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Chapter 1 The Notion of Public Education

§ 1. The Education Object

The treatise before you constitutes the first volume of *The Idea of Public Education*. The general objective of the larger project is to firmly establish a social-natural science of education with particular emphasis on public education in Society. The civic need for institution of public education has been discussed briefly in my earlier works, particularly Wells (2010a, 2010b, 2012). Those works laid out the need for and benefits of institutionalized education as well as the urgent need for a proper social-natural *science* of education, but they did not delve into the many details of what is required to bring a proper science of education into real *Existenz*. That task has been left as the general topic of the project now before you. It is a general topic that admits to three natural divisions of work: (1) the purpose of education and, in particular, public education; (2) the errors built into present day non-scientific attempts to provide a system of education; and (3) the foundations necessary for the possibility of a social-natural science of public education in general. Division 1 is the special topic of this volume. Division 2 is the topic of the second volume of this work, *Critique of the American Institution of Education*. Division 3 is the topic of the third volume, *The Institution of Public Education*. The volume before you treats the issue of how a civil Society benefits from the institution of public education and how each citizen within a Society is better able to realize his Duties-to-himself through the social institution of public education. Its prime objective is a Critical applied metaphysic of public instructional education. Volume 2 is a Critical analysis of how and why the current system of education as exemplified in the United States fails to achieve the objectives that socially justify public support for public education. This serves to fix the specific context of the problem and point out deficiencies a proper science of education must address in its practices. Volume 3 deals with key issues in mental physics for instituting social-natural education in civil Societies.

No proper natural science is well grounded until its practitioners are in possession of a clear and distinct idea of its fundamental topic. The topic of any science is the point at which the theories and findings of that science come together in a unity of knowledge. This means that the Object of the science is understood in terms of its root meanings. All real meanings are ultimately practical, as they are too in every natural science, and the first task-at-hand is therefore to understand with real objective validity the notion of education *per se*. All species of education stand under the general idea of education as special cases. Kuhn wrote

> Effective research scarcely begins before a scientific community thinks it has acquired firm answers to questions like the following: What are the fundamental entities of which the universe is composed? How do they interact with each other and with the senses? What questions may legitimately be asked about such entities and what techniques employed in seeking solutions? . . . Normal science, the activity in which most scientists inevitably spend almost all their time, is predicated on the assumption that the scientific community knows what the world is like. Much of the success of the enterprise derives from the community's willingness to defend that assumption, if necessary at considerable cost. . . . The commitments that govern normal science specify not only what sorts of entities the universe does contain, but also, by implication, those that it does not. [Kuhn (1970), pp. 4-7]

What is the education universe and what sort of entities does it contain? This might initially look like a trivial question, one requiring no particularly deep penetration. But is it? Over the past two centuries, scientists have developed an unhealthy habit of taking fundamental ideas like this as "primitives" – notions that neither need further elucidation nor admit to deeper inspection. One of the earliest lessons taught by the Critical philosophy is notions taken as primitive frequently

are *not* real primitives; deeper exploration leads to deeper and sometimes radically different understanding of an idea that has been regarded as primitive. The history of physics, for example, testifies to this in, e.g., the theory of relativity as formulated by Einstein or the present day speculations seeking a deeper answer to the question "What is mass?" Lavoisier wrote,

> In the study and practice of science . . . the false judgments we form neither affect our existence nor our welfare; and we are not forced by any physical necessity to correct them. Imagination, on the contrary, which is ever wandering beyond the bounds of truth, joined to self-love and that self-confidence we are so apt to indulge, prompts us to draw conclusions which are not immediately derived from facts so that we become in some measure interested in deceiving ourselves. Hence it is by no means to be wondered that, in the science of physics in general, men have often made suppositions instead of forming conclusions. These suppositions, handed down from one age to another, acquire additional weight from the authorities by which they are supported, till at last they are received, even by men of genius, as fundamental truths. [Lavoisier (1789), pg. xvii]

Lavoisier was one of the men who revolutionized the science of chemistry, turning it away from a basis in an imaginary entity – phlogiston – and setting it upon the path it has followed to this day. That accomplishment was meritorious enough for us to accord his opinion just quoted an additional measure of respect beyond that we typically accord the opinions of most people. With that in mind, let us look at the common dictionary definitions of the noun "education." From Webster (1962) we have:

> **education**, *n*. [L. *educatio*, from *educare*, to educate.]
>
> 1. the process of training and developing the knowledge, skill, mind, character, etc., especially by formal schooling; teaching; training.
> 2. knowledge, ability, etc. thus developed.
> 3. (a) formal schooling; (b) a kind or stage of this, as, a medical *education*, a high school *education*.
> 4. systematic study of the problems, methods, and theories of teaching and learning.
>
> **syn. –** instruction, teaching, breeding, cultivation, nurture, training.

What in this collection of nominal descriptions qualifies to be regarded as a "fundamental entity"? What does it mean "to train and develop knowledge?" Knowledge, after all, is not something that *per se* is "trainable." A *person* can be trained; knowledge *per se* cannot be. A similar observation applies to "skill." As for "mind" or "character," we must ask "Whose mind? Whose character?" Obviously – I presume – the "fundamental entities" of interest in the *phenomenon* of education are human beings (provided we agree to exclude, at least for the time being, such things as dog-training, rat-conditioning, etc.). The four nominal definitions just cited are nothing more than descriptions of some sort of human activities or, in (2), outcomes of those activities. These are descriptions that, in one context or another, are used by human beings as *marks of recognition* of the *Dasein* of something called "education." But they do not tell us at any deep level what "education" *is* as an Object.

If education is a human activity of some sort the "atomic entity" of that activity can only be a human being. If it is an activity that co-involves more than one person at a time, e.g. a teacher and a learner, then it is a *social phenomenon* and, as such, is amenable to being treated as a social-natural science. If we say the activity is "to educate and/or to become educated," what do we mean by such verb phrases? Calling again upon Webster (1962), the common dictionary definitions of the English verb "to educate" are:

> **educate**, *v.t.* [L. *educatus*, pp. of *educare*, to bring up, rear, or train a child, from *educere*; *e-* out, and *ducere*, to lead, draw, bring.]

1. to give knowledge or training to; train or develop the knowledge, skill, mind, or character of, especially by formal schooling or study; teach; instruct.
2. to form and develop (one's taste, etc.).
3. to pay for the schooling of (a person).

syn. - instruct, nurture, discipline, train; teach, develop, ground, school, initiate.

Definition (1) seems to imply activity on the part of only one person, namely the teacher. What is the other person, the learner, doing while this is going on? There seems to be no shortage of people who appear to regard education as a process in which, metaphorically speaking, a teacher pours knowledge into the presumably empty skull of a student in a manner like that of filling beer bottles with beer at a brewery. This metaphor has been somewhat dignified over the years by a coined phrase – "passive learning" – but from both psychological research as well as from mental physics it is known that such a model is nothing but an absurdity. There is no such thing as "passive learning." Definition (2) is open to at least one interpretation where the learner is also an active agent inasmuch as he self-forms and self-develops his own taste, knowledge, skill, etc. But it is also open to another, namely that it is the teacher who forms and develops these in the learner – which is the passive learning fallacy being reasserted. But if the first interpretation is taken, what is the teacher doing while the learner is being so active? As for definition (3), it might or might not implicate yet a third party, depending on who it is that is paying for the schooling of a person.

Do you begin to see the issue here? Everyone – or almost everyone – thinks he knows what "education" means and that when he uses this word everyone else will automatically understand it to mean the same thing he thinks it does. But this is not necessarily true, and the attitude exhibits a relatively underdeveloped stage of cognitive intelligence that psychologist Jean Piaget termed "egocentrism." The phenomenon is very clearly exhibited by young children but, as I previously discussed in Wells (2012), the phenomenon of egocentrism is carried into adulthood and exhibited in a phenomenon I there called "re-staging." Piaget reported,

> The talk of our two subjects [two schoolboys Piaget was studying in detail at their school] may be divided into two large groups – the *egocentric* and the *socialized*. When a child utters phrases belonging to the first group, he does not bother to know to whom he is speaking nor whether he is being listened to. He talks either for himself or for the pleasure of associating anyone who happens to be there with the activity of the moment. This talk is egocentric, partly, because he does not attempt to place himself at the point of view of his hearer. Anyone who happens to be there will serve as an audience. The child asks for no more than an apparent interest, though he has the illusion (except perhaps in pure soliloquy if even then) of being heard and understood. He feels no desire to influence his hearer nor tell him anything; not unlike a certain type of drawing-room conversation where everyone talks about himself and no one listens. [Piaget (1930), pg. 9]

I can't speak for you, but I have some rather clear memories of sitting in a few classrooms where the lecturer appeared to have been fully enraptured in egocentric speaking of this sort. In a later work[1], Piaget wrote,

> We have endeavored to show in an earlier work that thought in the child is egocentric, *i.e.*, that the child thinks for himself without troubling to make himself understood nor to place himself at the other person's point of view. We tried, above all, to show that these egocentric habits have a considerable effect upon the structure of thought itself. Thus it is chiefly because he feels no need to socialize his thought that the child is so little concerned, or at any rate so very much less concerned than we are, to convince his hearers or to prove his point. [Piaget (1928), pg. 1]

[1] Piaget (1930) is the second edition of a work he first published in English in 1926.

The phenomenon of egocentrism in cognitive intelligence and its re-staging at intervals throughout adult life is one of the primary practical reasons science *must* always concern itself with and take pains to ensure that any ideas it employs are *not* being employed egocentrically but are, instead, ideas shared at a deep level of distinctness by all scientists within a particular scientific community. Lavoisier wrote,

> The impossibility of separating the nomenclature of a science from the science itself is owing to this, that every branch of physical science must consist of three things: the series of facts which are the objects of the science, the ideas which represent these facts, and the words by which these ideas are expressed. Like three impressions of the same seal, the word ought to produce the idea, and the idea to be a picture of the fact. And, as ideas are preserved and communicated by means of words, it necessarily follows that we cannot improve the language of any science without at the same time improving the science itself; neither can we, on the other hand, improve a science without improving the language or nomenclature which belongs to it. However certain the facts of any science may be and however just the ideas we may have formed of these facts, we can only communicate false impressions to others when we want words by which these may be properly expressed. [Lavoisier (1789), pp. xiv-xv]

This is every bit as true for a social-natural science as it is for a physical science.

