

## Chapter 8 The Applied Metaphysic of Tangible Education

### § 1. Nexus in the Applied Metaphysic of Public Instructional Education

Corporal and intellect education belong to the matter of composition (*Zusammensetzung*) in the applied metaphysic of public instructional education (figure 8.1). The social atoms of this composition are individual human beings regarded *as* individuals. When we turn to tangible and persuasion education, the learners are still, of course, individual human beings but the topical matter of instruction shifts from matters of personal skills of Progress in *Personfähigkeit* to Progress in the *Personfähigkeit* of a *citizen*. This context change is perhaps somewhat subtle, but it is the Society that institutes public instructional education and it does so out of a common interest in having the individual learners be social atoms *in a body politic*. To use a simile, social-natural science of education in regard to corporal and intellect education is like physical-natural science of atomic physics and molecular chemistry. Social-natural science of education in regard to tangible and persuasion education is like physical-natural science of anatomy and physiology in biology. Anatomy in biology is the study of the structure of an organism; physiology is the study of the functioning of systems that occur in those organisms.

In Critical terminology, tangible and persuasion education belong to *form* in the 2LAR, which means they pertain to the *nexus* of connections (*Verknüpfung*) among people in a Society insofar as Society is regarded as a corporate person. The relationship manifolds are quite different here than the relationship manifolds of composition. A Community's interest in perfecting the *Personfähigkeit* of the individual is grounded in the consideration that his *Personfähigkeit* is part of the corporate *Personfähigkeit* of the Community as a body politic. Perfecting the *Personfähigkeit* of citizens is perfecting the *Personfähigkeit* of the civil Community. The agents appointed to carry out the Duties of the institutes of a Society's system of public instructional education cannot forget or ignore this public interest without committing transgression against the Society to which it belongs because this is the *officium* of the offices to which they are appointed.

The significance of this manifold distinction affects the nature of the instructional objectives for tangible and persuasion education. This, in turn, affects the sort of specifying concepts that are pertinent to the applied metaphysic in these cases. Progress in the learner's *Personfähigkeit* is still the direct Object of the instruction. But now the *judgment* of the Object in which Progress subsists is altered, and the transcendental place of this Progress rests in the body politic rather than the individual.

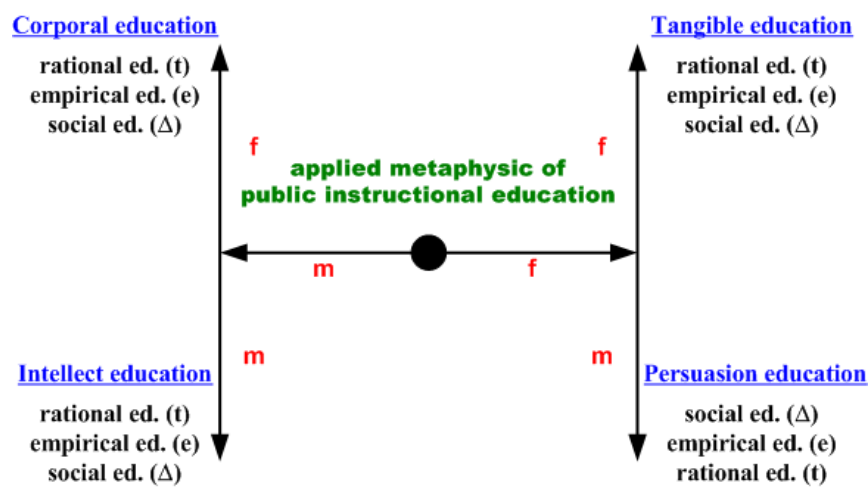


Figure 8.1: 2LAR of the applied metaphysic of public instructional education.

## § 2. The Specifying Concept of Tangible Education

Tangible *Personfähigkeit* subsists in the person's stock of tangible economic goods, his fungible skills, and his personal stock-of-time [Wells (2012), chaps. 11, 12]. Instructional education cannot, of course, immediately provide a learner with an increased stock of tangible goods nor can it provide him with a greater stock-of-time. It can, however, directly provide him with education of means by which he can Self-realize an increase in his stock of fungible skills, it can provide him with knowledge of means for obtaining tangible goods, and it can provide him with knowledge of empirical factors that appear to be statistically related to human longevity.

Tangible goods consist of tangible physical objects a person owns and kinetic intangible economic services a person can render, and I think these terms need no lengthy explanation here. Stock-of-time is a *potential intangible* good of a quite peculiar nature. The amount of it a person possesses is unknowable *a priori* and is measured by the calendar duration of his lifetime. Its chief peculiarity is that it can never be exchanged *in kind*; a person can *invest* his stock-of-time for economic purposes or he can *consume* it for leisure purposes, but any use he makes of it can never be returned to him *in the form* of stock-of-time. This is why we say a person *spends his life* in this way or that. However you choose to spend it, once part of it is spent you can never get any of it back. *Mors omnibus communis*.<sup>1</sup> Fungible skills are also potential intangible economic goods. They are skills the individual can choose to employ as economic goods by means of converting them to labor services he can exchange for other economic goods, e.g. wages, a salary, barter goods, etc.<sup>2</sup>

The tangible power of a person provides him with his means of fulfilling Duties to himself. His capacity to contribute to the corporate *Personfähigkeit* of his Community – i.e., his capacity to act as a citizen – begins with his capacity to first fulfill Duties to himself. This is because the ground of his Self-pledged Obligations to a Community lies in his informed hope of being more secure and better able to fulfill Duties to himself by means of reciprocal Duties between himself and others. All social contracts in civil Communities are grounded in this aspect of human nature. Reciprocally, those hopes for continuation of and Progress in its future communal well-being that a Community vests in the little non-citizens present in its Society (children) socially motivates a civil Community's institution of public instructional education for its children. To put it bluntly, *I* consent to alienating a part of my tangible *Personfähigkeit* for the purpose of educating *your* child because I expect to get in exchange a future fellow citizen, a partner-in-Community and an ally-contributor to *our* corporate mutual welfare. If it were not for this – well, let's just say that in a state-of-nature environment I prefer to be surrounded by weak and inept potential predators than by strong and skillful ones. How about you? Which would you prefer?

However, public instructional education is not exclusively the education of children and there are adult as well as child learners to consider in its institution. Furthermore, whether the learner is a child or an adult and whether he is a non-citizen or a citizen, a social-natural science of education cannot forget or ignore this fundamental: all learning is educational Self-development. A teacher can teach a subject to a learner; a teacher cannot learn a subject to a learner. Education is like agriculture in the sense that a farmer does not grow corn; the corn grows by itself. All that a farmer can do is prepare the conditions under which the corn can and will do so. So, too, it is

---

<sup>1</sup> A great many people hold-it-to-be-true as a matter of faith that there is an afterlife. This treatise takes no position on this whatsoever other than to draw a technical distinction between the Object "afterlife" and the Object "life as human beings know it in experience." This treatise has nothing to say about afterlife except that this Object is beyond the horizon of possible scientific experience and so is not-an-Object-of-science.

<sup>2</sup> Fungible skill is not a technical term in current economics, although it will be in social-natural economics. If "business" were a science – which it is not – it would make sense for fungible skill to be a technical term in it as well. If and when we ever have a social-natural science of business, it will be.

with education. The learner chooses to learn or not learn a topic and determines for himself what will or will not be an educational activity (figure 8.2). The school and the teacher can only *effect* forms (Quantity and Relation) of educational Self-development, but the school and the teacher can and must *affect* its matter (Quality and Modality) and orient it to benefit the social *nexus*.

Dewey was partially, but not wholly, correct when he wrote:

No one doubts, theoretically, the importance of fostering in school good habits of thinking. But apart from the fact that the acknowledgement is not so great in practice as in theory, there is not adequate theoretical recognition that all which the school can or need do for pupils, so far as their *minds* are concerned (that is, leaving out certain specialized muscular abilities), is to develop their ability to think. . . . Thinking which is not connected with increase of efficiency in action, and with learning more about ourselves and the world in which we live has something the matter with it . . . And skill obtained apart from thinking is not connected with any sense of the purposes for which it is to be used. . . . And information severed from thoughtful action is dead, a mind-crushing load. [Dewey (1916), pg. 166]

Where Dewey errs here is in saying *all* that the school and the teacher *can or need do* for pupils is develop their ability to think. This pertains only to Relation in educational Self-development. The school and the teacher also provide the pupil with the *matter* of what to think (and learn) about, and this is Quantity in educational Self-development. Some American educators are puzzled by the appearance that a large fraction of the U.S. public seems to have become hostile to and no longer willing to support public education. My friend, I'm sorry to tell you that some of my educator-colleagues think this is because something is wrong with *you*, i.e., they think you do not understand that public education is first and foremost a *public* good (and, in truth, there are neo-conservative ideologists who claim it is not a public good at all and never more than a private good; my colleagues are correct about these uncivil advocates of state-of-nature social predation; they only err in thinking *you* are one of them; the irony is that U.S. educational practices train its enemies to become its enemies). I'm sorry to tell my colleagues there is a very simple reason why public education has so many well-meaning detractors. It is because Society's *quid pro quo* is not being adequately paid back, and this is a consequence of neo-Deweyism fomenting practices that do not properly attend to Quantity in educational Self-development.

