SOCIAL PROBLEM DIAGNOSIS: A SOCIOPATHOLOGY IDENTIFICATION MODEL

Paris Arnopoulos
Professor Emeritus, Concordia University, Montreal, Canada

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In view of the complex problems facing the contemporary world and the limited capacity of humanity to handle them, the purpose of this study is to present a general sociopathological identification model, exemplified by a tentative diagnosis of global problems. The conceptual framework for this task is given by a Triadic Paradigm and System Unification Model contained in the recent Theory of Sociophysics.

Accordingly, we initially perform a systematic anatomy of the social system. Our approach defines and clarifies the basic notions of its conceptual framework revolving around a SET (space-existence-time) configuration as the primordial parameter of our reality. Within it emanate concentric ESE (eco-socio-ego) spheres, along with their MEF (matter-energy-form) components. With the above structural aspects of social systems, we look into their manifest appearance. In this respect, we can observe and measure the significant phenomena of society, so as to standardise them for comparative purposes. Since we are ultimately searching for possible social problems, their symptoms or manifestations must be first recognised.

After the physiology of society, we consider its pathology. To do so, we need to study problems as “disturbing situations or dysfunctional conditions”, or unusual events drawing attention to themselves and begging for a response. Although problems may be psychological, physiological, or sociological, as social scientists we are primarily concerned with the last type. Defined as such, we identify social problems by constructing a Problem-Identification Model that follows an input-transform-output process to distinguish problematic phenomena.

Finally, having presented the context of our physiology and content of its pathology, we concentrate on the concept of a diagnostic methodology. Timely diagnosis uncovers the early warnings and symptoms of problems and prevents their catastrophic deterioration. As both mean and end, diagnosis follows a certain algorithm that identifies disturbing symptoms, so that they may be dealt with before their damage is irreparable. Diagnosis thus combines an inductive-deductive decision-making process, as well as an empirical-rational final conclusion of general applicability.

On the basis of this model, our tentative diagnosis is that the world suffers from a complex syndrome of interrelated ailments. Its problems range from the economic (capitalism, commercialism, industrialism) and social (elitism, individualism, urbanism), to political (imperialism, militarism, terrorism) and cultural (materialism,
consumerism, nationalism). Some of these problems are found at their worst in some regions and sectors of the world system. In addition to these social problems, we have personal (alienation, apathy, anonymity) and natural (pollution, depletion, entropy) maladies which complete the global pathological roster. These various “diseases”, alone and in combination, make the world a rather dysfunctional system, whose problems are so wide and deep as to constitute a pandemic. Thus identified, defined, and classified, this maldevelopment problematic, concludes our exemplary diagnosis as a preliminary test of the proffered model.

1. Introduction

The present world is a very complex and chaotic system. Casual observers are deluged by diverse signals of disparate events, mostly transmitted through the mass media. The resulting information overload is confusing and overwhelming; therefore it is difficult to interpret and understand the significance of what is going on, let alone utilise its content for any intelligent plan of action.

The primary aim of this study is to contribute to a better translation or interpretation of social phenomena by relying on the Triadic Paradigm and System Unification Model of the recent Theory of Sociophysics. Within this overarching conceptual framework, we herein search for a scientific way to examine and determine the existential condition of contemporary social systems.

The method as well as the result (of this examination to discover and determine problems or abnormalities) is called “diagnosis”. This knowledge-expanding process is a necessary requirement to determine the viability of all life support systems, including human societies. This article undertakes that task by presenting a sociodiagnostic model that considers the critical problems of the world, along with their ecological, economic, cultural, and political importance. The enormity of this project, however, necessitates a delimitation of its scope and content through a high level of abstraction of its model and gross aggregation of its data. Consequently, the methodology used here is logico-deductive, viewing particular factual instances within the overall perspective of general theoretical premises, out of which certain conclusions follow as the final diagnosis.

Thereby, this paper is organised around a three-dimensional frame. The first dimension elucidates the three words of the title in a systematic sequence of chapters: Social Physiology; Problem Pathology; Diagnostic Methodology. Accordingly, it covers the physiological context, problemological content and methodological concept of its subject matter. The second dimension divides each chapter into three sections, following a syllogism of general contentions, specific conditions, and operative conclusions. This construct can be tabulated in the following array that may also serve as a two-dimensional representation.

