Chapter 9 The Applied Metaphysic of Persuasion Education

§ 1. Acroams and Specifying Concept of Persuasion Education

The specifying concept of persuasion education emerges in Critique more or less directly from the acroams that govern its applied metaphysic. The portable concept for this part of the metaphysic is persuasive power in *Personfähigkeit*. In the personal dimension of the learner, this subsists in the learner's ability to sufficiently communicate his thoughts and ideas to other persons and thereby gain their consent, agreement, or cooperation. With regard to the social dimension of the learner, Society's interest in providing his instructional education is teleologically grounded in its corporate persuasive power, which members of the Community assess by their judgments of degrees of accord and discord within the civil Community. Mathematically, this is modeled in an embedding field network by: (1) positive measures of the degree of activity in leadership events productive of the generation of social-chemistry bonding relationships; (2) positive measures of the degree of activity in leadership events productive of the annihilation of antibonding relationships; (3) negative measures of the degree of activity in leadership events productive of the generation of antibonding relationships; and (4) negative measures of the degree of activity in leadership events productive of the annihilation of bonding relationships (chapter 2, §5).

By the phrase *leadership events* I mean actions in interpersonal communication events by which one or more individuals (followers) self-determine their actions in consequence of a provocation of tension from the actions of another person (the leader-of-the-moment). Recall that leadership is a social dynamic and that who is acting as leader and who is acting as follower changes from moment to moment [Wells (2010)]. The term "leader" must not be mistaken to mean "authority figure" and the term "follower" must not be mistaken to imply "underlings," "subordinates," "employees," "the ruled subjects of a government" or any other such traditional idea of serfdom that has been passed down to us by experiences with antisocial governance forms of monarchy/oligarchy. Antisocial governance dominates the historical record and characterizes almost all present day governments of nations, states and larger cities, political parties, and most commercial entities and public social institutions of the world.

Persuasion education occupies the Modality division in the 2LAR of the applied metaphysic. This means that its acroams are defined by the Modality perspectives in the transcendental Ideas. Modality in Critical epistemology always has the peculiarity that its functions do not pertain to judgments of objects but, rather, to determinations of relationships between the individual's judgments about objects and his own state of *Existenz*. This is to say they pertain to the manner in which the individual *holds* his judgments to be true or binding. The major acroam is the theological Idea of Modality in the practical Standpoint: *coherence of all actions with the Ideal of summum bonum*.

Summum bonum, you will recall, is the Ideal of a perfect realization of the conditions demanded under regulation by the categorical imperative of pure practical Reason. A state of equilibrium is a realization of these conditions; a perfect realization, if it were a possible Object of real experience, would be a state of equilibrium that is *absolute* and *absolutely robust*. Organized Beings never actually achieve this, and so the practical implication of the acroam reaches no farther than the most complete empirical state of equilibrium that the person knows to be achievable. Coherence with the Ideal of *summum bonum* means that the Organized Being will never determine itself to take any action it *knows* to be in conflict with its manifold of rules, will react with *Unlust* in any situation it *discovers* to be in conflict with this manifold, and will react with *Lust* in any situation where it believes it knows how to achieve equilibrium without its appetites coming into conflict with the manifold of rules. This character of human behavior is the empirical ground for positing real *Dasein* to a spontaneous capacity of mind Critical metaphysics

calls *Willkürsvermögen*, power of choice. Kant characterized this as "mixed choice" because its determination is: (1) partly sensuous and empirical in its transcendental place; and (2) partly intelligible and rational, the transcendental place here being vested in the *homo noumenal* character of being-a-human-being. Within this context, Progress in persuasive *Personfähigkeit* is Progress in perfecting a person's *Willkürsvermögen*.

A peculiarity of Modality in instructional education is seen in the arrangement of rational, empirical, and social education *membra* in the metaphysical 2LAR. Figure 9.1 illustrates this peculiarity. In the other three (objective) headings, the ordering of the *membra* from top to bottom runs rational (t) then empirical (e) then social (Δ). For the Modality position of persuasion education, however, the ordering is social (Δ) then empirical (e) then rational (t). This is an immediate consequence of the logical functions of judgment understanding the idea of public instructional education that were discussed earlier in chapter 5 §4. It is, in other words, a direct consequence of transcendental Logic in Critique of the idea's portable concepts.