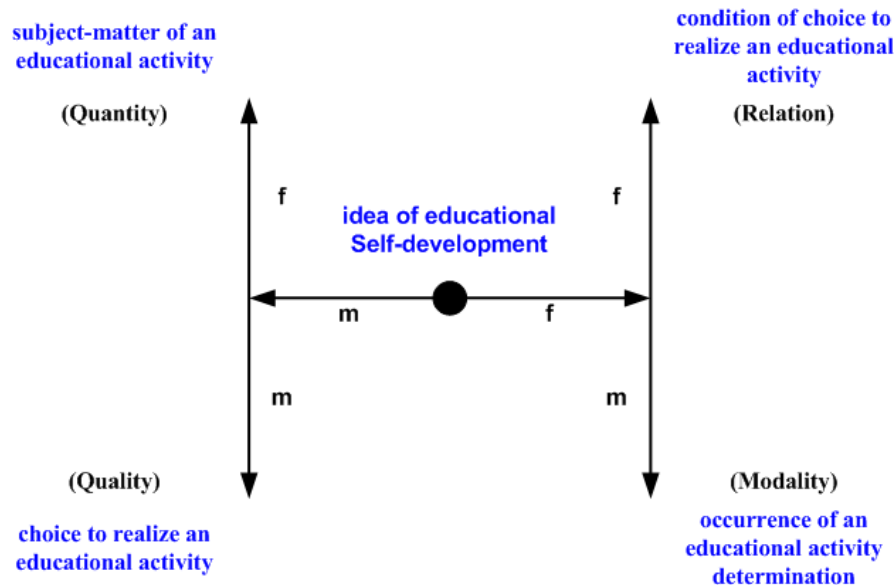


Figure 8.2: 2LAR of educational Self-development.

Tangible education and persuasion education are the manifolds where the individual and the Society meet and fuse when public instructional education fulfills its civil Duties. It is also where social granulation and the creation of social antibonding between inimical mini-Communities first begins when public instructional education does not fulfill its civil Duties. This chapter deals with fulfilling these Duties in tangible education. The next chapter deals with persuasion education.

Quality in educational Self-development is provided by instruction when instruction provokes an individual's choice to realize an educational activity. To do this, the learner must perceive, first affectively and later objectively, that a subject-matter is valuable to him *in his person*. Duties to Self with regard to personality and with regard to the person's situation always antecede concepts of mutual Duties. *H. sapiens* has no *a priori* social instinct and no *a priori* disposition to altruism. Furthermore, a pupil is generally not cognizant of what is valuable in corporal or intellect education because these pertain to the tactics of educating. The teacher must be cognizant of it, but the pupil, because of the nature of the limitations in *Personfähigkeit* that make him a pupil, can not be expected to appreciate corporal or intellect education, nor is it strictly necessary that he be able to cognitively appreciate them in the context of Duties to himself. Tangible education is where the learning of socialized habits and dispositions, and the development of socializable skills, most immediately take hold of the learner *in concreto*.

If you need empirical evidence this is so, do you really need to look much further than at the self-reports parents give of the reasons they send their children to school or demand that good schooling be available for their children? The reason given is almost never "because if I don't send my kid to school they'll pick him up as a truant and arrest me for failing to see to it he goes to school." "They" (really, *we*) will do both of these things – at least in the United States – but those threats of sanction are not the *cause* of parents sending their children to school. Rather, they do so because they know that if their children are not educated they will as adults be confronted with overwhelming practical disadvantages in living their lives. "I send my kid to school so he can get a good job" is by far the most common reason parents express to me. This benefit is easy to understand and easy to explain to children – at least to younger ones – and to young adults.

I think it is likely you need little explanation from me to appreciate that the learner's capacity for success in the pursuit of happiness is pertinent to tangible education, and almost just as likely you already appreciate that economics is pertinent to tangible education. What I think is much less likely is whether most people appreciate that these Pertinences<sup>3</sup> do not themselves constitute specifying concepts for tangible education. Even as a Pertinence I think it unlikely most people will recognize right away that economics (and also personal economy) is not a principal Pertinence but, rather, a species of Pertinence standing under the genus of a principal Pertinence, namely *Welfare*.<sup>4</sup> *Welfare* is the Object said to be in or possess welfare. The term *welfare* (lower case 'w') means the state or quality of being or doing well in life<sup>5</sup>.

---

<sup>3</sup> I do not casually undertake to introduce new words into the English language, I do so only reluctantly and at need, and I have just done so. In English the noun "pertinence" means "the state or quality of being pertinent; justness of relation to the subject or matter in hand; relevance." It derives from the present participle of the Latin verb *pertinere*, to hold. However, in English there is no word for the *Object* said to be in this state or possess this quality. The *Object* is what I mean by use of the capitalized word *Pertinence*. English lacks the word presumably because Latin also lacks it – a fact I feel is a little strange. There also is no non-slang German word for it nor a non-slang Greek word for it. (I don't know if either language has a slang word with this precise meaning, and who knows what slang words Latin might have contained?) I do not know if any other living language has a non-slang word with this precise meaning. However and as Lavoisier said, precision in technical vocabulary is essential in science. Here is an occasion when precision is needed. Hence I introduce the technical object-noun *Pertinence*.

<sup>4</sup> I just did it again.

<sup>5</sup> A *Pertinence* refers to the *Dasein* of an *Object*; a pertinent noun or phrase refers to its *Existenz*.

Pursuit of happiness and Welfare are principal Pertinences for tangible education. After one gets used to Kant's system, he comes to understand that where one finds two synthetic concepts there is going to also be a third one. A specifying concept is a mathematical concept, which is to say it is a *made* concept, which in turn is to say it is synthesized. In order to discover the correct specifying concept for tangible education we require a third Pertinence, and this one turns out to be tranquility. *Tranquility*<sup>6</sup> is a state of mind that results from being sufficiently satisfied in relationship to one's general state of life and desiring nothing more or different in this relationship.

The three principal Pertinences are the products of Critique. The formal structure of the metaphysic assigns: (1) the manifold perspective as Relation from the placement of tangible education in the 2LAR of the metaphysic; (2) the transcendental acroams to their places, i.e., the theological Idea to M, the cosmological Idea to  $\mu_t$ , the psychological Idea to  $\mu_e$ , and the physical Idea to  $\mu_\Delta$ ; and (3) the Relation functions of appetitive power [Wells (2009), chap. 9] as the transcendental schematic, i.e., Relation to expedience *per motiva*, *per stimulos*, and *per liberum*.

The Nature of the Object of the applied science, i.e. Progress in the tangible power of the learner, provides the general context within which to seek the Pertinences through the acroams. The cosmological Idea – the origin of appearances through conformity with an equilibrated structure of practical rules – points to the causality of freedom in the *homo noumenal* character of the learner. As a condition of choice to realize an educational activity, this points to the learner's personality as the determining ground. The reference to equilibrated rule structure identifies the expedience as subsisting in the learner's Duty to himself in regard to his personality. Relation to expedience by motives (*per motiva*), – i.e. Relation to the reason for the learner's actions – brings out the Pertinence of the pursuit of happiness as the pertinent motivating factor.

The psychological Idea – unconditioned unity of all three-way relationships of interests, valuation and cognition – points to the learner's *homo phaenomenal* character of acting upon Duties of expedience in regard to prudence, i.e., with regard to his situation. Relation to expedience by stimulated appetite (*per stimulos*) brings out the Pertinence of Welfare as the principal motivating factor in the learner's choices to realize educational activities.

The physical Idea – the rule of determination of relationships in perception is the enforcement of continuity in *Self-Existenz* by acts of validation in practical Reason – points to a synthesis of balancing Duties between the learner's freedom to act and situational hindrances to his ability to exercise that freedom. In the relationship between noetic judgment and *psyche*, continuity in *Self-Existenz* is called **the judicial Idea**: the capacity to gauge the formal expedience of sensuous conditions for a pure purpose of practical Reason [Wells (2009), chap. 7]. We have here a synthesis of (1) the learner's ability to act rationally with (2) his impulses to act according to empirical stimuli in determinations of his appetitions. Relation to expedience according to the learner's capacity to act on rational principles of happiness (*per liberum*) brings out the Pertinence of tranquility – *Self-Existenz* in a state of equilibrium – as the principal motivation for reciprocal Duties, i.e., Duties relating the personality of the learner and the situations of others.

I realize that when I abruptly introduced the Pertinences above this introduction might have left you feeling as a judgment of taste that there was a sort of *Abracadabra! Presto!* quality in their introduction. The Pertinences, however, are not the product of a magician's art. They are dug up and unearthed through careful metaphysical Critique of the Idea of the applied special science in designing an applied metaphysic. Pertinences are pathways to specifying concepts in applied metaphysics, and this is part of the doctrine of method the metaphysician must keep in mind. I am speaking here specifically of what Kant called *architectonic*, the art of systems:

---

<sup>6</sup> Tranquility (lower case) is already a Pertinence. We don't need another new word here.