Whatever we eventually discover *noumenal* education to be, we can at this point at least make a twofold logical division between two classes of education phenomena. It seems apparent enough already that whatever education is, it involves as an outcome the acquisition by some person of some item of objective knowledge, practical skill or aesthetical taste the person did not possess prior to some experience, which we will call ***the educating experience***. We will call the person who comes to possess such new knowledge, skill or taste ***the learner*** and what the learner acquires we will call his ***learning***. We will call the person who, through communication or some other action, stimulates the learner to acquire a learning ***the teacher***. Those cases of educating experiences where the learner and the teacher are one and the same person we will call phenomena of ***asocial education***. Those cases where the learner and the teacher are different persons we will call phenomena of ***social education***. In this treatise, we will be primarily concerned with phenomena of social education.

In Critical metaphysics an ***Object*** is that in the concept of which the manifold of a given intuition is united, which stands as the subject of a judgment that can contain different possible predicates, and which has no opposite. The matter of an Object is called its ***object***. The form of an Object (e.g., its concept) is called a ***parástase*** (a represented mental depiction of the object). The objective validity of the concept of an Object is always and only a practical objective validity, which means the validity of the concept is ultimately rooted in practical actions ("what can be done with the object"). ***An intuition***[2] is a direct, singular and sensuous objective perception of an appearance of an object that is represented in a person's faculty of sensibility. A ***concept*** is a mentally represented rule for the reproduction of an intuition in sensibility. An intuition is always a *parástase* having sensation for its matter and a form of represented subjective space and time. The object an intuition is said to depict is called an ***appearance***. The technical explanations of these terms are provided in Wells (2009). What is important to grasp for the purposes of this treatise is the idea that understanding the Object of education requires us to develop both an idea that unifies all phenomena educating experience and a manifold of lower concepts by which we

[2] The notion of *an* intuition defined here differs from the notion of the mental phenomenon, regarded as a mental ability, that is also (perhaps unwisely) called "intuition." Intuition in this *second context* means the immediate reference of the mental power of representation to an individual Object [Kant (1776-95) 18: 282]. I rarely use this second connotation in this treatise and if I do use it I will explicitly say I am doing so.

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can recognize sensible manifestations or exhibitions of these phenomena such that when we encounter them in experience we say they are manifestations or exhibitions of educating experience. All natural sciences ultimately focus their efforts on understanding the sensible world of actual experience and it is the ability to ultimately make practical references to actual experience that distinguish between what most people call "the real world" and *speculative* concepts that, Critically, are called *mathematical Objects*.

Here is my main point to this: We must admit that right now, at this point in the treatise, we do not yet possess objectively valid scientific knowledge of what the education Object actually is. What we must do is *discover* what this Object and its real nature is. That there actually is such an Object, and that this Object actually does have the quality of being a real Object, we do know because we each already have our own personal empirical educating experiences. It is the *fact* that each of us has such experiences that grounds real objective validity for the actual *Dasein* of the education Object.

The methodology for making this discovery follows a strategy I have elsewhere called Aristotle's *dictum*. Francis Bacon described this methodology in the following words:

> There are and can exist but two ways of investigating and discovering truth. The one hurries on rapidly from the senses and particulars to the most general axioms, and, from them, as principles and their supposed indisputable truth, derives and discovers the intermediate axioms. This is the way now in use. The other constructs its axioms from the senses and particulars by ascending continually and gradually till it finally arrives at the most general axioms, which is the true but unattempted way. [Bacon (1620), pg. 15]

Bacon's "first way" is, to put it bluntly, called "jumping to conclusions." The second, which is the only proper methodology for any natural science, has become known as "the scientific method." It has happened repeatedly in the history of science that the first way has been mistaken for the second – and it is happening still today in the sciences – but this is always a scientific error and in this treatise the utmost effort is exerted to follow the second and only legitimate method for the *practice* of science. To do so, we will apply the science of mental physics – which has already traveled down this pathway – to assist the investigation, but we will go into the topic of education with an attitude of informed naivety reminiscent of Socrates that scholastic philosopher and theologian Nicholas of Cusa (1440) once called learned ignorance.

§ 2. The Capability of Educational Self-Development

Whatever the Object of education is found to be, the context of its idea must be formed out of our current nominal idea of what it is. This is what is partially described by the first dictionary definition above: Education is the process of training and developing the knowledge, skill, mind, character, etc. Furthermore, this context must include or cover in some way the second dictionary definition of the verb educate: to form and develop one's taste, etc.

Earlier I asked whose knowledge, whose skill, whose mind, whose character and whose taste these definitions are referring to. Whoever else the answer to this might be found to be, we can be certain that we must begin with the individual human being. If there is ever to be a social-natural science of education, that science must be based upon the social atom, and the social atom is never anything else than the individual human being. Now, man in his aspect as *homo noumenon* is the sole agent and cause of his own actions. It follows from this that if an individual human being is to develop his own knowledge, his own skill, his own mind, his own character or his own taste then the individual human being must *choose* to undertake some activity of an educational nature. We will call such an activity an ***educational activity***. The questions revolving around this notion of educational activity that come most quickly to mind are: (1) will he choose to undertake

and realize an educational activity? (2) if he does, what are the conditions under which he makes such a choice? (3) what occurrence(s) stand as a ground of determination such that the individual will choose to undertake or not undertake to realize an educational activity? (4) if he chooses to become educated, what sorts of subject-matters will he determine to be the objects of his educational activity? We may provisionally take these four questions as the topical headings in a second level analytic representation (2LAR) of the idea of a phenomenon of educational Self-development (figure 1.1). The questions represent, respectively, the headings of Quality, Relation, Modality and Quantity of this idea.

Is the idea of educational Self-development the idea of a real phenomenon? By this I mean, are there things or events that occur in the phenomenal world of human experience that can only be explained and understood in reference to the *Dasein* of something to be called educational Self-development? Such a something would be *noumenal* educational Self-development and the objective grounds for positing the *Dasein* of such an object as a real object must always come from *Existenz* of sensible phenomena that have objective unity only in the idea of the *noumenon*. If, furthermore, we conclude that positing the *Dasein* of *noumenal* educational Self-development has real objective validity, we must then ask: does the *Dasein* of this object has its transcendental place in the Nature of the individual human being as *homo noumenon* or is it an emergent by-product of the nature of the individual's *commercium* with the environment of his not-Self? The topical nature of a social-natural science of education depends upon the answer to this latter question because the practices of the science are oriented differently according to the answer.

There is clearly ample empirical evidence discernable all around us attesting to the real *Dasein* of educational activities. Developed countries and many undeveloped countries have schools set up, either private, public or both. People voluntarily undertake apprenticeships, which are nothing else than forms of activity by which they acquire a new technical or artistic skill through intercourse with other people who we call their instructors or teachers. Little children learn how to play various games through their social intercourse with other children and with adults. Some individuals elect to attend colleges or universities even though no one forces them to do so. People buy and read books written about non-fictional topics or that purport to teach methods of "self-improvement." Objective validity for positing the *Dasein* of educational activities can therefore hardly be doubted.

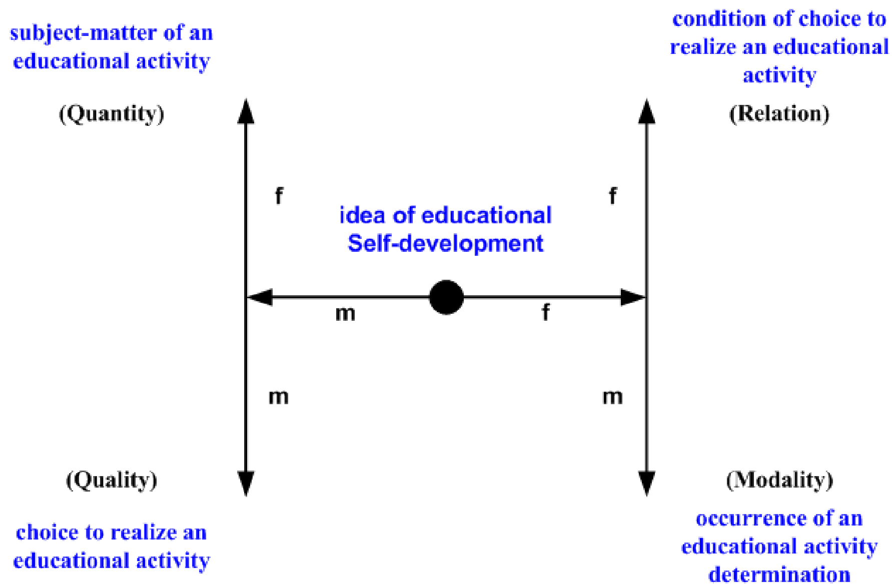

Figure 1.1: 2LAR structure of the idea of the phenomenon of educational Self-development.

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Even so, such grounds for the objective validity of the *Dasein* of educational activity are not sufficient in and of themselves to let us go further and proclaim whether educational Self-development is inherent in human Nature or if it is only an accommodation of human behavior in dealing with the exigencies of living. To proclaim either on this point is to commit a *saltus* – make a leap – in reasoning. This a science must never do other than in creative and imaginative explorations searching for possible hypotheses by which real phenomena might be explained. We must have something more to go on in order to address the transcendental question posed above. For example, a group of Kalahari Bushmen or BaMbuti Pygmies do not set up schools as we in the West know them, nor have an established system of economics in which jobs as apprentices are offered, and establish no colleges or universities. They have no books and if there have been detailed anthropological studies describing in detail the games Bushman and BaMbuti children play I have not heard of them. Nonetheless, BaMbuti children (and Bushman children up until recently) grow up to become skilled hunter-gatherers and such skills must always be acquired in some way by the skilled person. We do have real evidence of the *Dasein* of educational activities by these people and a bit of very limited empirical data about some of these activities.

