

Critique of the American Institution of Education

Volume II of

The Idea of Public Education

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Prefacing Abstract

This book is volume II of *The Idea of Public Education*. It is a Critique of the institution of public instructional education in America from her founding to the present day. Because most people are not acquainted with the tenets of Kant's Critical Philosophy or the new science of mental physics that derives from it¹, I think it is important to first lay out the definition of the term "Critique." A Critique is a scientific examination of a topic grounded in an epistemology-centered metaphysic. In particular, this metaphysic is Kant's Critical metaphysic, discovered and developed in the late 18th century by the German philosopher Immanuel Kant. In a previous work (*The Critical Philosophy and the Phenomenon of Mind*) I have presented an in-depth treatment of Kant's system and the mathematical model of the phenomenon of mind deduced from it.

The overall aim of *The Idea of Public Education* is to lay the groundwork for the establishment of an objectively valid and empirical social-natural science of education. There is at present no doctrine worthy of the title of 'science' concerning the subject of education although there are a number of theory-fragments presented in psychology and, to a nascent degree, neuroscience. A natural science is a science dealing with phenomena experienced in the sensible world. The Idea of "science" in general is that a science is a doctrine constituting a system in accordance with the principle of a disciplined whole of knowledge. This definition is what distinguishes "science" from "natural philosophy," and is a distinction first set out by Kant in the 18th century. In general a natural science is distinguished from what is called a natural history. A natural science is a science in which the topic is some aspect of actual human experience and in which the unifying Ideas of fundamental principles and propositions are grounded in epistemology-centered Critical metaphysics. A natural history, in contrast, is a systematic doctrine for which the unifying Idea is merely the topic itself. For example, a comprehensive catalog of different types of birds that has been systematically organized has only the general idea of "birds" as the unifying factor that ties all the specific items of knowledge so-catalogued together. Such a cataloging is a natural history.

Natural science logically divides into two categories: physical-natural science and social-natural science. The familiar physical-natural sciences are exemplified by physics, chemistry, and biology as well as the derivative sciences that have been developed out of them. A social-natural science is a natural science whose topic concerns the mental nature of being-a-human-being insofar as the topical phenomena it deals with co-involve two or more human beings at a time. There is an important difference between a social-natural science and the more familiar disciplines of sociology, history, anthropology, modern economics, and so on. These are generally referred to as "social sciences" but, because they are not properly grounded in a system of objectively valid metaphysics, they are not *natural* sciences.

A social-natural science differs in kind from a physical-natural science in the following way. In a physical-natural science, objectively valid causative explanations must always be grounded in the metaphysical principle of efficient causation-and-dependency Relations. No element of teleology is admissible as an explanation in a physical-natural science. This is because the Objects of such a science are what Kant termed "dead-matter" Objects. Our understanding of

¹ I feel it necessary to inform the reader that the name "mental physics" is not copyrighted and you will find at least two quite different subjects going by this name. Mental physics as I use this term refers to the science of mind presented in another earlier work, *The Principles of Mental Physics*, in 2009. There is also a group of mystics headquartered in California who call what they do "mental physics." These usages are as different from one another as can be, and mental physics as I use this term has no connection or association whatsoever with the California group or their Institute. Had I been aware of their existence prior to the publication of *The Critical Philosophy and the Phenomenon of Mind*, I would have chosen a different term than "mental physics" as the name of the new science.

these Objects contains no factor by which these Objects are understood as spontaneously self-determining agents. Even the Objects of biology are dead-matter Objects because nothing in our understanding of organic chemistry, cells, tissues, or organisms contains a principle of "life." Indeed, biology as a natural science made very little real progress until the 19th century when, principally due to the work of Claude Bernard, the ideas of "life" and "Vitalism" were explicitly prohibited from playing any *explanative* role in biological theory.

A social-natural science, on the other hand, involves the self-determined actions of human beings. A human being is a being who has *in himself* the capacity to act as the efficient cause of his own actions, and this easily observed facet of being-a-human-being is utterly unexplainable from the basis of efficient causes as these are understood in physical-natural science. A human being at once and simultaneously exhibits: (1) a *homo phenomenal* character, as an object among objects in the sensible world; and (2) a *homo noumenal* character as an intelligence and self-determining agent of his own actions. A human being's power to be so according to rules of his own determination is a different sort of causality than that of physical causality-and-dependency and is called a teleological Relation. The possibility of teleological causation can never be scientifically explained from grounds in any ontology-centered system of metaphysics. It finds objectively valid explanation only from grounds in the epistemology-centered metaphysics of Kant, where its principle is found to be necessary for the possibility of experience as human beings come to know experience.

The human capacity to be self-determining is what makes a person more than just a physico-chemical machine and is a primitive character of the phenomenon of mind. Thus, teleological causality-and-dependency rather than physical causality-and-dependency is fundamental in all social-natural sciences. What physics is not permitted to do, a social-natural science is *required* to do in proposing causative explanations of observable phenomena. This makes social-natural science different in kind from physical-natural science. The Nature of human teleological judgment and self-determination is one of the principal findings explained by the theory of mental physics. Developing *proper* social-natural sciences, capable of matching the achievements of the physical-natural sciences, was not possible prior to the discovery and development of mental physics. That development is now within the grasp of scientific possibility, and that task is one with which *The Idea of Public Education* is concerned.

Because a social-natural science by definition always co-involves two or more human beings, all social-natural sciences have their foundations firmly set in the phenomenon of human social contracting. To tie any social-natural science to its foundational acroams in Critical metaphysics proper, one must first have an *applied* metaphysic serving as a bridge between empirical science and Critical metaphysics proper. This applied metaphysic was the subject-matter of another prior work, *The Idea of the Social Contract*, which was published in 2012. The first volume of the present work, *Education and Society*, was raised upon that metaphysic and specialized the more general principles of the science of social contracting for application to educational practices.

Because all natural sciences are concerned with understanding actual phenomena discovered in human experience, the successful development of any empirical science can begin nowhere else than with an examination of phenomena contained within the scope of its topic. Every successful science in history has always begun with empirical phenomena and been built up from that starting point. This is what separates successful natural sciences from failed pseudo-sciences such as astrology. As one example, the great theoretician James Clerk Maxwell, whose work established the science of electricity and magnetism as a proper natural science, credited the possibility of his theory to the prior experimental researches of Michael Faraday. In the first edition of his greatest work, *A Treatise on Electricity and Magnetism*, Maxwell wrote,

I have confined myself almost entirely to the mathematical treatment of the subject, but I

would recommend the student, after he has learned, experimentally if possible, what are the phenomena to be observed, to read carefully Faraday's *Experimental Researches in Electricity*. He will find there a strictly contemporary historical account of some of the greatest discoveries and investigations, carried on in an order and succession which could hardly have been improved if the results had been known from the first, and expressed in the language of a man who devoted much of his attention to the methods of accurately describing scientific operations and their results. – James Clerk Maxwell, 1873

I make not the least pretension or claim that what you will encounter in this volume is at all comparable to Faraday's achievement or to that of another profoundly accomplished empirical researcher, Charles Darwin, whose work proved to be one of the great scientific pillars of modern biology. I do, however, maintain that Maxwell's *dictum* of examining closely historical accounts of the phenomenal topic is essential as a propaedeutic step that must be taken prior to any theoretical development of a natural science. That examination is the aim of *Critique of the American Institution of Education*.

Although in merely *logical* order *The Idea of the Social Contract* and *Education and Society* are prior to this present volume, that does not necessarily imply you should or must read these two works prior to attempting this one. The specificity of the cases examined in this Critique can provide you with explicit contexts that can greatly aid your understanding of these earlier technical works. There are some people – indeed, a great many – who will get more benefit from studying volume II first and afterwards undertaking to study the prior treatises. It is a basic theorem of mental physics that concrete *context* is key to correct *understanding*. The treatise you have before you endeavors to provide that sort of context.

In the pages that follow, you will find many different scholars quoted and many of their ideas presented and summarized. In some cases their findings are objectively valid in accordance with the principles of mental physics. In others you will find presented opinions and conclusions that were produced by these same scholars and proved erroneous. Failed doctrines were erected upon these. It is an unfortunate tendency of long-standing that many people, upon finding that some scholar has erred in some opinion or conclusion, to summarily dismiss *all* of his works because he made some errors in some of his works and drew incorrect conclusions from them. I counsel you that dismissing *all* of any man's analyses, opinions, and conclusions merely because *some* of them are wrong is an unwholesome attitude of poor scholarship. One should, rather, always seek out what an earlier scholar has correctly found, identify instances where he made mistakes, *and analyze the reasons he made the errors he did* in order so as not to make the same mistakes yourself. If you seek for an Infallible Authority, you will never find one in any of the works of man. This is why one is well advised to always strive to be both open-minded as to opinions of others as well as cautious in granting one's own agreement or disagreement with these opinions. Above all, one must not ignore a *fact* merely because one dislikes the presenter of that fact, and one must not accept a premise or opinion merely because one respects the person who premises or offers it. Only *after* you have done this should you determine your own conclusions.

Another thing that is necessary for completing the development of a proper natural science is the development of its expression using the language of mathematics. This is an undertaking still in its early stages for social-natural sciences and it would be foolish at this time to claim there is not a great deal of work yet untouched. Nonetheless, a greater amount of mathematical work on this has already been accomplished than one might assume. One of the most important pieces of this was provided by Grossberg in the 1970s and 80s in his discovery of embedding field theory. Additional more modest beginnings are provided by the still-nascent development of Wells' social-chemistry method for modeling social phenomena and by circumplex modeling methods developed for psychology beginning in the 1950s. You will encounter some of this in the pages that follow. However, you will not find it necessary to already know these mathematical tools in

order to read and follow *Critique of the American Institution of Education*. It is a firm maxim, as well as a practice followed by every branch of empirical science, that an understanding of the *qualitative* modeling aspects of any science must precede its formal *quantitative* models and explanations. This is because it is necessary to first properly develop the context of any scientific topic before mathematical treatment of that topic can fruitfully commence. You will not find it necessary to comprehend embedding field theory or the other tools of the mathematical description of an empirical science of education in order to read this book. The aim of *The Idea of Public Education* is much the same as the intent Darwin expressed for his *Origin of Species*, i.e., to provide a starting point without pretense that the work stands as a finished product of a science. It is not possible to entirely avoid the use of mathematics in this book, but it did not prove necessary to employ a level of mathematics beyond that available to a typical college student or advanced high school student.

Much of the terminology used in this treatise is technical. To assist you in understanding the material, I have included an abridged glossary of technical terms at the end of this treatise. This glossary is a subset of a larger one that is available free of charge from my Laboratory's website at <http://www.mrc.uidaho.edu/~rwells/techdocs>. You can also obtain other books and papers referenced in this treatise free of charge from this website.

In this volume, chapter 1 presents an historical summary of the arising of the American colonies, their divers forms of governance, and their dominant attitudes in regard to education. It briefly describes the schools instituted and the nature of the instruction provided. Education by means of formal schooling in the early colonies was very limited in scope. The principal means of education in colonial days was via the institution of the colonial apprenticeship system.