I understand by a system . . . the unity of manifold knowledge under one Idea. This is the rational knowledge of the form of a whole, insofar as through this the scope of the manifold as well as the place of its parts with respect to one another is determined *a priori*. The scientific idea-of-Reason thus contains the purpose, to which all parts and in the idea of which they are related to each other, allows the absence of any part to be noticed in our cognizance of the rest, and there can be no contingent addition or undetermined magnitude of perfection that does not have its boundaries determined *a priori*. The whole is therefore articulated and not heaped together; it can, to be sure, grow internally . . . but not externally . . . like an animal body, whose growth does not add a limb but rather makes each limb stronger and fitter [Kant (1787), B: 860-861].

The final unity of which Kant speaks is, here in this case, brought about through the major acroam (the theological Idea) = (structuring the context of actions in the manifold of rules in Relation to a transcendental Ideal of *summum bonum*). In the context of *nexus* in Relation for public instructional education, what concept do we find as the unity of pursuit of happiness, Welfare, and tranquility? In the global *nexus* of the Society, there is only one answer to this question and that answer is called *the Social Contract*. ***The specifying concept of Relation in tangible education is none other than the Society's social contract itself.***

Now, quite obviously each Society's social contract is peculiar to that Society. Society will be expected to preserve traditional mores and folkways of the civil Community. Some Societies will have only vaguely expressed notions of what the contract is, while others can have very detailed Constitutions codifying it. Every BaMbuti Pygmy understands his group's social contract but merely by judgments of taste mingled with prudence and formed by custom [Turnbull (1961)]. The Constitution of the United States of America at the time of its framing was perhaps the most detailed document of social contract that any nation had ever put together. Every clause it contained was debated and pondered in the context of the peculiarities of the Americans, the reasons for deciding to replace their Articles of Confederation with a new form of confederate republic, and the envisioned purpose of the new general government [Farrand (1911)]. Between the Pygmies and the Americans is a spectrum of divers social contracts.

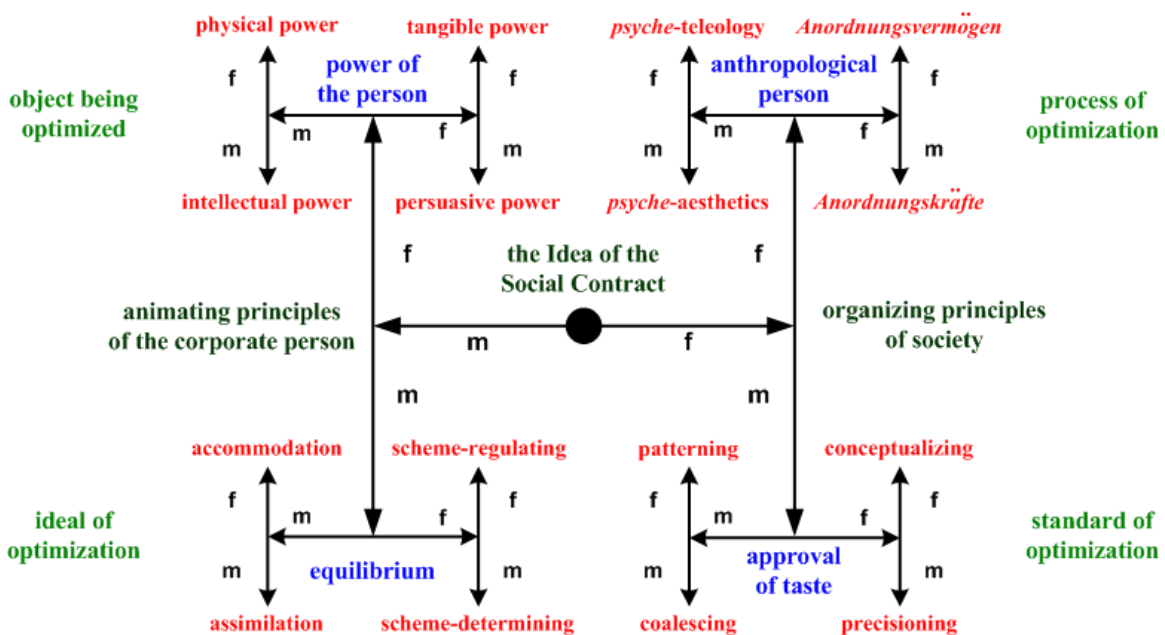


Figure 8.3: 4LAR structure of the Idea of the Social Contract.

It is obvious that the applied metaphysic cannot deal with every peculiarity of divers social contracts specific to specific Societies. Nor should it attempt to. Kant wrote,

For its execution the Idea needs a *schema*, i.e., an essential manifoldness and order of the parts determined *a priori* from the principle of the purpose [of the science]. A schema that is not presented in accordance with an Idea, i.e. from the chief purpose of reason, but empirically, in accordance with contingent aims . . . yields *technical* unity; but that which arises only as a result of an Idea (where reason provides the purposes *a priori* and does not await them empirically) grounds *architectonic* unity. What we call science . . . arises architectonically for the sake of its affinity and its derivation from a single supreme and inner purpose, which first makes possible the whole. [Kant (1787), B: 861]

To obtain that unity for the specifying concept of tangible education, we need only refer to the general principles of the Idea of the Social Contract (figure 8.3) [Wells (2012), chap. 13].

### § 3. Rational Tangible Education

#### § 3.1 The Metaphysical Axiom

Metaphysical axiom  $MA_t$  subsumes  $\mu_t = \langle$ the origin of appearances through conformity with an equilibrated structure of practical rules) under  $M = \langle$ structuring the context of actions in the manifold of rules in Relation to *summum bonum*). *Summum bonum* is the Ideal of a perfect realization (= actualization) of the conditions dictated by the categorical imperative. Appearances are objects of represented cognitions. Cognitions are represented at the instigation of ratio-expression and oriented by regulations of the process of speculative Reason.

In the consideration of  $MA_t$ , it is to be noted that tangible rational education occupies the (t) position in the 2LAR of the applied metaphysic because of the logical function of social purpose in rational education (chapter 5 §4). The primitive root of understanding for this function is the epistemological category of substance & accident in determinant judgments. The appearance of an object is understood by the notion of accident, i.e., the notion of a real predication in understanding. In addition to this consideration, the positioning of rational tangible education in the metaphysic's 2LAR is positioning in Relation as internal Relation. This means Relation as the form of connection in representation in which the connections have no reference to anything other than the object being represented. Under the major acroam, M, this object is that of *summum bonum*, which is to say it is the object of a putative highest practical good.

Under the specifying concept of the Social Contract, Rational Cosmology (the metaphysic proper of the minor acroam) pertains to what the theory of the Social Contract calls the anthropological person (figure 8.3). This is an idea of an optimizing process as determined by subjective judgments in reflective judgment's intercourse with *psyche*. This optimizing process is the cause of those manifestations in behaviors generally called a person's *character* insofar as the behaviors are exhibited in the context of the person's participation in a Community and his undertakings of Community-building [Wells (2012), chap. 12, 13]. The determining factor in this participation is the individual's judgment of taste. The process of education in this regard is therefore aimed at the development of the learner's character through judgments of taste. I call  $MA_t$  the *axiom of developed social taste: learner tastes are formable through instructional education*.

#### § 3.2 The Functions of Rational Tangible Education

The schematic of rational tangible education,  $\Sigma 3_t$ , is expedience *per motiva* (figure 8.4). This is the development of intellectual appetites [Wells (2009), chap. 9]. I suspect you will not find it difficult to foresee from this that the function pertains to developing tastes for these appetites.

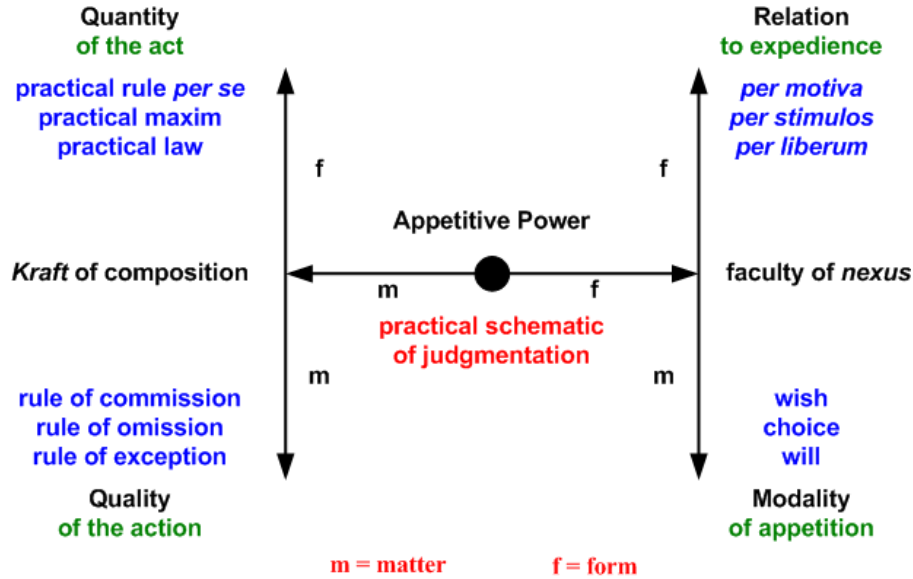


Figure 8.4: 2LAR of appetitive power.

