

Critical Review of the Dewey-Bode Applied Philosophy of Education, Part III: Tangible and Persuasion Socialization

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I. Neo-Hegelianism in the Dewey-Bode Doctrine

In moving from the corporal education and intellect education divisions of public education [Wells (2013c)] to the divisions of tangible and persuasion education in the applied metaphysic of public instructional education, there is a shift in the *aim* of instruction [Wells (2012a), chap. 8, pg. 229].¹ Corporal and intellect education both aim at the achievement of Progress in the power of the learner as an individual. Tangible and persuasion education both aim at the achievement of Progress in the power of the learner as a citizen². This distinction is not the same as the dimensional distinctions of learner-as-a-free-person and learner-as-a-member-of-Society, although the difference is subtle. The 1LAR logical division into matter (corporal and intellect education) and form (tangible and persuasion education) in the metaphysic of public instructional education is a logical division for the aims of the *institution* of education. The functional division into dimensions of the learner reflects the *immediate beneficiary* of instructional education. For the dimension of the learner-as-a-free-person, it is the learner himself whose *Personfähigkeit* (power of the person) immediately benefits. For the dimension of the learner-as-member-of-Society, it is the corporate *Personfähigkeit* of the Society that immediately benefits. Because the corporate power of a Society originates nowhere else than from commitment of the individuals who pledge their allegiance to it, a strong and robust Society requires strong and robust members committed to mutual cooperation under the social contract. The Society is, therefore, a *mediate beneficiary* of public education in the dimension of the learner-as-a-free-person.

There is little room for reasonable doubt that civil cooperation in the United States suffered a major setback as a result of the Economy Revolution, which changed the economic nature of America shortly before the American Revolution [Wells (2013d), chap. 5]. The reform efforts of both the Horace Mann era, prior to the Civil War of 1861-1865, and of the Progressive Education Movement in the 20th century were motivated in part by non-civil and uncivil changes in American Society that accompanied the large-scale disappearance of civic free enterprise during and after the Economy Revolution. Unfortunately, the PEM accomplished nothing that resulted in real Progress for either tangible or persuasion education in America. Why?

It is beyond reasonable doubt that Dewey and the PEM sought to benefit the general Society of the United States, and it is likewise beyond reasonable doubt they recognized that having a strong Society required the education institution to improve the *Personfähigkeit* of the learners. However, in the ratiocinations of Dewey's neo-Hegelian dialectic, clarity of the aims of the reforms became deflected, misfocused, and misdirected. Consequently, the PEM reforms failed to

¹ The author's prior works are posted on the Wells Laboratory website and are accessible free of charge at the following web address: <http://www.mrc.uidaho.edu/~rwells/techdocs/>.

² A citizen is a member of a Community who accepts mutual Obligations jointly with the other members of the Community, and who accepts the performance of acts of citizenship as a reciprocal Duty he owes to the Community. Citizenship is the actuality of individual actions congruent with the conventional general standards of expectations for civic action held commonly by the members of the Community. An individual person, as an Object, is the transcendental object of a root concept having no sphere in the manifold of concepts. The concept is therefore a terminating concept in a series *a parte posteriori* of concepts. This root concept stands under all concepts of distinguishing marks that characterize a particular person and in it is contained all concepts of that person. The root concept is logically singular, hence it has no sphere. It is not epistemologically permissible to make any conceptual *real* division of an individual human being.

benefit *either* the learner *or* the Society, and the reformed institution failed in the task of achieving Progress in either dimension of the learner in regard to tangible education and persuasion education. There were in some cases accidental benefits for some of the learners but there was no encompassing general Progress in tangible *Personfähigkeit* or persuasion *Personfähigkeit*. Underlying this failure are found some neo-Hegelian presuppositions embedded in the foundations of the Dewey-Bode doctrine.

This observation requires comment. It has been held by most that, in Gutek's words, "Dewey would . . . abandon Hegel's abstract Idealistic metaphysics" [Gutek (2005), pg. xi]. This is both true and false. It is true that Dewey did not subscribe to Hegel's plunge into transcendent fantasy sailing far beyond the horizon of possible human experience. It is not true that he abandoned key aspects of Hegelian metaphysics that give rise to this plunge. What Dewey attempted to do was to put a cap on Hegelian speculation by attempting to limit it to speculations that could be empirically tested. His means of doing so is the Pragmatic doctrine he called "instrumentalism." When Dewey's Pragmatism is contrasted with that of William James, what emerges from this examination is a relationship in which, metaphorically, Dewey plays the role of Pragmatic-Plato while James plays the role of Pragmatic-Aristotle.

Evidence of the neo-Hegelian framework of Dewey's metaphysic – evidence I regard as being sufficiently conclusive – is found in chapters V and XXII of Dewey (1916). Dewey thumb-sketches and criticizes the major philosophical systems of the past (including Kant as Dewey misunderstood Kant), pointing out issues and problems with them. One could reasonably expect that after this review Dewey would go ahead and lay out *his* solution. But this layout never happens, and for a good reason. Dewey's metaphysic is ontology-centered and adopts as a basic premise views of "self" and "mind" that are distinctly Hegelian in character. Dewey writes,

As a matter of fact every individual has grown up, and always must grow up, in a social medium. His responses grow intelligent, or gain meaning, simply because he lives and acts in a medium of accepted meanings and values. Through social intercourse, through sharing in the activities embodying beliefs, he gradually acquires a mind of his own. The conception of mind as a purely isolated possession of the self is at the very antipodes of the truth. The self *achieves* mind in the degree in which knowledge of things is incarnate in the life about him; the self is not a separate mind building up knowledge anew on its own account. [Dewey (1916), pg. 322]

Oh, is that so? Are we to hold, then, that a newborn baby has no mind at all? Dewey must answer 'yes' because in his view 'mind' is an epiphenomenon (the 'medium') yet, at the same time, it is *not*. This opposition is precisely the beginning of a Hegelian dialectic. For Dewey an "individual's mind" is only an ontological moment of the epiphenomenal medium. The latter is a "universal mind" realizing itself by mechanisms of social intercourse – a Hegelian position. But nonetheless, Deweyan 'mind' is *also* not-an-epiphenomenon because

Mind as a concrete thing is precisely the power to understand things in terms of the use made of them; a socialized mind is the power to understand them in terms of the use to which they are turned in joint or shared situations. *And mind in this sense is the method of social control.* [*ibid.*, pg. 37]

In the history of psychology this view is called "holistic functionalism" [Reber & Reber (2001), listed under 'functionalism']. It is a school of thought no longer current. But the notion of 'mind' as 'a concrete thing' is, Dewey argues, non-real and, indeed, is a damaging misconception. *Real* 'mind' is to be regarded as "the pivot upon which reconstruction of beliefs turns" and "as the agent of reorganization." This is 'mind' as a Hegelian universal to which individual 'concrete minds' stand as particulars according to the Hegelian rules of transcendental logic:

However, as we have noted, philosophic theories of knowledge were not content to conceive mind in the individual as the pivot upon which reconstruction of beliefs turned, thus maintaining the continuity of the individual with the world of nature and fellowmen³. They regarded the individual mind as a separate entity, complete in each person, and isolated from nature⁴ and hence from other minds. . . . But when knowledge is regarded as originating and developing within an individual, the ties which bind the mental life of one to that of his fellows are ignored and denied. [*ibid.*, pp. 324-325]

Well, yes, this is true *if* your system of metaphysics is ontology-centered, *if* "knowledge" is made to "reside" or "inhere" as an accident of a mind-substance, *if* we can determine what "ties which bind mental life" really means, and *if* any such thing really exists. The moment you use 'mind' as an 'agent' you *must* impute *Existenz* to 'mind.' If your metaphysic is ontology-centered, this *Existenz* must take the form of some sort of real substance (a Cartesian *res cogitans* of some sort). If you make 'mind' something inherent in something *else* that is substantial, it is this something else that is the agent. Dewey tried to do *both*, and in an ontology-centered way of looking at the world the only recourse by which one can try to do this is the Hegelian dialectic. In the process, human beings – the social atoms of all social phenomena – vanish and are replaced by abstract people. In Hegel's universe, you and I count for so very little that we count as nothing.

Perhaps no one worked through the logical consequences of an ontology-centered mind-theory better than Leibniz. Leibniz' step-by-step logical analysis unfolded into his theory of monads and terminated, as it had to, with God [Leibniz (1714)]. One principal difference between Leibniz' Platonism and Hegel's Platonism is that Leibniz premised there was a *discrete* terminus at which God could be placed, whereas Hegel's *continuum* ontology has *no* termination point at which to place Hegel's Absolute-Spirit-realizing-itself. Dewey's Pragmatism does not permit introducing Hegel's Godhead into his system, and this is where his Pragmatism attempts to stop the infinite regress that a *continuum* ontology-centered premise requires. But this *Abschneidungsmetaphysik* (cut-off metaphysics) can provide no real direction for empirical science. Dewey did not present a systematic theory of mind because he *could not* without abandoning his Pragmatism. However, the *setup* of his metaphysic coheres hand-in-glove with Hegel's setup of his mind-theory [Hegel (1830), §§ 381-384, pp. 8-20]. In the transcendental logic of Hegelian dialectic, Dewey's and Hegel's ontological positions, which Boumann expresses more clearly than Hegel, are the same:

From what has been said, it already follows that the transition from Nature to mind is not a transition to an out-and-out Order, but is only a coming-to-itself of mind out of its self-externality in Nature. But equally, the differentia of Nature and mind is not abolished by this transition, for mind does not proceed in a natural manner from Nature. When it is said [earlier in Hegel's theory] that the death of the merely immediate, individual form of life is the procession of mind or spirit, this procession is not 'according to the flesh' but spiritual, is not to be understood as a natural procession but as a development of the Notion: for in the Notion, the one-sidedness of the genus which fails properly to actualize itself . . . and also the opposite one-sidedness of the animal existence which is tied to individuality, these are both overcome in the individuality which is in and for itself universal or, what is the same thing, in the universal which exists for itself in a universal mode, which universal is mind. [Hegel (1830), pg. 14]⁵

³ Dewey is saying "mind as a pivot" is what maintains this continuity and he holds that "philosophic theories of knowledge" break this continuity. It is here where logically particular mind ('mind of an individual') and logically singular mind ('mind *qua* mind') meet to start the synthesis that "returns" to 'universal mind' in the transcendental logic of Hegelian dialectic. If you're thinking this is real hogwash, you are not-wrong.

⁴ If 'individual mind' is "isolated from nature" then a human being is an *unnatural* thing. Nonsense.

⁵ In Hegel's metaphysic, 'particular minds' and 'singular mind' are moments of 'total' or 'universal' mind.