Chapter 2 provides a Critique of Puritan New England. This pre-Yankee Society occupies a special place of importance in this work for two reasons. First, the earliest emergence of public instructional education arose in Puritan New England in the mid-seventeenth century. Second, the Puritan civilization no longer exists. It was a relatively recent example of a phenomenon found again and again in the pages of history, namely the rise of a civilization followed by its fall due to self-destructive forces acting within it. That phenomenon is one of central concern in *Critique of the American Institution of Education* because a nation's or a Society's institution of education is intimately tied to Order and Progress and because it is likewise a factor in both the growth and development of a Society and in its arrest, breakdown, and eventual disintegration. Here we are confronted by a disturbing feature of past civilizations that was first hauled into the light of examination by Arnold Toynbee in the mid-1940s. Civilizations do not fall as the consequence of external pressures. When a civilization falls, *it falls from within*.

Chapter 2 treats in some detail how Puritan Society was set up in regard to the principles of the Social Contract and why this Society underwent its disintegration and fall. The establishment of the Rhode Island colony was an outgrowth of the social factors that eventually caused Puritan Society to self-destruct. The chapter also briefly, and for purposes of illustration and contrast, introduces the BaMbuti Society of the Congo region in Africa, which is thought by some modern anthropologists to be the oldest surviving civilization on the face of the earth. The distinction between BaMbuti civilization and the American colonies is the distinction between a *natural* Society and what American philosopher George Santayana called a *free* Society.

Chapter 3 covers the American middle passage from the emergence of Yankee Society to the beginning of the series of challenges that led to the American Revolution. The chapter begins with a qualitative overview of the concepts of social-chemistry and the embedding field modeling of societies and Societies. These concepts are used to place events in the middle passage in proper historical and social-natural context. One important social-chemistry model appearing in this chapter is a model I call the Enterprise-protein model of complex social interactions.

The American social environment of the middle passage had the effect of providing a series of provocations that bestirred Americans to actions leading to the growth of a distinctly American civilization. Chapter 3 overviews the primary factors that provoked this growth. This social environment was composed of several distinctive types of independent Communities of corporate persons. These Communities coexisted in predominantly state-of-nature relationships that were sometimes moderated by temporary treaties and alliances. Inter-Community intercourse presented many challenges for the colonists to overcome, and these challenges provoked a slow development of a distinctly American civilization. Central to this were dynamics predictable from basic principles of social contracting. As early as 1651, the English philosopher Thomas Hobbes had set down one of the earliest descriptions of these principles and discussed the practical reasons of self-interest why human beings enter into social contracts with one another. These were true lessons of a social-natural political science, and early colonial leaders were attentive to Hobbes' principles and arguments. One of these principles held that human intellect and capacity for learning is predominantly equal for all human beings, and that differences in this capacity from one person to the next are very slight in comparison with the number of characteristics all human beings of normal health share equally with one another. This is, unfortunately, an important fact of human nature that was utterly misunderstood by so-called Progressive education reformers in the 20th century, and their error produced appalling enormities in the institution of education.

Chapter 3 also presents a basic factor of human nature that is fundamental in human social dynamics. This is the idea of *Personfähigkeit*, i.e., the power of an individual person. Individuals' self-determined efforts by which each strives to maintain and improve his state of *Personfähigkeit* is the primary motivator of all human social dynamics. For all but the Negro slaves, colonial America was truly a land of opportunity, and almost all white colonials exploited this opportunity the unique circumstances of America opened up to them. Their situation was vastly different from that in subjugated Europe and this was a principal factor in producing what was most distinctive about the budding new American civilization.

Chapter 4 provides the detailed Critique and ratings evaluation of the American institution as it stood by 1763. The social-natural character of education institution detailed in this chapter and the commentary on how well or poorly a public education system satisfies the expectation for the institution applies throughout this treatise. The considerations covered here likewise are those that volume III employs. Figures 4.3 and 4.4 present a concise summary of the functions of public instructional education in the form of a 3rd order analytic representation (3LAR).

The chapter begins with an explanation of the rating methodology employed throughout this Critique. This methodology employs as its standard gauge rankings of public education functions relative to the adequacy or inadequacy of their implementations for satisfaction of social contract expectations for Order and Progress for American Society overall. The Critical distinction between schools and schooling is explained. Especially in pre-industrial America, institution of public education relied primarily on non-school schooling to achieve its social objectives. Although schools and schooling came to be regarded as synonymous in the 20th century, this equation is false and was a byproduct of the 20th century's Progressive Education Movement that began in the early years of that century. In colonial America until the late 18th century, schools were merely a means of empowering the individual's capacity for educational Self-development. The primary educational achievements of the institution were delivered by an extensive system of apprenticeship training that was characteristic of colonial life.

One of the important points that emerges from study of education institution in colonial America is a tight coupling between schooling and the economy. This tight coupling relationship continues to hold today. It necessitates a detailed review and discussion of American economics that is provided in later chapters of this treatise. Another key lesson emerging from this first part of the Critique is this: What constitutes adequacy for education institution is determined by needs

of the local Community and by whatever interactions exist between it and other Communities. In this context, each must be regarded as a mini-Community among mini-Communities in the overall makeup of American Society. Where relationships between mini-Communities present challenges to each, local adequacy is not sufficient and a broader scheme of institutional jurisdiction is made necessary if these mini-Communities are to comprise a united general Community under a form of republican social governance.

Critique of the colonial institution is carried out in chapter 4 separately for the three major regions of the country: the Northern colonies; the Middle colonies; and the Southern colonies. This is because each region presented a distinctly different social environment, different forms of social governance, and, in effect, present a colonial America comprised of three distinguishable types of Societies in the overall makeup of the American civilization. These distinctions gave rise to three different and not altogether compatible political views of roles and forms for education. These three different regards continue to be important factors today in controversies over public instructional education.

The Critique also examines the institution in the two major explicit dimensions of the learner-as-a-free-person and the learner-as-a-member-of-a-Community. Critique of the personal division shows that the three colonial regions met expectations for the education function unequally. In no region was public instructional education completely adequate for maintaining the social Order, and in no education function was the institution sufficient for Progress in any of the regions. The institution in the personal dimension was marginally better in the Northern colonies than in the Middle colonies. The latter, in turn, were marginally better overall than was the institution in the Southern colonies. In the social dimension (learner-as-member-of-a-Community) the ratings improve slightly in the Northern colonies relative to the personal dimension ratings. Ratings in this dimension for the Middle colonies remain more or less equivalent to their ratings in the personal dimension. In the Southern colonies, these ratings drop slightly.

The latter half of the 18th century saw two deeply intertwined revolutions take place in America. One was the well-recognized political revolution, which ended with the birth of the United States of America. The second was a little known Economy revolution that introduced uncivic free enterprise into the American Enterprise-protein structure and partly caused the Revolutionary War. Chapter 5 deals with this Economy revolution and the devastating effect it had on the American institution of education.

The chapter first presents the empirical characteristics of an economy revolution. These events always pose a Toynbee challenge to a Society undergoing one. In the American case, colonial Society was unable to adapt to deal with the challenge and disintegrated. For those who might protest that "disintegration" is too strong a word to describe what took place, I merely ask if the protestor has forgotten what happened to the Loyalists in the aftermath of revolution. Any event that results in the mass exodus of a large fraction of the former citizens of a Society *ipso facto* signals the end of one Society and the beginning of another. A brief interregnum followed the breakup. This was made shorter by the Americans' common cause of the war with Great Britain. By 1789 a new American Society was rising, namely that of the constitutional Republic.

The first phase of the American Economy revolution was a Labor revolution. This began in the cities and large towns and only later spread to affect the smaller towns and rural areas. Many of the causative factors of the Labor revolution were also causative factors in the political one. The first devastating effect of the Labor revolution was the destruction of the institution of apprenticeship in the cities. As this was the principal institute for education in urban America, its demolition was a serious setback for education.

To properly understand the Economy revolution and its co-determining relationships with the political American Revolution, it is necessary to examine a few principles of social-natural

economics. Chapter 5 presents this examination as well as an examination of the social-natural character of capitalism.

The American political revolution and the American Economy revolution were inextricably connected. The policies of British mercantilism worked directly against American interests tied to individuals' Duties-to-themselves in the sphere of tangible *Personfähigkeit*. Chapter 5 first reviews the effects of British mercantile policies and how these policies swept through the Enterprise-protein structure of the American economy. It next examines the Economy revolution itself during its initial Labor revolution phase. The examination begins with the social-natural definition of what a "revolution" is. It is shown how a revolution is tied to Toynbee challenges confronting a Society. The social-natural real-explanations of several technical terms from social-natural economics are introduced. These are used to describe the socio-economic circumstances in which many Americans lived in the latter half of the 18th century.

The Labor revolution phase of the Economy revolution drastically altered the socio-economic environment in colonial America. Late 17th and early 18th century Enterprises did function as *de facto* institutes of education for the civil mini-Community of people working together within the individual Enterprises. Prior to the Labor revolution, these institutes constituted one of the primary institutions of education in America. For the most part, they promoted civil Community and civic free enterprise. The Labor revolution changed this and brought forward a widening spread of uncivic free enterprise practices that are with us still today. Many people presume that uncivic free enterprise is the only sort of free enterprise that has ever existed in America. This is simply not true, and its genesis dates from the period of the Labor revolution.

Chapter 6 reviews political developments that occurred during and immediately after the Revolutionary War. These developments had a distinct effect on the nature of the post-war reinstitution of education. National political differences had consequences for the reinstitution and led to a great diversity in the manner, means, and quality of educational opportunity in the states. Although a few of the Framers of the U.S. Constitution recognized public education as a proper and central concern of republican government, many others did not. Nor did many of the state governments recognize education as a proper function of government. No political body saw it as a vital *part* of government. To sustain the radically new form of government established by the new Constitution, a national system of education was needed. However, one unintended consequence of the Bill of Rights was that the 10th amendment effectively barred the general government, particularly the Congress, from passing any laws regarding the establishment of a national system of education.

The 18th century Enlightenment had brought forward the idea of a necessary relationship between education and republican governance. These principles were well known to several of the Revolution's most prominent and respected leaders. Enlightenment principles reflected a general idea of the unbounded perfectibility of Man and his institutions. There were four major principles: (1) the principle of justifiable institutions; (2) the principle of progressive education; (3) the principle of the human determinability of Progress; and (4) the principle of the necessity for flexible institutions. The chapter describes and briefly Critiques these principles.

These principles alone are not sufficient for grounding a social-natural science of education but they do provide principles for assessing and evaluating Progress toward such a science and the institutions constructed from it. They were employed by several prominent Revolutionary leaders in composing plans for a Republic's system of education. Authors of these plans included Benjamin Rush, Robert Coram, James Sullivan, Nathaniel Chipman, Samuel Knox, Samuel H. Smith, A.L.R. de Lafitte du Courteil, and Pierre Samuel Du Pont de Nemours. Chapter 6 summarizes the common elements of these plans with a brief Critique of their strengths and weaknesses. None of these plans were ever implemented. Neither were any of them remembered

by 20th century education reformers. The Enlightenment principles were scarcely recognized by John Dewey or Boyd H. Bode. The Progressive Education Movement was aware merely of soundbite snippets of them and almost wholly ignorant of what these principles meant. In this sense, the 20th century can with a significant degree of truth be called an Age of Un-enlightenment in education. Particularly as interpreted by Hansen (1926), one can see echoes of the Enlightenment principles in a number of the slogans favored by Dewey and the Progressive Education Movement (PEM). Hansen's own interpretations of these principles reveal plainly that his own views were in great measure sympathetic with those of the PEM. The chapter concludes with a review of details set out in the education plans of Knox, Smith, and Du Pont de Nemours. This is followed by the Critique of these plans.