In the context of the personal dimension of the learner, intellectual appetites are vocational insofar as affective perceptions of judgments of taste are perceived as what is often described as one's "calling in life." This, you should recall, is the basic connotation of the word "vocation." In modern American life the default context most often found going with use of the word "vocation" in conversation is "occupation." This should not be allowed to get in your way of understanding the context of the word as it is being using here. It is nothing more than soot from the Industrial Revolution that confounds "vocation" with "job" in habitual American speech patterns. The mere fact you might hold such-and-such a job in no way implies you necessarily consider that job to be your vocation. The best expression I've ever heard of proper prudence for relating a person's occupation to his vocation was put to me by a wise old man I knew half a century ago<sup>7</sup>. He said, "Find something you like to do better than anything else, then learn how to do it better than anyone else, and people will come to you and pay you to do it." My experience has taught me he was right about this.

In the context of the learner's social dimension, intellectual appetites are moral appetites inasmuch as one's taste is oriented favorably to the mores and folkways of one's Society. A folkway is a way of thinking, feeling, behaving, etc. common to members of the same social group. Mores are folkways that are considered conducive to the welfare of a Society and which, through general observation, produce a practical effect having the force of a legal code. Mores often are even made an actual part of a Society's formal legal code.

From these two contexts we can come directly to the functions of rational tangible education. They are those elements in the curriculum providing lesson-matters that develop the learner's judgment of taste in relationship to his choice of vocation and his observance of his Society's mores and folkways. Hence,  $f_{t,1}$  is *inclusion in the curriculum of lesson-matters pertaining to developing the learner's personal vocational taste*;  $f_{t,2}$  is *inclusion in the curriculum of lesson-matters orienting the learner's Self-developed principles of mores and folkways to be in congruence with those of his Society*. Note that these lesson-matters serve as objects of experience for the educational Self-development activities the learner undertakes for developing intellectual appetites. Pursuit of happiness is clearly pertinent in both cases. I call  $f_{t,1}$  *lessons of*

<sup>7</sup> His name was Harry Wells. He was my grandfather.



*vocation*. I call  $f_{i,2}$  *lessons of mos maiorum*<sup>8</sup>.

## § 4. Empirical Tangible Education

### § 4.1 The Metaphysical Axiom

Metaphysical axiom  $MA_e$  subsumes  $\mu_e = \langle \text{unconditional unity of all three-way relationships of interest, valuation, and cognition} \rangle$  under  $M = \langle \text{structuring the context of actions in the manifold of rules in Relation to } \textit{summum bonum} \rangle$ . In the consideration of  $MA_e$ , it is to be noted that empirical tangible education occupies the (e) position in the 2LAR of the applied metaphysic because of the logical function of empirical education. This means the primitive root of understanding for this function is the epistemological category of causality & dependency in determinant judgments. The empirical notion of causality is the objectified notion of cause-and-effect relationships, under which all effects are determined by actions according to general rules. This logical function gives us an initial clue that the metaphysical axiom pertains to the learner's ability to acquire and use specific skills according to his developing interests and values.

The logical function also warns us that appropriate learner skills are conditioned by the social environment in which he will live. If his Society is pre-industrial, let us say a herding and limited agricultural Society, the learner will have little or no opportunity to put to use the skills of, say, a machinist nor will his Community see any benefit *to the Community* in teaching him such skills. However, we must also bear in mind that the objective of public instructional education is **Progress**, not only in the learner's individual *Personfähigkeit* but in the Community's corporate *Personfähigkeit*. Progress implies developing the Society's capacities for innovation and advancement. Therefore, even in such a Society (what Santayana would call a free Society) there is pertinence for the teaching and learning of Progress-promoting skills such as science and mathematics. The only thing specialized here is the social environment in which these skills *are able to find application*. However much potential *personal* benefit to the learner there might be in his acquiring skills that would enable him to emigrate from his Community and live elsewhere, where he can immediately put those skills to profitable employment, *it is not in the interest of his Community that he do this*. The education agency *must* recognize this and act accordingly because *the agency belongs to the corporate person of the Community*. It is not brought into being to benefit the learner to the exclusion of benefiting the Society that provides for it. If the agency ignores this condition of its founding then *its agents commit a deontological moral fault against their Community*.

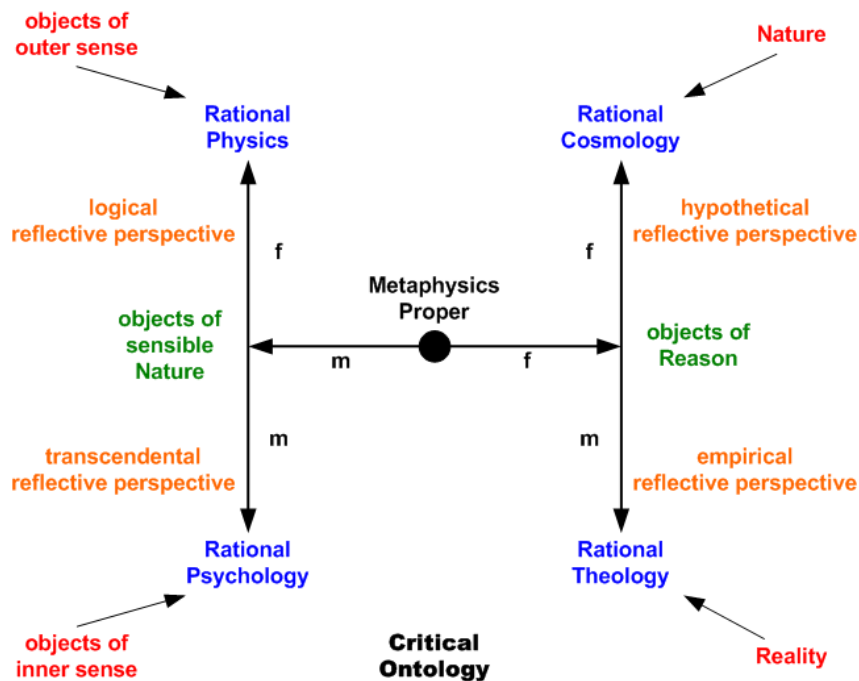
I'm sorry to report that precisely this sort of transgression is committed daily and is widespread in the actions of the U.S. institution of public instructional education at every level of schooling from grade school to graduate school. This is not due to any malignant intent of the educators themselves. It is due to a prevailing social fiction that "schooling is (just) for the kids." It is "for the kids," of course, *but not exclusively*. Detractors and enemies of public education in the United States are merely reacting to an on-going and long-standing perpetuation of injustice. The prevailing presupposition of "what the schools are supposed to do" is itself an idea that violates the American social contract. Put in other words, the agents of education *do* act faithfully according to the established mission statement of the schools *but the mission statement is misplaced*. The fault is not grounded in conspiracy but in *general* ignorance of purpose – and I don't mean just the administrators, teachers, and politicians; I mean *everyone*. The U.S. institution of public education has been made *uncivil*. An agent's actions can be faithful to Society and *at the same time* unfaithful to the Community when the established *social* mission is contrary to the grounds of the *Community's* social contract. Community and Society are closely interrelated

---

<sup>8</sup> "greater established custom"

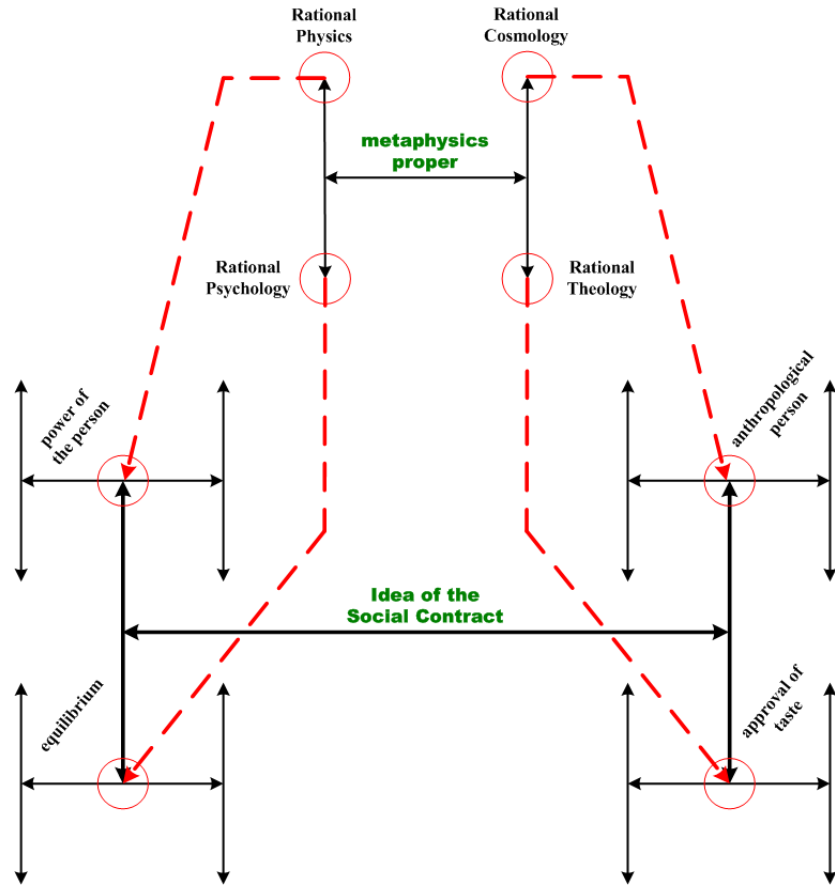
objects, but they are *not* identical objects.