Clearly, then, specific examples of educational activities are examples within specific cultural contexts and in themselves present us with nothing evidently universal we could use to decide the transcendental question. We cannot discount the possibility that such activities are manifestations of social cooperation within cultures. What, then, about human behaviors in isolation from all specific cultures? Here we are hindered by an utter lack of historical evidence because the record of history goes back no further than to a time when civilizations were already long established. We know of Sumerian historiography from as early as 2000 B.C. and Egyptian historiography from as early as 2500 B.C. By then both civilizations had existed for more than one and a half millennia. One archeological excavation unearthed an ancient Babylonian classroom where clay tablets of boys and girls recorded virtuous maxims being learned by these children 2000 years before the time of Christ [Durant (1935), pp. 132, 178, 250]. This is clearly an educational activity and so we know that educational activities were taking place in ancient civilizations. But what do we know of prehistory from the earliest evidence of the *Existenz* of *Homo sapiens*?

Here our information is paltry indeed. We do not know when or where our species originated and we do not know anything whatsoever about the earliest human Societies – including whether or not there were any in the dawn of man. There might have been; there might not have been. What we do know is that, regardless of the *Existenz* or non-*Existenz* of Society at the dawn of our species, Societies had come into *Existenz* by the time of the paleological record of archeology. Regardless of how the various controversies involving which (and whether) various fossil finds labeled "archaic *Homo sapiens*" do or do not belong to the same species as us, we do have what seems to be clear fossil evidence that modern humans existed at least 40,000 years ago (during what is called the Upper Paleolithic record). Furthermore, there is what appears to be equally clear evidence that by at least 25,000 to 30,000 years ago modern human beings were living with each other in civil associations – i.e. Societies [Haviland *et al*. (2008), pp. 178-218].

Now, mental physics teaches us that *H. sapiens* has no innate social instinct nor any objective *a priori* knowledge of society or socialization. Neither is necessary for the possibility of human Society [Wells (2012)] and so these are not permissible hypotheses of human Nature. If the spontaneous formation of human Societies is not innate in human Nature, then it must be concluded that human beings *learn* to form Societies. But this is a Self-determined educational activity and, *ipso facto*, there must be a transcendental ground for the ability because the *Existenz* of Societies is a real phenomenon of human experience. We therefore have an objectively sufficient reason to posit the real *Dasein* of *noumenal* educational Self-development as a *transcendental* characteristic of being-a-human-being and the question then becomes: what is the human Nature of the *Existenz* of phenomenal circumstances of educational Self-development?

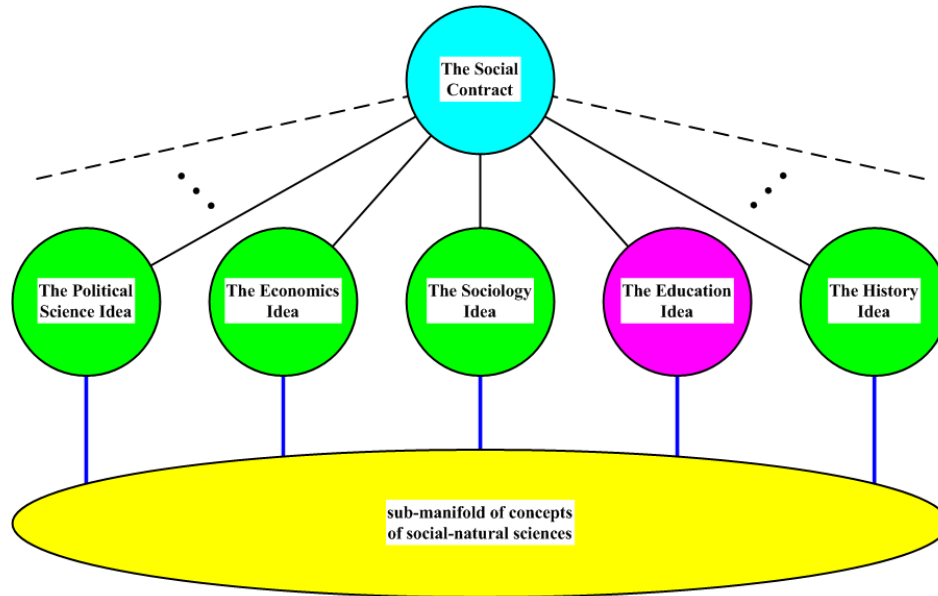

Figure 1.2: The Idea of education in the manifold organization of social-natural sciences.

We have a significant accomplishment achieved by this conclusion, although the significance might seem rather slight to you at this point. The accomplishment is this: We now know that we are *not* chasing a meaningless question when the quest is undertaken to develop a social-natural science of education. We do not yet have the constitution of such a science in hand, but we do know that it is possible to constitute one *having real objective validity* in its possible consequences for the lives of individual human beings. We also have found a point of nucleation for the exploration at hand, namely: that whatever else we might learn about social-natural education, its context must minimally contain the context of educational Self-development. In the context of natural sciences, this is not a small accomplishment.

Proper inquiry into the next question is oriented by the objective of our overall inquiry, namely to develop a social-natural science of education. The Idea of education, like those of all social-natural sciences, stands under the general Idea of the Social Contract [Wells (2012)]. Figure 1.2 illustrates the organization of general Ideas of social-natural sciences under the Idea of the Social Contract. The applied context for inquiry into the human Nature of the *Existenz* of the phenomenal circumstances of educational Self-development is the end to which the individual human being puts his educational Self-development. In social-natural sciences we must always seek root causes and fundamental principles of causality & dependency within the *homo noumenal* aspect of being-a-human-being. Thus all such fundamental principles of causality & dependency are psychological in their Nature, which is to say that teleological causality and not physical causality is the only Critically correct form of causality in any social-natural science. All social-natural sciences *differ in kind* from the physical-natural sciences (all of which are bound to physical causality & dependency for their fundamental principles of cause and effect). This was explained previously in *The Idea of the Social Contract*.

The purpose a person serves by educational Self-development is his own *Personfähigkeit* or power of his person. *Personfähigkeit* and the central role it plays in human behavior was explained and discussed in Wells (2012), specifically in chapters 10 and 11 of that work. In *The Idea of the Social Contract* the role of *Personfähigkeit* in the formation and maintenance of Society was the principal interest-at-hand, but for the inquiry now before us the focus is on the individual human being and the determinants of his behaviors in regard to his educational actions.

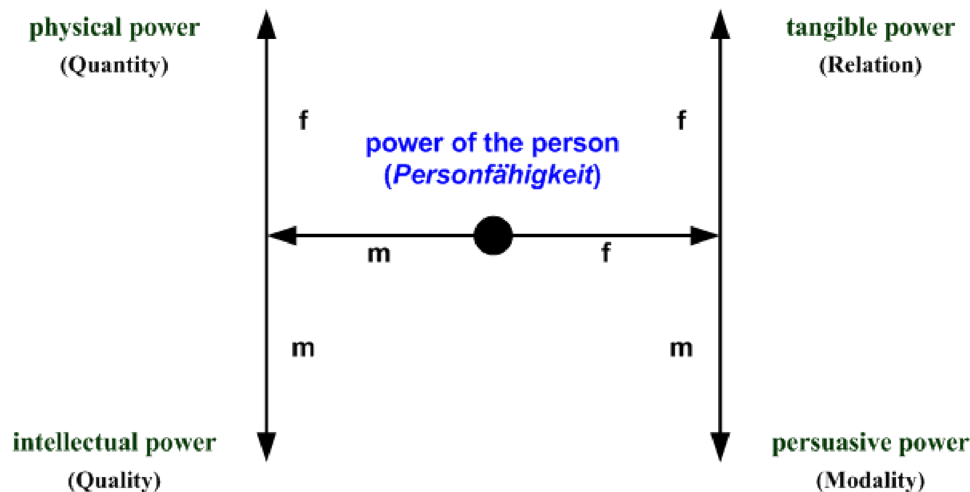

Figure 1.3: 2LAR structure of *Personfähigkeit*.

Figure 1.3 illustrates the 2LAR structure of *Personfähigkeit*. Its four functional headings refer to functions pertaining to the person's process of judgmentation, i.e.,

- **physical power** (functions of Quantity): the person's power that subsists in the physical capacities of his body;
- **intellectual power** (functions of Quality): the person's power that subsists in his capacities of knowledge, intelligence and judgment;
- **tangible power** (functions of Relation): the person's power that subsists in his personal stock of material goods, intangible fungible skills, and his stock-of-time available to him for using them; and
- **persuasive power** (functions of Modality): the person's power that subsists in his ability to sufficiently communicate his thoughts and ideas to other persons and thereby gain their consent, agreement or cooperation.

The individual's liberty to survive and maintain himself in his environment wholly depends on his *Personfähigkeit*. As discussed in Wells (2012), pp. 364-365, maintenance and perfection of the individual's *Personfähigkeit* is immediately expedient in serving the root practical regulation of all human behaviors by the fundamental *a priori* law of pure practical Reason (the categorical imperative of pure practical Reason). Educational Self-development precisely serves to perfect the individual's *Personfähigkeit* and, by doing so, is essential to his fundamental physical and mental wellbeing. It is not correct to say that educational Self-development is a human instinct; it is not. However, it does emerge as a byproduct of the person's innate motivational dynamic through his synthesis of judgmentation. Put in less technical terms, the Nature of human judgmentation *sets* an *a priori* motive in the individual that orients him to act to perfect his *Personfähigkeit*, one aspect of which is an innate practical disposition for educational Self-development.