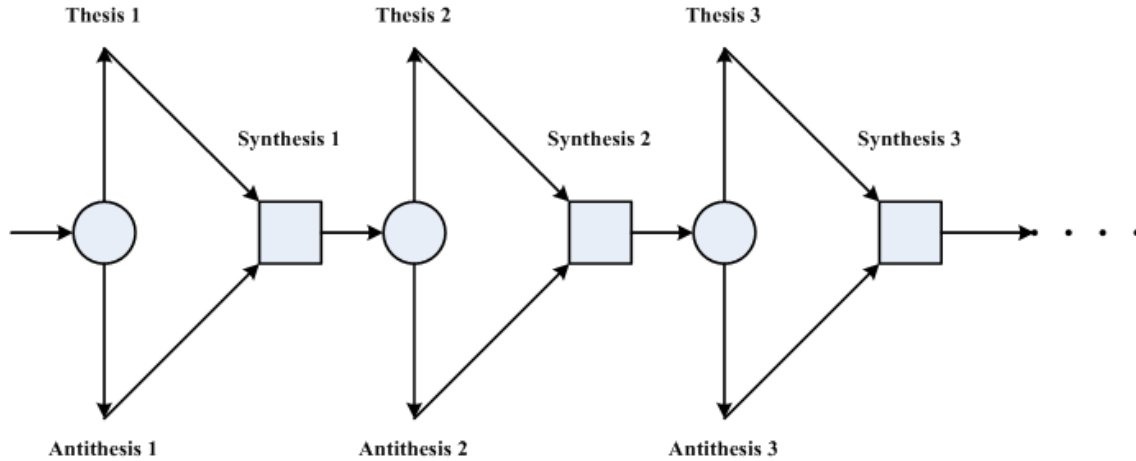


Figure 1: The Hegelian dialectic of thesis-antithesis-synthesis progression over time. In Dewey's model of social evolution, 'individual minds' pose theses and antitheses and a 'collective mind,' operating through interpersonal communication and, preferably, consensus-building, forges the synthesis. Trial of the new synthesis is made, contradictions are found, and the process of thesis-antithesis-synthesis begins anew. The social model of Deweyan so-called 'democracy' can be directly derived from this metaphysic.

If this whirligig of Hegelian dialectic reasoning makes you feel dizzy, you are in plentiful good company. The Hegelian system is Absolute Hogwash. Dewey tried to jump off Hegel's transcendent merry-go-round and the world is still waiting for him to land.

Dewey's "mind as pivot" idea⁶ reduces in practical terms to a statement that Societies evolve by a continuous "social evolution" of changes characterized by a never-ending progression of Hegelian thesis-antithesis-synthesis epochs. Figure 1 illustrates this idea. Where Dewey departs from Hegel is that he does not acknowledge a final purpose or *τελος* trending to completion in God, as Hegel does. For Dewey, historical evolution of humankind and Societies is not an "inevitable" evolution, as it is for Hegel. Rather, Dewey holds that what comes next continuously evolves from what has gone before and, up to some degree, this evolution is controllable by mankind through collective actions [Dewey (1909)]. In effect, it opposes the teleological thesis of Aristotle and the variation-under-natural-selection antithesis of Darwin to produce, as a synthesis, social evolution occurring in part by the imperfect designs of Man and in part by caprice of nature [*ibid.*]. Dewey forecasts no specific *entelechy* or final state of development because imperfections in design combine with caprice in empirical nature to make human social designs problematical. In present-day mathematics language, this social evolution model would be classed as one of the systems dealt with by mathematical chaos theory. It cannot be forecasted if this evolution approaches the endpoint in a spiral, tends to a limit cycle encircling an attractor, or has multiple strange attractors. Propositions concerning this evolution of humanity are formally undecidable.⁷

This is the foundation underlying the arguments of 'continuity' and 'growth' in Dewey (1916), chap. I, and Bode (1922), chap. I. Insofar, and only insofar, as social evolution is responsive to the ideas and efforts of Man, Dewey tells us, it is up to someone to take charge as best they can of the 'design component' of social change in accord with a model of where the designer ought to choose to take Society. This is Dewey's cut-off point of departure from Hegelian 'inevitability.'

Herein, though, lie the questions: who is to be entrusted with selecting the model? and, who is

⁶ The 'pivot point' of Deweyan 'universal mind' is a spiral limit-point of perfection presented as an Ideal of universal consensus in opinions, values, and aims marking the perfection of "humanity." Kant's theocentric bias in his efforts to formulate a social contract theory took him to this same *noumenon* of "humanity."

⁷ For definitions of this mathematical terminology, see Nelson (2003) under "Gödel's proof" and "chaos."

to be entrusted with carrying out and implementing the design? Dewey's – and the PEM's – answer was to place responsibility in the hands of professional educologists and to aim for a more socially "evolved" form of Plato's *Politeía* that Dewey called "democracy." How it might be possible for this planners' meritocracy to not-be necessarily in contradiction with the Sovereignty of American citizens has no satisfactory explanation in the Dewey-Bode doctrine. Enormities perpetrated by PEM reforms in the 20th century began at this contradiction and led to an institution of educational governance that is unjust under the social contract of any Republic.

II. The Critical Functions of Tangible Education 1: The Pursuit of Happiness

There is an old saying, anonymous in origin but often attributed to St. Bernard, that goes, "The road to hell is paved with good intentions." How fared the Dewey-Bode doctrine in regard to the functions of Progress in tangible education? To answer this, the functions must first be understood. Figure 2 shows all twenty-four functions of public instructional education. Figure 3 depicts the 2LAR axiom system for these functions [Wells (2012a), (2013c)].

The three functions of tangible education in the social dimension of the learner are: (1) the lessons of *mos maiorum* function; (2) the skills of enterprise function; and (3) the cooperation of social Enterprise function. Taken concretely, tangible education pertains to the learner's relational *Personfähigkeit* (power of his person) in regard to both what he is able to accomplish by himself (dimension of the learner-as-a-free-person) and what he is able to accomplish conjointly with the actions of others (dimension of the learner-as-a-member-of-Society). The specifying concept of tangible public instructional education is the Society's social contract (figure 3). In applying this concept to the institution of public education there are three Pertinences⁸ to be considered. These are: (1) the pursuit of happiness; (2) Welfare; and (3) tranquility. These Pertinences align one-for-one with the three general functions shown in figure 3, i.e., (1) character lessons; (2) the skills function; and (3) the cooperation function [Wells (2012a), chap. 8, pp. 230-235].

The judicial real-explanation of what is meant by 'happiness' is understood from the judicial Standpoint of Critical metaphysics. Judicially regarded, happiness is a person's consciousness of a

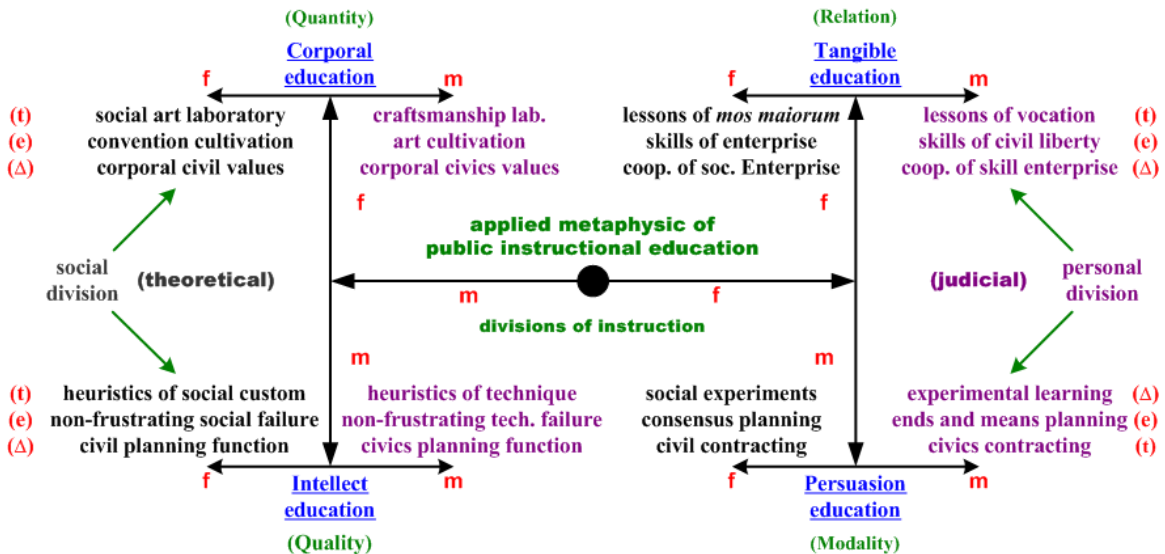


Figure 2: 3LAR structure of the functions of Progress in public instructional education.

⁸ A Pertinence is an Object that has the state or quality of being pertinent. The state or quality itself is called a pertinence. Wells (2013a) is a Glossary of technical terms used in the Critical Philosophy, mental physics, and Critical applied metaphysics. I refer you to it for explanations of technical terminology.

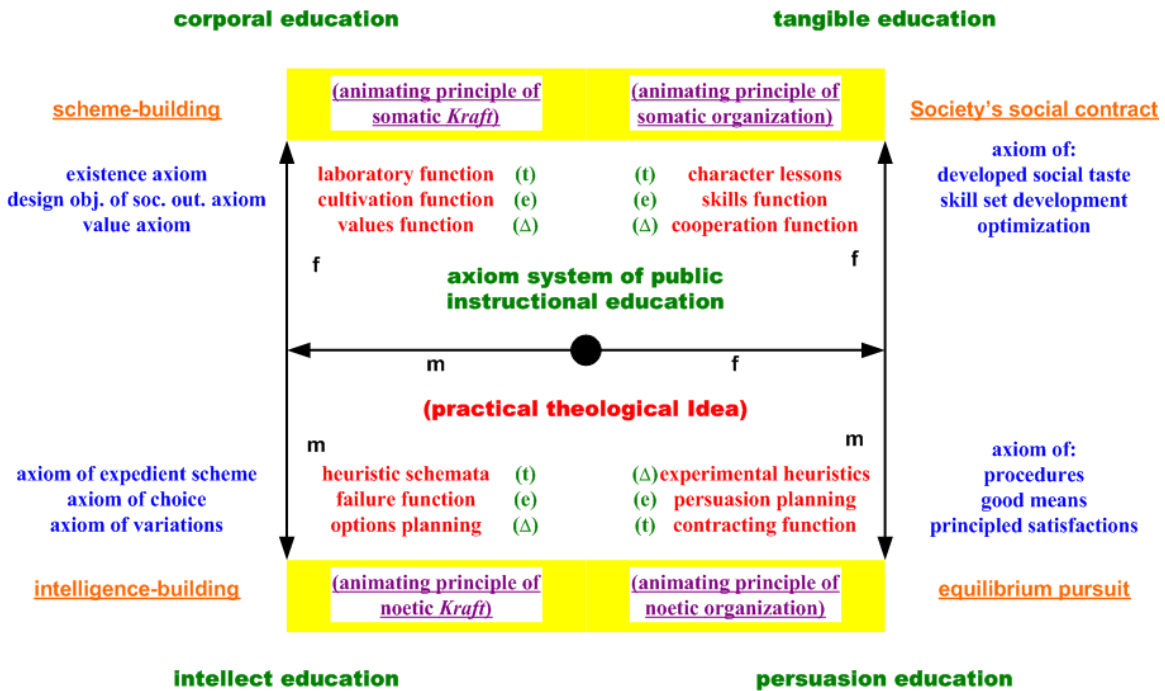


Figure 3: 2LAR of the axiom system of public instructional education with the twelve general 2LAR educational functions of Progress and their associated animating principles of *psyche* in mental physics.

pleasantness of life that accompanies without interruption his whole state of *Existenz*. Feelings of happiness, empirically, tend to be fleeting, thus the *root* real-explanation of happiness is *practical* and belongs to the practical Standpoint of Critical metaphysics. 'Happiness' in this Standpoint is *the expedience of the disposition of a person to act on the basis of the matter of his desires*. Here, though, we encounter the fact that what a person *thinks* will make him happy might or might not achieve this state-of-being after his action is realized. Kant tells us,

The idea of happiness is not one such as man has abstracted by chance from his instincts and so derived from the animality in himself; on the contrary, it is a mere Idea of a state to which he would make [his animality] adequate under merely empirical conditions . . . He sorts this out himself and indeed in different ways through his complicated understanding by imagination and the senses; yes, and what is more he amends these so often that this nature, even if it were to be totally subjugated to his choice, nevertheless could by no means undertake to determine general and firm law with this unstable concept, and so harmonize with the purpose that each arbitrarily intends for himself. But even if we either reduce this to the genuine urge of nature in which our species generally agrees, or, on the other hand, raise our skill so high as to provide for such an imagined purpose, yet even so what man understands by happiness, and what is in fact his own proper natural purpose . . . would never be attained by him; for his nature is not of the type to stop anywhere in possession and enjoyment and to be gratified [Kant (1790), 5: 430]

Judicially, the state of happiness is recognized by the *absence* of any feelings of desire to change one's situation and feelings of *aversion* to changes in one's situation. Psychologists Elaine and Arthur Aron contend that "happiness" is "the neutral gear of the nervous system," which is as much as to say the emotion is recognized from the absence of its contrary condition or state [Aron & Aron (1987)]. Their finding is consistent with Critical epistemology.