The minor acroam is the psychological Idea, and it pertains to Quality in the Idea of the Social Contract (figure 8.3). This is the ideal of optimization as represented by the sub-2LAR of equilibrium (accommodation, assimilation, scheme-regulating, scheme-building)<sup>9</sup>. This manifold of Idea combination is, again, a consequence of the place of the transcendental Ideas in Critical metaphysics proper (figure 8.5). The applied metaphysic is tasked with setting the ontological place of public instructional education as a *social phenomenon* and delimiting the boundaries of its objective validity in experience. What I have just said is said more distinctly when it is put into Critical mathematics, and figure 8.6 does so. For those who initially have a little trouble seeing figure 8.6 as mathematics (knowledge through construction of concepts), I will remark that the mathematics you are probably accustomed to seeing uses formulas, equations, algebra, esoteric hieroglyphics etc. These are, of course, part of mathematics but they are not all of mathematics. Figure 8.6 is every bit as much a mathematical expression as is  $E = m \cdot c^2$ . The fact that most people have never thought of mathematics in this way is a direct reflection on the traditional way mathematics has been taught for more than half a century now. It is a very self-limiting tradition and contrary to human nature. The eminent late 19th/early 20th century mathematician Henri Poincaré once called the proposal of this way of teaching mathematics "contrary to all healthy psychology. It is certainly not in this manner that the human mind proceeded to construct mathematics" [Poincaré (1914), pp. 144-145].



**Figure 8.5:** The transcendental places of the Critical acroams in Critical epistemology. When applied to the Idea of the Social Contract, the acroams align with the primary 2LAR headings in figure 8.3 (power of the person, equilibrium, anthropological person, and approval of taste). See figure 8.6.

<sup>9</sup> The major acroam, the theological Idea, pertains to Modality in the Social Contract, i.e. the approval of taste. What this means is that the Modal function of the Social Contract is the *governing* function common to all three metaphysical axioms of tangible education – and, of course, corporal, intellect and persuasion education as well. This Modal governance exhibits most clearly in tangible education because it is tangible education that stands immediately under the specifying concept of Social Contract. But it is mediately, and therefore implicitly, a governing factor for the other two classes of public instructional education.

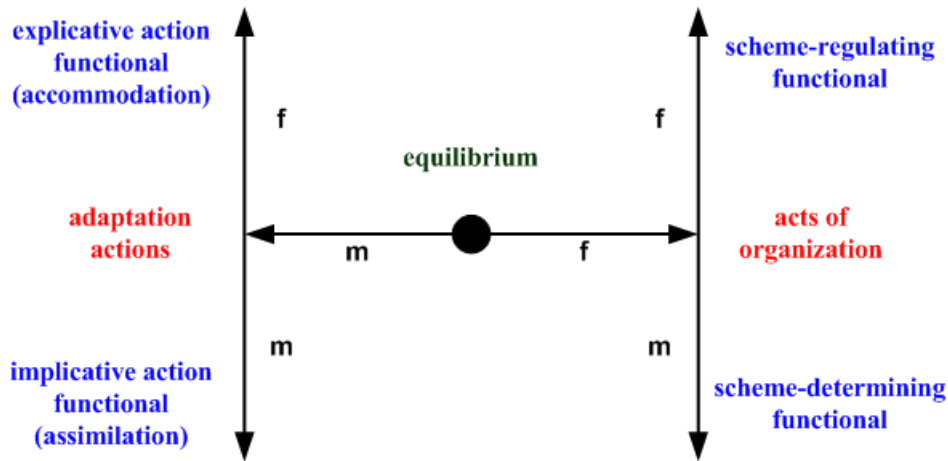


**Figure 8.6:** Mathematical synthesis of combination of the Idea of the Social Contract standing under the Ideas of Critical metaphysics proper. In synthesis one always combines Quantity with Quantity, Quality with Quality, Relation with Relation, and Modality with Modality. The combined concepts construct a new concept different from either constituent concept by itself, just as water is not merely two hydrogen atoms juxtaposed with an oxygen atom. Water is *not* hydrogen | oxygen. It is a molecule of them *fused* together.

Looking now at the minor acroam, interest is anticipation of a satisfaction or dissatisfaction combined with the representation of some object of desire. Valuation is the practical validation of actions as being in compliance with the learner's manifold of rules. This is because compliance with the manifold of rules implies compliance with the condition of the categorical imperative.

Cognition is objective perception. Here it is enlightening to examine cognition in regard to the alignment of tangible education with Relation in adaptive *psyche* and its animating principle. In the 2LAR of the adaptive *psyche* Relation is somatic organization in *nous-soma* reciprocity and its animating principle states: *motivation is the accommodation of perception and motoregulatory expression is its assimilation*. In this context, we may compare this animating principle with the 2LAR structure of equilibrium. Figure 8.7 presents the 2LAR. The transcendental reflective perspective of the psychological Idea is viewed in the perspective of relationship to equilibrium in our current discussion. Accommodation is Quantity in the 2LAR of equilibrium. Assimilation is Quality in this 2LAR. *Organization* of expressed actions (somatic organization) is seen in this connection to be involved with actions of assimilation and accommodation, and this is of course to say that they pertain to *the operationalization of schemes*.

At his beginning in the instructional education process the learner does not yet possess a set of skills to exercise in this capacity for expression. Here is a second clue about the axiom. Skills are



**Figure 8.7:** 2LAR of equilibrium. This is the sub-2LAR of Quality within the 4LAR structure of the Idea of the Social Contract and is combined under Rational Psychology as per the synthesis of figure 8.6.

action schemes and the learner must learn them and develop them through the practice of doing them.

Tangible education is referred to equilibrium by the context of the specifying concept. The special Pertinence for the logical position of empirical education in figure 8.1 is the Pertinence of Welfare. Again, Welfare is the Pertinence for the learner's *Existenz* in a state or condition of doing well in his life. Let us gather all of this together. The axiom is an axiom of empirical causality. This causality is *purposive* because it is grounded in three-way unity of interest, valuation and cognition. The axiom pertains to expressed scheme-actions but the learner must first acquire and develop these schemes. Finally, his purpose in applying them pertains to his own welfare, thus stands in a relationship to Duties to himself with respect to his situation. Perhaps the axiom has now become clear to you? It is the **axiom of skill development**: *skills of Progress in tangible Personfähigkeit are developed by exercises of adaptation performance focusing on scheme-building and scheme-regulating (Relation and Modality in figure 8.7) that prepare the learner to achieve Welfare success in life.* By "exercises of adaptation performance" I basically mean the same thing as the old aphorism "practice makes perfect."

Something Kant said about theoretical imperatives of Duties to oneself has a relevant bearing on this axiom. He told his students:

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 effectively<sup>10</sup>; 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]

#### § 4.2 The Functions of Empirical Tangible Education

The transcendental schematic for empirical tangible education,  $\Sigma 3_e$ , is expedience *per stimulos* (expedience by stimulated appetite). Expedience *per stimulos* occupies the position of external Relation in the 2LAR of appetitive power. This Relation is form of connection among objects in which there is represented something not contained in the representation of any of the objects by themselves. To deduce the functions of empirical tangible education we must deduce what this extra "something" is.

The clue to doing this is contained in the idea of the schematic. The hypothetical imperatives Kant described above are, in their practical (non-conceptualized) form, rules in the learner's manifold of rules. They are brought into action when something represented by the process of reflective judgment either provokes them (by inexpedience) or evokes them (by expedience). The act of reflective judgment presents a meaning implication, and it is this implication that evokes, provokes, or does not stimulate (as the case may be) the particular practical rule.

Once the learner is already in possession of some practical scheme, its stimulation involves the expression of a learned scheme and his execution of the scheme will either result in assimilation (if immediately successful in outcome) or accommodation (if there is some tension produced during its execution). However, the education function is not functionally centered on this. It is instead centered on scheme-building and scheme-regulation, which means it is concerned with supplying the conditions under which the learner will learn a new scheme and learn to better regulate it (i.e., make his scheme-system more robust and able to accommodate variations). To do this, instructional education must not only provide a subject-matter for practicing the scheme but must also establish a condition that provokes in the learner a choice to realize (make actual) the educational activity (figure 8.2). Combined with the metaphysical axiom, it is not hard to see that this provocation concerns empirical causality in which the *effect* is an educational Self-development activity. The instructional *aim* is clear to that extent. What we must be concerned with more pressingly is how to cause that effect.