Chapter 7 begins with an overview of the outcomes of post-war education reinstitution in the new Republic. These outcomes were generally inferior to what had been achieved previously in colonial New England. Several general factors contributed to educational shortcomings. The initial reinstitution was in the hands of the State governments. These proved to be inadequate to this task. Three distinctly different State attitudes that mirrored those of colonial America were evident during the reinstitution period from 1785 to 1829: (1) the "strong state support" attitude; (2) the parochial and charity school attitude; and (3) the "no support" attitude. The general government was barred by the 10th Amendment from having any direct role in the institution of public education. For this reason, no national system of education was or could be instituted.

The actions forthcoming from the "strong state support for education" group are reviewed. It is shown that "strong" is a relative term in describing these states. Their support was "strong" only in relationship to the other state government attitudes. The centralized state governments in this group merely forced their townships to tax themselves to pay for public schools, mandated what was to be taught, who could teach it, and how many months per year schools were to be operated.

One measure of the effectiveness of an education institution is literacy rate. This is a performance indicator that is heavily influenced by population growth, geographic distribution, economic conditions, and other factors. Chapter 7 undertakes an assessment review of 19th century literacy in America in connection with these factors. The findings of this assessment are: (1) the overall growth rate for U.S. population as a whole followed a natural growth process at an annual growth rate of 2.74% from 1800 to 1900; (2) there was a considerable degree of variance in this growth rate at the regional levels; (3) there is no evidence that U.S. growth rate was affected by the American industrial revolution; this is surprising because the data contradicts a common assumption of sociology, namely that industrial revolutions produce an increase in population growth rate; (4) literacy rates among native-born Americans improved from about 1845 to 1900; this is consistent with the fact that there were publicly-driven reform movements to better the institution of school systems; the first was from 1820 to 1860, the other from 1860 to 1900; (5) there was a general lack of real school-based educational opportunity for adults, as indicated by high illiteracy rates among immigrants; and (6) with regard to literacy as an indicator the schooling institution for white Americans was by 1845-50 about as effective as it had been in colonial Massachusetts.

Despite literacy improvements, education institution was held to be inadequate by citizens of the United States. This is demonstrated by the fact that two popular reform movements were undertaken in the 19th century. Chapter 7 goes on to analyze causative factors of malcontent in the social environment of 19th century public education. Chapter 8 undertakes analysis of economic factors during this century. One major factor was the industrial revolution, which was the second phase of the Economy revolution. The analysis begins by asking whether or not the industrial revolution actually produced a Toynbee challenge to which the reform movements were a response. It is concluded that it did and that, furthermore, there were three distinct periods of challenge overlapping the 19th century reform movements. These were: (1) prior to 1850; (2)

from 1850 to 1870; and (3) from 1870 to 1900.

American Society's responses to the challenges were not successful. Increasing social granulation appeared between competing groups of factions, each of which promoted its own special interests. Examination of the 19th century socio-economic background begins with a brief description of the mental physics of human motivation. The economy of a Society is one of the key determining factors of individual happiness and domestic tranquility. The state of domestic tranquility was one of the factors that motivated the education reform movements. Chapter 7 presents a general overview of economic circumstances in 19th century America. This analysis is continued in greater detail in chapter 8. The provocation of competing factions was one economic consequence. This contributed to the genesis of nationally-organized political factions, namely those represented by the formation of political parties. The Founding Fathers had generally recognized the danger factions posed to the republican Union. Many of them regarded the State governments as the principal factional threat to the new Republic. However, both John Adams and George Washington explicitly recognized the threat political parties posed. Both men warned the nation about this but, as history proves, their warnings went unheeded and the disintegrating effects of political parties they had warned about did come to pass. This, too, was a causative factor in the shortcomings of the American institution of public educational instruction.

Chapter 8 begins with a brief overview of the mental physics of Self-determination. In particular, it reviews the role individual practical tenets and practical hypothetical imperatives in the manifold of rules act as determiners of individual personality, habitual interpersonal behavior, and operational behaviors by which a person communicates non-verbal messages to other people. The socio-economic environment profoundly affects behavioral dynamics. Just as there is a division of labor found in more advanced stages of civilization, so too is found an analogous division of social roles different individuals come to fill in a Society. This "social division of labor" is responsible for phenomena of social stratification and class divisions. The grounds for these phenomena rest in individual Obligations-to-Self and the extent to which the Community forms as a deontologically civil Community.

There are several social classifications that naturally arise in Societies that have advanced beyond the stage Santayana termed the "natural society." One of these is made up of the group of people called proprietor-owners. Chapter 8 treats this classification first and discusses the basis in social conventions producing tenets closely associated with this group. As a labeling convention, I refer to this group as the capitalist entrepreneurs. The second major classification is that of entrepreneurs whose primary personal revenues are derived from selling services in exchange for payment of wages. I call this group the wage-earner entrepreneurs. Originally a minority in colonial America, this group grew in population swiftly in the urban areas after the Economy revolution. It developed less swiftly in the rural areas.

The 19th century economic environment is first looked at from the perspective of the proprietor-owner. On the average, these individuals were able to maintain their own economic equilibrium (tangible *Personfähigkeit*) up until around 1880. From 1880 to 1890 their economic circumstances on the average deteriorated but they were able to somewhat restore their former tangible *Personfähigkeit* by cutting back on the labor force they employed while holding wages paid to wage-earner entrepreneurs static. The economic statistics are consistent with mental physics expectations for behaviors responding to Duties-to-Self in an environment of uncivic free enterprise. Actions taken by the proprietor-owner group directly affected between 1-in-8 to 1-in-5 of all U.S. workers from 1820 to 1900. Because of the Enterprise-protein structure of economic Society, it is almost beyond reasonable doubt that capitalist-entrepreneur actions had effects that propagated throughout the U.S. economy.

Chapter 8 next takes up an examination of the economic environment as seen by wage-laborer

entrepreneurs. The first manifestation of Society-granulating effects of uncivic free enterprise in the period following the Economy revolution was the early formation of labor unions. Like the capitalist-entrepreneur, wage-earner entrepreneurs acted on the basis of Duties-to-Self in an environment and under social circumstances that foster uncivic competition between the two classes. The political power that the new national political parties had gained generally functioned to the disbenefit of wage laborers, as did the 10th Amendment to the U.S. Constitution.

The chapter carries out a macroeconomic analysis of the 19th century. There were four distinct economic periods that can be discerned, two of which were periods of major recessions covering the years 1815-1843 and 1865-1896. The analysis is quantified in terms of business, employment, and living condition factors. The analysis is carried out by accounting for human perspectives on the socio-economic environment as these perspectives are dictated by the mental physics of human reasoning. In the environment of uncivic free enterprise that prevailed, capitalist-entrepreneurs and wage-earner entrepreneurs viewed circumstances differently, and this was a source of domestic friction between these two mini-Communities. It also led to two 19th century reform movements in the institution of public education.

For the majority of Americans in the 19th century, life was economically difficult. Declining birth rates and high infant mortality rates marked the living conditions of the 19th century. There is also statistical evidence that these same conditions provoked a significant rise in the number of Americans who tried and succeeded in becoming small business owners. They still constituted a tiny fraction of all Americans (less than 2%) by the 1890s. These new small-capitalization entrepreneurs appear to have by and large been successful, as judged by the approximately 1% rate of business failures during the period. However, to become a capitalist entrepreneur at any economic scale requires capital. For the majority of 19th century Americans, this acquisition was simply beyond their means to achieve. The situation constitutes a hindrance to civil liberty because most Americans found their personal liberty of enterprise limited to that of wage-earning. This hindrance of personal liberty was made more burdensome by the legal system. In particular, state laws and numerous court decisions prohibited wage earners from forming combinations and conducting collective bargaining in such a way as to be effective. At the same time, similar combinations by proprietor-owners were not prohibited. This inequity in law favored the interests of a minority of Americans, effectively increased their tangible *Personfähigkeit*, and did so at the expense of the majority. In this way the legal system acted as an institutionalized perpetuation of an on-going violation of the American social contract and contributed to granulation by economic classes in American Society.

The first major education reform movement of the 19th century took place from *circa* 1820 to 1860. It was and is associated with the leadership of Horace Mann. I refer to this movement as the Republic Era of education reform because its reform proposals were aligned with the goal of meeting the needs of an American Republic as the Founding Fathers intended to constitute it. The second reform movement occurred *circa* 1867 to 1896 under the banner of utilitarianism. It was the product of a Social environment in which a small number of large-capitalization industrialists succeeded in obtaining a great deal of political and tangible power by means that were often unscrupulous in a civil Community but very effective in state-of-nature circumstances such as those produced by uncivic free enterprise. I call this era of education reform the Plutocratic Era. It led directly to a 20th century education reform movement known as the Progressive Education Movement. Chapter 8 cites statistical evidence for this delineation of the two reform movements.

The Republic Era is discussed first. This reform movement was provoked by widespread concerns over the widening social class divisions taking place and by mounting civil violence occurring in the cities. The reformers viewed public education as a bonding factor that could restore social Order and redress injustices. The intentions of the reformers were good and true, in the context of a civil Republic, but the measures taken were inadequate to the task. A ranking of

the functional performance achievements as these stood at the eve of the Civil War is made.

The antebellum United States had already sectionalized into two distinct Societies by 1860. The Civil War completed the disintegration of the first institution of the United States. The War itself produced an economic boom period in the North, along with the rise to rulership of the Republican Party and the ousting of the older Democratic Party from power. By 1870 a new phase of the industrial-economic revolution was underway, as was a new period of education reform. This reform movement operated within a social environment that produced the transformation of the original Republic into a democratic republic under minority rulership by the political party bosses and a few large-capitalization industrialists. The reforms did bring about an expansion of the school curriculum, a wider establishment of high schools and normal schools, and saw the introduction of new teaching methodologies poorly copied from European methods. The net effect of all these changes was to make the United States more closely resemble Europe.

However, the education reforms failed to satisfy any of the granulated mini-Communities that had been produced in consequence of the Civil War. Overall ratings in the personal dimension of public instructional education did make modest improvements relative to the achievements of the Horace Mann era but none of them were adequate to achieve and sustain Order in Society. Tellingly, those areas that showed improvement were in the corporal division of instructional education, which demonstrates that the improvements were accidental and not the deliberate effect of new education policy. There was no improvement in the social dimension of the learner as a result of the Plutocratic Era reforms.

Chapter 9 presents in greater detail the specific changes that appeared in school institution during the Plutocratic Era. There were no fewer than thirteen distinct special interest movements during the Plutocratic Era, the earliest of which began *circa* 1850 and most of which were played out by 1917. Instituted reforms during the Plutocratic Era were the outcome of intensely political competitions between rival factions fought out state by state.

Chapter 9 sketches the development the public elementary school curriculum as it developed from 1775 to 1900. The elementary school curriculum that had been instituted by 1900 for the first through sixth grades remained basically unchanged throughout the 20th century. Teaching methods, on the other hand, were radically altered during both the Plutocratic Era and again in the 20th century. Although histories of U.S. education tend to give almost their complete attention to urban schools, any evaluation of the 19th century must give attention to the institution of the rural school system. Even in 1900, over 60% of Americans lived in rural areas, and the great majority of the rural population lived in small unincorporated townships or on individual farms. The chapter provides a brief sketch illustrating the character of rural public education.