Typically a person is not cognizant of his own disposition for educational Self-development, and *no* person is cognizant of it in the first few years of his life. Some people never develop any objective cognizance of this disposition even though *all* persons make choices to undertake divers activities that result in improved perfection of *Personfähigkeit* through educational activities. A very large fraction of a child's activities are of this nature, and educational Self-development is probably the principal real benefit a child derives from child's play. As a specific example of this,

let us take a look at the following observations recorded by Piaget:

> *Observation 41.* – Until 0;1 (8)[3] I noticed nothing in Laurent resembling a vocal circular reaction. His phonation only consists of cries of hunger and pain or in wails preceding the prolonging the cries. True, at 0;0 (9) Laurent makes a sound similar to *aha*, without crying, but only once; usually this sound precedes crying. On the other hand, beginning at 0;1 (8) vague voice exercises may be observed, but these could be the beginning of a wail interrupted by a visual or auditory interest. At 0;1 (9) on the other hand, the wailing is maintained for its own sake, for several seconds, before the crying. As soon as the first cry ensues I imitate Laurent's wailing; he then stops crying and begins to wail again. This first vocal imitation seems to me to substantiate the existence of circular reaction. If imitation of others exists, there also exists, in effect and *a fortiori*, imitation of oneself, that is to say, "circular reaction." At 0;1 (15) I note a sort of fleeting *arr* or *rra*, and at 0;1 (20) a sound resembling *en* indicating contentment interspersed with sucking-like movements in which he indulges, alone and wide awake. The latter sound reappears intermittently at 0;1 (22) and at 0;1 (26) in the same situations, whereas the sound *aa* or *rra* which I emit in Laurent's presence in order to copy him releases analogous sounds, after a smile, at 0;1 (22). At 0;1 (28) circular reaction begins with the sounds *aha*, *enhen*, etc., and at the third month vocalizations are produced. At 0;2 (7) Laurent babbles in the twilight and at 0;2 (16) he does this on awakening early in the morning often for half an hour at a time.
>
> *Observation 42.* – In certain special cases the tendency to repeat, by circular reactions, sounds discovered by pure chance may be observed. Thus at 0;2 (12) Lucienne, after coughing, recommences several times for fun and smiles. Laurent puffs out his breath, producing an indefinite sound. At 0;2 (26) he reproduces the peals of his voice which ordinarily accompany his laughter, but without laughing and out of pure phonetic interest. At 0;2 (15) Lucienne uses her voice in similar circumstances, etc. [Piaget (1952), pp. 78-79]

The circular reaction is the hallmark behavior indicative of a person who is experiencing a state of equilibrium (the condition mandated by the practical regulation of the categorical imperative of pure practical Reason). These babies are playing with their voices and, by doing so, they are developing the cognitions and practical rules they will later use in learning how to talk. It would be absurd to suppose they know this is what they are doing and what it will lead to later. They are, rather, merely exercising their powers of judgmentation and the motivational dynamic in service of the fundamental mental law that regulates all human behaviors. An infant comes into the world equipped with utterly no *a priori* objective concepts and utterly no practical rules represented in his practical manifold of rules. He is equipped with nothing more than a large set of innate sensorimotor reflexes and an accompanying set of affective preferences (the counterpart in affectivity of physical sensorimotor capacities). All cognitive learning at the beginning of life is driven by affectivity and the motivational dynamic in the service of the innate practical drive for *Existenz* in a state of equilibrium. All developed objective concepts (in the child's manifold of concepts) and practical action-rules (in his manifold of rules) develop out of these humble beginnings and extend the capacities of the child. What we are seeing in Piaget's observations here is nothing else than *spontaneous Self-motivated educational activities* by which the play of children produces Progress in improving the perfection of *Personfähigkeit*.

The most erudite theorizing of the greatest scientist, the most spectacular athletic coordination of body by the greatest athlete, the most esthetically-moving renditions of the greatest singer *all* have their points of origin in such humble educational activities as those displayed here by babies Laurent and Lucienne. This demonstrates that educational Self-development is a native capability

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[3] Piaget's convention for denoting age is years; months (days). Thus here he is saying Laurent is 1 month and 8 days old.

in human beings – not as a faculty *a priori* but as a *byproduct* and *developed faculty* of the mental physics of mind function. Those social institutions we call schools are possible only because of the spontaneous capability (*Fähigkeit*) for educational Self-development possessed by individual human beings. Every institution of training, regardless of the subject-matter of the training, would fail utterly if educational Self-development were not a characteristic put on display by the process of judgmentation. So far as this goes, we could not even have the *ideas* of schools and training were it not for the fact that human beings possess this capability. The capability is grounded in perfection of individual *Personfähigkeit*. It follows that understanding the idea of educational Self-development and phenomena that exhibit it is a centrally significant topic of interest for a social-natural science of education.

§ 3. Schooling

There are severe limits to the scope of perfection in his *Personfähigkeit* a person is able to achieve by himself without the cooperation of other people. Limitations to this scope are always simultaneously limitations to the individual's personal liberty, but not to his personal freedom, because the term *liberty* refers to what a person is *able* to do whereas *freedom* refers to his agency in *attempting* to do something. Every infant is born free but is born with very little liberty. As I discussed in *The Idea of the Social Contract*, every person makes for himself his own private society and does so for the purpose of attaining a greater scope of liberty by perfecting the power of his person. His exchange of unrestrained natural liberties for civil liberties in cooperation with others is at the foundation of all social compacts and is the necessary factor in the formation of civil Communities and Societies.

Activities of civic social interactions by which one person is assisted by another person in his efforts to accomplish his purposes of educational Self-development make up one class of social institution activities. We can properly call all such activities phenomena of ***schooling***. In Critical terminology, schooling is the Object that understands all activities of this class of civic social interaction. This *Realerklärung* (real-explanation) is an explanation of much deeper practical significance than we find in Webster's definitions of schooling, i.e.,

> **schooling**, *n*.
>
> 1. formal instruction in school; education.
> 2. cost of instruction and living at school; price paid to an instructor for teaching pupils.
> 3. reproof; reprimand; as, he gave his son a good *schooling*. [Archaic]

It is rather clear that these dictionary definitions are merely nominal and *ad hoc* descriptions of particular types of appearances and not real explanations at all. In my opinion, the thing that is most deeply significant about these descriptions is the impressive way they display humankind's cultural and habitual ignorance of what schooling and education *per se* are.

I am not saying and do not mean every pupil or every student in Societies that have instituted schools is cognizant that by his social interactions with school officials (teachers) he is acting to improve the power of his person. In point of fact, most pupils have no cognizance of this at all. They attend school because they are made to do so by their parents or by the Community in which they live. That one even has a *practical* purpose at the foundation of his educational Self-development is likewise something of which many people are not cognizant. *All* purposes are, at their logical-essential root, practical. Cognizance of purpose lags establishment of practical rules of action, and this is nothing more and nothing less than a psychological phenomenon, characteristic of all human beings, that empirical psychology has long recognized. It is one of the most basic findings documented by Piaget and his coworkers in Piaget (1974). People who have received training to be teachers and who act in that official capacity usually have at least some

intuition that their pupils do have a practical interest served by the lessons in which they are being instructed, but not knowing the mental physics foundations at work in the processes of organized schooling is a severe hindrance to the effectiveness of methods of pedagogy and instructional delivery. I will make the passing remarks here that: (1) with the obvious exception of professors in a College of Education, most professors working at institutions of higher education receive no training whatsoever in how to be an effective teacher; and (2) many carry around unexamined subjective prejudices, based mainly on their own experiences as students, about what the practical civic Duties of a teacher are. Many older professors, true enough, have come to develop a better practical understanding of this as a consequence of their years of experience in teacher's activities. Almost all new assistant professors just starting out do not have the benefit of this experience and it typically takes them a few years to learn how to be effective teachers. Some canny college students come to develop a habit, based on their student experience, of avoiding taking classes from new assistant professors whenever possible. However, such canny students typically make up only a relatively small minority of the student body on any campus.

Schooling might or might not be carried out within an institution called a school. Webster (1962) provides thirteen definitions of the word "school." Of these, the first definition is the one relevant in the context of this treatise:

> **school**, *n*. [ME. *scole*; AS. *scolu*; OFr. *escole*; L. *schola*, school, from Gr. *scholē*, leisure, that in which leisure is employed, discussion, philosophy, a place where spare time is employed, a school.]
>
> 1. a place or institution in which persons are instructed in arts, science, languages, or any kind of learning; an educational establishment; specifically, (a) an institution for teaching children; (b) a place for training and instruction in some special field, skill, etc.; (c) a college or university.

The oldest form of schooling, which we can call the master-apprentice system, did not involve schools. Rather, a young person (the apprentice) would learn the subject-matter from an older person (the master). Judging by aboriginal Societies of today, it seems likely that by at least the Neolithic period the master was typically a parent or relative and the apprentice was a child in the master's family. Formalized master-apprentice systems originated from social customs and were likely formalized over many centuries. The invention of civilization would accelerate formalized institutions of master-apprentice systems as, e.g., in the form of guilds. Archeological evidence suggests that guilds were established in Assyria by at least 700 B.C. If, as some scholars now think, the Pharaohs of the Old Kingdom employed groups of skilled artisans in the construction of the pyramids, the first guilds in Egypt might have been set up thousands of years before this. It is not unlikely this formalization might have preceded the invention of writing.