Here the Pertinence is still Welfare but the issue is a simple one to state. If instruction is to provoke a skill development or a scheme-regulating prudence involving a subject-matter that is outside the learner's knowledge of experience, how does one bring into play that factor of three-way unity of interest, valuation, and cognition? Obviously this cannot be done by the subject-matter itself. *H. sapiens* possesses no copy-of-reality mechanism, values are not resident in the external object of desire, and every human being is a satisficing decision-maker. Episodes of learning must be provoked, but new and unfamiliar subject-matters are going to be initially perceived with tension (else there is no motivation) and the most powerful tools a satisficing decision-maker has in the practical arsenal of his manifold of rules are the type- $\alpha$  compensation behaviors – ignore it and maybe it will go away. Imagine a teacher standing before a class and a

---

<sup>10</sup> 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.

twelve-year-old staring out the window on a beautiful afternoon in late spring. Oh, what a pretty bird on that tree branch over there! I wonder where he came from?

Instructional action must provoke tension that overcomes the inertia of ignorance behaviors. This is in itself not immediately open to the teacher via subject-matter ("In 1932 Congress passed the What's-his-name Tariff Act." So what? Who cares?). It *potentially* can be unlocked by *other* learner cognitions. Here there are two fundamental kinds of provocations always available for exploitation by the teacher: maxims of Duties to oneself with regard to personality and maxims of Duties to oneself with regard to the learner's situation. Provoke either of these and the teacher *will* get an attentive reaction. It then becomes a question of what sort of reaction this is: a desired one (a successful educator's action) or an undesired one (an unsuccessful educator's action).

Bear in mind that a desired reaction has *two* conditioning dimensions. The first, of course, is the learner's personal dimension. If he learns the lesson the teacher presents to him, this is "desirable" in the personal dimension. But there is a second dimension of equal importance. This is the social dimension. Public instructional education aims at building *citizens*. You can, at least with some learners, provoke a maxim of prudence by threats: "Learn this or I'll flunk you and you'll have to take this class again during summer school." What unintended lesson is the learner going to learn from this? "I can have it my way if I force other people to do what I want." This isn't the attitude of a citizen. It's the attitude of a ruler. This lesson doesn't build citizens. It builds outlaws. No teacher aims to teach such a lesson, which means that if this is the lesson that is taught then the action of instruction is culpable as a deontological moral fault because the result is contrary to the social contract between the teacher as agent-of-education and the Community.

Every human being constructs his own manifold of rules and does so through experience. Just as everyone's experience is unique to his person, so is his manifold of rules. For the most part just what rules a person has made for himself is for all intents unpredictable. This is especially so in regard to maxims of prudence because these constitute Obligations-to-Self with regard to the person's situation. On the other hand, some currently-highest rules (unconditioned except by the categorical imperative) in the person's manifold constitute Obligations with regard to *personality*. These are more predictable within a given culture in Society. They are, furthermore, foundational laws of a private and individually peculiar moral code the person Self-constructs<sup>11</sup>. When the person has built *concepts* of Duties-to-himself linked to his private moral code, those concepts (which are in the manifold of *concepts*, not rules) that are currently unconditioned by higher concepts constitute his *theoretically* categorical imperatives<sup>12</sup>. They are linked by meaning implications either to currently-unconditioned highest rules in the person's manifold of rules (practically *hypothetical* imperatives) or to sparsely conditioned high-placed practical maxims (tenets of practical Obligation), and because these *are* objectively linked to cognition they are externally accessible. The first kind are Duties with regard to personality.

Those theoretically categorical imperatives that constitute Duties-to-Self with regard to the person's situation are "ought to" imperatives and the person might or might not choose to act on his theoretical principle. Those, however, that pertain to Duties-to-Self with regard to personality, or that are co-stimulated with unconditioned practical rules that, if they were conceptualized, would be conceptualized as Duties-to-Self with regard to personality, are a different matter

---

<sup>11</sup> The private and individually peculiar Nature of human moral codes is why only a *deontological* moral theory can be objectively valid in science.

<sup>12</sup> A *theoretically categorical* imperative subjectively expresses as an "I ought to" speculative rule. It does not carry the force of a practical law in the manifold of rules. Stimulate a person's theoretical concept of a speculative categorical imperative and he may or may not choose to follow it, depending upon whatever his circumstance might be in any given situation. Stimulate a *practical* hypothetical imperative, on the other hand, and *he will express it* because the action it prescribes is practically necessitated.

altogether. They are relatively fewer in number, tend to result from the types of experiences that are widespread enough to be familiar to most people within a particular Society's culture, and, for that reason, can be provoked with less uncertainty about how the person is going to react to the provocation. Those of the most pertinence to our current discussion correspond to two aspects of personality called *self-respect* (*Achtung*; usually this is abbreviated to just "respect" when the context is sufficiently clear) and *self-love* (*Selbstliebe*, but sometimes synonymously called *Eigenliebe* in the Kantian corpus). In regard to the latter Kant wrote,

[We] find our nature as sensuous beings so constituted that the matter of appetitive power (objects of inclination, whether of hope or fear) first rears itself, and we find our pathologically determinable<sup>13</sup> self, even though it is entirely unfit to give universal legislation through its maxims, nevertheless striving beforehand to make its claims primary and originally valid, just as if it constituted our entire self. This propensity to make subjective determining grounds of choice as such into the objective determining ground of will in general is named *self-love* [Kant (1788), 5: 74].

This is the deontological refutation of Epicurean moral theory (the grandsire of today's consequentialist ethics). Contrary to mistaken opinion, Epicureanism is not necessarily hedonistic although it is always a sensuous ethics of pleasure and pain. The Epicureans defined "pleasure" as "the absence of pain" – a definition many people who have spent considerable amounts of time in management or administration jobs or in positions in the caring professions – e.g., councilors and social workers – come to recognize and empathize with. Deontological theory correctly recognizes that the source of the behavior is grounded in the *structure* that has resulted from the empirically-accidental construction of the person's manifold of rules and is not actually grounded in anything else.

Self-respect stands in opposition to self-love. Of self-respect Kant wrote,

But though respect is like a feeling, nevertheless it is not received through influence<sup>14</sup> 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 on the Subject [the person] and not as cause of the same. Respect is properly the representation of a value prejudicial to my self-love. 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]

To act from self-respect is *to act on principles* rather than from consequentialist motives. In this sense self-respect resembles ontology-centered "the means justify the ends" virtue ethics. Kant's one big error in formulating his ethics theory was his reification of the categorical imperative into a mystical THE moral law. There is no universal THE moral law and the categorical imperative is not a moral law. It is, on the other hand, the regulating formula which, in addition to everything else in the manifold of rules, produces individual, personal, and private practical moral codes that people express in what get called "moral actions." The social issue, of course, is that everyone's

<sup>13</sup> By "pathologically determinable" Kant means the capacity to determine appetitive power from immediate sensuous grounds in receptivity. He is not referring to a disease or organic defect.

<sup>14</sup> That is, influence from the external environment or state of *soma* through receptivity. Hence *in*-flux, i.e. "influence" (*Einfluss*).

moral code is different. A group of people may have moral codes that are *similar* to each other (and this is how social mores arise), but none are *identical* to each other. Deontological moral theory recognizes this.

People who come to develop maxims of appetite principally based on self-love tend to have more difficulty committing themselves to Obligations pertaining to reciprocal Duties than do people who develop *versatile* maxims of self-respect. We tend to associate words like "honor," "integrity," "honesty," and "courage" with people who determine themselves to act according to principles of self-respect. We tend to associate words like "conceit" and "selfishness" with people who determine themselves to act out of maxims of self-love. In darker cases, we associate words like "villain," "scoundrel," "crook," and "coward" with the more antisocial cases of personality styles that are produced out of imperatives of self-love. The most extreme cases are those we tag with the term "sociopath." For this reason it is extremely unwise to "push the learner's self-love button" as a means of motivating him to undertake an educational Self-development activity.

*Pädagogik* tells us,

Education includes *support* and *formation*. This is: 1) *negative*, the discipline which merely prevents errors; 2) *positive*, instruction and leadership, and insofar belongs to culture. Leadership is direction in the practice of what one has learned. Thus arises the difference between the *instructor*, who is merely a teacher, and the *steward*, who is a leader. The former educates merely for the school, the latter for life. . . .

One of the biggest problems of education is how one can unite subjugation under lawful compulsion with the capability to serve one's freedom. For compulsion is necessary! How do I cultivate freedom under compulsion? I shall habituate my pupil to tolerate a constraint on his freedom, and I shall at the same time lead him to make good use of his freedom. Without this everything is mere mechanism, and the dischargée from education does not know how to serve his freedom. He must feel early the inevitable resistance of society in order to learn to know of the difficulty of supporting himself, to do without and to acquire, to be independent. [Kant (1803), 9: 452-453]

Where *Pädagogik* says an instructor is "merely a teacher" it is more correct to say "an instructor is one who merely gives lessons." There is more to being a teacher, as that term is defined in this treatise, than giving lessons. A public schoolteacher is an agent of the citizens of the Community, which means he holds a position of public trust and has voluntarily agreed to submit himself to the constraint of an expectation of authority for which he is answerable to his Community and culpable for negligence in carrying out his office. Public instructional education is part of the justice system in a Society. For that reason a teacher in any institute of public instructional education is Duty-bound to act as a steward (*Hofmeister*) in the service of the civil Community.

