The Idea of Public Education

Volume 1

Education and Society

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Preface

This book is the first volume of a three-volume project entitled *The Idea of Public Education*. The purpose of the overall work is to lay the foundations for a new science – the social-natural science of public education. By the term natural science I mean a quantitative science able to speak to causal factors, make quantitative predictions, and in generally be on a par with the traditional natural sciences represented by physics, chemistry, and biology. By social-natural science I mean a natural science taking for its topic human beings in social intercourse with one another.

The traditional social sciences – sociology, anthropology, history, political science, economics, etc. – have always been academically segregated from the natural sciences. They have been regarded as what some label "soft" sciences because their pronouncements lack the authoritative law-of-nature character of the traditional natural sciences. But there is nothing either unnatural or non-natural about human beings and, equally, nothing unnatural or non-natural about the dynamics of human social intercourse. There are many particular reasons why the social sciences have so far lagged behind the traditional natural sciences in terms of their ability to make usable predictions or to be applied in solving real human social problems. The principal reason for this lag, however, is that until recently there was no firm foundational science for explaining in detail the "social atom" of social-natural science, namely, the individual human being.

That situation changed in 2006 with the discovery of the new science of mental physics. By this term I do not refer in any way to the small group of mystics headquartered in California whose activities go by that name. The California group are not practitioners of science and what they do is not science. When I use the term mental physics I mean *the application of Critical epistemology to the practical anthropology of the human being*. By the term practical anthropology I mean *a systematic doctrine containing our knowledge of man*. It is the science of man's actual behavior arising from his *homo noumenal* aspect of being-a-human-being. As the term Critical epistemology indicates, the new science derives from the meta-physics of Kant. What made the development of mental physics possible was a decade-long basic research program to understand the relationship between Kant's philosophy and the phenomenon of mind. This research was successful and produced a new systematic understanding of what the mind phenomenon is, what mathematical processes are involved in it, and how these processes are structured and arranged in *H. sapiens*. The theory of mental physics has been extensively vetted against empirical research findings, its predictions have been compared to reliable research findings in psychology, system theory, historical events, and neuroscience. What the new theory predicts in scores of different situations and scientific questions have been compared to the best empirical findings available. In every single instance, those findings support the predictions of the theory and by the normal standards of science mental physics has been verified as much as any scientific theory can ever be. The results of the mental physics project were published (online and publicly available via the Internet) in 2006 under the title *The Critical Philosophy and the Phenomenon of Mind*. In 2009 a shorter work, better suited to serve as an introduction to the new science, entitled *The Principles of Mental Physics* was likewise published online and is publicly available. Since then, a number of shorter theoretical papers and monogram books in which the theory has been applied to various scientific problems have also appeared on the same website,

http://www.mrc.uidaho.edu/~rwells/techdocs .

I developed the theory of mental physics because I had found I needed a theory like it in order to make further progress in my laboratory's principal research into computational neuroscience and computational intelligence. Progress in both fields had become hindered and bogged down in issues that turned out to be deeply metaphysical questions to which we needed hard, specific answers. In the beginning I had no plans to pursue the development of social-natural science nor, indeed, the least idea that any such science was possible at all. However, once the theory of mental physics had been established, I was astonished to see how much more was coming out it than had gone into its deduction and development, and how wide its scope of possible applications had turned out to be. It wasn't until then that I realized here was a tool that made it possible for the first time to bring the full power of natural science to bear on issues that are far more important for humankind than any one narrow traditional topic in physical-natural science or engineering could ever be. That is how the project you have before you now came to be.

The social problems that confront human Society are the most complicated yet deadly serious problems

humankind has found confronting it throughout history. It has been known since at least the middle of the nineteenth century that education was one of the most important aspects, affecting as it does the entire range of issues in political governance, economics and commerce, and quality of civilized life. As an educator myself, I could hardly be unaware of this or indifferent to its importance. I had long believed that effective institution of education required that education become a real natural science capable within its sphere of the same kind of reliable accuracy in prediction as the physical-natural science of physics has historically proved capable of delivering. The problem, of course, was how to achieve such a natural science for the topic of education. Mental physics opened the door to this and made it possible.

Public education is always a social institution and it is indissolvably tied to the phenomenon of human Societies. The science of education is a practical science and takes its context entirely from the broader context of Society. It was, therefore, necessary to develop a general science of the phenomenon of human association and cooperation – in short, of human Communities and Societies – in order to provide a science of education with its basis and topical scientific objectives. This, too, turned out to be achievable through mental physics and the result is a new theory I have set out in another work, *The Idea of the Social Contract*. This work I have already completed except for indexing the book and cleaning up some minor details. When these are done I will be publishing it separately under that title. As of the date of this writing, it has not yet appeared in the public domain, but if you contact me and request it, I will provide you with a prepublication version of it as it exists at the time of your request. The book presently before you contains material and results drawn from that work, and I have endeavored to make these as comprehensible and accessible to the general reader of this book as is possible short of re-presenting the Social Contract theory in its detailed entirety. The same is true for the mental physics that is inextricably part of education theory. The way you should approach and use both topics in this book is to understand what they are telling us *about* phenomena of education and learning. When I present you with statements from mental physics or Social Contract theory, I am presenting you with *theorems* from those sciences rather than treating those sciences in their own right.

As for the book now before you, the specific aim of volume I is to set out the relationship between public education and human Society, establish the real purpose and import of instituting public education, and deduce the specific fundamental principles of public instructional education in preparation for more detailed development of the methods and practices of an empirical natural science of education. This means that the primary topics in this volume are metaphysical and the task at hand is to establish the objectively valid grounds, scope, and limitations of the special science of public instructional education. Development of the rudiments of this science itself is the general topic of volumes II and III of *The Idea of Public Education*.