The present day emphasis many people place on training learners for specific job skills had its origins in the Plutocratic Era. This sort of training is misleadingly called "vocational education" or "Voc Ed" for short. It has little to do with the root meaning of the word "vocation" and reflects a false hypothesis regarding human nature. As an education tactic it is and always has been inimical to Progress in a Society because it presupposes static economic conditions that are found nowhere in Western civilization or elsewhere in the world outside of a few small *Gemeinschaft* Societies such as that of the BaMbuti Pygmies of the Congo region in Africa. **Capital skill**, and not mere job skill, is the proper educational objective for public schooling in any Society that claims to value economic free enterprise. Chapter 9 defines what the term "capital skill" means.

Two 19th century Europeans inspired the reforms in teaching methodology effected during the Plutocratic Era. They were Johann Heinrich Pestalozzi, a remarkable Swiss humanitarian, and Johann Friedrich Herbart, a minor German philosopher. Pestalozzi's methods of teaching were innovative in his day and most of "Pestalozzi's principles" are wholly congruent with the human nature of effective learning. Chapter 9 provides a summary overview of Pestalozzi's principles.

These were not well-effected by the American reformers, but many of them nonetheless retain great relevance for effective teaching to this day.

The Herbartian movement is said to have been inspired by Herbart although the movement itself was actually founded by Leipzig professor Tuiskon Ziller and his former student, professor William Rein of the University of Jena. This establishment happened twenty-four years after the death of Herbart and the movement's association with him is owed to Ziller crediting Herbart's philosophy as the inspirational ground and guiding framework for his education theory. Some of the principles of "Herbartian" theory, primarily those originating from Pestalozzi's work, are objectively valid. Others are based on a pseudo-psychology that was popular in America and Europe at the time but has since been thoroughly discredited by 20th century psychology research. Two of its valid maxims are: (1) engaging the learner's interest in a topic is the first and primary prerequisite for good instruction; and (2) learner comprehension of new knowledge requires this knowledge to be assimilated into what the learner already knows. This second maxim is objectively valid but Herbartian "psychology" fundamentally misunderstood how this assimilation works. Methods based on these misunderstandings are seriously and fatally flawed.

The most influential, and most flawed, part of Herbartian theory was a methodology that came to be known as "the Five Formal Steps": preparation; presentation; association; generalization; and application. Students studying to become teachers were taught to make out their daily lesson plans according to the Five Formal Steps. Unfortunately, this theory is riddled with errors through and through, and the doctrine constitutes an unnatural theory – i.e., it contradicts the human nature of learning.

The Herbartians were correct to view curriculum subject-matter as a *tool* for teaching methodology, and they were also correct to say that neither subject-matter nor teaching method has a priority of the one over the other. The two are mutually co-determining and both are subordinate to the prime objective education institution is to serve. The Herbartians were not correct in their identification of this prime objective for *public* instructional education. They held that "character development" should be the prime objective. However, for *public* education the development of good ***citizenship*** is the prime objective under the social contract of a Republic. On the practical plane and under an objectively valid system of deontological ethics, good citizenship *defines* good character, not vice versa.

Most of the reformers' claims made in the Plutocratic Era that their reforms are "scientific" were based on the claim that Herbartian theory was, or was based on, an objectively valid science of psychology. In actuality, Herbartian theory was grounded in a pseudo-psychology that was in its turn based on Hegel's philosophy. Consequently, the theory was not a theory of a natural science at all. Instead it was a doctrine grounded in mysticism. It is probably ironic that Herbartian theory was developed and launched during precisely the same period of history when the authority of Hegel's philosophy was being demolished in Europe by natural scientists. In the United States, Hegelian thought continued to be the dominating philosophy in American higher education throughout the 19th century. Indeed, it was an important partial cause in provoking the Progressive Education Movement in the 20th century.

The beginning of the institution of high schools was probably the principal achievement of the Plutocratic Era reformers. This institution was made to serve two purposes. On the one hand, the high school was to take over the traditional role of the old Latin grammar schools and prepare a tiny minority of young people to go to college. On the other hand, the new high schools were being looked to as a replacement for the now-vanished urban apprenticeship system and provide a "vocational education" to "the masses who are destined to fill the ranks of common laborers." In so-setting the objective of the high school, Plutocratic Era reformations set up an institution that stands in foundational contradiction to the Idea of the American Republic and was instead fitted

to suit a Society of class divisions in violation of social contracting in a Republic. This enormity would be further compounded by reformations effected during the Progressive Education Movement in the 20th century. Almost all the subsequent failures of the American high school institution flowed from this original corruption of public instructional education.

The institution of high schools followed no master plan and was the outcome of competition among divers minority special interest mini-Communities. It is therefore not surprising that no common high school curriculum was established. Neither is it surprising that divers purposes, not necessarily compatible with one another, were assigned to the high school as its function. This error at the foundations of objectives-setting was perpetuated into and throughout the 20th century and is a controversy-provoking factor today. It has resulted in a national situation so contradictory to a Republic's purposes for establishing public instructional education, and the flaws in the present day system are so serious, that the current institution does not require "fixing" but, rather, *replacement* with a form of institution solidly grounded in the social contract and congruent with human nature. Its flaws are radical, and so too must be their remedy.

The Plutocratic Era witnessed a growth in the number of normal schools set up and tasked with training teachers. These schools were the blossoming fruit of the earlier Republic Era of education reform. Initially merely departments within high schools, the normal schools gradually evolved into junior-college-like institutes and, later, into the 4-year teachers' colleges of today. Like the general institution of high schools, these institutes also require major reformation today.

One highly influential event near the end of the Plutocratic Era was the appointment in 1892, by the National Education Association (NEA), of a committee mostly comprised of college administrators and professors with a few heads of private schools. It came to be known as the Committee of Ten. The committee was expressly formed for the purpose of improving the college preparatory programs in the high schools. Its recommendations were by and large followed, and were bitterly opposed twenty-four years later by the Progressive Education Movement. The latter movement dominated education reform in the 20th century. One consequence of the Committee of Ten's report was to increase the collegiate academic focus of secondary education, and nothing came to be more strongly opposed by the Progressive Education Movement.

19th century educologists, as well as most parents, subscribed to a doctrine called "mental discipline." This doctrine is a product of pseudo-science. In its 19th century form it was proposed by empiricist-associationist proto-psychologists near the end of the 18th century and early years of the 19th. Notable theorists speculating on the nature of human learning included Scottish professor Thomas Reid and anatomist Franz Joseph Gall. Mental discipline is the speculation that the human mind is composed of specific "faculties" for reasoning, memorizing, and so on. It further assumes these "faculties" have *ontological* significance, specifically that they are "parts" in the human brain. It is further assumed that these "faculties" can be trained and strengthened by vigorous and highly disciplined study regardless of what subject-matter is studied. The report of the Committee of Ten implicitly endorsed this theory. Mental discipline theory has been refuted in psychological research many times, but as many times as it has been refuted it has returned in other guises using new terms to name the old ideas. In the late 20th century it was being called "critical thinking skills." Mental discipline theory has proven to be hard to eradicate. To their credit, reformers in the Progressive Education Movement did try to eradicate it, but their theories were as flawed and unscientific as those of the mental disciplinarians.

The methods of mental discipline were based on relentless drill and rote memorization, minute dissection of the philological content of books with no effort to link lesson to life, and motivation through punishment. These methods succeeded only in dulling the learners' intellectual *Person-fähigkeit*, imparting a distaste for formal education, and fostering a rebellious anti-socialism in a learner proletariat the application of these methods created.

20th century education reforms got their start as a movement to eliminate the doctrine of mental discipline. This movement began in the colleges of the Plutocratic Era. Prior to the Civil War of 1861-65, most colleges were private denominational institutes established and governed by particular churches. Their governing officials were ministers. From 1870 to 1890, the number of institutes of higher education grew from around 600 institutes to 1000 institutes. This expansion was primarily fueled by the private philanthropy of businessmen possessing large capital resources (e.g. Cornelius Vanderbilt, Leland Stanford, Johns Hopkins, and others) who were dissatisfied with the neglect of practical and economically useful studies by the older schools. The expansion was secondarily fueled by state funding of colleges encouraged by the Morrill Act of 1862. The new institutes established courses and curricula aimed at the technical and scientific fields, agriculture, and business. At the same time, college enrollments continued to constitute only a tiny fraction (2-3%) of all 18- to 24-year-olds in the U.S. College enrollments grew at a rate matching the growth rate of the general population, and the colleges now faced stiff competition over too-few students for too-many seats. This led to a shift from minister dominated governing boards to governing boards dominated by business-oriented laymen.

The factors that drove everything about higher education institution during the Plutocratic Era were economic. Incomes for most Americans throughout the period were very low, annual college tuition per student cost nearly a full year's income for most families, and therefore higher education was available only to the wealthy. Among other things, this meant the individuals who would in later years come to fill the ranks of the professorship would come primarily from the economic upper class ranks of American Society. These individuals often had little appreciation or knowledge of the lives of the greater majority of Americans.

Furthermore, the majority of Americans saw little or no economic advantage to obtaining a college education, especially the sort of education provided by the traditional, classics-centered, religiously-oriented college. Facing hard economic realities, the principal higher education reformers of the period – made up primarily of college presidents and boards of trustees – undertook to transform higher education into an education more geared to occupational pursuits in science, business, and agriculture. Older traditional concerns with citizenship and leadership preparation fitting the needs of a Republic consequently received little focus or attention at precisely a time when economic conditions faced by most Americans were making these more important than ever. As a result, social contract needs for higher education were subordinated to paradigms of the practices of uncivic free enterprise. In effect, the American college lost its moral compass during the Plutocratic Era.

With the dawn of the 20th century a new reform era, one dominated by the Progressive Education Movement, got underway. The changes effected during this era had an impact on American public education that, from the perspective of the social contract, can only be described as disastrous to justice and to Progress in America. The "Progressive" in the movement's name meant something very different from the idea of Progress in a Society. To fully understand the impact of the Progressive Education Movement, it is important to understand the socio-economic environment in which these changes took place. Chapters 10 through 12 review this environment. The remaining chapters are a Critique of the education institution of the 20th century.

Analysis in chapter 10 shows that 20th century America went through five distinct socio-economic epochs. 20th century education reforms, on the other hand, remained rooted in pre-suppositions of the role of education that were anchored in conditions of the Plutocratic Era. The analysis of the 20th century environment calls upon statistical records containing data pertinent to the economic welfare of divers groups of people and how personal economic welfare functions as a partial determiner of Society. Chapter 10 begins by introducing some key fundamental concepts and with some cautionary remarks concerning proper vs. improper or deceptive use of statistics.

Chapter 10 analyzes empirical data that points to the existence of five distinct socio-economic epochs in the 20th century. Each of these epochs is significant in regard to factors in the socio-economic environment that affected the personal welfare of U.S. citizens. The five epochs are periods of different Toynbee challenges that confronted the United States. Chapter 11 takes up the analysis begun in chapter 10 and examines in more depth the first four epochs. Chapter 12 takes up the analysis of the fifth epoch.

Analysis of these details brings out exhibitions of social behaviors consistent with what one must expect of a Society whose institution of public instructional education fails to teach primary skills in civic and civil planning, social enterprise, cooperative skill enterprise, and civics/civil contracting. The exhibited patterns of behavior are also consistent with inadequate public education pertaining to skills of civil liberty. None of these functions were adequately instituted in 19th century reforms, and so the 19th century prepared the stage for the 20th. The reforms of the 20th century are later shown to have completely eviscerated the above-named functions, which leads to the complete failure of public instructional education to fulfill its Duties required of the institution by the American social contract.