In the view of Aristotle, 'happiness' is something "pursued for its own sake and not for the sake of something else," and he devoted his theorizing not so much to saying "what happiness is"

but rather to what sort of pursuits seem to lead to it [Aristotle (4th century BC)]. He apologized that his ontology could not say what "happiness" is and, like Plato, he had to content himself with speculations regarding what sorts of things ought to be proper objects of its pursuit. Views of this sort are, in Critical terminology, speculations from the *theoretical* Standpoint and are not speculations of what 'happiness *per se*' is but are instead speculations regarding its *pursuit*. Where Aristotle, as well as Plato and other ancient philosophers, overstepped the mark was in presuming that this is something one person can decide for another – which is contrary to both the mental physics of human nature and to the American social contract.

Nonetheless, any institution of public education must at least venture its best estimation of what sort of instruction is pertinent for the learner's Progress in self-determining how he will pursue attainment of this state-of-being. At the same time, an individual's self-determinations are always judgments of taste because the association of any object conceptualized as pertaining to feelings of happiness are made through the acts of the process of reflective judgment – and so are always subjective judgments. It likewise seems to me rather obvious that if public education did nothing that learners regarded as useful in helping them in their pursuits then the institution could command no respect from either the learners or from those who are called upon to alienate some fraction of their personal stocks of economic goods in order to pay for the institution. Hence, the Pertinence (pursuit of happiness) here must be regarded from the *theoretical* Standpoint of Critical metaphysics. From this Standpoint, happiness is the *problematic* Object to which one theoretically refers when he makes references to his state of satisfaction or dissatisfaction. *Theoretical* happiness is the unity of all an individual's concepts of empirical representations of matters-pertaining-to-practical-happiness. But it is, as Kant said, an unstable concept.

Public schooling is not called upon to see to it that every learner is able to achieve a state of satisfaction for every choice of every pursuit he might undertake. This is because, as an institution of Society, the social contract justification for establishing public education is bound to the terms and conditions of the social contract – and therefore to concepts of *public* good. It follows from this that the public education context of the Pertinence is bound to stand in a Relation of **expedience *per motiva*** – i.e., the Pertinence is related to the reason that someone determines his actions to be *thus* and not something else. The *civil* motive in this case is not the motive of a learner in pursuit of his own private interests but, rather, the motive of his Society in establishing the institution of public instructional education.

From here we come to the proper educational context in which the Object is to be understood in relationship to public instructional education. The Pertinence is *theoretical* because its concept is the product of the synthesis of the practical (actions chosen *per motiva*) and the judicial (happiness determined according to judgments of taste). **Pursuit of happiness** in the context of public education is ***the pertinent motivating factor per motiva in Self-determinations of an individual's actions***. Less grandiloquently, the Pertinence is expressible as the Society's intention that its members determine their actions taking into account determining grounds of civic Duties (in the personal dimension) and civil Duties (in the social dimension) as the *determining reason* for choosing some particular possible action over another. For example, the pertinent reason that a shopkeeper should not cheat his customer is not because he might get caught and punished for perpetrating a fraud but, rather, because he understands that this action is harmful to his Society and that it is his Duty as a citizen to determine his actions according to tenets of *civil* liberty, eschewing all antisocial exercises of his *natural* liberties. Likewise, if a shopkeeper should mistakenly give too much change back to his customer, it is the customer's civic Duty to point out the error and return the excess amount regardless of how much or how little this might be.

It is contrary to the interests of Society for a learner to learn how to be an accomplished pick-pocket, shoplifter, or any other sort of criminal. On the contrary, the interest of Society, and the motivation for the function, is to *cultivate* the learner as a good citizen, a partner in the civil

association, and a contributor to the corporate tangible *Personfähigkeit* of the civil Community. Therefore, the Critical deduction of this Pertinence calls upon an acroam which, in combination with the idea of expedience *per motiva*, is used to deduce the **axiom of developed social tastes: learner tastes are formable through instructional education** [Wells (2012a), chap. 8, pg. 235]. The corresponding function for the dimension of the learner-as-member-of-Society is the function of **lessons of *mos maiorum*⁹: inclusion in the curriculum of lesson-matters orienting the learner's Self-developed principles of mores and folkways such that these principles are congruent with the common set of mores and folkways of his Society** [*ibid.*, pp. 235-236]. The lesson-matters here serve as objects for the educational Self-development activities the learner undertakes in the development of his intellectual appetites.

I wouldn't be the least bit surprised if you are thinking to yourself, "Well, all of this is obvious and even trivial," despite the fact that I have met individuals who do not think so. The school has no monopoly over teaching children common tenets of mores and folkways. The divers churches have been engaged in delivering this sort of instruction for centuries. In a homogeneous Society in which all the members belong to the same religious association and which does not admit other people who hold different ideas of religious faith, the church institute would be *sufficient* for this instructional purpose. However, the moment a Society determines to be heterogeneous and to admit divers religious faiths, church institution is *no longer* sufficient because it is no longer a *common* basis for mores and folkways. America is such a Society, has been from its colonial days, and therefore the institution of public instructional education is placed under an expectation that *non-sectarian* aspects of character lessons congruent with the social contract be made a part of the public instruction curriculum.

I also wouldn't be at the least surprised if there are some who challenge the assertion that there is *any* proper public school role for instruction in "morals." In part such an opposition is well grounded in the historical fact that early public instructional moral education in the United States was dominated by primarily Protestant doctrines. This did in fact violate the religious civil liberty of non-Protestant pupils, especially Catholics and Jews. However, the infringement was due to the fact that this instruction was laced with Protestant religious doctrine, rendering it sectarian. There is a widespread but mistaken opinion that ethics and morality are grounded in religion. It is true the divers churches have made instruction in morals a part of their activities for centuries. Even allegedly non-sectarian moral leadership training provided to youths typically argues that morals are grounded in religion. For example, the 1961 moral leadership manual used by the Civil Air Patrol as part of CAP cadet training stated:

[We] believe the more important beginning principles of our national heritage may be reduced in simple terms to the following six statements of national faith:

1. We, as human beings, are common creations of the same God, made in His image, and under His will we live.
2. The message of the first statement implies that the most precious jewel in the national treasure chest is the God-given basic dignity and rights of the individual – "that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness."
3. Each individual bears a personal responsibility to all other individuals in the protection and development of these God-given rights.
4. Government and all duly constituted authority exists for the sole benefit of the people.
5. In order for this to be effected the people must accept responsibility toward their government.
6. In order to maintain these interdependent relationships, man with man and man

⁹ The Latin phrase *mos maiorum* translates as "greater established custom."

with government, a system of written rules and guarantees is necessary.
[Kullowatz (1961), pp. 11-12]

I respect Chaplain Kullowatz, but it is simply not true that every citizen thinks rights are "God-given" or that the Judeo-Christian God exists. In Societies with a state-sanctioned religion this might be so in principle. However, BaMbuti Pygmy Society – arguably the oldest Society on earth – also has a strong moral code practiced by its members yet has no organized religion going beyond vague and mystical veneration for "the forest" in which they live [Turnbull (1961)]. It is *the social contract* an association of people use to make their association into a Community that grounds their public moral customs (i.e., the mores and folkways of their Community).

In America there was a Protestant hegemony over rule and operation of public schooling that lasted from the founding of the Republic until after the Civil War of 1861-1865. This hegemony disintegrated in the years immediately following the war. As the deacons and ministers were replaced by businessmen and other "community leaders," public instruction in *mos maiorum* lost ground, largely disappearing from the public school curriculum. Table 1 provides snapshots of the curriculum at various years from the late 18th through the 19th centuries. In 1775 the lessons of *mos maiorum* were explicitly religious. During the Horace Mann era there was a move to make these lessons more non-sectarian, although they never lost their fundamentally Protestant bias. After 1850 lessons of *mos maiorum* were given less and less attention, being finally reduced to "conduct lessons" by 1900. Even this shadow disappeared in the 20th century PEM reforms.

Elementary School Curricula
1775 to 1900

1775	1825	1850	1875	1900
READING Spelling Writing <i>Catechism</i> BIBLE Arithmetic	READING * <i>Declamation</i> SPELLING * Writing <i>Good Behavior</i> <i>Manners & Morals</i> ARITHMETIC *	READING DECLAMATION SPELLING WRITING Manners Conduct MENTAL ARITH. * CIPHERING	READING <i>Literary Selections</i> SPELLING PENMANSHIP * Conduct PRIMARY ARITH. ADVANCED ARITH.	READING * LITERATURE * <i>Spelling</i> <i>Writing</i> * Conduct ARITHMETIC *
	Bookkeeping GRAMMAR Geography	Bookkeeping Elem. Language GRAMMAR <i>Geography</i> History of the U.S.	Bookkeeping <i>Oral Language</i> * GRAMMAR Home Geography * TEXT GEOGRAPHY U.S. HISTORY <i>Constitution</i>	Bookkeeping ORAL LANGUAGE <i>Grammar</i> <i>Home Geography</i> TEXT GEOGRAPHY <i>History Stories</i> TEXT HISTORY
	Sewing & Knitting	Object Lessons Sewing & Knitting	Object Lessons * Elementary Science * Drawing * Music * Physical Exercises Sewing & Knitting	<i>Nature Study</i> * Elementary Science Drawing * Music * Play Physical Exercises Sewing Cooking Manual Training
CAPITALS = Most important subjects. <i>Italics</i> = Subjects of medium importance. Roman = Least important subjects. * = New teaching methods employed.				

Table 1: Public elementary school curricula from 1775 to 1900.

It is erroneous to blame the disappearance of lessons of *mos maiorum* from public education entirely on the Progressive Education Movement. Table 1 provides ample documentation that this disappearance was already in progress in the 19th century. However, with the heavy emphasis the Dewey-Bode doctrine places on science and Taylorite "utility," PEM reforms abdicated all roles of the institution of public instructional education for these lessons. It cannot be fairly said that there was sinister intent behind this; that charge is ludicrously false. It can be fairly stated that the Dewey-Bode doctrine did not recognize the *necessity* under the social contract for the educational function. Left unrecognized, the function itself disappeared from the curriculum.

III. The Critical Functions of Tangible Education 2: The Welfare Functions

The skills functions in the two dimensions of the learner (figure 3) are the functions the great majority of Americans tend to regard as *the* principal function of education. Parents want their children to be given training needed to land better-paying jobs. Employers want to be able to recruit employees from a pool of available skilled workers, minimize or eliminate the cost of training their workforce any more than is needed for the success of their Enterprises, to be able to hire employees who can solve the practical problems that regularly occur in the workplace and who are able to "think outside the box" to help the Enterprise innovate and effectively compete. Ideological politicians espousing so-called "neo-conservative values," and labeling education as merely a "private good," tend to regard job skill training and minimal "academic basics" (reading, writing, basic mathematics) as the principal, and sometimes as the sole, purpose of schooling. Many current-day controversies over public education originated from competition between views such as these and the ideology and policies of PEM reformers. Most reformers and well-intentioned critics do not realize that reforms and policies they favor are actually detrimental to the Welfare of the learners as well as to the corporate *Personfähigkeit* of the United States.