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Table 1. Matrix of Contents.
Finally, a third dimension juxtaposes the real versus ideal aspects of our subject and then combines them dialectically following a thesis-antithesis-synthesis process. Obviously, this third dimension cannot easily be easily illustrated here, but it should be kept in mind as we proceed systematically throughout the text.

2. CONTEXT: Anatomy of Sociophysics

Before tackling the problematic content of our subject, we should first have an idea of its physiologic context by performing an anatomy of the social system. This is best done by the Theory of Sociophysics, a key element of which —the System Unification Model— we now summarise.


2.1. Basic Syntax

Our approach begins by defining and clarifying the basic notions of its conceptual framework. This task is necessary as the foundation supporting more complex concepts. Illustrated in the Figure 1 below, the scheme here represents our universe of discourse, revolving around a SET (space-existence-time) configuration as the primordial parameter of our reality. Within it emanate the concentric ESE (eco-socio-ego) spheres, along with their MEF (matter-energy-form) components, as follow.

2.1.1. SET Frames

Although SET implicitly underlines all realistic discussions, it is explicitly emphasised here as the fundamental premise of our perspective which involves:

- Spatial location: (in square kilometres): local (hundreds), -regional (thousands), and -global (millions);
- Existential inclusion: (in kilograms): light (thousands), -average (millions), and -heavy (billions);
- Temporal duration: short (days), -medium (years), and -long (decades).
Figure 1. Multidimensional Reality.

This SET firmament and its measurement is significant because the human senses apparatus can distinguish objects or subjects in some places for certain periods. Attention is thus focused on extraordinary things, changing phenomena, or fluctuating movements that register in our minds. Space (s) envelops physical existence and delimits its extent by determining location, scale, and distance. More specifically, topology and geography provide an account of important aspects of space and significant variables of position and motion. This is especially so in geopolitics, where power is directly correlated to territorial imperatives and strategic configurations.
Along with space, time (t) forms our four-dimensional frame. As space measures distance between points, time measures duration between events. So as geography compares concurrent positions, history follows succeeding periods. The difference, of course, is that unlike the perception of three-dimensional static space, time appears unidirectional: and its arrow always flies from the past, through the present, into the future.

Combining space and time is the notion of motion. When some distance is covered in a certain time, we speak of displacement between two points. Utilising a mathematical notation as the best shorthand and manipulative tool, we define the rate of motion as velocity: \( v = s/t \), representing the ratio of distance divided by time. From Democritos and Heraclitos to Hobbes and Newton, natural philosophers thought that the essence of science was the study of bodies in motion. Accordingly, the idea of movement is fundamental in all dynamic systems.

This compound concept gives rise to the necessity of existence, because something must exist and move through space-time. For this reason, our ontology distinguishes between being and void, assuming that there is something rather than nothing and focusing on existence as our relevant substantive content.

### 2.1.2. MEF Aspects

Our framework postulates the significant content of existence to be matter-energy-form. This MEF content of reality is closely interrelated to and interacting within its SET context, so it will be briefly explained here.

The primary attribute of matter is mass (m). Having volume or displacement, it occupies exclusively a place for some time. Matter provides the concrete basis of reality and the stability of existence. Within the space-time field, material objects are of a certain size (micro-macro) and last for some time (ephemeral-epochal). Space is partly filled with matter that forms distinct objects. The quantity of material or number of bodies filling a given space is determined by the notion of density: \( d = m/s \). The number of people living in a certain territory, for example, is of a particular density —given by the size of the population, divided by its land area.

Pure materialism, however, only explains one aspect of reality; energy (E), defined as the ability to move or act (A) in time: \( E=A/t \), provides another. Accordingly, a body has energy if it is able to do something. The precise nature of this ability depends on whether it applies to position or motion. Masses in high places possess great potential energy, just as bodies in rapid motion acquire much kinetic energy. Motion is thus a simple kind of action, as a result of which moving matter attains a certain momentum (q) equal to an object’s mass and velocity: \( q = mv \), which with a bit of simple transposition means that \( E = qv \).

Ever since Einstein’s famous equation \( E=mc^2 \), matter and energy have become equivalent. Since one can be converted into the other, they may be considered as two sides of the same coin. Energy activates matter and makes things happen, thus complementing the static character of mass with its own dynamic attribute. As
elucidated later on, since energy is matter-in-motion, it becomes the source of work, force and ultimately power.