Chapter 11 begins with a review of mini-Communities, factions, the organization of Societies in terms of them, and the modeling of Societies by the method of social-chemistry. Some general concepts of social-chemistry are next applied to the analysis of epochs M_1 (1888-1910) and M_2 (1910-1930) for mini-Communities defined by socio-economic observables. The analysis carried out provides examples of features that can be used to help identify divers mini-Communities.

Analysis shows that during M_3 a few occupational mini-Communities were adversely affected by the Great Depression in terms of tangible *Personfähigkeit*. However, the most pronounced differences occurred between people who remained employed and the approximately ten million wage-earners who became unemployed during the Great Depression. Here the greatest impact was felt by non-agricultural mini-Communities. Agricultural employment numbers remained more or less steady from 1929 to 1940 despite well-known Depression era folklore concerning farm foreclosures and Dust Bowl hardships. Factors contributing to the Great Depression included political policies, uncivic business practices, and unwise fiscal practices by banks, investment companies and individuals. Chapter 11 briefly summarizes the actions of various mini-Community groups which, taken together, triggered bank failures that, in turn, produced the Great Depression and adversely affected the tangible *Personfähigkeit* of many Americans.

Epoch M_4 was a period when the United States was confronted by and largely met a series of Toynbee challenges. These kept the nation off balance for thirty years (1940-1970) and in an unsettled environment of social, economic, and technological changes. The pace of technological change during M_4 outran people's ability to adapt socially to them and keep up with changes to the ways of life they produced. While M_4 was unmistakably a period of material Progress, it was also an epoch in which a stagnant arrangement of social customs failed to adequately meet requirements being imposed by American Society's changing circumstances. Evidence of the unsettled nature of the social environment appears in per capita debt statistics and per capita personal income statistics. The data fails to exhibit a natural growth process in per capita debt, and exhibits an inadequate growth in national per capita income. These reflect an on-going state of lack of economic equilibrium.

The years 1939 to 1944 saw a six-fold increase in the number of private proprietorship establishments in the U.S. This same period also saw a decline in the number of incorporated business establishments. By 1945 the U.S. had almost six million proprietorship enterprises vs. about 400,000 incorporated business establishments. The politically familiar description of the small business as "the backbone of the American economy" dates from this period.

The post-war years up to 1957 saw the number of incorporated establishments rise irregularly

to just under one million while the number of proprietorship establishments rose irregularly to 9.1 million. From 1955 to 1959 the number of proprietorships remained more or less constant while the number of incorporated business establishments followed a natural growth process at a rate of increase of 7% per year. This behavior followed the passage of Chapter S, section 1372, of the Internal Revenue Code in 1954, which recognized the S corporation as a new form of business enterprise. The growth rate of incorporated establishments slowed to 4.27% per year after 1960, and reached 1.75 million establishments in 1970. The majority of corporations were small businesses, as were the private proprietorships, which held steady at the 9.1 million level to 1970. One should note that this economic behavior runs contrary to the urbanization-industrialization character of the 19th century, especially in view of the fact that the United States no longer had a frontier region taking in an influx of emigrants such as was the case in the 19th century. This would seem to indicate that individual Americans were exhibiting a distaste for undertaking wage-earning personal enterprises within the usually uncivic social environment of industrial-revolution model Enterprise. Given the civil liberty to establish their own business affairs, a sizable fraction of the U.S. workforce chose to do precisely that. This is a social-psychological aspect of the post-Depression years that 20th century educational reforms neither anticipated nor recognized. The behavioral trend actually followed was one in antithesis of the presuppositions of Depression-era educologists who adopted attitudes of Marxist socialism in their reform theories.

One measure of business acumen is the ratio of profits to revenues. This ratio reflects how well or how poorly the resources of a business are being managed and how well or how poorly wage-earner entrepreneurs are being productively employed by the establishment. According to this observable indicator, private proprietorship owners decisively achieved results superior to those achieved by so-called-professional managers hired by corporations. The available data does not admit to a breakdown by analysis of differences which might exist in comparing the majority number of small corporations (especially S corporations) with the much smaller number of very large "battleship" corporations that garnered the lion's share of available corporate revenue. The statistics do, however, tend to indicate that there is a basic distinction to be drawn between a private proprietorship-capitalized mini-Community and a corporation mini-Community. The servicing of economic Duties-to-Self appears to be much more closely linked to business performance in a proprietorship Enterprise than in a hired-management corporation Enterprise.

This does not seem surprising because a proprietor's fulfillment of such Duties is more or less immediately linked in a quite visible way to economic performance of his business, as too is the linkage of his own ability to fulfill Self-Obligations with employed wage-earner entrepreneurs' ability to do the same. This is in sharp contrast to the socio-economic environment within larger establishments run by hired-help managers. These wage-earner entrepreneurs typically exhibit little interest in others' abilities to satisfy their Duties-to-Self, are able for the most part to ignore that anonymous abstract entity called 'the shareholders of the corporation,' and have little difficulty recognizing that "ownership" of the Enterprise by the latter is a mere legal fiction that is of little or no day-to-day personal consequence for most hired-help managers. It is a difference affecting the degree to which uncivic vs. civic relationships are intermixed within the working environment of an Enterprise. It is also a difference that tends to promote internecine competitions among the wage-earning entrepreneurs in a corporation Enterprise. That such a socio-economic Enterprise environment readily supports Enterprise governance in the Monarch-and-his-*Hirdmen* form is not at all a strange or unnatural feature of corporation Enterprises, whence comes the old adage of uncivic free enterprise, "management takes care of its own."

Precise statistics accounting for the numbers of private proprietors, owner-managers of S corporations, and self-employed individuals are not available, but it is almost beyond reasonable doubt that these groups accounted for only roughly 10% of the U.S. civilian labor force in M_4 and under 25% in M_5 . Lack of precise census data on this population is a peculiarity but could reflect

an habitual mindset for popularly regarding "business" and "the large corporation" as being or almost being synonymous. If so, one can appropriately call such a mindset an "edifice complex." It is not unusual for people to pay little attention to that which is commonplace and to celebrate that which is less common. Nonetheless, the fact remains that the great majority of people in the American labor force are wage-earner entrepreneurs. This much-larger group exhibits a variety of mini-Community classifications, and oftentimes its members are simultaneously members of more than one economic mini-Community.

Occupation class is one way to categorize economic mini-Communities. Chapter 11 presents an analysis of possible mini-Community classifications defined by occupation. The analysis demonstrates that mini-Communities can be identified by this approach, thus providing a social-natural backdrop for systematic examinations of the welfare environments in which divers mini-Communities operate. The analysis also demonstrates that mini-Communities categorized by occupation classes are not permanent. They form and disintegrate over time as economic circumstances change. Connected with this is the effect technology changes have on the social organization of a Society. These facts indicate that job-skill-centered public education is futile.

Industry class is another way to identify and categorize mini-Communities. As the term is used by the Census Bureau, an industry is a group of commercial entities similar enough to each other in terms of products, consumers of those products, methods of sales and distribution, and the kinds of raw materials consumed in their operations that these entities may be classified as species under a common genus ("the X industry"). Earnings data broken down by industry class reveals interesting regularities. Natural earnings growth processes exhibited by many subclasses within an industry class show that these groups exhibit the character of established mini-Communities. Evidence is also found that points to Enterprise-protein interactions between specific subclasses. These suggest empirical bases for macroeconomic embedding field models.

Income is a third indicator of possible mini-Community formations. There are a variety of ways to use income data to identify mini-Communities. Chapter 11 does so by Enterprise industry groups, i.e., by groupings of producers, distributors, and service providers. The third group includes government agencies and agents. The classification method analyses contributions to national income according to the basic structure of an economy in general in regard to its wealth assets distributions. This structure likewise reflects national consumption patterns.

The producers' group as a whole shows no evidence of a stable overall mini-Community structure. This is consistent with the uncooperatively competitive and frequently internecine group behaviors they exhibit under uncivic free enterprise. In contrast, the distributor and service groups did exhibit natural growth processes in M_4 , which points to possible mini-Community formations in these groups. This in turn implies commonalities of interests that tend to promote cooperative behaviors among members of these groups. Accompanying this are characteristics of income growth at a higher rate and with a robustness markedly superior to the M_4 income patterns of the producer group. These facts implicate research focus areas for Enterprise psychology.

Chapter 12 analyses epoch M_5 covering the years from 1970 to 2010. This is an epoch of arrested Progress, economic stagnation, and developing Societal breakdown in America. In M_5 the productive centers of science and technology began an emigration out of the United States to other countries in Europe and Asia, as too did forms of Enterprise that are most effective for wealth-production in a nation. Under the rulership of America's two dominant political party factions, government in the U.S. began exhibiting signs of breakdown and encroachment upon civil liberties grew by means of an increasing tyranny of non-consensus democracy. As measured by voter participation in general elections, the American political Toynbee proletariat reached the level of approximately one-third of the U.S. voting age population.

M_5 population growth rate was the second lowest in U.S. history. Only the growth rate during

the Great Depression was slower. Unemployment in 2010 was the second highest in U.S. history, topped only by the peak number of unemployed people at the height of the Great Depression. The unemployment rate was the third highest in U.S. history since records have been kept, topped only during the worst years of the Great Depression and the Panic of 1893. In the 1980s the growth rate in non-agricultural employment slowed from 2.08% to 1.70%, and in 2000 it entered a period of effectively zero growth while the unemployed population rose from 5.7 million to 14.8 million people.

Unlike the situation America faced in M_3 , it is no longer within the capacity of the government to finance an economic recovery. In 1990 per capita debt rose to match per capita national income and the gap between per capita debt and per capita income has been widening ever since. Additional debt-financed spending by government in the teeth of this condition will merely make the economic situation worse from inflation and by diverting capital for the purpose of servicing the debt that would otherwise be productively invested. America has become a debtor nation.

Tax and debt policies in the 1980s led to the formation of an economic caste system in the 1990s. For a supermajority of the U.S. population, personal wealth assets and tangible *Personsfähigkeit* declined. Under such conditions, growth of the Toynbee proletariat is inevitable because the lessening of an individual's tangible *Personsfähigkeit* is an effect antagonistic to his purposes in joining with others in a civil Community. Exhibited on the scale of M_5 , the socio-economic situation constitutes a clear and present threat to the continued *Existenz* of the political union of the United States.

Government-funded welfare programs similar to those put into effect during the Johnson administration cannot relieve or mediate this situation. This is because such measures do not increase the actual tangible *Personsfähigkeit* of the recipient but do decrease it for non-recipient taxpayers. Thus such programs actually deteriorate the situation. "Bread and circuses" did not save the Roman Republic, and they cannot save the Republic of the United States of America.

Fiscal policies put in place by private sector corporate managements in M_5 were irresponsible and ineffective. Throughout the period private proprietorships again outperformed the hired-help managers of the U.S. corporations and did so by an even greater margin than during M_4 . The general level of economic and leadership incompetence through wasted capital and misused resources this displays on the part of corporate managements is exacerbated by Taylorism, an incompetent paradigm of management that has been known since the 1920s and 30s to be a failed management theory. Since the 1980s, Taylorite practices have become prevalent in U.S. industry and business management. This widespread and growing incompetence in corporate and political governance is the product of an inadequate system of education and an inadequate understanding of the principles of social contracting.

Earnings data for M_5 is analyzed by industrial occupation groups. This analysis must be divided into two periods, 1970-1997 and 1998-2010, because changes made in the national classification system in 1998 made economic measurements between these two periods not comparable. This accounting change also makes it presently impossible to ascertain if M_5 ended in the year 2000 or if this epoch has continued into the 21st century.