*Pädagogik* lays its hand squarely on "the biggest problem of education." A person who has been compelled by others to attend school, in whatever form this compulsion takes, is not acting out of civic Duty but out of prudence. (It is an entirely different matter if he does so out of deontological Self-conviction). Acting under compulsion is under the best of circumstances *actio invita* (reluctant action) and under worse circumstances is *actio involuntaria* (action one would not take if any alternative choice was pragmatically feasible). Neither is positively conducive to learning citizenship, although neither is necessarily opposed to it. It does, however, start the learner out, if not "on the wrong foot," at least with a resistive bias. The prescription offered in *Pädagogik* is, however, too vague to be reduced to actual practice. It names the desired *civil outcome*, not the means to accomplish it. I will return to the discussion of this outcome presently. At this moment the discussion is concerned with means.

Tactics directed at self-love are inadvisable and unwise because a person whose participation as a learner in the instructional institute has been compelled is already experiencing bias contrary



to developing himself as a citizen. As a public steward, the teacher is therefore only left with one "button to push" that is congruent with the expectation of good stewardship he has accepted. This is the self-respect "button." His teaching tactics must reverse the compulsive bias and win the learner over to viewing *in a civic manner* the educational process he has been compelled to participate in. This is to say the empirical function of instruction aims at the *allegiance*, not the *submission*, of the learner. Appealing to self-respect does not guarantee this accomplishment, because *theoretical* imperatives never carry the natural force-of-law characteristic of practical imperatives in the manifold of rules, but it is much less likely to produce an outlaw. A person can choose an action he thinks is best; he cannot guarantee that action will succeed in satisfying his intent. Teaching is an empirical craft.

To engender feelings of self-respect the learner must *recognize he is making Progress* in perfecting his *Personfähigkeit* and at the same time *recognize that his Community has made an essential contribution* to making *his Progress* possible. The notion of Self-respect is the notion of a first and pure *a priori* interest of practical Reason for absolute coherence with the formula of the categorical imperative of practical Reason, and self-respect is a value feeling that reflects the person's pure interest of Self-respect. The functions of empirical tangible education are functions that stimulate such value feelings.

In the personal dimension of the learner, I therefore call  $f_{e,1}$  **skills of civil liberty**: *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*. The Pertinence of Welfare is the window through which the learner can recognize the personal Progress he is making. In the social dimension of the learner, I call  $f_{e,2}$  **skills of enterprise**: *inclusion in the curriculum of lesson matters perfecting learner self-actualization by practice in applying new skills in enterprise activities within social situations*. Through these skills he learns to recognize value in social cooperation. This function services an aim of public instructional education *Pädagogik* describes rather well:

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*<sup>15</sup>. 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. [*ibid.*, 9: 449-450]

<sup>15</sup> Kant's actual word used here was *Civilisirung*, a peculiar technical term that refers to makeover of the transitive verb phrase "making civil" into a noun form. There isn't an exact English equivalent term but "being civilized" conveys the meaning of Kant's technical term.

The context of this last point is the context of the Social Contract. Moralization is the development of individual respect for the mores of the learner's Society inasmuch as these mores are the social customs "approved by everyone" that by force of habit become engrained into the social contract as his Society comes to observe it.

§ 5. Social Tangible Education

§ 5.1 The Metaphysical Axiom

In social tangible education, minor acroam  $\mu_{\Delta}$  = (enforcement of continuity in *Self-Existenz* by acts of validation in practical Reason) is subsumed under the theological Idea. As noted earlier in this chapter, continuity in *Self-Existenz* is the judicial Idea of the capacity to gauge the formal expedience of sensuous conditions for a pure purpose of practical Reason. The major acroam is M = (structuring the context of actions in the manifold of rules in Relation to *summum bonum*).

From the acroams it is seen that the metaphysical axiom  $MA_{\Delta} = \mu_{\Delta} \subset M$  is an axiom for structuring the context of what is being validated by practical Reason and for gauging the formal expedience of sensuous conditions. To gauge anything means to take its measure, i.e. to judge it. A structure is a system of self-regulating transformations and structuring is the act of putting into effect the operation of one or more of these self-regulating transformations. Continuity in the judicial Idea pertains to the relationship between the form of teleological reflective judgment and the animating principle of somatic organization in *psyche* (figure 8.8) [Wells (2009)].

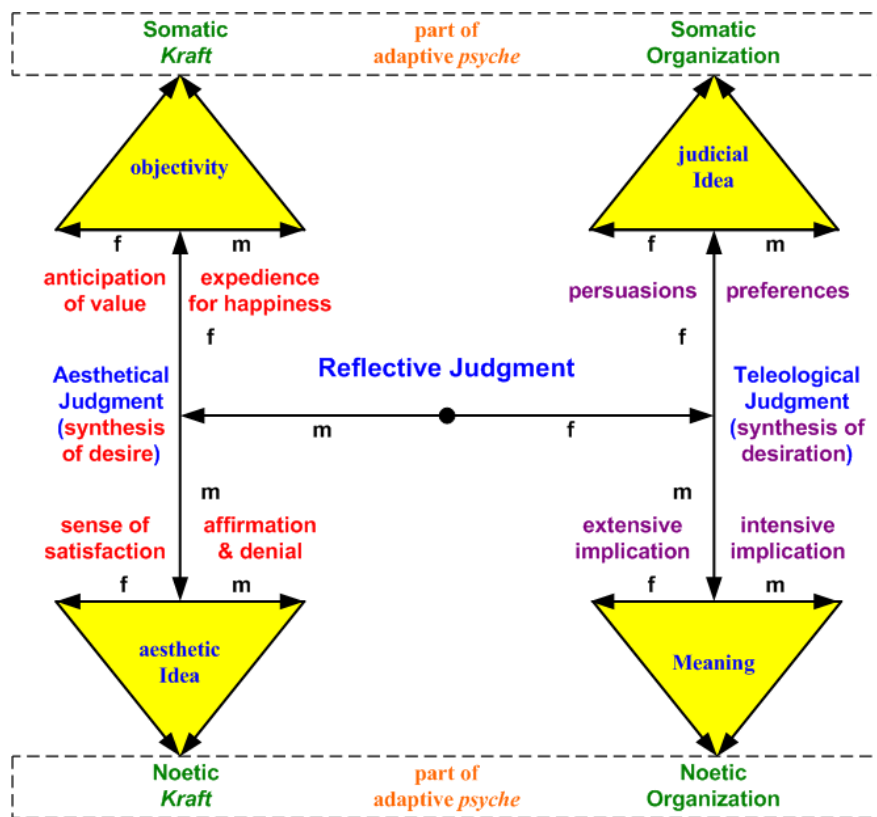


Figure 8.8: 3LAR-LSR structure of reflective judgment and *psyche* illustrating the relationship between judgment and *psyche* in the synthesis of continuity (objectivity, aesthetic Idea, judicial Idea, Meaning).

Referring to the mathematic of figure 8.8, *persuasions of judgment* are functions for the synthesis (causality of freedom + belief). In mental physics, *belief* is unquestioned holding-to-be-true-and-binding solely on the basis of a subjectively sufficient reason and without consciousness of any doubt in this holding-to-be-true-and-binding. Causality is the notion of a determination of a change by which the change is established according to general rules. Persuasions in figure 8.8 therefore refers to the expression of actions according to a person's freedom-to-act and places it squarely in the context of judgments of taste. *Preferences of judgment* pertain to the matter of persuasions. They are functions of affective perception insofar as affective perception is part of the determination of sensorimotor expression. To these we add the animating principle of somatic organization: motivation is the accommodation of perception and motoregulatory expression is its assimilation. This characterizes the pertinent type of transformations to be dealt with.

A value is a *form* of affective perception of desire and form-of-desire = *desiration*, which is to say desire is presented *as* the determinable in motoregulatory expression. All values contain in their matter an aesthetic *parástase* of sense-of-interest. Sense is the capacity to present sensations. Interest is anticipation of a satisfaction or dissatisfaction with representation of the *Existenz* of some object-of-desire. Thus sense of interest means the capacity to present value as an anticipation of the form of *Existenz* of a value object, the real *Dasein* of which is judged by the person to be desirable. Note that this object is a *subjective* object. One might loosely describe it as "a taste for something" or as "the flavor of an action."

Pulling the parts of this together, the series of structuring transformations effected through motoregulatory expression takes the Organized Being from an initial state of *Existenz* through a series of intermediate states that at each transforming step are regulated by acts of enforcement to move from the initial condition to a final condition presented as an anticipated value object. The Organized Being's gauging of this trajectory of states is judged according to diminishing degrees of intensive magnitude in the feelings of *Lust per se* in affective perception. But structuring is a conservative process and desires as such are not conserved in the manifold of Desires (because this manifold is not a structure). What, then, is conserved during this transformative process? The answer to this in mental physics is quite straightforward. Conservation in this context refers to *the persistence of interest* from moment to moment during the dynamical transformations.

These dynamic transformations are *optimizing* transformations following a trajectory of optimization defined by a persistent subjective interest the person presents as his tastes. The perceptions of desire and value change continuously from moment to moment but the anticipation of interest persists throughout this. Mathematically, optimization is a process of finding the best possible solution to a problem [Clapham (1996)]. Generally, optimization is the activity of perfecting some object by minimizing the degree of difference in intensive magnitude between the state of the object as determined by a measure of its perfection and a standard of perfection. A human being is a Self-optimizing agent with regard to the state of his *Personfähigkeit*. The fact that human beings are satisficing problem solvers does not conflict with these explanations of optimization because "best" *in the judgment of practical Reason* means "most expeditious for achieving and maintaining a state of equilibrium." Practical Reason is an *impatient* process.