The aforementioned relationship between the major acroam and the psychic ideas of *Lust* and *Unlust* implies as well the relationship between persuasion education and the 2LAR of animating principles of *psyche*. Modality in the adaptive psyche is noetic organization, the noetic structure of adaptation in *nous-soma* reciprocity. Its animating principle is: *equilibration is the activity leading to closure of the cycle of affective interaction in a state of equilibrium*. The cycle of affective interaction has not been discussed yet in this treatise, but it is not difficult to grasp.
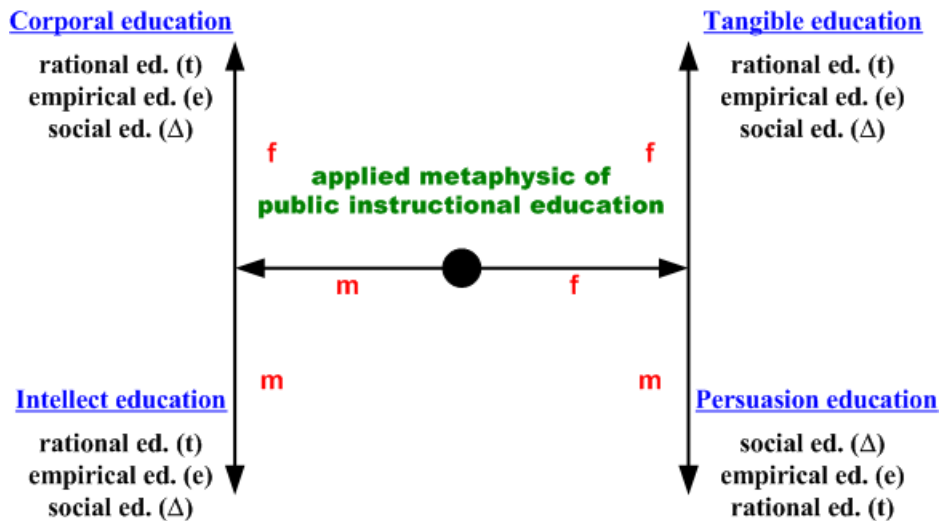

Figure 9.1: 2LAR structure of the applied metaphysic of public instructional education.
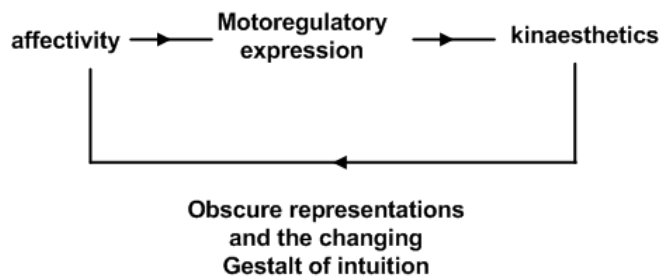

Figure 9.2: The cycle of affective interaction in *nous-soma* reciprocity.

Figure 9.2 illustrates the cycle. The cycle subsists in the "outer feedback loop" running from sensibility and reflective judgment in *nous* through motoregulatory expression in *psyche*, to *soma*, and back to sensibility again through *psyche's* capacity of receptivity. All of an Organized Being's cognitive knowledge of experience is built in the "foundry" of the cycle of affective interaction. Put another way, a person does not experience the world by passive observation but, instead, by *interacting* with it *affectively*. Dewey was correct in this regard. Dewey tended to attribute this phenomenon to an objectively invalid set of premises that turn-of-the-century positivists pinned on Darwinism but a more correct line of reasoning was provided by Santayana:

> At the threshold of reason there is a kind of choice. Not all impressions contribute equally to the new growth; many, in fact, which were formerly equal in rank to the best now grow obscure. Attention ignores them in its haste to arrive at what is significant of something more. . . . The first principles of logic are like the senses, few but arbitrary. They might have been quite different and yet produced, by a now unthinkable method, a language no less significant than the one we speak. . . . So the forms of perceptions and the categories of thought, which a grammarian's philosophy might think primordial necessities, are no less casual than words or their syntactical order. Why, we may ask, did these forms assert themselves here? What principles of selection guide mental growth?
>
> To give a logical ground for such a selection is evidently impossible, since it is logic itself that is to be accounted for. A natural ground is, in strictness, also irrelevant since natural connections, where thought has not reduced them to a sort of equivalence and necessity, are mere data and juxtaposition. Yet it is not necessary to leave the question altogether unanswered. By using our senses we may discover, not indeed why each sense has its specific quality or exists at all, but what are its organs and occasions. In like manner we may . . . come to understand [reasoning's] conditions. When consciousness awakes the body has, as we long afterwards discover, a definite organization. Without guidance from reflection bodily processes have been going on and most precise affinities and reactions have been set up between its organs and the surrounding objects.
>
> On these affinities and reactions sense and intellect are grafted. The plants are of different nature, yet growing together they bear excellent fruit. It is as the organs receive appropriate stimulations that attention is riveted on definite sensations. It is as the system exercises its natural activities that passion, will, and meditation possess the mind. No syllogism is needed to persuade us to eat, no prophecy of happiness to teach us to love. On the contrary, the living organism, caught in the act, informs us how to reason and what to enjoy. The soul adopts the body's aims; from the body and its instincts she draws a first hint of the right means to those accepted purposes. Thus reason enters into partnership with the world and begins to be respected there; which it would never be if it were not expressive of the same mechanical forces that are to preside over events and render them fortunate or unfortunate for human interests. Reason is significant in action only because it has begun by taking, so to speak, the body's side; that sympathetic bias enables her to distinguish events pertinent to the chosen interests, to compare impulse with satisfaction, and, by representing a new and circular current in the system, to preside over the formation of better habits, habits expressing more instincts at once and responding to more opportunities. [Santayana (1905), pp. 60-63]

Santayana was much more a poet than a natural scientist, but nonetheless he frequently was able to better grasp the epistemological significance inherent in the Copernican hypothesis than were more physical-nature oriented thinkers like Kant and Piaget. As modern American colloquialism would put it, "the man was in better touch with his feelings."

Turning now to the minor acroams, μ_Δ is the physical Idea of practical Modality and occupies the logical position of the problematic function, taking with it the division of social persuasion education in the 2LAR. The problematic acroam states: *those acts that cannot be validated under the conditions of the manifold of rules are impossible*. This does not mean that the person cannot

succeed by undertaking such actions. It means *he won't even try to undertake them*. It will never "occur to him" to take such an action. The manifold of rules places restrictions on the type of actions that can be approved in appetition or expressed through ratio-expression *including contemplation of the action*. A desiration presented in reflective judgment that conflicts with the practical manifold of rules is summarily vetoed. If a feeling of tension accompanied the representation of desiration, that feeling of tension is left unresolved – which as we shall soon see is not a state practical Reason is going to tolerate.

Although this stated character of the acroam is negative, the acroam nonetheless has positive implications for behavior. Specifically, the regulative principle of the acroam regulates behaviors in which are, empirically, the ground where eventual cognition of *possibilities* takes root. This is not "possibility" in the stale context of formal modal logic. Rather, it has to do with the nature of possibility as a mental Object and constituent in the development of intelligence. A particularly useful way of looking at this emerged from Piaget's research findings:

> But although the system of presentative and structural schemes is characterized by intermittent or lasting states of equilibrium, the nature of the possible that is accessed via the procedural system is one of constant mobility, further strengthened by generalizations once a specific result is obtained. What differentiates the possible from the necessary and from the [actual] is thus the fact that it is directly implicated in the process of reequilibration and that it can reveal a subject's potential prior to actual performance. These possibilities, however, are not predetermined but are being developed (constituted) in novel ways each time subjects encounter a resistance or come to perceive gaps [at each positive or negative disturbance].
>
> Within the process of equilibration, these potentialities, which generate procedures and possibilities, are in essence part of the way accommodation functions. Assimilative schemes – that is, presentative ones – tend to accept input, but this provides only one of the possible extensions of their content. On the other hand, on many occasions they need to accommodate to new situations. The potentialities we talked about are in fact the expressions, varying from one level to the next, of the capacity for accommodation: the possible results from the accommodative activity seeking actualization, which in turn depends on both the flexibility and the stability of schemes and the degree of resistance offered by reality[1]. Up to now, we had limited our descriptions of this equilibration process to those aspects that are self-regulatory. In the present volume, we add to this an account of the formation of procedures and the availability of new possibilities. These are two complementary aspects of a single model, for two reasons. One is that self-regulations – improving and evaluating a structure – are procedures only and not presentative schemes; they are determined by the possible and its mechanisms. Second, the generation of possibilities remains throughout subordinated to the laws of equilibration, since it is equilibration that brings about reequilibration and leads to new differentiations and their equilibration, which then become integrated into new systems. [Piaget (1981), pp. 6-7]