It might surprise many who subscribe to propaganda that caricatures Dewey as a great villain, responsible for the failure of America's system of public education to meet the public's set of job-and-basic-skills expectations, to learn Dewey saw the "vocational" mission of public education in ways very similar to their own views. He wrote,

Any scheme for vocational education which takes its point of departure from the industrial régime that now exists is likely to assume and to perpetuate its [class] divisions and weaknesses, and thus to become an instrument in accomplishing the feudal dogma of social predestination¹⁰. . . . But an education which acknowledges the full intellectual and social meaning of a vocation would include instruction in the historic background of present conditions; training in science to give intelligence and initiative in dealing with material and agencies of production; and study of economics, civics, and politics, to bring the future worker into touch with the problems of his day and the various methods proposed for its improvement. Above all, it would train the power of readaptation to changing conditions so that future workers would not become blindly subject to a fate imposed upon them. [Dewey (1916), pp. 348-349]

The only thing that makes Dewey a convenient scapegoat for outcomes of 20th century education reform in the United States is that the Progressive Education Movement won the political battle

¹⁰ Here Dewey is criticizing California's vocational education movement (1854-1915), the trade school movement (1868-1912), and the manual training/industrial arts movement (1876-1946) for being too narrowly focused and providing the learner too limited opportunity for economic advancement. He saw these movements leading to institutionalization of a permanent, economically subjugated underclass in America. It is an American tragedy that the PEM reforms also led to this, and Dewey-Bode doctrine is not without some responsibility here. This does not mean PEM opponents would have succeeded any better. There would not have been much real difference between the outcomes they would have achieved and those that were achieved by the PEM, and for many of the same reasons that PEM reforms failed.

over education and the Essentialist Movement did not. If the political outcome had been reversed, William Bagley would likely have been made the scapegoat. Tangible education would not have been much different regardless of who won the "progressivism" vs. "essentialism" competition.

Both movements recognized that "skill" is an important aim in education. Neither movement recognized that it is the *key* aim for tangible education. Both movements took "skill" to be a 'self-evident' primitive and did not expend adequate effort to understand the proper meaning of this term in the context of education. **Skill is an ability to practice a craft.** A **craft is the practice of some special art.** An **art is the disposition or modification of things by human ability to answer an intended purpose.**¹¹ An art is something purposively *done*. A craft is the *practice* of doing so. A skill is the *ability* to carry out the practice. **Ability is the exhibition of a change in the appearance of an object insofar as the ground for the determination of this change has its transcendental place in the Nature of that object.** In our present context, I am speaking of *human* ability, a human being is the object, and so *skill in the context of education refers to what a human being is capable of exhibiting in action.* The skill functions of tangible education are *functions for instructing the learner's self-development of skills.* The educational focus must be *on the learner* and not on *what he learns to do*. The distinction here is this. When the focus is on the learner, the learner develops and cultivates *the ability to acquire skills*. When the focus is on what he learns to do, he gains *one particular skill* (or, at most, some limited *set* of particular skills). Accomplish the latter and what you get is a machine-like person who can do one or a few limited special tasks. Often a robot could do as much. Automation and technical obsolescence leave the person unable to provide for his own welfare. Accomplishing the former cultivates a person who can learn to do anything he decides he needs or wants to do. Kant wrote,

By education the human being must therefore: (1) be *disciplined*. To discipline means to seek to prevent animality from harming humanity, both individual and social. Discipline is therefore merely taming wildness.

(2) The human being must be *cultivated*. Culture includes teaching and instruction. It is the procurement of skill. This is possession of a capacity which is sufficient for any arbitrary purpose. It determines no ends at all, but leaves this to the later circumstances.

Some skills are good in all cases, e.g. reading and writing; others only for some purposes, e.g. music, which makes us popular with others. Because of the multitude of purposes, skill becomes, as it were, infinite.

(3) It must be seen to that the human being becomes *prudent* also, suited for human society, popular, and influential. This requires a certain form of culture named *being civilized*¹². For this are needed manners, good behavior and a certain prudence in virtue of which one is able to use all human beings for one's own final purposes. It conforms to the changeable taste of each age. Thus just a few decades ago ceremonies were still loved in social intercourse.

(4) One must also pay attention to *moralization*. The human being should not merely be skillful for all sorts of purposes, but become of the disposition to choose nothing but good ends. Good ends are those which are of necessity approved by everyone and which can be at the same time ends of everyone. [Kant (1803), 9: 449-450]

¹¹ "Art" is more than the overspecialized usages we habitually put that word to today. The usage is much more broad than painting, sculpting, composing music, literature etc. For example, it was once common to call engineering and science "the technical arts." Both suffer when their practitioners forget this. Engineers still refer to something they call "the state of the *art*." This is not poetry. It has become common in the U.S. for engineering colleges to neglect to teach the "art part" of engineering. Without it engineering is sterile.

¹² Kant's actual word used here was *Civilisirung*, a peculiar technical term that refers to making a noun form from the transitive verb phrase, "making civil." There isn't an exact equivalent for this term in English but "being civilized" conveys the meaning of Kant's word.

The metaphysical axiom for empirical tangible education is the **axiom of skill development: skills for Progress in tangible Personfähigkeit are developed by exercises of adaptation performance focusing on scheme-building and scheme-regulating that prepare a learner to achieve Welfare success in life** [Wells (2012a), chap. 8, pg. 240]. The schemes are the educative *materia ex qua* of educational Self-development. The subject-matters taught make up its *materia circa quam*. But the objects of the educative process are practical and cognitive imperatives of skill, and these are the *materia in qua*¹³ instructional education aims to produce. Kant tells us,

All imperatives are (1) hypothetical, i.e., the necessity of the act as a means to ends; [or] (2) categorical, i.e., the straightforward practical necessity of the act without the motivating ground being contained in any other end. The latter has unconditioned, the former only conditioned practical necessity. The hypothetical imperative commands something either *problematically*, i.e., it enjoins something under the condition of a merely possible end; or *assertorically*, if it enjoins something under the condition of an actual end. The categorical imperative enjoins without any end. The problematic imperative occurs in all practical sciences; for example, in geometry when I say: If you want to measure a tower, you must do thus and so. Those who have no wish to measure the tower have no need to do this. The imperative under *problematical* condition is the imperative of skill. When we instruct him in youth, we show the schoolboy all possible means to all possible ends, with the intention that, if he knows everything that is needed it may be useful to him. He who knows the imperatives to very many possible ends has a great deal of skill.

The imperative where I presuppose an assertoric end is the imperative of happiness, and this I can presuppose in everybody because we all wish to be happy. The imperatives which teach us how to reach happiness are imperatives of prudence. *Skill* is dexterity in knowing the means to any desired ends. The influencing of men is always directed here to the particular skill, so that to use a man for one's own arbitrary purpose is prudence; for example, the clockmaker is skilled if he makes a good clock, but prudent if he knows how to dispose of it effectively¹⁴; proper prudence is the use of means to promote or look after one's own happiness. That is the pragmatismal imperative. Pragmatic is that which makes us prudent, and practical that which makes us skilled; or, pragmatic is that which I can make use of for my freedom. [Kant (1785a), 29: 606-607]

To properly understand what the axiom is saying, one needs to understand what is meant by the Pertinence of Welfare. *Welfare* (capitalized) is the Object said to be in or possess welfare (not capitalized). The term 'welfare' means *the state or quality of doing well in life*. A person's *Welfare* (as an Object) understands the combinations of all his Objects of experience that stand in a Relation to his personal concept of his state of happiness. His maxims and imperatives of prudence pertain to his personal pursuit of happiness; his maxims and imperatives of skill pertain to his achievement of personal *Welfare*. The Pertinence of pursuit of happiness is logically categorical and assertoric; the Pertinence of *Welfare* is logically hypothetical and problematical.

Now, a judgment of whether someone is or is not doing well in life is always a personal and subjective judgment of taste determined by the particular individual. It is not up to *me* to judge whether or not *you* are doing well in life, nor does it fall to *you* to judge whether or not *I* am doing well. Tangible goods a person might or might not possess may or may not be pertinent to

¹³ *Materia ex qua* means "matter out of which" and is the determinable matter. *Materia circa quam* means "matter around which" and is the matter participating in the act of determination by which something is given form. *Materia in qua* means "matter in which" and is the determined matter constituting the subject of inherence.

¹⁴ What Kant means is the clockmaker is prudent if he knows how to sell a clock he makes to someone at a profit *and* he knows someone *will* buy it. A man who would adventure to sell ice cubes to Eskimos is not a prudent man. A merchant uses his customers as a means to fulfill his own welfare purposes, and they use him either to the same end or as a means in their own pursuits of happiness.

his actual Welfare. Some individuals make it their maxim to always own the most recent model of automobile, and it is likely that this ownership maxim is held by those people to be important for their own happiness even if the reason for the behavior is merely a passion for emulation. In my own case, I own a model-year 1987 car and couldn't care less that my neighbors own newer cars with all the toy bells and whistles that came with them. Indeed, I frequently find welfare-advantage-without-deprivation in catering to other people's desires for emulation. This reflects a maxim of skill, whereas emulation behavior at best reflects maxims of prudence and at worst is a symptom of lack of prudence. Stephen Covey wrote,

It's incredibly easy to get caught up in an activity trap, in the busy-ness of life, to work harder and harder at climbing the ladder of success only to discover it's leaning against the wrong wall. It is possible to be busy – very busy – without being effective.

People often find themselves achieving victories that are empty, successes that have come at the expense of things they suddenly realize were far more valuable to them. People from every walk of life . . . often struggle to achieve a higher income, more recognition or a certain degree of professional competence, only to find that their drive to achieve their goal blinded them to the things that really mattered the most and now are gone. [Covey (1989), pg. 98]

The Pertinence of pursuit of happiness stands in relationship with the person's personality as his determining ground. The Pertinence of Welfare stands in relationship with the person's situation as his determining ground. All hypothetical propositions contain categorical propositions as their object terms, and so maxims of skill contain maxims for the pursuit of happiness in their object terms. Suppose you made it your tenet to labor like Hercules "so that my son will have all the advantages I never had." Will you call this skillful if one day you came home to find you and your son have become strangers to each another? The scope of skill is much bigger than job-skill.

The expedience for the pursuit of happiness is expedience *per motiva* and is expedience for an intellectual appetite in practical Reason. The expedience for Welfare is expedience *per stimulos* and is the expedience for a sensuous appetite. Unlike expedience *per motiva*, which is an internal Relation, expedience *per stimulos* is an external Relation in the determination of actions. It is the *only* form of expedience that a teacher can provoke in a learner to bring about initiation of a learner's educational Self-development actions. Thus, tangible Welfare education occupies a special place in instructional education. The instructional challenge facing the teacher is the issue of how to best see to it that the lesson the learner learns is the lesson the teacher intended for him learn. The metaphysical discussion of this point is provided in Wells (2012a), chap. 8, pp. 241-246. The answer to this challenge comes down to the task of cultivating the learner's *self-respect*.