Wage-earner population data reveals that by 1985 the manufacturing group population was surpassed by the wage-earner population comprising the services group. This was a significant event because it can be taken to mark the end of what is usually called "the industrial age" in the United States. The United States is still an "industrial nation" because it does have industries. But 1985 can be taken as the point in history when the U.S. passed from having a manufacturing economy to having a service economy. By 1997 manufacturing had slipped from being the largest industry group by population to being the 4th largest behind the services, retail trade, and government sector groups.

The overall civilian labor force grew at a rate slightly faster than the overall population growth from 1970 to 1997, and this growth did exhibit the characteristics of a natural growth process. However, industry group by industry group no industry individually exhibited a natural growth process. The finding this implicates is that the U.S. underwent a fundamental change in its economic environment. In this emerging new environment no industry group succeeded in establishing the pattern of a natural growth process in wage-earner earnings, thus none exhibited a pattern of Progress in the group's tangible *Personfähigkeit*. Most groups achieved either no real growth or saw actual declines in earnings received by wage-earner entrepreneurs. This evidences an underlying instability in the capacity of the industry groups to sustain themselves as economic Communities and suggests that business Enterprises are in frail and failing economic health.

Overall national real earnings declined from a peak in 1972-3 to a lower and no-growth level in the 1990s. Earnings data for 1970 to 1997 is analyzed in terms of three major groups distinguished by wage-earner population. In order from largest to smallest population group, the classifications are: Group A (services, retail trade, manufacturing, and government); Group B (wholesale trade, construction, transportation & public utilities, and finance, insurance & real estate); and Group C (mining). Private sector wage earners in Group A all lost ground in terms of real earnings, and only the manufacturing sector of this group exceeded the national average level of earnings.

Government wage earners, alone in Group A, saw a rise in real earnings from the 1972-3 level. However, because this data does not distinguish between earnings by elected officials, heads of departments and bureaus, and regular workforce employees, no firm conclusions may be made in regard to this group and the statistical average earnings are unlikely to present an accurate real picture of the economic condition of wage-earners in the government sector. It seems a stark peculiarity that the census bureau does not take care to provide the same detailed breakdown of the government sector as it does for the private sector and presents its data in such a vaguely organized fashion as to render its government sector data practically useless. This can only play into the hands of propagandists and it deprives U.S. citizens of a proper accounting for how the nation employs its public funds that go to finance government.

The medium population group, Group B, saw larger declines in real earnings compared to Group A. However, real earnings in this group exceeded the national average earnings level. 50% of the employed civilian labor force saw real declines in tangible *Personfähigkeit* from 1970 to 1997. Along with decline followed by stagnation in earnings, unemployment rate increased during this period from the level seen in M₄. Failure by any group to exhibit natural growth or decay processes in real earnings from 1970 to 1997 implies that previous mini-Communities identifiable during M₄ lost cohesiveness in the first half of M₅. If so, this would be a factor consistent with the decline of labor unions as significant economic mini-Communities.

In 1998 the national system of industrial classification was substantially changed. Given what was apparently a major social realignment of mini-Community formations during the first half of M₅, an overhaul of the classification system was merited. However, continued absence of exhibition of natural growth processes in earnings, accompanied by continuing stagnant earnings, in the second half of M₅ implies that the new classification system does not properly capture the nature of the new M₅ socio-economic environment. Identification of newly emerging mini-Communities aligned by the new classification system is too speculative to be scientifically trustworthy. It might be true that new occupation-based mini-Communities have formed during M₅, which would be a reassuring indicator of domestic civil stability. However, the possibility cannot be ruled out that occupational mini-Community might have undergone a wholesale disintegration instead. If so, this would signal a sea turn in the nature of the Enterprise-protein structure in the American Society and indicate that old traditional ways of thinking about the nation's economic *Personfähigkeit* are no longer applicable. In such a case, policy decisions in both the government

and business sectors are much more likely to miscarry than to be successful. This is because such policy decisions would be made without an adequate understanding of human nature sufficient to predict how large groups of people will react to those policies in the service of individuals' Duties-to-themselves with respect to their external circumstances.

This comment equally includes policy decisions and paradigms for education reform. As chapters 13-16 show, economy-related paradigms were at the core of 20th century education reforms. These paradigms failed to note changes that were taking place in the American socio-economic environment. As a result, educologist theories in the 20th century became disconnected from real conditions in the national economic environment. This alone should cause us to predict that the education reforms would fail, and that is precisely what did happen. Reforms made to the U.S. institution of public instructional education in the 20th century were disastrous for national Progress, inadequate even for merely maintaining civil Order in U.S. Society, and perpetrated serious enormities of injustice against the American social contract.

From 1998 to 2010, the largest population stratum in the civilian labor force, Group AA, accounts for 41% of the civilian labor force. It is composed of the manufacturing, retail trade, health care & social services, and accommodations & food service sectors. This group saw flat or declining real earnings over this period with only the health care & social services sector bucking this trend and realizing a real growth in earnings. That growth matched a very modest rise in the national average earnings statistic. People in Group AA occupy the lower 70th percentile of the national distribution of money income.

The middle stratum of the civilian labor force, Group BB, accounts for 20% of the employed workforce. It is composed of the construction, professional & technical services, finance & insurance, and administrative & waste management sectors. This group saw real earnings growth outperform the national average. Three out of four of its occupational sectors (professional & technical services, finance & insurance, and construction) earned more than the national average and are placed in the top 30th percentile of the national distribution of money income. However, no sector exhibited a natural growth process in real earnings. This implies economic instability.

The smallest population stratum, Group CC, accounts for 9.5% of the civilian labor force. It is composed of the information (publishing, etc.), wholesale trade, and transportation & warehouse sectors. This group had earnings above the national average. Real earnings were more or less flat with the exception of the 2.7 million persons information sector, who realized an irregular but significant increase in real earnings.

Government employees (federal, state, and local) accounted for 17.4% of the civilian labor force. This group had earnings significantly above the national average, and all three constituent sectors had gains in real earnings over the period from 1998 to 2009. The number of state and local government employees increased by significant percentages during the period, while the number of federal government employees remained stagnant. Earnings for federal employees were significantly higher (by approximately 50%) than earnings for state and local government employees, and federal employees saw significant increases in earnings during the administration of President G.W. Bush. Again, however, the poor organization and presentation of earnings data for government wage-earners renders closer analysis of this group too speculative to draw any firm conclusions. One must bear in mind that the distribution of individuals' earnings ranges from the lowest paid file clerk up to the President of the United States. Average earnings under this condition is a fairly meaningless statistic.

Chapter 12's analysis makes it clear beyond reasonable doubt that the nature of the American economy underwent profound changes in M₅. Such changes always produce social changes in the mores and folkways of the Society, and changes in these always mean the Society is confronted by internal Toynbee challenges. Chapter 12 briefly summarizes the mental physics pertinent to

social changes and challenges of this sort. One of the most important aspects of human nature pertinent to internal Toynbee challenges is this: For some fraction of the population, issues that surface due to the changes are held-to-be *moral* issues. This means that the issues provoke in the individual very high level *practical* maxims of Obligation-to-self and, *ceteris paribus*, tend to provoke hostility towards and uncivic competition with other people. This is a root cause of Toynbee proletariat formation and the reason why Toynbee challenges always pose a threat to the continued *Existenz* of a Society. Societies fall from within and the fall is actualized by the moral secession of the Society's Toynbee proletariat from the ties of the Society's social contract.

The Toynbee challenge confronting American Society in M₅ is not *essentially* an economic challenge. Economic situations are merely reflections of social conditions and do not themselves become conditions of social upheaval unless the people in the Society *make* them conditions by ascribing personal challenges and hindrances they are experiencing in fulfilling their Duties-to-self and Duties-to-their-personal-society to the economic situation. More specifically, economic situation does not become a condition of social breakdown until the economic condition comes to be *regarded as a cause* of the personal hindrances individuals are experiencing.

Taylorism in governance (both political and Enterprise) is one important factor acting in M₅ to provoke individuals into turning their economic situation into a Toynbee challenge. Taylorite leadership paradigms, which are today widespread throughout government and business, are incompetent paradigms and they invariably produce moral secession from the Community whose governance practices them. Such secession invariably brings on a disintegration and fall.

Whether or not the current Toynbee challenge is presenting a crisis is not yet clear. My own professional opinion is that the challenge has not yet reached a crisis stage, but if it is not met successfully it *will* turn into a crisis. If it does, the consequences to American Society would be disastrous. Chapter 12 reviews the most commonly discussed proposals now being debated and, one by one, explains why *all* of them will fail. M₅ is a new epoch in American history and the old traditional methods of dealing with challenges do not apply to it.

Chapters 13-16 critique the educational reforms of the 20th century. The Critique is unable to conclude otherwise than that these reforms were socially disastrous and contributed directly to producing epoch M₅. The 20th century was a century of conflict over the form and function of public education by several factions. These factions differed from each other over what is loosely called the "philosophies of education" of the competitors. This, however, is an abuse of the word "philosophy" because where these factions differed was in matters of mere opinions and paradigms. Each faction did have its set of vaguely expressed "principles" but in no case did these constitute a technical philosophy. I therefore refer to each of them as a "possible applied philosophy of education" or PAPE. Chapter 13 previews the differing PAPEs held by the divers factions 20th century reform groups.

The reform principles and practices that were instituted were a thorough-going failure. The American institution of public education exited the 20th century with ranking scores of **zero** in every one of the categories of education function deduced in volume I, *Education and Society*. Chapter 13 prepares the groundwork for analysis of what went wrong by previewing the divers points of view held by the major reform movements. The divers bodies of opinions pertaining to the purpose, organization, administration, and practices of education are habitually labeled "philosophies of education." In point of fact, none of the education reform movements in the 20th century had a philosophy of education. What each had was in the best cases nothing more refined than a common body of beliefs, practices, opinions, and tastes.

It is possible to characterize these vying schools of thought in a number of different ways. One of these uses a four-fold division of classifications introduced by Brameld in the 1950s. Brameld's taxonomy is still in common usage by educologists today. Chapter 13 lays out the structure of the

Brameld taxonomy. Brameld's system can be set beside a five-fold classification of a socio-political spectrum of attitudes towards education reforms and controversies between different factions in regard to these reforms. By setting Brameld's taxonomy next to this socio-political spectrum an appreciation can be gained for understanding the viewpoints and actions of the diverse 20th century reform movements.

The socio-political spectrum is described first. Chapter 13 discusses the nature of human judgments by which individuals' actions can be understood in relationship to their external situations. It also briefly describes the social-chemistry dynamic that produces socio-political extremism. Next Brameld's taxonomy is introduced and set next to the socio-political spectrum. Categories within the taxonomy were set up to reflect what Brameld called "beliefs" about reality, knowledge, and values. As factors, these considerations reflect the traditional division of labor in philosophical theorizing between ontology, epistemology, and axiology. The taxonomy Brameld developed he then used to obtain a four-fold classification of different species of educational PAPERs. These he labeled Progressivism, Essentialism, Perennialism, and Reconstructionism. The labels came to be used by and became part of the lexicon of current education theory.