It is not known when the first semi-public school institutions appeared. It is almost certain that the first institutions that can properly be called schools in the modern sense of the word were not open to general members of the public, but, rather, to the children of specific privileged castes, and were possibly organized more or less along the same lines as guilds. Pedersen writes,

> There is no real knowledge of when human society reached such a stage in its development that the conditions and requirements for real school education existed. Even in the most primitive societies it was of vital importance that certain knowledge and accomplishments could be passed down from one generation to the next, but in spite of this, real school education could have existed only in the first settled communities. Strong concentrations of population presupposed a central authority in the form of a town council, or a royal power, equipped with administrative organs to attend to the common tasks of society. Collecting taxes and duties required a class of administrators with specialized knowledge of accounts, no less of writing too, just as there were well-defined systems for

weights and measures of various wares. Furthermore, a permanent administration made chronology and a calendar necessary; in most cases the calendar was developed on astronomical principles which were often closely associated with the religious cult of the day. As all these things in the beginning must have been dark mysteries for the ordinary man, skilled specialists probably attended to them. What is immediately clear is the essential interrelationship between school bodies and the bureaucracy, and this is confirmed by what we know of the best-known urban centers of the ancient Middle East.

In this way we are relatively well informed about education in ancient Egypt, where boys were normally educated at home until they began to learn a trade as apprentices at the age of ten. Various Egyptian texts have been preserved in the form of 'Books of Wisdom' containing a father's advice to his son on the principles of leading a happy life as a useful member of society. This led to the well-to-do classes of society sending their sons to proper schools to learn reading, writing, and counting, something to which numerous *ostraka*, or inscribed potsherds with the exercises and tasks written on them, can attest. Girls seem not to have had access to these schools, in which special emphasis was also placed on literary proficiency; mathematics played a subordinate role, and sport or other physical education was left out altogether.

One text of great significance for our knowledge of how Egyptians were educated is the *Rhind Papyrus* . . . This is a papyrus scroll a good 5.5 meters long and 33 centimeters broad containing about 100 different mathematical texts. It has as its title 'Accurate Arithmetic: Introduction to the Knowledge of All Existing Things and All Dark Secrets,' which clearly shows that we are dealing with a textbook. From the preface it appears that the book was finished in the thirty-third year of the reign of A-User-Re . . . by the scribe A'h-Mose from an exemplar in the form of an older text from the time of King Ne-Ma'et-Re. This man is identical with one of the last pyramid builders in the twelfth dynasty, Amenemhed III, which means the text really gives us a glimpse of Egyptian mathematical education about 2,200 years before Christ. . . .

From the ancient Mesopotamian cultural area a huge amount of material survives on clay tablets. The oldest of these date from about 3000 B.C. and are written in the original picto-graph script of the Sumerians. . . . In Mesopotamia too, therefore, it is clear that schools existed which gave advanced teaching to different categories of future officials.

Life in such a school is described in a Sumerian text from about 2000 B.C., of which many copies were made in later times. It consequently enjoyed a certain popularity and can therefore be taken as typical. The many Akkadianisms in the text show that it was written by an Akkadian student, but in Old Sumerian language, which enjoyed a status as a language of learning similar to that of Latin later in Europe. The student leaves home in the morning bringing his lunch, which is later eaten in school. The headmaster is a 'school father,' and mentioned in the text is also one teacher in Sumerian and another in arithmetic. Lessons take the form of the copying of already existing clay tablets, and the subjects are Sumerian, arithmetic, and book-keeping. A porter, a classroom pedagogue, and a playground superintendent maintain strict discipline – the student is lashed seven times a day for a series of different offenses that school pupils would still recognize today: arriving late in the morning, talking in class, getting up without leave, leaving the school grounds without permission, and skimping written work. Only towards evening does the student trudge wearily home, making a report of the day's work to his father (formerly an official himself), eating his supper and going to bed early so as to be fresh the next morning. [Pedersen (1997), pp. 1-5]

It is not known if special schools like these were organized using a guild model or if guilds later adopted a model along the lines of these special schools. Indeed, the only distinctions between these schools and later known guilds seems to be merely nominal distinctions having to do with subject-matter and whether the pupil's preparation was preparing him for private life or for public service. What is known is that the institution of universal public education did not

occur until many centuries later. Possibly the first such institution (or at least one of the first) was the *agoge* of ancient Sparta[4]. Ancient Athens had nothing comparable to it, nor did any other Hellenic city-state. The curriculum of the *agoge* was quite specialized and had only a few specific objectives: (1) to turn Spartan boys into Spartan citizens (children in Sparta were not citizens and were regarded as property of the state); (2) to train boys to be soldiers, which was a Spartan man's sole occupation; and (3) to impart skills held to be important for a soldier to have, such as how to steal without getting caught, proficiency in all forms of combat, how to bear up under any sort of pain or hardship, and how to kill bare-handed by stealth[5]. There were three ways a Spartan boy could leave the *agoge*: (1) he could die while participating in it; (2) he could be judged unfit to be a Spartan and be exiled from Sparta; or (3) he could successfully complete it and become a Spartan citizen. The most common outcome was (3), the second most common outcome was (1). Whatever you might think of the *agoge*, it served the Spartans well for about seven centuries and produced the most feared soldiers in ancient Helena. It was also the foundation of Spartan moral custom; the Spartans were generally regarded by every other city-state of ancient Helena as the most moral people of all the Greeks. The *agoge* also contributed to turning Sparta into what historian Arnold Toynbee called an arrested civilization.

Universal public education was the rare exception rather than the rule in ancient Societies, and it disappeared completely from the West after the fall of Sparta for nearly two millennia. Arguably its first Society-wide reappearance[6] came in Scotland in A.D. 1560 when the Church of Scotland called for provision of a school in every parish providing free education to the poor. Fees were charged for those who could afford it and pressure was applied to parishioners to enroll their children, but it was not until 1696 that universal schooling was fully established in Scotland.

Its modern non-secular form in the West can be partly credited to the influence of a handful of individuals in the then-new United States of America, the most prominent of whom was Thomas Jefferson:

> In proceeding to the third and fourth duties prescribed by the Legislature, of reporting "the branches of learning which should be taught in the University[7], and the number and description of the professorships they will require," the Commissioners were first to consider at what point it was understood that university education should commence? Certainly not with the alphabet, for reasons of expediency and impracticality, as well as from the obvious sense of the Legislature, who, in the same act, make other provisions for the primary instruction of the poor children, expecting, doubtless, that in other cases it would be provided by the parent, or become, perhaps, subject of future and further attention by the Legislature. The objectives of this primary education determine its character and limits. These objects would be,
>
> To give to every citizen the information he needs for the transaction of his own business;
>
> To enable him to calculate for himself, and to express and preserve his ideas, his contracts and accounts, in writing;
>
> To improve, by reading, his morals and faculties;

[4] Mandatory universal education was also the rule for Spartan girls, but girls did not go through the *agoge* because the state's educational objective for them was different. The primary occupation of a Spartan woman was to produce fit and healthy children (preferably boys) for the state.
[5] One of a Spartan youth's "graduation requirements" was to kill a Helot (one of Sparta's slaves) without getting caught doing it. If caught, he was punished severely – for being caught.
[6] A few very localized and scattered examples of it reappeared here and there. An example is the Beverley Grammar School in England, which was founded in 700 A.D. However, these isolated cases can in no reasonable way be called examples of universal public education.
[7] the University of Virginia, the establishment of which as a public university had been mandated by the Virginia state legislature. The University was established in 1819.

> To understand his duties to his neighbors and country, and to discharge with competence the functions confided to him by either;
>
> To know his rights; to exercise with order and justice those he retains; to choose with discretion the fiduciary of those he delegates; and to notice their conduct with diligence, with candor, and judgment;
>
> And, in general, to observe with intelligence and faithfulness all the social relations under which he shall be placed.
>
> To instruct the mass of our citizens in these, their rights, interests and duties, as men and citizens, being then the object of education in the primary schools, whether private or public, in them should be taught reading, writing and numerical arithmetic, the elements of mensuration (useful in so many callings), and the outlines of geography and history. And this brings us to the point at which are to commence the higher branches of education, of which the Legislature require the development; those, for example, which are,
>
> To expound the principles and structures of government, the laws which regulate the intercourse of nations, those formed municipally for our own government, and a sound spirit of legislation which, banishing all arbitrary and unnecessary restraint on individual actions, shall leave us free to do whatever does not violate the equal rights of another;
>
> To harmonize and promote the interests of agriculture, manufactures and commerce, and by well informed views of political economy to give a free scope to the public industry;
>
> To develop the reasoning faculty of our youth, enlarge their minds, cultivate their morals, and instill into them the precepts of virtue and order;
>
> To enlighten them with mathematical and physical sciences, which advance the arts, and administer to the health, the subsistence, and comforts of human life;
>
> And, generally, to form them to habits of reflection and correct action, rendering them examples of virtue to others, and of happiness within themselves.
>
> These are the objects of that higher grade of education, the benefits and blessings of which the Legislature now propose to provide for the good and ornament of their country, the gratification and happiness of their fellow-citizens, of the parent especially, and his progeny, on which all his affections are concentrated. [Jefferson (1818), pp. 333-335]

Although Jefferson and other like-minded educationists favored universal public education for all citizens, until the 1840s formal education in the U.S. was semi-public, highly localized and mainly available only to the wealthier families. It was not until the end of the 19th century and the early 20th century that universal public education became an actuality in the United States. On the whole, nowhere in the world has any Society actually implemented a system of universal public education capable of meeting basic requirements of a social-natural civil convention, set according to Social Contract first principles, since the Spartan *agoge*.

Jefferson's words lay out in the clearest terms objectives for universal public education in America. Its institution was never uniform – it varied significantly from state to state and even from municipality to municipality. Whether or not American public education ever did a particularly good job of accomplishing all these objectives is debatable, and those who take up the argument that it did not can mount very strong arguments and evidence for making their case. Regardless of that debate, however, what the preponderance of empirical evidence today demonstrates irrefutably is that the institution of public education is not accomplishing many of these objectives at all and those it is accomplishing are not being accomplished well enough to satisfy the Society's needs. How and why this came about is the topic of Volume 2 of this work. All that I will say about it in this volume is this: The paradigms of Mann and Dewey, while containing many good and correct principles that must be retained by any successful institution of public education, are foundationally flawed. Dewey's prescription in the form he presented it

cannot succeed. Sorting out the details of the correct *vs*. the flawed, as well as identifying other contributing factors antagonistic to successful public education, is undertaken in Volume 2.