Finally, the third aspect of being is form or order. It is this aspect that gives matter its shapes and energy its symbols, thus infusing cosmos into chaos. Order informs patterns and processes, data and coda, systems and structures, thus giving meaning to things and events interpreted by the human mind. Although form per se is evanescent or immaterial, information is carried by matter-energy and translated by intelligence.

2.1.3. ESE Spheres

Our conceptual framework distinguishes three realms of existence. Using the above criteria, their classification consists in imagining three concentric spheres, grouping everything into an:

- Egosphere: personal centre as the egocentric core of individual nurture.
- Sociosphere: social system as the collective culture of the human species.
- Ecosphere: natural periphery as the external environment of planet Earth.

In this trispherical ESE model, both the subconscious and the supernatural worlds are ignored as unknown and mystic externalities beyond our epistemological ability to grasp.

From such a perspective, nature provides the outermost, all-inclusive environment of reality, represented by an outermost circle. It is the realm of hard facts and natural laws or the domain of divine order and chaos, independent from and indifferent to human dictates or desires. As studied by physics, chemistry, biology, and ecology, this contextual domain frames our universe and sets the outer limits of human knowledge.

At the other end of this spectrum, at the innermost centre of our concerns, is the nurture of human beings with its internal noosphere of self-conscious thoughts and ideas. We are not here concerned with those human aspects reflected in the arts and humanities, but rather with the cognitive aspects of the mind related to gnosis. Any subconscious domain in the dark inner world of the psyche is likewise beyond our purview.

Between the eco- and ego-spheres lies a socio-sphere of human culture. In it, the units of human action range from the smallest (minds, individuals) to the largest (continents, civilisations), via the middle (tribes, nations). Although society cuts through the realms of acts, facts, and words, it is primarily concerned with interpersonal relations and only marginally with extra-personal or intra-personal ones.

2.2. Systems

Social systems possess both quantitative and qualitative aspects that ultimately make them more than the sum of their parts. This complexity emerges out of multiple interrelations of various simple components interacting according to basic rules. As open, dynamic and spontaneous self-organising systems, organisms or societies require certain qualitative and quantitative descriptions involving intangible attributes or subtle
impressionistic perceptions of ethical and esthetical traits.

2.2.1. Sociomass

The first and foremost determinants of real systems are structures and functions. We thereby define society as a set of structures and functions relating people to their creations and possessions. This definition of a social system includes both mental and material aspects of human existence in space-time. The physical mass of a social system may thus be shown as a sum of these three aggregates: \( m_s = m_h + m_a + m_d \), where:

- \( h \) = humans (people);
- \( a \) = artifacts (tools and goods);
- \( d \) = domestics (plants and animals).

As the weight of an organism is a significant measure of its condition, the mass of society indicates its gross size, both absolutely and relatively. More specifically, the ratio of people to goods and tools reflects social wealth and industrialisation, whereas that of people to space shows social density and urbanity.

Other similar measures of sociomass serve as normative parameters upon which social health as well as wealth can be established. The physical hygiene of a society may be understood as a sum total of the health of its constituents. Along with longitudinal rates, such as mortality and longevity, or comparative measures such as national rankings, these quantities form the first and simplest indicators of social conditions.

2.2.2. Sociomorals

Besides their material aspects, social systems also possess mental attributes, creating cultures or ways of life, consisting of LARK (language, art, religion, kinship). These produce various theologies and ideologies serving as ideal norms for popular belief and behaviour. Setting up standards and making judgements seems to be part of human nature: distinguishing between right and wrong, true and false, good and bad. This process of evaluation and attribution, is then inherent in the human condition and the fact-value dichotomy confirms this innate tendency.

Once we accept a human value-instinct, the question becomes whether there are any universal pan-human values. Ethology poses three main sources of generally admitted normative values:

- Natural: Physiological imperatives and biological norms based on existential reality.
- Rational: Logical deductions and scientific inductions created in the human mind.
- Cultural: Traditional principles and legal rules developed by human societies.

Different combinations of these standards set the parameters of acceptable behaviour in any society and spell out its the rules of the game within it. In the world at large, natural laws, international customs, and dominant paradigms define the bulk of general standards and periodic protocols.