Perennialism is more properly called spiritual perennialism. It has long been a force in American public education. It was a dominating force from colonial times up until the Civil War of 1861-65. It began to lose its dominance in the "utilitarian" period of education reform after the Civil War and up through the final years of the 19th century. By 1875 the paradigm holding that education should have a spiritualist and religious foundation had been effectively challenged by the post Civil War utilitarian reformers. This change in the character of public education was opposed by conservative-to-reactionary educators and educologists, who fought a losing battle against late 19th century and early 20th century reforms. By 1910 spiritual perennialism was a spent force in public education, and after 1910 spiritual perennialism amounted to little more than a protest against changes being effected in the institution of public education.

The term "perennialism" in its proper usage denotes *only* advocating having a spiritualist-theological element preserved in the institution of public instructional education. However, the term was abused by the Progressive Education and the Essentialism movements in the 20th century. The Progressive Education Movement (PEM) in particular misapplied it by portraying any person or group who advocated a position contrary to the policies supported by the PEM as a "perennialist." This was a convenient instrument of propaganda since it tried to associate all opposition to PEM reforms with an already defeated and abandoned education paradigm.

One of the 20th century's reform movements so-labeled was the Great Books movement. This movement was active from *circa* 1936 and lingers on today. The movement advocated making liberal education a major element of public education. However, what the Great Books advocates meant by "liberal education" was something quite different than what the Progressives meant by this term. The Great Books movement sought to transmit the cultural heritage of Western civilization through public education. That this heritage included as one of its parts the heritage of Judeo-Christian religion – the influence of which cannot be seriously disputed – provided the tiny opening that was all PEM propagandists needed to level their charge of "perennialism" against the advocates of the Great Books movement. Educologists still label it as such today.

The Progressive Education Movement was the dominant faction in 20th century reforms. It was originally inspired by and claimed to be founded upon the education philosophy of John Dewey. As the movement developed, however, it lost touch with and soon fell away from Dewey's philosophy. The PEM became an instigator of unsound education fads. It also became a perpetrator and perpetuator of institutionalized enormities that were and are nothing else than egregious violations of the terms and conditions of the American social contract. Although this was unintentional on the part of PEM reformers, and can be directly attributed to the movement's

lack of an adequate scientific understanding of human nature, the effects of PEM reforms were nothing short of disastrous for the civil union of American Society.

Essentialism was the movement that comprised the principal opposition to the PEM. The Essentialists advocated a moderate-to-conservative approach to education reform. They placed an emphasis on academics, a common-core curriculum, and the teaching of basic academic and literary skills. As a movement, however, Essentialism is correctly described as disorganized, ineffectively promoted, and lacking in an underlying and unifying philosophy.

The Social Reconstructionist movement grew out of the PEM as a splinter group who reacted to the harsh social conditions during the Great Depression. This movement was a political movement from its very beginnings and sought to use public education as an instrument for effecting social reforms. In this it masqueraded as an education reform movement. Its political socialism and open sympathy for communism aroused the ire and opposition of conservative factions in the U.S. As an education movement, Social Reconstructionism had almost a nil effect on the institution of public instructional education. It did, however, give birth to the Home School Movement in the late 20th century.

Chapter 14 begins with a discussion of the socio-practical spectrum of public education in regard to the different sorts of change behaviors it must have to maintain Order and promote Progress for the civil Community. It presents a timeline of the 20th century reform movements and major events.

The Progressive Education Movement was born out of a series of reforms made in the institution of higher education from 1890 to 1910. These reforms altered the fundamental character of higher education in the United States. The institution established at that time has persisted almost unchanged to the present day. Some of the changes introduced were beneficial, but the most significant changes seriously handicapped the intellectual *Personfähigkeit* of the United States. These changes were: (1) overspecialization in the academic disciplines; and (2) Taylorism in administration of the higher education institutes.

The ranks of the active participants in the broader 20th century reform movements were primarily comprised of university educologists, public officials, and school administrators. The deep faults instituted in the higher education reforms thereby were echoed through organizations such as the National Education Association (NEA) and the Progressive Education Association (PEA). In the first decades of the 20th century, most of the reformations effected were aimed at overturning and replacing a system that had been set up by the PAPE of spiritual perennialism. This PAPE can be described as a combination of American Hegelianism, idealism, spiritualism, the quack theory of mental discipline, and associated dogmas of Protestant Christian theology. It was fit and proper to change the education institution that was established under perennialism. That institution had many faults including generally inhumane presuppositions about human nature, ineffective teaching practices, a reliance on the false doctrine of mental discipline, hostility to science, and a religious bias extremely prejudicial to non-Protestants. Even so, the reformers were wrong to entirely dismiss and oppose *all* of perennialism's features merely because *some* of its features were undesirable. Many of its curricular elements, once they were shorn of overt attachment to a specific religious faith, were valid and addressed necessary functions of public education. Furthermore, it was foolishly shortsighted of reformers to entirely dismiss the importance of the social effects of spiritualism as a determiner of human behavior.

The Progressive Education Movement (PEM) was the dominant force in the 20th century reforms. The movement claimed to be based on Dewey's applied philosophy of education, but in fact the PEM early on became a hotchpotch of contradictory opinions and enthusiasms for fads. It displayed an amateurish pretense of being "scientific." The movement was not in the least bit a science. Most of what its members thought to be true about human nature was wrong. Most of its

reforms were predicated on erroneous views held by various members. Furthermore, it was afflicted from the beginning with an antisocial tenet holding it is morally right for specialists – so-called "experts" – to order and rule the institution of public instructional education. Their pretension to rulership was at the core of many of the enormities it introduced and practiced.

The PEM was guided by four suppositions that collectively oriented its reforms in a manner that could only lead to the granulation and breakdown of American Society. These suppositions themselves presupposed that educologists had superior expertise in and knowledge of both human nature and Society in comparison to those who did not belong to their ranks. Therefore they held that it was correct and proper that they should be the ones to dictate to Society what public education was to have for its objectives. In point of fact, their claimed expertise is illusory. The pretension was antisocial and their education rulership was in egregious violation of the American social contract.

It was an avowed intention of the PEA to make education into a science. In point of fact, none of the major figures of PEM reform were scientists or had sufficient knowledge of the practices of natural science, and so this effort was an utter failure. The reforms actually effected by the PEM were a potpourri of quackery, fads, propaganda, and Taylorism. Chapter 14 critiques the manifold errors made in and the injustices perpetrated and perpetuated by PEM reforms.

The PEM dominated education reform until the early-to-mid 1970s. The other reform movements can be called movements in resistance to PEM reforms. The PEM had defeated spiritual perennialism decisively by the 1920s. However, it continued to label its opponents 'perennialists' after this was nothing but propaganda. Throughout the first half of the 20th century, the principal protest movement against the "progressive" reforms was the Essentialist movement – which in fact never properly became a "movement" because of its lack of organization and cohesion.

Essentialists like William C. Bagley opposed the hastiness the PEM displayed in introducing questionable innovations. The Essentialists favored evolutionary rather than revolutionary reform in education. Like the PEM, they opposed the doctrine of mental discipline and the drill methods of the 19th century. They were largely utilitarian reformers but did not favor replacing the common school curriculum with a differentiated curriculum. They did support expanding the curriculum, but opposed the anti-academics direction of the PEM reforms. Essentialists tended to favor the recommendations of the 1894 report of the Committee of Ten and opposed the 1915-16 proposals issued in the PEM-backed *Cardinal Principles of Secondary Education* report.

One PEM innovation the Essentialists strenuously opposed was the introduction of the junior high school. Junior high schools were designed to be the first step towards a differentiated curriculum that denied equal education to all learners. It was in junior high school where pupils were to be "tracked" into different education programs based upon assessments made by school officials of what role in Society and what sort of future work each pupil was "suited" to fill. This was held by Essentialists to be incompatible with democracy because it would produce economic and social stratification and deprive the learners of knowledge vital to their role as citizens. In this, the Essentialists were correct. In the end, however, Essentialism failed to prevail primarily because no organized Essentialist Movement was ever put together, whereas the PEA did put together a strong organization.

The Social Reconstructionist PAPE was an education movement subsidiary to a wider political movement that gained traction during the years of the Great Depression. The SRM was a splinter group who broke away from the PEM in the 1930s. The aim of the movement was nothing less than to re-make American Society along socialist-communist lines by indoctrinating children into adopting the SRM's political views. This aim, predictably, aroused heated public opposition and, in the end, the SRM actually achieved very little in the way of education reform. Their principal achievement was the introduction of "social studies" into the school curriculum.

By the 1950s PEM educologists had contrived to achieve rulership over the institution of public instructional education. Mandatory attendance laws had given to the schools a monopoly power over the education options available to parents and children. For the next two and a half decades, educologists consolidated and strengthened their control despite growing public mal-content over the direction they were steering public education. Chapter 15 recounts the major events of this period.

Hegemony over the institution of public instructional education had been achieved by the PEM during the 1930s. The new institution perpetrated practices that were both antisocial and in contradiction with the public expectations under the American social contract. The first enormity perpetrated by PEM reforms was a pervasive institutionalized bigotry based on an unscientific and ungrounded speculation concerning the implications of Darwin's theory of evolution. This specious proposition held that hereditary factors placed absolute limitations on what and how much a child is capable of learning. The proposition is false and is refuted by mental physics. It is true that different people learn at different rates, and that a teaching methodology that works effectively with some people does not work effectively with others. But this is in no way the same thing as saying there is any absolute limit to what a particular child is capable of learning. That there is or should be a "one-size-fits-all" teaching methodology suitable for an undifferentiated classroom of pupils is nothing but an unsubstantiated myth.

The corruption of Darwin's findings into an unnatural proposition about human mental nature was institutionalized through standard Intelligence Quotient testing and by "tracking" pupils into different curricula based on the pupils' IQ test scores. The effect was to deprive over 50% of school children of educational experiences that were being deliberately reserved for a chosen few. The PEM doctrine of the differentiated curriculum bears a large part of the responsibility for producing a socio-economic caste system in America.

The union of so-called "utility" with so-called "social efficiency" in public education led to early changes in emphasis and topics in the public school curricula. These reforms had the principal effect of weakening or abolishing the functions of public instructional education in the social dimension of the learner – the learner-as-member-of-a-Community. Utility and social efficiency were slogans used in planning and campaigning for a reorientation of public education away from the Order and Progress mandates of the social contract, and took the new orientation toward the state-of-nature economic conditions of uncivic free enterprise. It was not until the Great Depression and the rise of the Social Reconstruction movement (SRM) that uncivic free enterprise came under attack by SRM reformers. When this attack did come, it was misaimed and directed at "capitalism" as this term had been distorted in the propaganda of Marx and Engels. It was not directed at the uncivic character of the Enterprise-protein dynamic brought about in the 18th century by the Economy revolution and so not only failed to address the causes of economic hardships in the Great Depression but also rebounded with prejudice against many of the civic capitalists who constituted the majority of small business enterprises and Enterprises.

In addition to the Social Reconstructionist movement, the Great Depression provoked school administrators and political party politicians to more strongly embrace and impose a harsher degree of Taylorism in the governance and administration of public schools. Two casualties of this were so-called Voc Ed and the small school. It was also during this period when Taylorites began to view the public secondary schools as custodial institutes that kept 14- to 17-year-olds out of the labor market. This custodial presumption resonated with the SRM objective of bringing about radical social change through a so-called "life adjustment education movement" (LAM). The LAM became a popular education fad in the 1950s before dying out under the pressure of public ridicule and protest, although vestiges of LAM doctrine are still seen in public education today, e.g. in "sex education" classes.

