strongly we strike a piano key, the louder the resulting sound. Beyond this point the result will be not a louder sound but a broken key-board. Physical and biological sciences are well aware of this principle of limits and therefore they ordinarily formulate their «laws and uniformities» with precise indication of the «stability limit», «critical temperature», «critical pressure», «critical concentration» and other limits of the correctness of their formulae of uniformities. Sociologists and social scientists are still not fully aware of this principle.

«When they formulate valid or invalid causal or probabilistic relationships between business depression and criminality, prosperity and birthrate, education and criminality, farm income and illiteracy, economic conditions and the forms of the fine arts, social class and certain ideology and so on, they rarely mention any limits within which the uniform relationship between their variables hold. They seemingly assume that it has no limits no matter what values we assign to the variables». This not-mentioning the limits makes all respective uniformities and theories largely indeterminate and uncertain» 24.

Indeterminate also become all theories of uniform, linear trends or of the laws of evolution and progress which neglect to indicate the

24 P. Sorokin, Society, Culture, and Personality, p. 700.
time and space limits of such trends and laws. Indefinite too become all theories of uniform stages and variations of sociocultural systems which fail to point out the limits of the change of a system beyond which any further change renders it unidentifiable and either non-existent or basically changed into something quite different from the given system. In contrast to physicists, chemists, and biologists, sociologists and social scientists rarely indicate these three forms of limits in their nomothetic theories of historical trends, laws of evolution, and of the number and scale of possible variations of a given sociocultural system beyond which it ceases to exist or become unrecognizable 25.

d. Finally, one additional condition of scientific validity of nomothetic theories is to be briefly mentioned, namely, the clear distinction between sociocultural systems and congeries. At the very outset of his nomothetic exploration an investigator must be aware and must ascertain as to whether he endeavors to discover and formulate a probabilistic, causal, or causal-meaningful uniformity valid for a system or for congeries. This point must be cleared by the investigator because not all the research procedures proper for investigation of probabilistic uniformities of sociocultural congeries are applicable to those of the systems, and vice versa; and because the congeries-uniformities are often quite different from those of the system-uniformities and therefore being valid for the congeries are often invalid for the systems, and vice versa.

This distinction and methodological rule are often neglected by sociologists, economists, psychologists, philosophers of history and by other social scientists. The neglect is often responsible for «the error of misplaced uniformity» and important defects of such theories 26.

A scientific study of the immanent uniformities of sociocultural systems—the organised social systems (groups), the integrated systems of culture or civilizations-must also meet the above conditions: a, b, c. Otherwise, if the system’s unity and reality is not well ascertained, if all the main varieties of each system are not studied, and if the limits in their trends and recurrent uniform changes are not indicated, respective theories and uniformities are likely to be inadequate. Recent example of such an inadequacy is given by even such a magnificent work as A. Toynbee’s Study of History. As he him-

26 Cf. on this mistake in P. Sorokin, Fads and Foibles, pp. 161 ff.
self says the univariant uniformities in the life-course of all civilizations, developed in his first six volumes of the Study of History were derived mainly from a study of such uniformities in the Hellenic civilization. His subsequent investigation of the uniformities in the life-course of other civilizations led him to the conclusion that «I have been at fault in having been content to operate with the Hellenic model only. Though this particular key has opened many doors, it has not proved omnicient. For example, it has not opened the door to understanding of the structure of Egyptian history». 27 As a result of Toynbee’s more careful and more complete study of the uniformities in the life-history of other civilizations he replaced his earlier theory of an univariant model of the life-cycle of all civilizations by, at least, three different models of the life-course of civilizations exemplified by the Hellenic, the Chinese, and the Jewish civilizations. This more complete study led him to a number of other important changes in his earlier theory of history. 28 In its present form Toynbee’s nomothetic theory of historical uniformities recurring in the life-course of civilizations is in a greater agreement with the theories of other nomothetic investigators of the civilizations or cultural systems, like the theories of A. Kroeber, F. S. C. Northrop, J. Ortega y Gasset, F. R. Cowell, P. Sorokin, and others. 29

I am reasonably certain that if in the future studies of the causal, the causal-meaningful, and the probabilistic uniformities in the worlds of the sociocultural systems and congeries, the studies using the historical method in its experimental, pseudo-experimental, and probabilistic (statistical) varieties, if in such investigations the conditions of the validity of respective theories mentioned in this paper are more fully met, our knowledge of these uniformities would be progressively growing and the nomothetic sociocultural theories would be becoming more adequate and less discordant with each other.

28 See for these changes the whole volume of the Reconsiderations.