The principles of mental physics and the metaphysics of the Social Contract are unequivocal in speaking to the eventual consequences of perpetuating the present system of public education as this is being practiced in the United States. This system is going to collapse and disintegrate with disastrous consequences for the future of American Society. This is not a prophesy or an opinion. It is a social-natural scientific finding as reliable as saying a pencil that rolls off the edge of a table is going to fall to the floor. The process of disintegration of which I speak is already in progress. It remains to be seen if Americans can still or will still stop it.

§ 4. The Social Criticality and Effect of Public Education

Of history's famous characters, those whose actions had decisive influence on mankind's ideas of how to structure Societies, surprisingly few of them have held public education to be a public good. Even among these men the reasons they gave differ greatly. Fewer of them still recognized the reciprocal relationship that must exist between education as a public good and education as a private good in any Society unified, well-stabilized and made robust and progressive by the social contract in place among its citizens. By far the great majority of rulers who have marched across the stage of history saw education solely in terms of its benefits to the state and, therefore, to themselves. They paid no heed to the objectives of those who, by grace of the state, were allowed to benefit from state-organized institutional schooling. Their sole concern was making sure the state could procure a sufficient number of servants sufficiently well-trained to carry out the functions the state (and, ultimately, its rulers) required. Hence, as we saw earlier, the Akkadian pupil from a privileged caste admitted to a school was "lashed seven times a day" as a means of coercing him to pay attention to his lessons and submit to the rules that were imposed on him. Such a tactic can indeed coerce compliance *actio involuntaria* but will never be productive of citizenship. It is conducive to *outlaw* relationships.

The bare fact that the individual has an innate *Fähigkeit* for educational Self-development in no way implies he automatically recognizes schooling as an activity that serves his own Self-interest in developing and perfecting the power of his person. The actual situation is quite the opposite of this. A person must *learn* that an educational activity *is* personally advantageous in some way. He has no *a priori* knowledge or native intuition that this is so. Indeed, it is quite possible that the manner in which a Society might *impose* schooling upon him can lead to his learning an entirely opposite lesson. If he does, it is quite correct to say his *schooling* was an utter failure. To the extent that he learns anything at all from his schooling, he will enter into the educational activity not with the intention to learn but rather from some other unrelated ground in Duty-to-himself. Learning, if he learns a particular lesson at all, is then merely a means of Self-satisfying that other Duty. What he does choose to learn is then, indeed, a private good but not likely to *also* be a public good benefiting the Society in which he lives.

As I showed in *The Idea of the Social Contract*, human Nature is satisficing in its essential character. Schooling experiences that do not lead to actual satisfactions of the pure practical law of equilibrium are productive of objects of *Unlust* in an individual's conceptual understanding and in his private tenets of practical rules. He will thereafter look upon schooling with distaste and avoid formal learning activities except in those circumstances where he clearly recognizes that a particular study directly serves a duty-to-himself. This was recognized by Plato in one of those too-rare instances where his idea is not in contradiction with mental physics and human Nature:

> Now, all this study of reckoning and geometry and all the preliminary studies that are indispensable preparation of dialectic must be presented to them while still young [but] not in the form of compulsory instruction. . . . [A] free soul ought not to pursue any study

> slavishly, for while bodily labors performed under constraint do not harm the body, nothing that is learned under compulsion stays with the mind. . . . Do not, then, my friend, keep children to their studies by compulsion but by play. [Plato (date uncertain), *Republic* (pg. 768)]

Civil Communities are made durable and sustainable only by Obligations held-to-be-owed by its citizens to their Community. No one can impose an Obligation of any kind on another person. Obligation is only self-imposed by the particular individual, and if he is to pledge himself to being a citizen of his Community and his Society, he must gain in return the conditions he necessarily requires of that Community in exchange for his self-commitment to it. This is not an idealistic wish but rather is a *law* of human Nature. *All* reciprocal Duty and Obligation has its first grounding in the person's manifold of Duties-to-himself in regard to his external situation. The ancient despots, and those of today, appear to have understood this. But they did not, and do not, appear to truly understand how slender the social horsehair is keeping the sword of Damocles from descending into their necks. Rousseau was correct when he wrote,

> If I took into account only force, and the effects derived from it, I should say: "As long as a people is compelled to obey, and obeys, it does well; as soon as it can shake off the yoke, and shakes it off, it does still better; for, regaining its liberty by the same right as took it away, either it is justified in resuming it or there was no justification for those who took it away." [Rousseau (1762), pg. 2]

As I showed in *The Idea of the Social Contract*, Rousseau correctly identified both: (1) the fundamental term that a person, while serving his own Duties-to-himself, commits himself to fulfill, by reciprocal Obligations and Duties, when he joins a civil association; and (2) the fundamental condition under which he willingly makes this commitment:

> [As] the force and liberty of each man are the chief instruments of his own self-preservation, how can he pledge them without harming his own interests and neglecting the care he owes to himself? This difficulty, in its bearing on my present subject, may be stated in the following terms:
>
> "The problem is to find a form of association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone and remain as free as before." This is the fundamental problem of which the Social Contract provides the solution.
>
> The clauses of this contract are so determined by the nature of the act that the slightest modification would make them vain and ineffective; so that, although they have perhaps never been formally set forth, they are everywhere the same and everywhere tacitly admitted and recognized until, on the violation of the social compact, each regains his original rights and resumes his natural liberty, while losing the conventional liberty in favor of which he renounced it.
>
> These clauses, properly understood, may be reduced to one – the total alienation of each associate, together with all his rights, to the whole community; for, in the first place, as each gives himself absolutely, the conditions are the same for all; and, this being so, no one has any interest in making them burdensome to others. . . . Finally, each man, in giving himself to all, gives himself to nobody; and, as there is no associate over which he does not acquire the same right as he yields over himself, he gains an equivalent for everything he loses, and an increase of force for the preservation of what he has.
>
> If then we discard from the social compact what is not of its essence, we shall find that it reduces itself to the following terms:
>
> "Each of us puts his person and all his power in common under the supreme direction of the general will and, in our corporate capacity, we receive each member as an indivisible

> part of the whole." [*ibid.*, pp. 13-14]

Rousseau's revolutionary idea was that the people joined together in the civil association were its sovereigns. This idea was not uniquely original with Rousseau; Montesquieu had said more or less the same thing fourteen years earlier:

> The people, in whom the supreme power resides, ought to have the management of everything within their reach; that which exceeds their abilities must be conducted by their ministers. But they cannot properly be said to have their ministers without the power of nominating them: it is, therefore, a fundamental maxim in this government that the people should choose their ministers – that is, their magistrates. They have occasion, as well as monarchs and even more so, to be directed by a council or a senate. But to have proper confidence in these, they should have the choosing of the members [Montesquieu (1748), pg. 9]

The idea that agents of government were servants rather than rulers was revolutionary in 18th century Europe and flew in the face of presuppositions that had been the norm in politics for millennia. The prevailing presupposition for centuries had been that the people at large were not competent enough or wise enough to choose their own magistrates or manage their own affairs. Consequently, it was thought, the people must be *ruled* and could never be other than serfs and, *perhaps*, wards of the state. The ancient Mesopotamian despots needed no deep reflection on this; they had conquered the people they ruled and subjugated them to use as serfs of a state the rulers identified with themselves. More enlightened would-be despots, such as Plato, regarded the people as *both* wards and serfs of the state and held that the ruler, too, was in his own way merely a servant of the state whose special task and skill it was to manage the affairs of the state and rule over everyone in it. Plato wrote,

> You have again forgotten, my friend, that the law is not concerned with the special happiness of any class of the state, but is trying to produce this condition in the city as a whole, harmonizing and adapting the citizens to one another by persuasion and compulsion, and requiring them to impart to one another any benefit which they are severally able to bestow upon the community, and that it itself creates such men in the state, not that it may allow each to take what course pleases him, but with a view to using them for the binding together of the commonwealth. [Plato, *op. cit.* (pg. 752)]

To make his ant-like Communism work, Plato realized that state-instituted education for the rulers ("the guardians," as he put it) was necessary. He wrote,

> And still easier, haply, I said, is this that we mentioned before when we said that if a degenerate offspring was born to the guardians he must be sent away to the other classes, and likewise if a superior to the others he must be enrolled among the guardians, and the purport of all this was that the other citizens too must be sent to the task for which their natures were fitted, one man to one work, in order that each of them fulfilling his own function may be not many men, but one, and so the entire city may come to be not a multiplicity but a unity. . . . These are not, my good Adimantus, as one might suppose, numerous and difficult injunctions that we are imposing upon them [the guardians], but they are all easy, provided they guard, as the saying is, the one great thing – or instead of great let us call it sufficient.
>
> What is that? he said.
>
> Their education and nurture, I replied. For if a right education makes of them reasonable men they will easily discover everything of this kind and other principles which we now pass over . . . [*ibid.* (pg. 665)]

To live in Plato's *Politeia* ("body politic"; the title of this work should never have been mistranslated as "republic") was to live as a slave. Plato despised Athenian democracy for its irrationality and what he saw as its "unnatural" and haphazard method of appointing governing officials. Contrary to present day popular myth, only around ten percent of the approximately 1000 Athenian officials were *elected* to office. Rather, they were *selected* by drawing lots. The persons so selected were then duty-bound as citizens to take on the tasks of administering their designated office for one year. This was a form of conscripted selective service (a "draft") that gave the government of Athens an amateurish quality Plato regarded as morally intolerable.