Taylorism in public education is modeled along the same lines as Taylorism in corporate management. The maxims and managerial prejudices are the same. In school administration so-called "scientific management" became popularized after the publication of Taylor's book in 1911. It remained the most common paradigm among hired-help managers and administrators despite findings from industrial psychology research in the late 1920s and early 1930s that showed the practice to be a recipe for managerial and administrative incompetence.

Although the Voc Ed policy of the early PEM movement was recognized by at least the school administrators of the 1930s as being an impractical policy, Voc Ed nonetheless was retained as a propaganda device of the Progressive Education Movement because it was a major load-bearing pillar of curriculum differentiation. It also provided a propaganda counterpoint used by school administrators and PEM educologists for attacking job training programs outside the jurisdiction of the public school system that were established as part of the Roosevelt administration's New Deal policies. Administrators saw these programs as competitors for obtaining public funding and as a threat to the differentiated curriculum and the SRM objective of bring about radical social change in American Society. The Taylorite response to both challenges was a movement to consolidate the nation's small schools into a few large schools. This provided the logistical ability to bring about differentiated curricula and also served to centralize the power of ruling the school system. Both centralization and consolidated control are common symptoms of Taylorism. Beginning in the mid-1940s the school consolidation movement got underway. By 1970, about 80% of the nation's school districts had been eliminated along with 72% of the elementary schools. The era of the mega-school had been brought about. With it came a depersonalization of the learners from the logistics of administration and instruction it necessitated.

A major piece of the propaganda promoting consolidation was a pledge that this would "fix the youth problem" that was a source of concern among older Americans in the 1950s. In fact, school consolidation not only failed to "fix the youth problem" but exacerbated it by adding to the root causes of Toynbee Proletariat formation in learners' mini-Communities. The latter came to be called "the generation gap" and was partially an unintended consequence of consolidation. The intended consequence of consolidation was enabling the organized bigotry of the differentiated curriculum to be put into practice.

Antisocial PEM plans for non-academic, Voc-Ed-centered public education for the majority of high school pupils ran into unanticipated opposition from parents and from high school pupils themselves. Enrollments in Voc Ed courses failed to happen, thus undercutting a principal excuse for school consolidation and differentiated curricula. High school pupils continued to enroll in "academic" classes instead. As PEM opponents during the 1930s had widely and publicly predicted, Voc Ed proved to be an utter failure.

A scientist would mark the mounting and overwhelming empirical evidence that PEM theory did not work and would undertake research to try to discover what was wrong with the theory. PEM educologists, however, never questioned their original dogma and adhered to their failed policies and practices with fanaticism from the 1950s to the mid-1970s. Even to this day, most of these failed models and practices still go unquestioned by many educologists. Taylorism in school administration and in the NEA leadership also promoted decidedly undemocratic, not to mention un-Republican, policies. This latter is likewise not an uncommon feature of Taylorism, which is by its basic nature dictatorial and reliant upon force and intimidation for compelling obedience.

The increasingly demonstrated inability of the reformed schooling institution to satisfy the corporate expectations of the public for Order and Progress in pursuit of *Personfähigkeit* began attracting public attention and opposition in the 1950s. Nonetheless, PEM educologists were able to maintain their rulership over the institution throughout the 1950s and 1960s. Indeed, the civil war of the 1960s to early 1970s proved to be a boon to the institution of the PEM program.

Chapter 15 reviews the history behind the growing rift between the public and the rulers of the institution of the schooling system.

The American civil war that broke out in the mid-1960s left the nation deeply split into many granulated and semi-isolated special interest mini-Communities. These mini-Communities acknowledged few common interests with one another but did share a deep suspicion and antipathy toward the general government of the United States by the mid-1970s. The Black Power and student activist movements during the civil war played into the hands of PEM advocates and served to help them make the PEM-PAPE reinstitution of public education emerge from the civil war more strongly entrenched than ever. However, this new institution was now operating within a Society more fragmented than at any time since the Civil War of 1861-65. When the U.S. economy took a downturn in the early and mid-1970s, the PEM institution came under political attack from all quarters by the public it was disserving. This latest epoch of conflict and controversy is the topic of chapter 16.

By the mid-1970s PEM-PAPE orthodoxy had become the established system of educologists and the NEA, which continued to act as the nucleus of governance for this establishment after the disintegration of the Progressive Education Association (PEA) in the mid-1950s. It is no longer technically correct to speak of a Progressive Education Movement but, rather, of a PEM-PAPE establishment. The NEA itself had likewise undergone substantial changes after 1960, the most fundamental of which was its change of character from a strict professional society of educators to that of a labor union with professional society functions. The policies and practices that had been introduced by the PEM had become the normal operating mode of an educologist establishment that had assumed the role that Toynbee had called a *dominant minority*.

The PEM-PAPE is shared by very few Americans outside the little circle of educologists in the NEA and within the colleges of education. The vast majority of Americans are, in relationship to the dominant minority, what Toynbee called an *external proletariat*. While the PEM-PAPE minority follows no real philosophy and clings to a failed dogma, the external Toynbee proletariat that greatly outnumbers this dominant minority shares no common philosophy either and exhibits no common understanding of the human nature of the phenomenon of learning. It reacts to symptoms by advocating satisficing measures based entirely on judgments of taste that are as scientifically ungrounded as those of the Progressive Education Movement had been. To think that replacing one unscientific approach to the institution of public education with another can lead to anything adequate to the requirements of the American Republic is foolishly naïve.

The present institution of public instructional education fails to satisfy any of the functions of public education that justify the existence of the institution under the American social contract. As it is presently instituted, the established schooling system can make no socially just claim on the expenditure of public funds for its support. However, this does not mean that public education should be abandoned in favor of the sorts of private and parochial institutions that characterized the Middle and Southern colonies in the days before the American Revolution. Such a recourse would be nothing less than suicidal for the continued *Existenz* of America as a Republic. To give up the idea of public education altogether would be no less than a deontological *moral crime* perpetrated on every U.S. citizen.

Yet none of the counter proposals or counter-reformations being championed by the divers mini-Community factions of the present day offer a realistic likelihood of success. In the 1970s numerous independent local groups of citizens came together to protest the failed practices of the education establishment and to demand this establishment be amended. Because these groups collectively formed no organized movement and operated in a disorganized and disunited manner, the much better organized educologist establishment had little trouble warding off any effective measures for redressing the legitimate public grievances. Anti-PEM-PAPE counter-

reforms did not acquire muscle enough to challenge the establishment until the mid-1970s when the external proletariat began to curtail public funding of the schooling institute by rejecting bond proposals and demanding reduction in property tax assessments. The latter provided, at last, one common interest capable of uniting independent citizen factions and producing through this unity a political force adequate for overpowering the corporate *Personfähigkeit* of the PEM-PAPE minority. After almost half a century, the rulership of public instructional education was at last in serious contention. The counterforce movement even acquired a popular name after passage of California's Proposition 13 caught the national attention. It became known as the Tax Revolt. Without one word about education being mentioned in measures like Proposition 13, the Tax Revolt presented nothing less than a direct challenge to the educologist hegemony over K-12 public education.

Chapter 16 presents an analysis of school expenditures in the 20th century. This analysis clearly shows that during the 1970s real growth in school expenditures was abruptly curtailed. Along with it came curtailment of school consolidation and the liberty of the school establishment to continue to pursue the goal of the comprehensive high school and the differentiated curriculum. The arrest in continued growth in public education funding coincided with worsening economic conditions that set in during M₅ and adversely affected the greater majority of U.S. citizens. The educologist establishment was further challenged by controversies and conflicts that arose from the unionization of teachers that had begun around 1960.

However true it was in, e.g., the days of the old Dame schools of the colonial era, it is no longer generally true that teaching is "a low-paying profession." It is an economic fact that the majority of public school teachers are in the upper 50% of all U.S. wage earners. This was a fact that the public at large in every community easily perceived when strikes by teachers began in the 1960s. The principal effect of teacher strikes was to drive an antibonding wedge between teachers and a large segment of the public. Teachers' unions differ from labor unions in the private sector precisely in that teachers are public servants, and for that reason it is nearly a practical impossibility for a teachers' union to conduct a strike without the appearance of a conflict of interest between the special interests of the teachers and the general interests of the public no matter how just the teachers' cause for a strike might be. It is one thing when the public chooses to sympathize with mine workers striking against a coal company. It is another thing altogether when teachers strike because a teachers' strike is at root a strike against the local community or is perceived as such by the public.

The publication in 1983 of *A Nation at Risk* provoked further and relentless criticism of and opposition to the public schooling establishment by numerous citizen groups as well as by the two political parties. Here is where the hegemony of educologists ran squarely into the power of *real* democracy, against which claims of expertise prove to be a paper shield. For the first time in decades, fundamental dogmas of PEM-PAPE were confronted by overpowering challenges and educologists found their old arguments falling on deaf ears. They had lost the ability to persuade or pacify their critics, although not the power to subvert and sabotage measures that became mandated by the passage of new laws and regulations. Challenges to the establishment included the passage of school voucher legislation, the extension to parents of a choice of opting out of placing their children in the public schools, the creation of charter schools operating outside the jurisdiction of NEA-supported schooling legislation, and the direct challenge to the teaching monopoly of the establishment by the passage of legislation setting up home schooling alternatives. Testing standards, mandated by law over the protests of the NEA establishment, began to be imposed and enforced, with punitive consequences to schools and teachers who failed to "measure up" to the evaluations imposed by these tests. Across a broad front, nearly every claim to authority that had been won by the PEM in earlier decades was being revoked or curtailed by the public counter-reactions to the dissatisfactions blamed on the school system.

However, none of this means that any well laid, much less scientific, reform measures have in fact been effected. *None* of the counter-reform measures are either scientific or adequate for addressing the causes of the breakdown of public instructional education. Every proposal and counter-proposal on the stage of public debate and controversy today is nothing else than some mini-Community faction's satisficing reaction to the situation in public education. None of them are based on a science of education or even so much as an objectively valid understanding of the mental physics of the phenomenon of human learning. They are nothing more than what seems to the supporters the most immediately expedient course of action. Every one of them is embroiled in uncivic competitions between factions.

This situation presents a destructive state of affairs. Left unaltered, it *will* eventually lead to nothing else than the complete disintegration of public education. There is already ample empirical evidence indicating that approximately 30% of U.S. citizens are already forming an internal Toynbee proletariat and are withdrawing their allegiance to and support of public institutions. The *ad hoc* countermeasures of today are not adequate to rescue or turn back this increasingly serious threat to the civil Union of the United States. Effective real reform must address, simultaneously, five primary issues: (1) governance of the schooling institution; (2) the content-matter of public education; (3) practical curriculum design congruent with the objectives of public instructional education; (4) effective and practical teaching methodologies based on human nature; and (5) the cost of the institution in balance with other just and necessary expenditures of public wealth assets. Every one of these issues is daunting in itself; together they present an extremely formidable challenge the civil Community of the United States must meet.

We have endured 90 years of disastrous unscientific experimentation with the institution of public instructional education. The outcome of this has been a broken institution that fails to fulfill the expectations of Duty required of it by the American social contract. The establishment that has grown out of the past 90 years perpetrates and perpetuates enormities upon a large fraction of the U.S. body politic, and it has degenerated to the point where the capacity of the American Union to meet and overcome the challenges we confront is dubious. The problems of public education we are confronted with today are serious and lie at the very roots of the institution. That means these problems are *radical* and no piecemeal patchwork of reforms can resolve them. When the problems are radical, so must be *effective* reform. The social-natural character of necessary reforms is the topic I take up in the third and concluding volume of this treatise: *The Institution of Public Education*.

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