Minor acroam μ_e is the psychological Idea of practical Modality: *The regulation of Reason regulates for unconditioned unity in the apperception of coherence in the Ideal of* summum bonum. Here apperception means *empirical* apperception – Self-consciousness in the manifold in subjective time. Empirical consciousness is the phenomenon of experiencing perceptions as intuitions and affective perceptions with knowledge of the *Existenz* of objects. Apperception in an

---

[1] One of Piaget's own lingering ontology-centered biases shows in his wording here. Instead of saying "offered by reality" he should have said "discovered in experience." This seems to me to be a fine occasion for repeating a warning I mentioned previously: The greatest difficulty you will have in understanding the Critical Philosophy and mental physics is going to be overcoming your own ontology-centered biases and habits of thinking. I still slip up here now and again, although anymore I seem to be getting better at more often landing on my feet instead of my posterior when I do this. That is educational Self-Progress.

empirical context is a species of empirical consciousness restricted to the object delimited in perception (namely, the Self). *Unity* in consciousness means syncretism in perception. Regulation of *unconditioned* unity in consciousness means in practical effect that the person is irresistibly driven to seek total equilibrium in perception insofar as he is Self-conscious of his feelings of *Lust* and *Unlust* being in balance – which is the same as saying that the feeling of *Lust per se* is extinguished (negated) in affective perception.

The epistemologically equivalent of saying this from the judicial Standpoint is to say a human being feels compelled to seek coherence in Meaning in the sum-total of his real experience. The term Meaning refers to the synthesis in continuity joining Modality in reflective judgment with Modality in *psyche*. The latter is noetic organization in adaptive *psyche* (figure 9.3). M̲eaning means coherence in the context of life. The synthesis in continuity of Meaning is the organizing function for activities serving the categorical imperative of practical Reason. Objectively, the synthesis of Meaning is a synthesis of beliefs (unquestioned holding-to-be-true-and-binding). Subjectively, it is the function of general coherence in the context of life.

This synthesis produces meaning implications. As figure 9.3 illustrates, there are two poles of judgment in reflective judgment participating in this synthesis. Extensive implication is a functional for a form of composition in sensibility *as* composing acts from which judgmentation then proceeds. It pertains to the structuring of congruence, the making of abstractions (an attention-focusing function in empirical consciousness), and an orienting integration of reflective judgment and noetic organization that makes a union of thinking and acting [Wells (2009), chap. 7 §3.2.4.1]. Intensive implication is a functional for matter of composition in sensibility. Specifically, it is the functional pertaining to the representation of belief (unquestioned holding-to-be-binding), unbelief (unquestioned holding-to-false-and-anti-binding), and non-belief (unquestioned holding-to-be-contingently-true-and-binding), all on the basis of subjectively sufficient reasons (conditions). *Unquestioned* means *without consciousness of doubt*. The logical character of judgmentation in this synthesis is assertoric [*ibid*., chap. 7 §3.2.4.2].
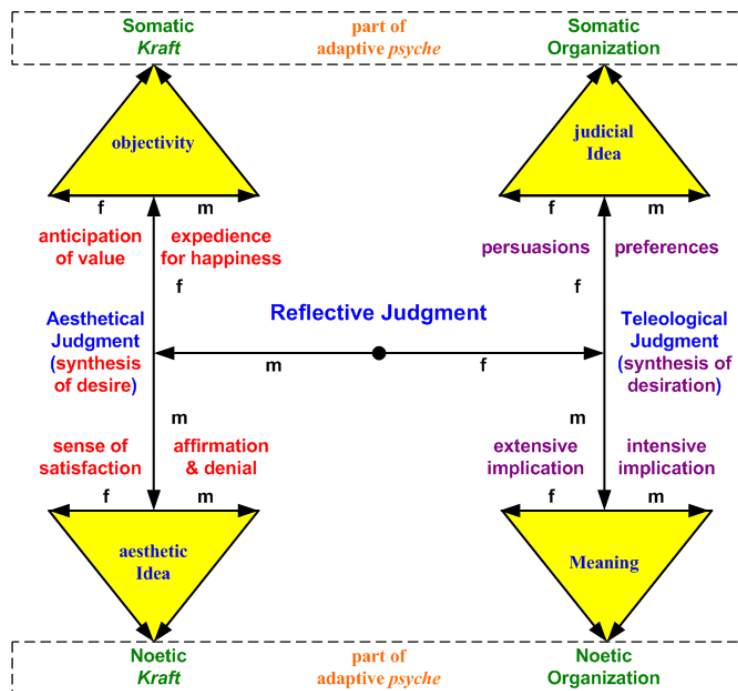

Figure 9.3: 3LAR-LSR organization of the synthesis in continuity between *nous* and *psyche*.