These considerations, taken together and synthetically fused in our reasoning, brings us to the deduction of the metaphysical axiom. I call MA<sub>Δ</sub> the **axiom of optimization of Personfähigkeit**. It states: *Progress in perfecting Personfähigkeit is achieved by means of a series of transforming learner activities regulated by a persistent sense of interest.*

## § 5.2 The Functions of Social Tangible Education

The Pertinence relevant to tangible social education is tranquility. In the specifying context of the personal dimension of the learner the idea of tranquility is not hard to grasp. The learner is or

is to become a citizen of the Community and is expected to pledge himself to the terms of its social contract, with it being understood by the Community as a whole that personal achievement a state of tranquility is among *his* conditions for making this pledge and committing himself to social Obligations and Duties. It is less easy to immediately grasp the Pertinence of tranquility in the context of the social dimension.

It is very natural to presume that tranquility in Society means the enjoyment of tranquility by all of its members. After all, what greater degree of perfection of tranquility could there be than total perpetual tranquility enjoyed by every member of a Community? However, this presumption is, Critically, quite incorrect. In the first place, such a vision of perfection of tranquility is merely an Ideal. Perfection is not a destination one expects to arrive at but a direction in which one travels. In the second place, the Community (and its Society) is an organized being but it is not an Organized Being. It has no common "state of mind" in which one can say that the quality of tranquility subsists. To equate tranquility of all the members of a Community with tranquility of the corporate person of that civil Community is to equate by mathematical fiat, not by any objectively valid epistemological Reality. The fiat is a reification of the idea even though it isn't a bad description of heaven in religious theology.

Progress in corporate *Personfähigkeit* requires occasional changes and innovations be brought forward and introduced in Society. This is not done by tranquil people. It is only done by people who are not sufficiently satisfied with the way things are and desire to change something. A perfectly tranquil Society in the context discussed above could be nothing else than an arrested Society. Nevertheless, Order in Society requires that lack of tranquility among some members of the Community must not develop to the point where cooperation breaks down from competition between the differing special interests of individuals and mini-Communities. The functions of tangible social education are therefore tasked with fostering the capacity for Progress in Society under the constraint that Order must not be sacrificed in its pursuit.

The transcendental schematic  $\Sigma 3_{\Delta}$  is expedience *per liberum*. In the personal dimension of the learner this is the capacity of an Organized Being to elevate sensuous expedience to a principle of objective happiness, i.e., the capacity of the individual to act on principles rather than from sensuous inclinations. The Critical *Realerklärung* of "free will" is found to subsist practically in the *Dasein* of this capacity in *H. sapiens*. The civil Community, on the other hand, is an organized being but not an Organized Being. Its corporate person has no sensuous expedience *per se* because it has no sensations. Deduction of the functions of tangible social education requires us to grasp some homologue in Society filling the role in civil Community that is played by the practical function of sensation in the individual human being.

Making this deduction requires an inference of analogy. In an Organized Being sense is the capacity to present sensations. Sensation (*sensatio*) is matter of perception. We must find a homologue for this that pertains to civil Community. Now, "sensation" derives from the late Latin word *sensatio*, which in turn derives from the Latin verb forms *sentio*, *sentire*. *Sentio* has nine different definitions listed in the *Oxford Latin Dictionary* [Glare (1982)]. Of these, there are two that are pertinent to the context of our application here. The first is: to have experience, meet with, undergo. The second is: to be affected by, feel the influence of. Now we ask: what in the civil Community exhibits these two qualities? The answer is obvious. It is the individual person because it is he who has experiences, meets with, undergoes, is affected by, feels the influence of. The individual is the homologue of a sensation. The homologous capacity to "present sensation" follows from this as *interpersonal communication events* in social intercourse. From here it is but a short step to find the social homologue of expedience *per liberum*: the capacity through interpersonal communications to produce cooperation among individuals in the civil Community. The corporate principle of acting subsists in cooperation. This is the Critical context of  $\Sigma 3_{\Delta}$  in the case of the corporate person, i.e., in the social dimension of the learner.

The synthesis

$$\Sigma 3_{\Delta} + MA_{\Delta} \xrightarrow{sc(j)} f_{\Delta,j}$$

is now quite straightforward. The function of tangible social education in the personal dimension of the learner is: *inclusion in the curriculum of group exercises in which the learners have divers pre-selected skill roles to practice and must cooperate to achieve a group objective*. I call  $f_{\Delta,1}$  the **cooperation of skill enterprises** function. The group constitutes a predefined mini-Community (defined by the teacher in designing the lesson) and the learners each practice specific skills they must integrate with those of the other learners in order to achieve personal satisfactions through the cooperative activities of the group.

The function of tangible social education in the social dimension of the learner is: *inclusion in the curriculum of group exercises in which the group is presented with an objective to be achieved and the learners must determine for themselves their own organization and plan for achieving it*. I call  $f_{\Delta,2}$  the **cooperation of social Enterprise** function. Here the object of the lesson is the skill and value of bringing about cooperation with others.

While the learners are undertaking these exercises the role of the teacher is regulatory. The teacher must take leader's actions: (1) to see to it that every learner participates meaningfully in the exercise; and (2) to hinder the emergence of discord and *internecine* competition among the learners. Here I stress that it is *only* internecine competition that is to be hindered. Competition that is productive for achieving group success and remains within civic and civil limitations set by the Community's social contract *must be permitted to occur*. Cooperation arises out of competition in the embedding field dynamics of any Society [Grossberg (1978, 1980)], but will not do so if that competition is internecine. In athletics this is what is meant by "good sportsmanship."

For  $f_{\Delta,1}$  each learner can be allowed to select his role from a list of options (prepared by the teacher as part of the design of the exercise) according to his own developing interests (and, of course, subject to the number of individuals needed in these roles; *all* roles on list must be filled). This is where the personal factor of development is introduced into the lesson. For  $f_{\Delta,2}$  the learners *must not be given any preset list of skill categories or specific individual task definitions* because the object of the lesson is *to develop a mini-Community* around some common purpose. Here again the role of the teacher during the lesson can only be a regulatory one, taking leader's actions to intervene *only* when the learners "get stuck" and the resulting tension threatens to build to a level of frustration. As Lao Tsu said, "When the best leader's work is done the people say, 'We did it ourselves'." The teacher's job in tangible social education during these lessons is to regulate, promote, and develop civic and civil leadership dynamics among the learners [Wells (2010)].

## § 6. References

- Clapham, Christopher (1996), *Oxford Concise Dictionary of Mathematics*, 2nd edition, Oxford, UK: the Oxford University Press.
- Dewey, John (1916), *Democracy and Education*, NY: Barnes and Noble Books, 2005.
- Farrand, Max (1911), *The Records of the Federal Convention of 1787*, revised edition in four volumes, New Haven, CT: Yale University Press, 1966.
- Glare, P.G.W. (1982), *Oxford Latin Dictionary*, Combined Edition, Oxford, UK: Oxford University Press.
- Grossberg (1978), "Competition, decision, and consensus," *Journal of Mathematical Analysis and*

- Applications*, **66** (1978), 470-493.
- Grossberg, Stephen (1980), "Biological competition: Decision rules, pattern formation, and oscillations," *Proceedings of the National Academy of Science*, **77** (1980), 2338-2342.
- Kant, Immanuel (1785a), *Moral Mrogonovius II*, in *Kant's gesammelte Schriften, Band XXIX*, pp. 593-642, Berlin: Walter de Gruyter & Co., 1980.
- Kant, Immanuel (1785b), *Grundlegung zur Metaphysik der Sitten*, in *Kant's gesammelte Schriften, Band IV*, pp. 385-463, Berlin: Druck und Verlag von Georg Reimer, 1911.
- Kant, Immanuel (1787), *Kritik der reinen Vernunft*, 2nd ed., in *Kant's gesammelte Schriften, Band III*, Berlin: Druck und Verlag von Georg Reimer, 1911.
- Kant, Immanuel (1788), *Kritik der praktischen Vernunft*, in *Kant's gesammelte Schriften, Band V*, Berlin: Druck und Verlag von Georg Reimer, 1913.
- Kant, Immanuel (1803), *Pädagogik*, in *Kant's gesammelte Schriften, Band IX*, Friedrich Theodor Rink (ed.), Berlin: Walter de Gruyter & Co., 1923, pp. 437-499.
- Poincaré, Henri (1914), *Science and Method*, Bristol, UK: Thoemmes Press, 1996.
- Turnbull, Colin M. (1961), *The Forest People*, NY: Simon & Schuster, 1968.
- Wells, Richard B. (2009), *The Principles of Mental Physics*, available free of charge from the author's web site.
- Wells, Richard B. (2010), *Leadership*, available free of charge from the author's web site.
- Wells, Richard B. (2012), *The Idea of the Social Contract*, to be published. Contact the author.