Chapter 1 begins by deducing the correct real definition of the education object. It asks, and answers, the question *What is education?* as a phenomenon in human Society. It defines what a learner is, what a teacher is, and what the human capacity for educational self-development is as a demonstrated real ability exhibited by *H. sapiens*. It explains what an educational activity is and introduces the basis in human nature that underlies the possibility for a human being to carry out such an activity. It discusses the question of what *schooling* is, as science must view this question, and traces an outline of the history of schooling. It then turns to the social criticality and effect of public education.

Chapter 2 introduces the rudiments of the theory of Communities and Societies. This theory is obtained from mental physics through the theory of the Social Contract. A number of quantitative models pertinent to social dynamics are introduced. One of the key ideas is a methodology I have chosen to call ***social-chemistry***, which is the socio-mathematical theory of human social interactions within a Society. I do not present detailed quantitative calculations or advanced mathematical theorems in this book. There is a sound reason for this. Those readers I most want to reach with this book are neither trained in nor experienced with the applied mathematics and methodologies of system science and therefore are not yet ready to tackle such examples. Mathematical methodology is by its nature abstract and extremely detailed, and a person coming upon our topic for the first time cannot expect this sort of example to either command his present interest or convey to him significance in meaning and implication. In short, once you already have a good reason to *want* the mathematical details, you will be able to get to them with comprehension. But until you have sufficiently mastered the *context* to which those details are addressed, throwing a lot of mathematics at you would be about as educationally useful as writing this book in Nordic runes would be. To use a metaphor, this book is written for the architect, not the carpenter.

The chapter also discusses how a science is actually developed and the effect that acquired habits of reasoning have on science development. Every science is the produce of the labor of scientists, and what precisely constitutes a natural science is bound up with how the scientist carries out his intellectual labor. The general topic is quickly brought into a focus on the special attributes characteristic of a *social*-natural science. One of the important principles that is brought out in chapter 2 is this one: every individual makes his own private definition of what *his* society is, who is part of it, and who is not. For a general science to be achieved, we must understand how these idiosyncratic personal definitions are merged and unified into an objective idea of a Society *in general* made up from the associations of many diverse individuals. Here the notion of the individual human being as a social atom is particularly fecund because this makes it possible to treat Society mathematically by means analogous to the means used to understand molecules in physical chemistry. This treatment, of course, is what is meant by social-chemistry method.

Two more crucially important ideas introduced in this chapter are the idea of a mini-Community and the idea of a mini-Society. Every person living in community with other people in broad social circumstances finds himself belonging to several divers mini-Communities and spending most of his time in several divers mini-Societies. These mini-Communities and mini-Societies form *factions* within the broader Community inasmuch as each has its own special interests not shared in common with every person in the larger Community. Mini-Communities and mini-Societies are real social phenomena and their existence has the most serious consequences for Society at large. The viability and even the survival of a Society is in largest measure dependent on the competitive and cooperative dynamics between and among mini-Communities within it. I think this has not been adequately appreciated previously. Every mini-Community constitutes in effect a corporate person insofar as the members of that mini-Community closely cooperate with each other and compete collectively with other mini-Communities.

Chapter 3 discusses the challenge that the existence of mini-Communities poses and how social institutions effect individual and mini-Community dynamics, either for the better or the worse. There is an intimate relationship between social institutions and how the dynamics of a Society behave. The viability and survivability of a Society is dependent at its innermost core on how these dynamics bear upon the social contract about which the Community as a whole nucleates. Agents of social institutions, intentionally or not, provoke learning dynamics in members of the body politic, and the lessons these individuals take from the actions of agents of their institutions are judged in terms of the individual's understanding of what he thinks this social contract stipulates. These judgments lie at root determinations of domestic tranquility vs. domestic disorder, civil unrest, and civic violence. This has consequences for instituting and governing social institutes of all kinds, including education. It is shown that there is a common social interest within every civil Community in the systematic institution of education. Society's system of education has a prime objective it must accomplish or face dissolution from public dissatisfaction.

Chapter 4 discusses factors that lead to the breakdown and disintegration of Societies. It begins with a discussion of what it means, in the context of objectively valid natural science, to say that a Society "falls." A model, the organized being model of Society, is introduced as the theoretical canon for understanding the factors that go into the success and growth or failure and collapse of a Society. The chapter also introduces the methodology by which empirical social-natural sciences are tied to and grounded in the basic *homo noumenal* character of human nature. This is called the bridge model of an applied metaphysic. Discussion of the metaphysics of Society begins in chapter 4. Examples are drawn from history to illustrate the significance of the theoretical elements.

In chapter 5 fundamental technical definitions and concepts of public instructional education (PIE) are introduced. It is shown that PIE is properly analyzed in terms of functional dimensions. Illustrative examples are provided. The objective of public instructional education is deduced and presented. Meta-physical constructs are introduced that establish the real context of PIE. This leads to the deduction of the basic structure for an applied metaphysic of public instructional education – the deduction and explanation of which is the most fundamental objective of volume I.

Chapters 6 through 9 treat in detail the applied metaphysic of public instructional education. Its axioms and functions are deduced and placed in their systematic arrangement within the applied metaphysic. This metaphysic *is* the groundwork and foundation upon which the special social-natural science of education must be built insofar as the special science addresses public education. The final chapter summarizes the main points of the metaphysic and prepares the segue into volumes II and III of *The Idea of Public*

Education.

This book is a science book. Its material is technical and so is its terminology. Those technical terms with the most immediate bearing on the topic at hand I define explicitly in the text as they are introduced. However, the technical language must also necessarily call on broader technical terms taken from mental physics and the theory of the Social Contract. It is not a practical possibility to treat all of these terms as they make their appearances within this book. For that reason, I have included an extensive glossary of technical terms at the end of this volume.