The last minor acroam, μ_t, is the cosmological Idea of practical Modality. When I first presented the statement of this acroam in Wells (2006), chapter 20 §4.4, I thought at the time that my wording of the acroam was quite clearly distinct – a subjective judgment of taste on my part, as it turns out. In the years since then, there has been no other statement of a transcendental Idea that has provoked more confusion and puzzlement. I have recently come to the conclusion that I made an author's error in 2006 by trying to make the statement distinct in detail without first making it clear in context[2]. I here offer an attempt to set this right, with apologies to those who might have suffered headaches provoked by my original explanation. Sorry about that.

The context of the Idea is: *practical Reason regulates for consciousness of the Organized Being's* Existenz *in a state of equilibrium*. In practical effect, Reason will regulate for continuation of ratio-expression and execution of the motivational dynamic until a conscious satisfaction of a state of equilibrium is achieved. *As soon as it is*, practical Reason will "settle for" *whatever satisfies this condition first*. Pure Reason – a cognitively dark and affectively cold mental process – doesn't "care" what means are used to accomplish this. "Just do it" could be its motto. Seen in this perspective, the acroam can be named the **acroam of satisficing Reason**. I have stated previously, several times, that human beings are satisficing problem solvers. This acroam is why.

As for the distinct details of "how" this regulatory process is carried out, I haven't come up with any improvement over my original explanation: *Absolute completeness of the changeable in appearances is sought through apperception of* Existenz *in relationship to the transcendental Ideal of* summum bonum. I grant (now) that this is quite a mouthful, so let's break it down. The phrase "absolute completeness" in this context practically means "cannot be improved upon." Human beings do not possess any *a priori* concept of what could constitute absolutely (and therefore lacking nothing, hence complete) robust and universal coherence with *summum bonum*. The best that human Reason can do is mark a state of equilibrium as *satisfying* the Ideal. This is what occurs in perception when the Organized Being is Self-conscious of judicial happiness, i.e., feels no imbalance between the feelings of *Lust* and the feelings of *Unlust*. "Seeking" this condition is carried out through evoking the process of judgmentation and its motivational dynamic.

Looking the acroams over collectively, I think it is not difficult to spot the common theme running through all of them (albeit implicitly in the case of the physical Idea). The common theme running throughout is empirical consciousness (empirical apperception). This hands us the **specifying concept of persuasion education:** *the learner pursues equilibration, to the full extent his liberty of action is unconstrained by the manifold of rules, until he achieves empirical consciousness of a satisfaction of a state of equilibrium*. I call this concept **equilibrium pursuit**.

Kant once remarked that in transcendental deduction of principles there is only one correct pathway to the correct deduction. Deduction of the cosmological acroam in Wells (2006) was in accord with this principle. Only the way I used language to express it was defective. Restating the acroam using this two-step approach adds nothing new to the acroam or to its deduction. It just does a better job (I think) of explaining the outcome. In this context, I find it interesting to compare the restatement with something Feynman said in regard to his discovery of his new formulation of quantum electrodynamics. Feynman wrote,

> The formulation [he was presenting in his paper] is mathematically equivalent to the more usual formulations. There are, therefore, no fundamentally new results. However, there is a pleasure in recognizing old things from a new point of view. Also, there are problems for which the new point of view offers a distinct advantage. [Feynman (1948)]

---

[2] This is another personal example of Progress in educational Self-development.