Natural Law proponents assert that there are certain values based on natural tendencies
that can be discovered by human reason. From Aristotelian biology and Thomistic theology to Hobbesian physics and Marxist economics, the Natural Law school proposed preservation, procreation, and actualisation as such organic values shared by all living beings, including humans. Opponents of Rationalism or Naturalism either deny the existence of absolute standards altogether or decouple necessity from desirability. In its Lockean declaration “ought” does not follow from “is”, therefore norms can only be relative, based on either cultural or personal preferences.

Yet, although they differ in many details, these norms can be reduced to their lowest common denominator: setting standards of human thought and action in all societies. These may be described in generic terms as the famous Liberty-Equality-Fraternity triad. So much so that in fact, sociomorals may even be identified as their LEF function: $S=f(l,e,f)$, depending on the particular combination of individualism, egalitarianism and collectivism they promote. Accordingly, a respective emphasis upon each of these values determines the normative priorities of various societies.

Herein, the most significant variables relate to social morality. As guides in social relations and actions, ethics moderate between the natural egoistic tendencies of organisms and the cultural, altruistic ideals of humans. In this respect, social systems differ in some degree between their degrees of individualism and collectivism, or liberalism and communism, as they try various mixtures of private and public control. These different moral standards determine whether particular social conditions are considered normal or not. Obviously, a liberal-individualist ideology tolerates different thresholds, when social problems begin, than a social-communist one. Similar objective social indices therefore will be subjectively judged as normal in certain regimes and abnormal in others.

In this wide range between the polar extremes of egoism and altruism, global moral standards exist as a compromise somewhere in the middle. Whether this moderate mixture becomes a golden mean depends on the proper development of the world system as a global society. Until then, there will be different opinions as to what indices define a healthy system. Be that as it may, as well entrenched as both sides are, at this juncture of rapid globalisation, the relativist position must necessarily rest upon a globalist perspective. We should thus use an eclectic selection of salient points from various sources to derive the most general, reasonable, and useful norms constituting our fundamental values. (See *Ethics as Emergent Property of the behaviour of Living Systems*).

### 2.2.3. Sociosectors

As moral-material systems, all human societies combine the above duality. The particular mode of production, distribution, and consumption for matter, energy, and information in different societies indicates their physical-ethical condition based on the standards enunciated above. As studied by social science, society is divided into three main functional sectors where love, gain, and fear interact. An anatomy of social systems then may be best described as composed of a:

- Polity: regulative, legislative, executive, or cybernetic superstructure.
- Economy: extractive, productive, convertive, or metabolic infrastructure.
- Community: reproductive, cognitive, emotive, or symbolic structure.

These sectors can be studied in either a chronological or a topological perspective. Here we are primarily concerned with comparative sociological aspects, thereby marginalising historical and geographical ones. Describing these standards according to their structural-functional specificity, we can then speak of political elitism, economic capitalism, and cultural pluralism as particular sectoral combinations of social systems. Of course, each of these sectors may be further sub-divided into smaller ones, such as the primary, secondary, and tertiary aspects of the economy; the religious, educational, and artistic aspects of the community; or the legislative, executive, and judicial aspects of the polity. In this way, social problems can be localised in particular institutional organs or functional orders, rather than systems as a whole.

Bibliography

This study is sufficiently original not to require direct citations or specific references to previous works. Nevertheless, it is based on the accumulated knowledge in various sciences integrated herein. This very short bibliography consists of selected monographs highlighting the interdisciplinary field of social problemology in the last fifty years. Although the subject of social diagnosis has not received the attention it merits, the relevance of these titles in this area is self-evident.

authoritative ongoing compilation on global issues and personal values.


Biographical Sketch

Paris Arnopoulos, born in Athens, studied physics, mathematics and philosophy in Montreal, as well as political science and international affairs in New York. He has taught world politics in various universities in Montreal, Florida, and California.

He has worked at the United Nations in New York, UNESCO in Paris, UNITAR in Geneva, and Department of Foreign Affairs of the Canadian Federal Government in Ottawa. He was Montreal President of World Federalists, United Nations Association, Canadian Institute of International Affairs; National President of Canadian Peace Research and Education Association, Canadian Future Studies Association; and Director of GAMMA Research Institute in Montreal. Has been a consultant to the United Nations University in Tokyo and OECD in Paris. He is currently Chairman of the Board of Hellenic Studies Centre in Canada.

He has published over a hundred studies on futuristics, classics, cybernetics, diplomacy, and public policy. His latest books are entitled: Sociophysics; Sociopolitics; Cosmopolitics; Exopolitics.