The Pertinence of Welfare is the window through which the learner can recognize the Progress he is making in his skill development. Self-respect is that peculiar property of judgmentation by which a merely sensuous external stimulation is converted by the learner into an internal and non-sensuous motivation. To act from self-respect is *to act on principles*. Kant wrote,

But though respect is like a feeling, nevertheless it is not received through influence¹⁵ but is self-produced feeling through an idea of reason and therefore specifically distinguished from all feelings of the former kind, which are brought about by inclination or fear. What I know immediately as a law for myself I know with respect, which merely means the consciousness of the *subordination* of my will under a law without intervention of the other influences on my sense. Immediate determination of will through law and the consciousness of the same is called respect, so that this is regarded as an *effect* of the law

¹⁵ That is, influence from the external environment or state of *soma* through receptivity. Influence is, metaphorically, a mental *in*-flux from stimulation of receptivity, and this is an "in-flow" (*Einfluß*).

on [the person] and not as cause of the same. Respect is properly the representation of a value prejudicial to my self-love.¹⁶ Hence it is something which is regarded neither as an object of inclination nor fear, though it has at the same time something analogous to both. The *object* of respect is hence exclusively the *law* and indeed that which we lay upon *our self* and yet as in itself necessary. [Kant (1785b), 4: 401fn]

This brings us to the functions of public education deduced from the axiom of skill development. Of these two, the function in the personal dimension of the learner must antecede the one in the social dimension of the learner because the skills of the latter utilize the skills of the former as a foundation. In the personal dimension the function is the **skills of civil liberty** function: *inclusion in the curriculum of lesson-matters developing the learner's sense of self-respect by development and practice of basic skills that he can recognize as being pertinent to his ability to achieve Welfare success in life*. Civil liberty refers to what a *citizen* may choose to do within constraints imposed by Obligation to the social contract of Society. The function aims at teaching the learner *civic* means of accomplishing *tangible* ends. It opposes acting on outlaw and criminal inclinations as these are delineated by social contract conventions of the learner's Society¹⁷.

Now, I trust it is sufficiently obvious that one cannot appeal to abstractions like Welfare or self-respect to stimulate the learner's motivation, especially in the case of young pupils. However, the satisfaction a pupil experiences when he accomplishes something he could not do before, when he is admired and praised for his accomplishment by others, when by his deeds he gains favorable notice from those he esteems – all these provide him with a positive experience that nucleates the construction of those practical maxims he builds (in his manifold of rules) that come to form the practical legislation of actions from which the feeling of self-respect is cultivated in the synthesis of judgmentation.

In this regard, the tradition of grading a pupil's work to a finer degree than "satisfactory/non-satisfactory/unsatisfactory" is more likely than not to be actually counterproductive to a learner's educational Self-development.¹⁸ Some people, it is true, cultivate an inclination to flee the stick rather than pursue the carrot. If what you want to teach the learner is cowardice and avoidance, grading is one effective way to begin. But all people initially develop inclinations to pursue the carrot once they learn through personal experience that there are carrots and provided that their experiences have not first taught them to flee the stick. At the same time, non-satisfactory or unsatisfactory performance by a pupil must not be ignored. These provide opportunities for a teacher to apply the non-frustrating failure function of intellect education. A teacher should never

¹⁶ Self-love is the determination of a choice from a subjective ground of happiness, but it stands in a Relation to sensuous pleasure as an habitualized inclination. Hedonism is one species of self-love.

¹⁷ Whether its producers intend it or not, publicly distributed television shows are a medium of education. As late as the mid-1960s, broadcast television operated under what was called the "Code of Practices of Television Broadcasters." In one public service message explaining this code, the narrator said, speaking of the child audience, "He may see bad guys, but not in the role of heroes, and he'll learn crime doesn't pay." Television producers no longer follow this code. One effect of the 1960s civil war in the U.S. was the invention of the "antihero." This character is made the protagonist of the story, but he is an antisocial individual and as a role model example he stands in contradiction to teaching that preserves the American social contract. To use an unpopular word, making an antihero the protagonist in a story is an uncivil and Un-American action. An action is Un-American if it is in contradiction to the American social contract.

¹⁸ A Taylorite employer might be deluded into thinking one purpose of schooling is to provide *him* with easy-to-apply pseudo-tools for making his hiring decisions, and he might even operate under the illusion that there is a strong correlation between school grades and job performance. There is no compelling evidence for this. The purpose of public schooling is to develop productive citizens, not to make the task of staffing an Enterprise easier for those who make hiring decisions or provide outsourcing for a company's hiring and staffing operations. Helping a Taylorite avoid having to learn something about people or abetting him in remaining ignorant of managerial psychology is contrary to the interests of a free Society.

fail to mark an incorrect answer "incorrect." But it is important to follow this up with instruction through which *the pupil* achieves a correct answer. All mistakes are learning opportunities for the learner and teaching opportunities for the teacher. Punishing an opportunity is foolish.

In the social dimension of the learner the function is the **skills of enterprise** function: *inclusion in the curriculum of lesson-matters perfecting learner self-actualization by practice in applying new personal skills in enterprise activities within social situations*. Personal enterprise is *any undertaking by an individual for reasons grounded in either Duties to himself or Duties standing in reciprocal Relation with others he has bound himself to by mutual Obligation*. The function pertains to the learner's education in regard to how his own enterprise actions affect and are affected by those of other people with whom he must interact, and how he can adapt his own actions to achieve civic and civil intercourse with others in his Society. In a manner of speaking, these lessons aim to impart *skills of skill-usage*. Self-actualization refers to the ability of a human being to self-determine what sort of person he chooses to make himself become. Every person's behaviors beyond simple sensorimotor reflexes appearing at birth are the consequences of practical rules in the individual's manifold of rules, and this manifold is entirely Self-constructed through experience. His determination of this construction is what is meant by 'self-actualization.' The determination is how each person makes himself the person he becomes. Public instructional education is charged with the task of guiding the learner's self-actualization along channels that contribute to the general welfare of his civil Society.

Whatever activities an individual chooses as his means for attainment of personal welfare in the economic division of labor, his personal enterprise is necessarily carried out in intercourse with other people. If this were not so, we would be looking at a primitive Society in which there is no division of labor. No Society on earth completely lacks division of labor. Even BaMbuti Pygmy Society has a limited one in specific roles within the group that have been worked up into traditions by the BaMbuti in the course of the thousands of years this Society has existed. The BaMbuti have an interesting, and I will say charming, system of public education for their children – one without schools and without designated teachers – that completely prepares their children to take their eventual places in Society. Turnbull provides an excellent description of the education of children that occurs in a BaMbuti group [Turnbull (1961)].

That every individual's enterprise activities take place within interacting social situations makes it necessary for every individual to develop skills of social interaction if he is to be able to meet with success in his personal enterprise and, at the same time, his Society is to attain to its desired levels of general welfare (i.e., attain a state of commonwealth). Appearances of this outcome are sensible exhibitions that the aim of the skills of enterprise function is being achieved.

Dewey-Bode doctrine comes up short in both these functions because of a misfocus of aim. Dewey's theory was focused on what he called "occupations." He defined "occupation" as "a continuous activity having a purpose" [Dewey (1916), pg. 338]. By "continuous" he appears to have meant "regular" activity. This is an empty definition. *All* spontaneous activities of a human being "have a purpose." Many of them are irregular, but "eating" is an example of a more or less regular activity and so is a Deweyan "occupation." When the specific examples Dewey used are examined, it becomes clear that by "occupation" his exemplary target objects were "jobs." That usage is consistent with Dewey's *Politeia* model-Society and was reflected in his statement, "Plato laid down the fundamental principle of the philosophy of education when he asserted that it was the business of education to discover what each person is good for, and to train him to mastery of that mode of excellence" [*ibid.*]. In fact public education has no business whatsoever in "finding out what each person is good for." To hold that it does violates the **root condition** of the social compact necessary for the possibility of any civil Community, *viz.*, "the association will defend and protect with its whole common force the person and goods of each associate in such a way that each associate can unite himself with all the other associates *while still obeying himself*

alone and remaining as free as he was before"[Rousseau (1762), pg. 13]. No person pledges himself to Obligation or unites himself with others in a common association so that *they* can subjugate *him*. Rather than being a doctrine grounded in the social atom of every Society – the individual human being – Dewey-Bode subjugates individuals in servitude to an abstraction. This is the root enormity contained in the Dewey-Bode doctrine. This is a premise to be abandoned by institution of public instructional education for a Republic.

Furthermore, the doctrine implicitly presumes that once a learner has been properly trained to fill the role authority figures in his Society have picked for him, then he will automatically and necessarily exhibit skills of cooperation and joint Enterprise with the others in his Society. This presupposition is gainsaid by empirical experience *in every Western Society*. This presupposition, however, makes it unnecessary to implement the skills of enterprise function in the institution of education, and indeed no such function now exists in the American public institution. For all the seeming 'humanism' appearing in the doctrine, its neo-Hegelian/neo-Platonic premises throw up numerous paralogsms in the doctrine and render these parts of it objectively invalid. The *Politeia* premise can lead to nothing but factional divisions among unstable special purpose mini-Communities and, eventually, the breakdown and disintegration of the American Republic.

IV. The Critical Functions of Tangible Education 3: The Cooperation Functions

The immediate Object of the third pair of tangible education functions is the cultivation of skills of cooperation by the learner. For a person to be skilled in an art is one thing; for him to be skilled in carrying out his practices of that art cooperatively with others who are exercising their crafts, regardless of their levels of skill, is something else. A Society (especially in its economic character but in other characteristics as well) is an arena or field of interrelated actions in which the actions of any one person affect the situations of others. Toynbee wrote,

What, then, is the right way of describing the relation between human societies and individuals? The truth seems to be that a human society is, in itself, a system of relationships between human beings who are not only individuals but also social animals in the sense that they could not exist at all without being in this relationship to one another. A society, we may say, is a product of relations between individuals, and these relations of theirs arise from the coincidence of their individual fields of action. This coincidence combines the individual fields into a common ground, and this common ground is what we call a society.

If this definition is accepted, an important though obvious corollary emerges from it. Society is a 'field of action,' but the *source* of all action is in the individuals composing it. [Toynbee (1946), pg. 211]

The idea of cooperation is properly understood from two Critical Standpoints, *viz.* the judicial Standpoint and the practical Standpoint. **Judicial cooperation** is *the exhibition in action and behavior of mutually co-determined Self-regulations of the action expressions of individuals during civic and civil social interactions*. Mutual co-determination is an essential condition of cooperation. It means that individual A determines his actions, in part, based upon understanding what actions individual B will undertake and *vice versa*. **Practical cooperation** is *the collective behavior of a group of interacting people within a leadership dynamic¹⁹ in which each individual acts from a basis of Duties according to his personal and private moral code, but in such a way that he interacts congruently with the Duty-determined behaviors of other people*. Congruent interaction in this context means that satisfaction of Duty by one person in the group does not thwart satisfaction of Duty by another person in the group. Cooperation-in-general is the product of the synthesis of these two Standpoints and is understood in the theoretical Standpoint.

¹⁹ To properly understand the ideas of leadership and the leadership dynamic refer to Wells (2010).

Many people habitually regard cooperation and competition as mutually antagonistic ideas. This is not correct. What is perhaps one of the more startling findings made in the last quarter of the 20th century is that *cooperation arises from competition in the interaction dynamics of a Society*. This is not mere wishful opinion-casting. It is a *mathematical theorem* of the behavior of *any* interconnected dynamical system in which activities in one part of the system affect activities in one or more other parts of the system. Credit for the discovery of this theorem goes to Stephen Grossberg [Grossberg (1978, 1980)], whose work conclusively puts down the false supposition of cooperation vs. competition antagonism. Understanding Grossberg's theorem requires a fairly deep and extensive preparatory background in both mathematics and system theory, but a person possessing adequate background in both these topics will find that Grossberg's proof is ironclad and his finding is true. However, and this is also contained in Grossberg's proof, the emergence of cooperation from competition is not apodictic, i.e., competition in and of itself is a necessary but not sufficient condition for the emergence of cooperation. Additional conditions must also be satisfied for cooperative dynamics to emerge out of competitive dynamics.²⁰ The cooperation functions of tangible education are aimed at ensuring the presence of these conditions in Society.