Aristotle, as in so many other things, fundamentally disagreed with Plato. He recognized that different individuals develop different talents, but he also saw that those important for social order could be developed purposively by a system of public education. He stands out among the renowned ancient scholars in seeing the institution of universal public education as a Duty of government regardless of whatever the form of that government might be:

> No one will doubt that the legislator should direct his attention above all to the education of youth; for the neglect of education does harm to the constitution. The citizen should be molded to suit the form of government under which he lives. For each government has a peculiar character which originally formed and which continues to preserve it. The character of democracy creates democracy, and the character of oligarchy creates oligarchy; and always the better the character, the better the government.
>
> Again, for the exercise of any faculty or art a previous training and habituation are required; clearly therefore for the practice of excellence. And since the whole city has one end[8], it is manifest that education should be one and the same for all, and that it should be public, and not private – not as at present, when everyone looks after his own children separately and gives them separate instruction of the sort which he thinks best; the training in things which are of common interest should be the same for all. Neither must we suppose that anyone of the citizens belongs to himself, for they all belong to the state, and are each of them a part of the state, and the care of each part is inseparable from the care of the whole. In this particular as in some others the Lacedaemonians[9] are to be praised, for they take the greatest pains about their children and make education the business of the state. [Aristotle (date uncertain), *Politics*, vol. 2, pg. 2121]

Aristotle also presupposed that men must be ruled rather than governed. He saw government as that part of the state that had ruling for its function. He was much less preoccupied than Plato, however, with what sort of government a state should have. He made a three-fold division of forms of good government, each with its polar opposite form of perverse government. Aristotle's classification system is shown in circumplex form in figure 1.4. A government is good if it promotes and contributes to the happiness of all its citizens, perverse if it does not. If it were not for his presupposition that men must be ruled, and for other ontology-centered presuppositions he also made concerning human nature, he might have come up with Rousseau's idea twenty-two hundred years before Rousseau did. In such ways do metaphysics pilot history.

It is not surprising Aristotle would praise the Spartans when we understand that he was not praising the details of the *agoge* but, rather, the Spartans themselves for having the wisdom to realize a system of universal public education designed to preserve the state. In Sparta the "one end" to which everything else was subordinated was *survival*. The Spartans had conquered and subjugated a neighboring people, the Helots, and afterwards lived with the constant threat that the Helots, who vastly outnumbered the Spartans, might revolt and kill them all.

[8] specifically, Aristotle held that this one end was the happiness of all its citizens.
[9] that is, the Spartans. We derive our word "laconic" from this name for the Spartans. Laconia was the name of the region of Greece where Sparta was located.

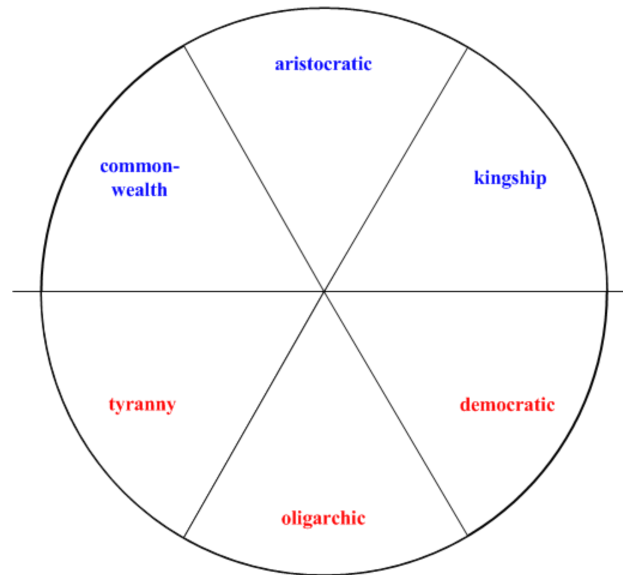

Figure 1.4: Circumplex depiction of Aristotle's classifications of good (blue) and perverse (red) forms of government.

It was this threat that militarized the Spartans to a degree far surpassing that of any of the other bellicose city-states of ancient Helena. It colored and permeated every aspect of Spartan life. The Spartan institutionalization of the *agoge* was held to have been started by their legendary lawgiver, Lycurgus, sometime between 900 B.C. and 600 B.C. Plutarch tells us,

> Lycurgus, the lawgiver, wishing to recall the citizens from the mode of living then existent, and to lead them to a more sober and temperate order of life, and to render them good and honorable men (for they were living a soft life), reared two puppies of the same litter; and one he accustomed to dainty food and allowed it to stay in the house; the other he took afield and trained in hunting. Later he brought them into the public assembly and put down some bones and dainty food and let loose a hare. Each of the dogs made for that to which it was accustomed, and, when one of them had overpowered the hare, he said, "You see, fellow-citizens, that these dogs belong to the same stock, but by virtue of the discipline to which they have been subjected have turned out entirely different from each other, and you also see that training is more effective than Nature for good."
>
> But some say that he did not bring in dogs which were of the same stock, but that one was of the breed of house dogs and the other of hunting dogs; then he trained the one of inferior stock for hunting, and the one of better stock he accustomed to dainty food. And afterwards, as each made for that to which it had become accustomed, he made it clear how much instruction contributes for better or worse, saying, "So also in our case, fellow-citizens, noble birth, so admired of the multitude, and our being descended from Heracles[10] does not bestow any advantage, unless we do the sort of things for which he was manifestly the most glorious and most noble of all mankind, and unless we practice and learn what is good our whole life long." [Plutarch (date unknown), *Sayings of the Spartans*, pp. 352-355]

Despite the harshness – most of us today would say the brutishness – of life as a Spartan, it can not at all be said the Spartans were an unhappy people. They were in point of fact a proud and even arrogant people who firmly believed they were the very best and most moral people in all of Helena and, if the Spartan eye had bothered to roam so far, in all the world. Everything about

[10] also known as Hercules. The Spartans claimed the hero half-god Hercules was the father of their race.

their Society promoted this self image, including their music. Plutarch writes,

> They were no less seriously concerned over their music and their songs. These contained a stimulus to awaken a spirit of pride and to afford an inspiring and effective impulse. Their language was simple and plain, consisting merely of praise of those who had lived noble lives, and had died for Sparta, and are now counted among the blessed, and also censure of those who had played the coward, and now, presumably, are living a tormenting and ill-fated existence; and therewith profession and boasting in regard to valor, such as was fitting for the different periods of life. So there were three choirs, corresponding to the three periods of life, which were made up at their festivals, and the choir of old men would begin with this song:
>
> "Young valiant men long days ago were we."
>
> Then the choir of men in the prime of life would sing in response,
>
> "And that are we; look, if you will, and see."
>
> And the third choir, that of the boys, would sing,
>
> "And better far 'tis certain we shall be."
>
> [Plutarch (date unknown), *Ancient Customs of the Spartans*, pg. 435]

Plutarch wasn't joking about Spartan public education affording "an inspiring and effective impulse." The *agoge* featured violent and deadly competitions all boys participated in. One of these, originally a bloody battle to steal cheese, had evolved into a brutal endurance contest by the late third century B.C. [Kennell (1995), pp. 79-83]. Three centuries later Plutarch witnessed it:

> The boys at Sparta were lashed with whips during the entire day at the altar of Artemis Orthia, frequently to the point of death, and they bravely endured this, cheerful and proud, vying with one another for the supremacy as to which one of them could endure being beaten for the longer time and the greater number of blows. And the one who was victorious was held in especial repute. This competition is called 'The Flagellation' and it takes place each year. [Plutarch, *op. cit.*, *Ancient Customs of the Spartans*, pp. 443-445]

Parents attended this competition, cheering for their sons and exhorting them to keep going and not yield to the pain. The boys stayed on their feet as long as they physically could, and as long as a boy was standing he was whipped. Many passed out from loss of blood and some died during it. The last boy standing won. I can't speak for you, but I'd hate to come up against a Spartan army on a battlefield knowing every single one of them competed in contests like this *cheerfully* as a boy. Compared to Spartan boys, NFL football players are sissies.

Plato agreed that it was necessary that every person in the body politic should be properly trained and prepared to fulfill his role in that Society and he called this preparation education. But there was nothing public about Plato's notion of education except censorship and the only thing universal about it was that everyone should get some particular caste-brand of it. He wrote,

> Well, I proceed at once to say that he who is to be good at anything as a man must practice that thing from early childhood, in play as well as in earnest, with all the attendant circumstances of the action. Thus, if a boy is to be a good farmer, or again, a good builder, he should play, in the one case at building toy houses, in the other at farming, and both should be provided by their tutors with miniature tools on the pattern of real ones. In particular, all necessary preliminary instructions should be acquired this way. Thus the carpenter should be taught by his play to use the rule and plumb line, and the soldier to sit on a horse, and the like. We should seek to use games as a means of directing children's tastes and inclinations toward the station they are themselves to fill when adult. So we may

> say, in fact, the sum and substance of education is the right training which effectually leads the soul of the child at play on to the love of the calling in which he will have to be perfect, after its kind, when he is a man. . . .
>
> Then let us further guard against leaving our account of what education is too indeterminate. When we are to express approval or censure of a man's training, we correctly speak of one of ourselves as educated and another as uneducated . . . and of other such fellows of mighty fine education. But our present discourse is in place only on the lips of one who holds that education is none of these things, but rather that schooling from boyhood in goodness which inspires the recipient with passionate and ardent desire to become a perfect citizen, knowing both how to wield and how to submit to righteous rule. Our argument, I take it, would isolate this training from others and confine the name education exclusively to it; any training which has as its end wealth, or perhaps bodily strength, or some other accomplishment unattended by intelligence and righteousness, it counts vulgar, illiberal, and wholly unworthy to be called education. So we must not wrangle over a word, but abide by the proposition on which we have just agreed, that the rightly educated prove what we mean by good, and that no aspect of education is to be disparaged; it is the highest blessing bestowed on mankind, and it is the best of them on whom it is most fully bestowed. [Plato (date unknown), *Laws*, pp. 1243-1244]

Under Plato's tidy little communism, what you were to be in life was determined the day you were born and by whatever caste you were born into. Most of his educational laws concerned what specifically was to be subjected to state censorship and not allowed, especially, to be seen by children on grounds that it would corrupt them from becoming happy, contented and skilled little worker bees. Plato's tight little despotism works, too. History has witnessed it time and time again: in feudal Europe, in feudal Korea and Japan, in Czarist Russia, in India, in Nazi Germany, and elsewhere. Some current politicians, both neo-conservative and so-called liberal, endorse it.