The metaphysical axiom for the third *momentum* of tangible education is the **optimization of Personfähigkeit axiom: Progress in perfecting Personfähigkeit is achieved by a series of transforming learner activities regulated by a persistent sense of interest**. The axiom stands in relationship to the expedience of the Pertinence of tranquility [Wells (2012a), chap. 8, pp. 246-8]. Tranquility connects to actions via the Relation of expedience *per liberum* (by means of freedom) and is the Pertinence providing motivations for reciprocal Duties. It is the logically disjunctive Relation among the Pertinences of tangible education. Properly, tranquility is a state of mind that results from the person being sufficiently satisfied in relationship to his general conditions of life and desiring nothing more or different in this relationship. Expedience *per liberum* is the capacity of a person to elevate merely sensuous expedience to a principle of objective happiness.

In regard to educational Self-development, the Pertinence stands in relationship to the learner's personality in reciprocity with the situations of others as the determining ground of his actions. It provides the underlying motivation for forming all ideas of civic Duty and for acting in accordance with these. Personal achievement of tranquility is among an individual's conditions he demands in order to pledge himself to abide by a social contract with those who he chooses to associate himself. Persistent frustration of this condition leads to the individual's moral secession from the association, renunciation of his commitment to maxims of Obligation-to-others in the Community, and to the formation of a Toynbee proletariat within the Society. The individual returns to the state-of-nature condition with regard to his former Community and they re-enter the outlaw relationship relative to each other. He ceases to be a citizen of the Community and the idea of justice no longer has any real meaning in his relationships with his former Community.

For the social dimension of the learner in tangible education we cannot immediately apply the idea of tranquility. We require a mathematical homologue for understanding the social function of cooperation. A Society, as a corporate person, is a mathematical Object having no sensations and no collective real phenomenon of mind. Discussion and derivation of the required homologue is

²⁰ Competition-in-general does not consist solely of person vs. person competition. *Any* process of real opposition (*Entgegensetzung*) among somato-environmental activities – i.e., any process in which two or more Objects produce real cancellation of each others' effects [Kant (1763)] – is a Critical competition. People mean something like this when they speak of such ideas as "man vs. nature." Writers of imaginative literature have long known this, although they tend to often call a competition a 'conflict' as in, e.g., Ziegler (1968). *Widerstreit* ('conflict' in German) is the Quality of real-opposition. A problem that resists solution places the problem-solver in a state of competition with the problem-Object. Hemingway's *The Old Man and the Sea* stands as a classic example of competition on several levels. It is a novel stuffed with useful lessons about competition-in-general and illustrates how phenomenally complex competition can be.

provided in Wells (2012a), chap. 8, pg. 248. The homologue is found to be the capacity, through interpersonal communications, to produce cooperation among individuals. In the social dimension of the learner, tranquility means that civil cooperation among members of Society must not break down – i.e., that competitions arising from the differing special interests of individuals and mini-Communities must remain civic. Corporate Progress is always achieved by changes and innovations produced by individually un-tranquil people. These are the people who make up Toynbee's so-called "creative minority" within a Society.²¹ Order and the on-going real survival of the civil Community require that lack of tranquility among some of its members must not develop to the point where continuity in cooperation breaks down. When this is achieved, a state of "domestic tranquility" is said to prevail within the Community. When it is not, the Community suffers civil turmoil, the looming threat of widespread violence, and civil disorder.

Critical **interest** is *anticipation of a satisfaction or dissatisfaction combined with a (mental) representation of the Existenz of some object of desire*. Dewey and Bode were both cognizant that "interest" is vital for learning. Dewey made a number of remarks concerning "interest" and its importance for education. Bode explicitly recognized that "interest," duty, and cooperation were interrelated:

A clue to the interpretation of interest and duty is found in the fact that interest or absorption in an activity means that the various reactions are unified or organized so as to cooperate for the attainment of an end, whereas the sense of duty is an indication that there is a conflict of ends. The process of thinking is the method of intelligent adjustment and means that the facts in the case are so organized or related that no basis is left for a conflict of tendencies [Bode (1922), pg. 222].

Dewey's attempted explanations of "interest" even dimly anticipate the functions of cooperation in public education [Dewey (1916), pp. 183-185]. Nonetheless, the Dewey-Bode doctrine comes up short of understanding *how* to make "interest" a tool for educating. Many of the discussions of the doctrine aim to correct popular misconceptions about "interest" – and this has value for the elimination of some educationally unproductive or counterproductive practices of the day – but these discussions do not deliver a positive doctrine for what teachers should specifically do differently in their classroom practices.

The cooperation functions of tangible education are

1. in the personal dimension of the learner, the **cooperation of skill enterprises** function: *inclusion in the curriculum of group exercises in which the learners have divers pre-selected skill roles to practice and must cooperate with the other learners in the group in order to achieve a group objective*. The Object of the lesson is for the learners to each develop and adapt their personal skills within a pre-defined (by the teacher) social situation in which their actions are not independent of the actions of others. Skill roles are *assigned* to each learner in each exercise by the teacher;
2. in the social dimension of the learner, the **cooperation of social Enterprise** function: *inclusion in the curriculum of group exercises in which the group of learners is presented with an objective to be achieved and the learners must jointly determine*

²¹ Toynbee made a number of quite serious errors in his ideas concerning "the creative minority." Chief among these were his presumptions that: (1) "creativity" was confined to a select group of people; (2) that his body of the creative minority was a permanent group or class; and (3) that the members of the so-called creative minority became the leaders or even the rulers of the Society. The Critical analysis of the Idea of the Social Contract [Wells (2012b)] corrects Toynbee's mistakes, provides the real-explanation for his term, and establishes its true objective validity.

for themselves their own organization and plan for achieving it. The Object of the lesson is for the learners to develop skills for and become cognizant of the value of bringing about cooperation with others. The teacher's role is that of a coach.

The function in the personal dimension aims at Progress in the tangible *Personfähigkeit* of the individual learner. The function in the social dimension aims at new skills for producing Progress in the corporate *Personfähigkeit* of the group and calls for the learners to gain experience in how to organize joint Enterprise efforts within constraints imposed by a social compact for the group. It would not be incorrect to say these functions aim to teach the learners how to be enterprising and how to be entrepreneurial in life. These functions are implicit in currently popular ideas of team "capstone courses" in recent proposals for changes in education at the college level.

The Dewey-Bode doctrine promotes some activities that are related to these functions but it does not tie these pieces together or derive the general functions. One can argue that the functions are implied in the doctrine, but the outcomes of the Progressive Education Movement's reforms sufficiently demonstrate that merely *implicit* containment was inadequate for actualizing the intentions of their reform of the institution of public instructional education. The doctrine is silent on the topics of tranquility and the social contract. It does discuss "interest" and it is worthwhile to take a look at what Dewey and Bode had to say about this topic.

Dewey begins by noting that there are three Objects the word "interest" is nominally used to express. These are, he tells us, (i) the whole state of what a person actively engages in; (ii) objective results that are foreseen and wanted; and (iii) personal emotional inclination. Of these,

When the place of interest in education is spoken of in a depreciatory way, it will be found that the second of the meanings mentioned is first exaggerated and then isolated. Interest is taken to mean merely the effect of an object upon personal advantage or disadvantage, success or failure. Separated from any objective development or affairs, these are reduced to mere personal states of pleasure or pain. Educationally, it then follows that to attach importance to interest means to attach some feature of seductiveness to material otherwise indifferent; to secure attention and effort by offering a bribe of pleasure. This procedure is properly stigmatized as "soft" pedagogy; as a "soup-kitchen" theory of education. [Dewey (1916), pg. 138]

The passage of nearly a century has perhaps rendered what Dewey is talking about here somewhat obscure to modern readers. After all, why would someone hold that "objective results" are of little or no relevance to education and deprecate the role of "interest" in education on that account? To grasp the context of Dewey's remarks, one needs to know that at the end of the 19th century the great controversy in education was the debate between "classic" studies (e.g., Latin and Greek languages) and "utility" (which probably would have been better called "usefulness"). The pseudo-psychology of so-called "mental discipline" was in the process of giving way to curricular subject-matter that had a more immediate connection with the practical matters of getting a job and earning a living. Dewey is, in one way, re-fighting a battle already over. Utility had by 1916 become the watchword of education theory for the majority of collegiate educators. Indeed, the Progressive Education Movement would for the next half century stigmatize its opponents as "academics" – a word used to denigrate anyone who did not fully fall into line with PEM theories of so-called "social utility" by implying they advocated old 'useless' classic studies.

There was a not-insignificant amount of truth in the Progressives' opinions on this topic. The "classicist" view of education had been dominant in American secondary and higher education from the founding of Harvard in 1636 until the last third of the 19th century. As this view came under attack in the years following the Civil War of 1861-65, the classicists defended their views largely on the basis of a groundless theory called "mental discipline." This theory held that the

study of so-called "useless" subject-matters served to train and discipline the mind in such a way that the learner would subsequently be able to reason properly about any question or subject. It was based on a pseudo-psychological presupposition that there were mental "faculties" – "mental muscles" – innate in the human mind that merely needed to be exercised. Studying ancient Greek, in and of itself, was supposed to "strengthen the mind" by monotonous drill rather like doing push ups or bench pressing weights strengthens the muscles of the body. Psychology has since learned that this entire dogma is hogwash, although the dogma of mental discipline has proven as difficult to eradicate as a boxelder bug infestation and keeps popping up again and again under different names. In Dewey's day, classics education had devolved to a mere dogma of tradition-clad drill and recitation methods. Hutchins scathingly wrote,

By the end of the first quarter of [the 20th] century great books and the liberal arts had been destroyed by their teachers. The books had become the private domain of scholars. The word "classics" came to be limited to those works which were written in Greek and Latin. . . . The classical books, it was thought, could be studied only in the original languages, and a student might attend courses in Plato and Lucretius for years without discovering that they had any ideas. His professors were unlikely to be interested in ideas. They were interested in philological details. The liberal arts in their hands degenerated into meaningless drill.

Their reply to criticism and revolt was to demand, forgetting that interest is essential to education, that their courses be required. By the end of the first quarter of [the 20th] century the great Greek and Latin writers were studied only to meet requirements for entrance to or graduation from college. Behind these tariff walls the professors who had many of the great writers and much of the liberal arts in their charge contentedly sat, oblivious of the fact that they were depriving the rising generation of an important part of their cultural heritage and the training needed to understand it, and oblivious also of the fact that they were depriving themselves of the reason for their existence. [Hutchins (1952), pg. 27]

Dewey rightly regarded as sheer nonsense the idea that, in order to be educational, it was more efficacious in the long run if subject-matter was uninteresting to the learners. He wrote,

But the objection [to 'interest'] is based upon the fact – or assumption – that the forms of skill to be acquired and the subject matter to be appropriated have no interest on their own account: in other words, they are supposed to be irrelevant to the normal activities of the pupils. The remedy is not in finding fault with the doctrine of interest . . . It is to discover objects and modes of action which are connected with present powers. The function of this material in engaging activity and carrying it on consistently and continuously *is* its interest. If the material operates in this way, there is no call either to hunt for devices which will make it interesting or to appeal to arbitrary, semi-coerced effort.

The word interest suggests, etymologically, what is *between* – that which connects two things otherwise distant. . . . In learning, the present powers of the pupil are in the initial stage; the aim of the teacher represents the remote limit. Between the two lie the *means* – that is middle conditions: – acts to be performed; difficulties to be overcome; appliances to be used. Only *through* them . . . will the initial activities reach a satisfactory consummation.

These intermediate conditions are of interest precisely because the development of existing activities into the foreseen and desired end depends on them. . . . When material has to be made interesting, it signifies that, as presented, it lacks connection with purposes and present power: or that if the connection be there, it is not perceived. To make it interesting by leading one to realize the connection that exists is simply good sense; to make it interesting by extraneous and artificial inducements deserves all the bad names which have been applied to the doctrine of interest in education. [Dewey (1916), pp. 139-

140]

A point to which Dewey returns again and again is that it is a fundamental error to isolate the subject-matter from all connection with the learner's existing knowledge of experience and the methods by which he assimilates new material. Such is the case, for example, if history is taught as a dry catalog of date-event, date-event, date-event, *ad nauseam* with no effort to explain how these events had a bearing on subsequent events. In this context he made some remarks that presage the Critical functions of cooperation above:

A consideration of some evils in education that flow from the isolation of method from subject matter will make the point more definite. (i) In the first place, there is the neglect . . . of concrete situations and experience. There can be no discovery of a method without cases to be studied. The method is derived from observation of what actually happens, with a view to seeing that it happen better next time²². . . . Where flexible personal experiences are promoted by providing an environment which calls out directed occupations in work and play, the methods ascertained will vary with individuals – for it is certain that each individual has something characteristic in his way of going at things.

(ii) In the second place, the notion of methods isolated from subject matter is responsible for the false conceptions of discipline and interest already noted. When the effective way of managing material is treated as something ready-made apart from material, there are just three possible ways in which to establish a relationship lacking by assumption. One is to utilize excitement, shock of pleasure, tickling the palate. Another is to make the consequences of not attending painful; we may use the menace of harm to motivate concern with the alien subject matter. Or a direct appeal may be made to the person to put forth effort without any reason. . . . In practice, however, the latter method is effectual only when instigated by fear of unpleasant consequences.

(iii) In the third place, the act of learning is made a direct and conscious end in itself. Under normal conditions, learning is a product and reward of occupation with subject matter. Children do not set out, consciously, to learn walking or talking. One sets out to give his impulses for communication and for fuller intercourse with others a show. He learns in consequence of his direct activities. The better methods of teaching a child . . . engage his activities, and in the process of engagement he learns . . .

(iv) In the fourth place, under the influence of the conception of the separation of mind and material, method tends to be reduced to a cut and dried routine, to following mechanically prescribed steps. No one can tell in how many schoolrooms children reciting in arithmetic or grammar are compelled to go through, under the alleged seduction of method, certain preordained verbal formulae. Instead of being encouraged to attack their topics directly, experimenting with methods that seem promising and learning to discriminate by the consequences that accrue, it is assumed that there is one fixed method to be followed. It is also naively assumed that if the pupils make their statements and explanations in a certain form of "analysis," their mental habits will in time conform. . . . Mechanical rigid woodenness is an inevitable corollary of any theory which separates mind from activity motivated by a purpose. [Dewey (1916), pp. 183-185]

The Critical functions and Dewey's thesis that method and subject-matter are not to be separated are consistent with each other. In the case of the cooperation function, the use of exercises (e.g.,

²² There is an Arab proverb: Repetition teaches even a donkey. No lesson should be taught as a one-time-learning-event. There should be several cases to be studied, several problems to be worked, several examples to be scrutinized. This is not the same kind of drill as the old *amo-amas-amat* of the classical Latin drillmaster, lampooned by uncounted pupils as, "How do you conjugate the verb 'to spit'? *Spito-spit as-spit at.*" Here is a piece of pedagogical knowledge apparently unfamiliar to the graduate students who are hired by engineering professors to write homework problems for the professors' textbooks.

team projects) involving necessary social interactions serves not only to motivate and develop new skills pertinent to tangible successes for individual learners and for the group, but they also, if properly guided and refereed by the teacher, serve to reinforce and build understanding of and commitment to human association under a social compact. This is something both Dewey and Bode vaguely referred to, in terms of the connection between "morals" and "interest," in their writings [Dewey (1916), pp. 382-385; Bode (1922), pp. 84-104]. The doctrine falls short of understanding the needed functions, but this stems from Dewey's and Bode's reliance upon nominal dictionary definitions and lack of an objectively valid theory of mental physics – without which too many facets of the phenomenon of learning are left to opinion, supposition, and the allure of subjective judgments of individual tastes. It is exacerbated by the fact that Dewey focused upon "occupations" rather than skill development. This was a misfocus that doggedly misdirected the efforts of the Progressive Education Movement from the start, and which helped to produce a number of serious errors in the institution of teacher education, first in the normal schools and later in the teachers' colleges.

V. Persuasion Education

Although some of its recurring themes touch upon matters pertinent to persuasion education, the Dewey-Bode doctrine wholly omits this part of public instructional education. For that reason this series of papers does not go into depth in describing the axioms and functions of persuasion education and I refer you to Wells (2012a), chapter 9, for those details. Persuasion education addresses the persuasive power of a person, either the individual human being or the corporate person of a Community. Persuasive power subsists in the person's ability to sufficiently communicate his thoughts and ideas to other people and thereby gain their consent, agreement, or cooperation. Corporate persuasive *Personfähigkeit* is assessed by judgments of the degrees of accord or discord within the civil Community as this is exhibited by leadership event activities occurring within the Community [*ibid.*, pg. 251]. Corporate persuasive *Personfähigkeit* is essential to Order and Progress in perfecting the civil Union of a Community or nation; personal persuasive *Personfähigkeit* is essential for the possibility of corporate persuasive *Personfähigkeit*.

Progress in persuasive *Personfähigkeit* subsists in perfecting the person's power of choice inasmuch as an individual's liberty of action is either expanded or hindered by cooperation or competition with other individuals. The specifying concept of persuasion education is *equilibrium pursuit*: a person pursues equilibration, to the full extent that his liberty of action is unconstrained by his manifold of rules, until he achieves empirical consciousness of satisfaction of a state of equilibrium [Wells (2012a), chap. 9, pg. 256]. The concept of equilibrium pursuit understands both the wildness of childish logic in young children and maturation in judgment and action that develop with age and experience. In a social environment, achievement of equilibrium by the individual is contingent upon the types of interactions with other people he experiences as these interactions and relationships affect the outcomes of his own actions, hence his liberty of action. Persuasive *Personfähigkeit* thus has a direct effect on individual liberty and a direct effect on the manner in which social and moral customs promote or hinder Progress for individuals and for the body politic. Skills of persuasion are essential for achieving those nobler aims upon which the Deweyan concept of "democracy" is based, i.e.,

In proportion as interests are common, they tend to exercise control over the behavior of the group; and in proportion as interaction among different groups is free and unimpeded, the different groups develop flexibility for continuous readjustment in the direction of conserving and promoting relations of coöperation or free give-and-take. What is significant in a social organization is, first of all, its spirit, the direction in which it is consciously moving. . . . The attainment of a broadly social point of view is not a spontaneous and natural result, but is, in large measure, an outcome that has behind it the sweat and agony of conflict, resulting in a series of compromises, which had the effect of

paving the way for the fostering of a common body of interests and thus advancing the cause of democracy. . . . In general the development [of democracy] has been in the direction of giving to all the members of the community, singly and collectively, a higher sense of their dignity as human beings and of their duties and obligations as component parts of the social order. [Bode (1922), pp. 52-53]

Skills of interpersonal communication and persuasion are not innate and must be learned by each human being. Mental physics teaches us that these skills, like all of a person's cognitive knowledge of experience, are built in the "foundry" of a cycle of affective interaction in *nous-soma* reciprocity (figure 4). Educational Self-development in acquiring these skills is an active learning process, and this is one of the recurring themes in the Dewey-Bode doctrine. As figure 4 implies, a person does not experience the world by passive observation but, rather, by *affectively* interacting with it. Dewey's theory recognizes that active interaction is essential for learning but, as was common with theorists of his day, he did not clearly grasp – or, at least, he did not place an emphasis in his writings on it – the pivotal role affectivity has in the learning process. Dewey did, however, recognize that the child goes through stages in his development of intelligence, and Dewey's stages anticipated Piaget's later discovery of those stages Piaget named pre-operational thought and concrete operations [Piaget & Inhelder (1969), pp. 92-101]. Dewey tells us,

In coming now to speak of the educational answers which have been sought for the psychological hypotheses, it is convenient to start from the matter of the stages of growth. The first stage (found in the child say of from four to eight years of age) is characterized by directness of social and personal interests, and by directness and promptness of relationship between impressions, ideas, and action. The demand for a motor outlet for expression is urgent and immediate. Hence the subject-matter for these years is selected from phases of life entering into the child's own social surroundings and . . . capable of reproduction by him in something approaching social form – in play, games, occupations, or miniature industrial arts, stories, pictorial imagination, and conversation. At first the material is such as lies nearest the child himself, the family life and its neighborhood setting; it then goes on to something slightly more remote, social occupations . . . and then extends itself to the historical evolution of typical occupations and of the social forms connected with them. The material is not presented as lessons, as something to be learned, but rather as something to be taken up into the child's own experiences through his activities . . . These in turn are direct agencies. They are forms of motor or expressive activity. They are emphasized so as to dominate the school program, in order that the intimate connection between knowing and doing . . . may be maintained. [Dewey (1915), pp. 39-40]

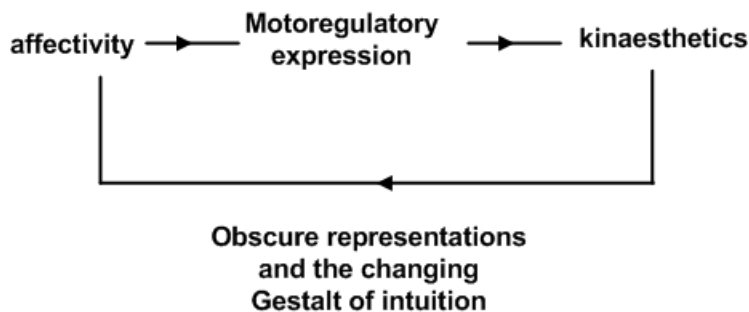


Figure 4: Cycle of affective interaction in the construction of cognitions. Affectivity is the logical division of sensibility dealing with affective perceptions. Motoregulatory expression is the co-determined capacities of *nous* and *soma* for realizing the agency of a human being in his *homo phaenomenal* appearances and is, functionally, the assimilation of perceptions. Kinaesthetics is the process of receptivity for body-data of the senses (body feedback data represented in sensibility). Obscure representation in sensibility and the formation (*Gestalt*) of intuitions produce objective (cognitive) knowledge.

The schooling Dewey describes here is schooling tuned to the pre-operational thought stage of child development. He came to the position he states here from experience with his experimental Chicago school, hence his theory is based on empirical observations. As for the educational implications pertinent to the next major stage (the stage of concrete operations), he tells us,

In the second period, extending from eight or nine to eleven or twelve [years of age], the aim is to recognize and respond to the change which comes into the child from his growing sense of the possibility of more permanent and objective results and of the necessity for the control of agencies for the skill necessary to reach these results. When the child recognizes distinct and enduring ends which stand out and demand attention on their own account, the previous vague and fluid unity of life is broken up. The mere play of activity no longer satisfies. It must be felt to accomplish something . . . Hence the recognition of rules of action²³ . . . and the value of mastering special processes so as to give skill in their use.