But it is incompatible with Progress by which a Society rises up from the level of what in *The Idea of the Social Contract* I called natural society to a free society and onward towards an ideal society. At best it produces nothing but an arrested civilization and, more often in history, leads eventually to a fallen civilization. The Spartans made their *agoge* work as a universal public education only because *every* Spartan man was to be a professional soldier. Plutarch wrote,

> They [the Spartans] learned to read and write for purely practical reasons; but all other forms of education they banned from the country, books and treatises being included in this quite as much as men. All their education was directed toward prompt obedience to authority, stout endurance of hardship, and victory or death in battle. [Plutarch (date unknown), *Ancient Customs of the Spartans*, pg. 429]

Montesquieu wrote,

> The laws of education are the first impressions we receive; and as they prepare us for civil life, every private family ought to be governed by the plan of that great household which comprehends them all.
>
> If the people in general have a principle, their constituent parts, that is, the several families, will have one also. The laws of education will be therefore different in each species of government: in monarchies they will have honor for their object; in republics, virtue; in despotic governments, fear. [Montesquieu (1748), pg. 29]

That education is an inseparable function of government *in fact* and not merely in theory was a point that John Stuart Mill emphasized. Whether the agents of any government want it this way or not, every institution of government has an educational effect on those it governs. The *only* issue is whether this effect is going to be beneficial, malignant, or a mix of the two to the Society. Mill

wrote,

> The first element of good government, therefore, being the virtue and intelligence of the human beings composing the community, the most important point of excellence which any form of government can possess is to promote the virtue and intelligence of the people themselves. The first question in respect to any political institutions is how far they tend to foster in the members of the community the various desirable qualities, moral and intellectual, or rather . . . moral, intellectual, and active. The government which does this the best has every likelihood of being the best in all other respects, since it is on these qualities, so far as they exist in the people, that all possibility of goodness in the practical operations of the government depends.
>
> We may consider, then, as one criterion of the goodness of a government, the degree in which it tends to increase the sum of good qualities in the governed, collectively and individually; since, besides that their well-being is the sole object of government, their good qualities supply the moving force which works the machinery [of government]. This leaves, as the other constituent element of the merit of government, the quality of the machinery itself; that is, the degree in which it is adapted to take advantage of the amount of good qualities which may at any time exist, and make them instrumental to the right purposes. . . .
>
> We have now, therefore, obtained a foundation for a twofold division of the merit which any set of political institutions can possess. It consists partly of the degree in which they promote the general mental advance of the community, including under that phrase advancement in intellect, in virtue, and in practical activity and efficiency; and partly of the degree of perfection in which they organize the moral, intellectual, and active worth already existing, so as to operate with the greatest effect on public affairs. A government is to be judged by its actions upon things; by what it makes of the citizens, and what it does with them; its tendency to improve or deteriorate the people themselves, and the goodness or badness of the work it performs for them and by means of them. Government is at once a great influence acting on the human mind and a set of organized arrangements for public business . . .
>
> Of the two modes of operation by which a form of government or set of political institutions affects the welfare of the community – its operation as an agency of national education and its arrangements for conducting the collective affairs of the community in the state of education in which they already are, the last evidently varies much less, from the difference of country and state of civilization, than the first. It has also much less to do with the fundamental constitution of the government. . . . It is otherwise with that portion of the interests of the community which relate to the better or worse training of the people themselves. Considered as instrumental to this, institutions need to be radically different according to the stage of advancement already reached. . . . The state of different communities, in point of culture and development, ranges downward to a condition very little above the highest of beasts. The upward range, too, is considerable, and the future possible extension vastly greater. A community can only be developed out of one of these states into a higher by a concourse of influences, among the principal of which is the government to which they are subject. . . . They may be stopped short at any point in their progress by defective adaptation of their government to that particular stage of advancement. And the one indispensable merit of a government, in favor of which it may be forgiven almost any amount of other demerit compatible with progress, is that its operation on the people is favorable, or not unfavorable, to the next step which it is necessary for them to take in order to raise themselves to a higher level. . . .
>
> To determine the form of government most suited to any particular people, we must be able, among the defects and shortcomings which belong to that people, to distinguish those that are the immediate impediment to progress; to discover what it is which (as it were) stops the way. The best government for them is the one which tends most to give them that for want of which they cannot advance, or advance only in a lame and lopsided manner.

> We must not, however, forget the reservation necessary in all things which have for their object improvement or Progress; namely, that in seeking the good which is needed, no damage, or as little as possible, be done to that already possessed. . . . And (to give the observation a higher generality) the form of government which is most effectual for carrying a people through the next stage of progress will still be very improper for them if it does this in such a manner as to obstruct or positively unfit them for the step next beyond. [Mill (1861), pp. 18-25]

Public education is a phenomenal unseen hand of *any* form of governance at *every* level in *any* Society. Its presence is subtle but its effects inexorable. Its effects will either raise up the Society or tear it down; either promote the happiness and well-being of the Society's people or degrade and oppress them; either hold the Society together or tear it apart; either promote a more perfect union or balkanize a nation. If a Society is *ruled* by arrogant or mal-educated despots its public education will be a mal-education and inimical to individual liberty, individual happiness, and to the sustainability of the Society's social contract. We have such a system of public mal-education in the United States today and for the precise reason that it is premised upon political ideologies that are opposed to human Nature. The most deadly enemy of good public education in America today is the Republican Party; its second most deadly enemy, barely lagging the first in venality and enormity, is the Democratic Party. American, it does not matter what Party you vote for; they *all* are your personal enemies because this is the nature of political parties. Your choice is merely the choice of which tyrant's boot you prefer to have on your neck. George Washington wrote,

> I have already intimated to you the danger of parties in the State, with particular reference to founding of them on Geographical discriminations. – Let me now take a more comprehensive view, and warn you in the most solemn manner against the baneful effects of the Spirit of Party generally.
>
> This Spirit, unfortunately, is inseparable from our nature, having its root in the strongest passions of the human mind. – It exists under different shapes in all Governments, more or less stifled, controlled, or repressed; but, in those of the popular form, it is seen in its greatest rankness and is truly their worst enemy. –
>
> The alternate domination of one faction over another, sharpened by the spirit of revenge, natural to party dissension, which in different ages and countries has perpetrated the most horrid enormities, is itself a frightful despotism. – But this leads at length to a more formal and permanent despotism. – The disorders and miseries which result gradually incline the minds of men to seek security and repose in the absolute power of an Individual; and sooner or later the chief of some prevailing faction, more able or more fortunate than his competitors, turns this disposition to the purposes of his own elevation on the ruins of Public Liberty.
>
> Without looking forward to an extremity of this kind (which nevertheless ought not to be entirely out of sight), the common and continual mischiefs of the spirit of Party are sufficient to make it the interest and duty of a wise people to discourage and restrain it. –
>
> It serves always to distract the Public Councils and enfeeble the Public administration. It agitates the community with ill-founded jealousies and false alarms, kindles the animosity of one part against another, foments occasionally riot and insurrection. – It opens the door to foreign influence and corruption, which find a facilitated access to the Government itself through the channels of party passions. Thus the policy and will of one country are subjected to the policy and will of another. [Washington (1796)]

Malfunctioning public education leads in time to malfunctioning governance of a Society. Malfunctioning governance leads to perpetuations of injustice, the violation of the social contract that holds the Society together, and to the eventual disintegration and fall of that Society. The enemies of personal liberty and justice flourish and grow in a darkness that prevails when public

education fails. The uneducated man is made a serf and the mal-educated one is made an even more enchained serf because he has been deceived into thinking the source of his oppression lies elsewhere than where it does. The word *liberal* derives from the Latin word *liberalis*, of or pertaining to a free man, and the significance of its practical meaning is not the suborned meaning employed as a propaganda banner by those merely calling themselves "liberals." If we mean by the phrase "liberal education" the education of a citizen possessing civil rights and exercising civil liberties in a just Society, Hutchins was correct inasmuch as he wrote,

> The aim of liberal education is human excellence, both private and public . . . Its object is the excellence of man as man and man as citizen. It regards man as an end, not as a means; and it regards the ends of life, and not the means to it. For this reason it is the education of free men. . . .
>
> The substance of liberal education appears to consist in the recognition of basic problems, in knowledge of distinctions and interrelations in subject matter, and in the comprehension of ideas.
>
> Liberal education seeks to clarify the basic problems and to understand the way in which one problem bears upon another. It strives for a grasp of the methods by which solutions can be reached and the formulation of standards for testing solutions proposed. . . .
>
> The liberally educated man has a mind that can operate well in all fields. He may be a specialist in one field. But he can understand anything important that is said in any field and can see and use the light it sheds upon his own. The liberally educated man is at home in the world of ideas and in the world of practical affairs too. . . . He may even derive from his liberal education some conception of the difference between a bad world and a good one and some notion of the ways in which one might be turned into the other. [Hutchins (1952), pp. 3-4]

This description of liberal education can serve, at least for now, as the statement of a standard for evaluating the pertinence of public education theories and proposals. We will find additional standards as this treatise progresses. There is no more critical and crucial social issue for any Society than its institution of public education. The United States has never had a civic institution of public education in the context of Hutchins' description of liberal education. It has not had one in the past, it does not have one today, and there are no proposals laid on today's table of public debate to establish one in the future that would be capable of succeeding.

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