Hence, on the educational side, the problem is, as regards the subject-matter, to differentiate the vague unity of experience into characteristic typical phases, selecting such as clearly illustrate the importance to mankind of command over specific agencies and methods of thought and action in realizing its highest aims. The problem on the side of method is an analogous one: to bring the child to recognize the necessity of a similar development within himself – the need of securing for himself practical and intellectual control of such methods of work and inquiry as will enable him to realize results for himself. [*ibid.*, pg. 40]

Aside from some possible quibbling over the age ranges at which these stages in the mental development of children occur, what Dewey tells us in these two quotations is quite congruent with the mental physics of human epistemology. Dewey's theory and Piaget's theory of childish development of intelligence are to this extent quite conformable with one another. However, in the last sentence of the quote given above is lodged a shortcoming in Dewey-Bode. The doctrine makes explicit or implicit reference to the world of "work and inquiry" but – and this is surprising given Dewey-Bode's focus on education for Society – it omits all reference to skills of human interrelationships, i.e., the doctrine fails to include persuasion education.²⁴ In fairness to Dewey, it should be noted that personality- and interpersonal- psychology had not yet been invented in Dewey's day and so personality and interpersonal "psychological hypotheses" were not among the hypotheses Dewey mentions in the first quote above. Scientific progress in this arena did not properly begin until the 1950s and the science developed in methodological rigor and interpretation from that point forward [Freedman *et al.* (1951), Sullivan (1953), Leary (1957), Kiesler (1982; 1983; 1985; 1986), Kiesler *et al.* (1997), Plutchik (1997)].

Dewey did present examples of how traditional courses might be adapted to meet the ends he stated above, but none of these examples recognized skills of persuasion. The examples he did present had their presentation colored by his neo-Hegelian synthesis of Darwinism and Hegelian metaphysics. In the transcendental logic of Hegel's theory, individuals count only as objects of

²³ This, too, was later documented by Piaget in Piaget (1932).

²⁴ I call this omission "surprising" because persuasion education is an ancient institution known to both the Greeks [Aristotle (c. 335-330 BC)] and the Romans [Cicero (55 BC)]. It was not necessary to "discover" it or even to "re-discover" it. It was only necessary to not forget it, which the PEM attacks on the classics did manage to accomplish. That antisocial tactics of propaganda exist was explicitly noted by both Aristotle and Cicero. That such tactics are destructive factors antagonistic to civil Society is not, or should not be, surprising to anyone. Discovering you have been deliberately deceived is going to provoke in you some very powerful practical imperatives of Obligation-to-Self in your personal manifold of rules. The common name for this is "moral outrage." That persuasion education is necessary for Order and Progress in a civil Society follows from this as a fairly trivial lemma.

empirical particularity and are only moments of "Absolute Spirit." Dewey's notion of a universal mind mentioned earlier carries in it an implied presupposition that not only will the individual naturally adapt himself to his social environment (which is true) but, in addition, it appears to presume that he will *necessarily* adapt himself to make civic maxims govern his actions (which is not true) once he has been taught to understand "the importance to mankind of command over specific agencies and methods of thought and action in realizing its highest aims" (which is also not true). The supposition that Man has a "social instinct" is false. People *develop* socialized maxims as matters-of-experience and in service to Duties-to-Self in regard to the person's social situations. Persuasion education and moral custom are very tightly interrelated. This is conveyed by the metaphysical axioms of persuasion education (figure 3):

1. The **axiom of procedures**: the learner's capacity for problem solving and decision making is limited by the sphere of concepts of procedural schemata that he has built up in his manifold of concepts. This axiom pertains to the store of determinable *options* the learner has developed in his manifold of concepts;
2. the **axiom of good means**: the learner will always seek means he holds-to-be good means. Persuasion education is tasked with orienting and cultivating the learner so that what he holds to be good means to pursue, and evil means to avoid, are congruent with the mores and folkways that operate in his Society;
3. the **axiom of principled satisfactions**: persuasion education is education for Progress in acting on principles. Learners can and must be cultivated to act from a basis in general principles rather than merely on impulse and inclination.

Why are the functions of public instructional education standing under these axioms called the functions of "persuasion" education? It is because the person cannot persuade others in his Society if his means and empirical principles are contradictory to those held by people he seeks to persuade [Wells (2012a), chap. 9]. He might temporarily achieve particular advantages useful for exercise of his natural liberties, but his situation (and that of his Society) can be neither stable nor robust if those *natural* liberties he chooses to exercise are not the *civil* liberties allegiance to his Society permits. Antisocial machinations tend to be eventually discovered and hauled into the light, and, when they are, the usual consequence is provocation of antibonding relationships in the social chemistry of Society. Interactions among individuals and mini-Communities from that point are steered onto pathways leading to increasing numbers of people choosing to exercise their natural liberty to secede from the civil Community because continued allegiance to it comes into conflict with their maxims of Obligation-to-Self. As Abraham Lincoln said,

If once your forfeit the confidence of your fellow citizens, you can never regain their respect and esteem. It is true that you may fool all of the people some of the time; you can even fool some of the people all the time; but you can't fool all of the people all the time.

Antibonding relationships in Society dissolve bonds of friendship and allegiance. If this breakdown becomes too far advanced, mutual hostility among mini-Communities eventually devolves into violence, civil war, and the disintegration of the Society. A free Society is in some ways a fragile thing, for as another wise leader said long ago,

He who has a thousand friends has not a friend to spare, and he who has one enemy meets him everywhere. [Ali ibn Abi Talib (7th century AD), *A Hundred Sayings*]

Public education is, first and foremost, dedicated to Order and Progress in the civil Society and, through it, for every citizen belonging to it. Without this dedication there is no *just* reason for any individual to alienate any part of his stock-of-goods to provide the needed support for the

institution. Skills of persuasion are essential for the possibility of such Order and Progress. Dewey-Bode doctrine seems to have forgotten this.

The functions of persuasion education standing under the first axiom are functions for developing skill in experimental reasoning [Wells (2012a), chap. 9, pp. 267-268]. Dewey, like Pestalozzi before him, recognized and championed the use of experimentation as part of the curriculum [Dewey (1916), pp. 296-301]. However, Dewey's understanding of what "experiment" means was too closely modeled upon the methods of experimentation used in the physical-natural sciences, and these are unsuitable in the social-natural sciences. That "experiment" has a broader meaning than is exemplified by physical-natural science was one of the contributions of Claude Bernard, whose work revolutionized medicine and biology [Bernard (1865)]. Bernard's real-explanation of what it means "to experiment" is discussed in the previous reference to *Education and Society*. Dewey's concrete examples were all concerned with experimentation in the contexts of physics, chemistry, or biology (including that latter's lateral connection to agriculture). While experience gained through these kinds of experiments is an important aim for the curriculum, the doctrine's omission from the curriculum of lessons and exercise in social experimentation is a serious curricular gap. Skills of physical-natural experimentation do not generalize by abstraction to skills of social-natural experimentation and, in any case, the former belong to the curriculum of intellect education. The functions of persuasion education pertain to the use of experimental heuristics for discovering options and probabilities – learning skills equally important for both physical-natural and social-natural science as well as in the development of social customs.

The functions of persuasion education standing under the second axiom are the planning functions. Planning means devising a scheme for doing, making or arranging something. Progress here pertains to the learner's ability to synthesize and identify objective ends he intends to achieve and objective means of achieving them. In the social dimension of the learner, such ends and means include producing consensus in planning ends and means for group Enterprises. The concept of consensus is lodged in the very heart of every social compact. The present educational environment actually mediates against and hinders the development of these skills. Dewey in fact said the same thing in different words. Specifically, he brings this up in the context of "growth":

When it is said that education is development, everything depends on *how* development is conceived. Our net conclusion is that life is development, and that developing, growing, is life. . . . Development when it is interpreted in *comparative* terms, that is, with respect to the special traits of child and adult life, means the direction of power into special channels: the formation of habits involving executive skill, definiteness of interest, and specific objects of observation and thought. But the comparative view is not final. The child has specific powers; to ignore that fact is to stunt or distort the organs on which his growth depends. . . . With respect to the development of powers devoted to coping with specific scientific and economic problems we may say the child should be growing in manhood. With respect to sympathetic curiosity, unbiased responsiveness, and openness of mind, we may say that the adult should be growing in childlikeness. . . .

Three ideas which have been criticized . . . are all connected with a false idea of growth or development, – that it is a movement toward a fixed goal. Growth is regarded as *having* an end instead of *being* an end. The educational counterparts of the three fallacious ideas are first, failure to take account of the instinctive or native powers of the young; secondly, failure to develop initiative in coping with novel situations; thirdly, an undue emphasis upon drill and other devices which secure automatic skill at the expense of personal perception. [Dewey (1916), pp. 54-55]

What Dewey meant by "the instinctive or native powers of the young" was never made very clear in the Dewey-Bode doctrine. Dewey (and Bode) took this off in a direction that began with championing the educative value of active experimentation but which soon veered off into

directions that led to so-called "child-centered education" and – to the protests of both Dewey and Bode – to a receptiveness among PEM reformers to engage in faddish indulgences that purported to counteract "conformity" and "uniformity." The present-day "self esteem" fad is a current example. Many alleged "instincts and native powers of the young" upon which these fads are based are nothing more than romantic fantasies that do not exist in the mental physics of human nature. Dewey's "growth" is an ambiguous term and Dewey-Bode never gave it a practical connection to specific teaching practices. It is a term too vague to be of service to a science of education. In any case, an active campaign to eradicate "conformity" and "uniformity" in favor of infinite diversity is contrary to the mission public education has for preparing young learners to become citizens of their Society. To teach "tolerance" is one thing; to fail to teach the expectations of citizenship is a deontological enormity in public education.

The functions standing under the third axiom are the contracting functions. These are the functions for deontological moral education for citizenship. In the personal dimension of the learner, the **civics contracting function** is: *inclusion in the curriculum of lessons of civic Duties of obligatio interna (internal pledging) with consciousness of obligatione externa (outward legal liability)*. The function pertains to: (1) instruction cultivating the learner's *self*-persuasion by civic orientation of his Obligations-to-himself with regard to his personality; and (2) instructing the learner in his unalienated and alienated liberties as well as his Society's civil rights in regard to the learner's personal culpability for actions that transgress the limits of his civil liberties of action. The function is actualized by cultivating the learner's interpersonal communication skills for expressing himself and interpreting the expressions of others.

In the social dimension of the learner, the **civil contracting function** is: *inclusion in the curriculum of lessons of civil Duties and civil rights of obligatio externa (outward pledging) with consciousness of obligatione interna (inner legal liability)*. The distinction between 'civic' and 'civil' is a somewhat subtle but nonetheless important distinction. The adjective 'civic' always references the individual as an individual; the adjective 'civil' references the body politic of his Society as a corporate person. The civil contracting function pertains to cultivating maxims of conventional morality (obligations of moral customs) effecting Order and Progress in Society. *Obligatio interna* in the context of persuasion education is sometimes called *social conscience*.

The Dewey-Bode doctrine does not develop any of the functions of persuasion education. This is a hole in the doctrine. More concrete discussion of subject-matter topics standing under these functions is provided in §5 of Wells (2012a), chapter 9. Omission of this element of public education means that the institution fails to instruct and cultivate in the learners skills and maxims necessary for maintaining Order in a civil Community, and without Order no Progress is possible. All human beings begin life as social outlaws, and if the institution of public instructional education fails to educate for citizenship and consensus-building it should surprise no one if pronounced outlawism is left unhindered (particularly in tolerance for practices of uncivic free enterprise and governance by legally sanctioned force) or if civil rights and civil liberties should both be endangered as a result of the natural outlawism promoted when Obligations-to-Self are not moderated by mutual social Obligations.

This concludes this review of Dewey-Bode in regard to the social dimension of the learner. In the case of persuasion education, it concludes the review in both dimensions because the doctrine does not recognize or include persuasion education at all. What remains for concluding this series of papers is to review Dewey-Bode in the personal dimension of the learner. This is taken up in Part IV of the series.

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