§ 2. The Metaphysical Axioms of Persuasion Education

Elsewhere, in my other work applying mental physics to various problems in science, I have often felt that Modality axioms and functions seem to constitute the most difficult metaphysical aspect of the problem. I am fairly confident part of this is due to the fact that the methodology I am laying out in this treatise was still being developed at the time of these previous applications. On the other hand, I have often found Modality questions to present some rather special issues. To whatever extent this might be so in general, persuasion education seems to be the exception. The metaphysical axioms have deductions that appear to be quite straightforward if one bears in mind two things: (1) the specifying concept of persuasion education forewarns us that the learner is going to do whatever he thinks is necessary to establish satisfaction of equilibrium, whether or not his actions pertain or do not pertain to the educational lessons the agency of instructional education is tasked with teaching him; and (2) the major acroam tells us that persuasion education is tasked with orienting the learner to an habitual disposition to bring his actions into coherence with an Ideal of what is best for the Community *combined with* whatever the learner understands as being best for himself. The latter might be labeled an essential good in the context that the learner is never going to *consciously* act contrary to his own Self-Obligations. The former might be labeled a higher good because the essential goods of members are coordinated under a concept of civil Community. This is a more abstract, therefore higher, concept of a common good.

The history of philosophy presents a saga of conflicting differences of opinions among philosophers regarding the question "What is good?" Socrates, as he is presented in the writings of Plato and Xenophon, could be the poster boy for how irresolvable this question historically has seemed to be. To the Critical analyst this is not particularly surprising. The philosophical systems within which the question was debated were all ontology-centered, thus failed to be able to answer the question because these systems attempt to remove the notion of "good" from its natural place – the *homo noumenal* character of the individual human being – and transfer it to some specious elsewhere. Even Kant managed to do this when his theocentric bias led him to make the mistake of equating the categorical imperative of pure practical Reason with "the moral law within me." I am quite certain Kant had a moral law within himself, and equally certain it was not the same as mine or as yours – which it would necessarily have to be *if* the categorical imperative really was a universal *moral* law. However, it is not. Kant's error led him to propose specific moral maxims that, however attractive or agreeable many people find them to be, were exactly what Santayana called them, "tenets of the most abstract Protestantism" [Santayana (1905), pp. 96-97]. I think it is pretty safe to say King Friedrich Wilhelm II's threat to throw Kant into prison if he didn't keep his mouth shut about religion fairly conclusively establishes the non-universality of Kant's moral theory [Friedrich Wilhelm II (1794), 11: 525].

Deontological theory, shorn of Kant's error, provides resolution of the issue. Critical meta-physics defines **good** as *the Object of practical Reason by which an object is represented as a necessary object of appetitive power*. Bear in mind that this sort of practical judgment is rendered by the process of practical judgment and is based on a person's empirically-constructed manifold of rules. Similarly, **evil** is *the Object of practical Reason by which an object is represented as a negative and necessary object of appetitive power* (an "object of detestation"). Whether an object is practically judged to be good, evil or indifferent by a particular individual depends on what manifold of rules he has constructed through experience. The real definitions of good and evil, however, are firmly bound to the process of determining the person's appetites.

However, the very fact that "good" and "evil" are practically definable through experience also means that a Society can pre-orient, to a degree, what a person will judge to be *a* good or *an* evil according to a civil convention. Societies do this all the time to various degrees of effectiveness. Their success in this is challenged by the presence of mini-Communities within the Community.

Now, what in the world does any of this have to do with persuasion education? I think it is safe to say the connection is likely to not be immediately evident. I'd also be willing to make a small wager that at least some readers will form an incorrect preconception of where this theory is going. The connection and the destination will become clearer as we deal with the details.

The metaphysical axiom MA$_\Delta$ of social persuasion education subsumes the physical Idea (acts that cannot be validated under the conditions of the manifold of rules are impossible) under the major acroam (coherence of all actions with the Ideal of *summum bonum*). Placed under the specifying concept and in the context of the portable concept of persuasion education, this axiom is saying *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 follows from the explanation of possibilities I discussed in chapter 7. I call this the **axiom of procedures**. To be able to make good choices requires that the learner has options to choose *from*, and the axiom pertains to determinables in the learner's suite of options from which he can choose.

The metaphysical axiom MA$_e$ of empirical persuasion education subsumes the psychological Idea (Reason regulates for unconditioned unity in the apperception of coherence in the Ideal of *summum bonum*) under the major acroam. The person's drive to achieve a conscious state of equilibrium is conditioned by the requirement that all his *actions* cohere with his Ideal. The minor acroam is a principle for searching for meanings and all meanings are ultimately practical and subsist in actions. This is, epistemologically, why embodiment of a meaning gets called a *means*. The condition of the major acroam requires this means to cohere with *summum bonum*, which is the same as saying the means has to be a *good* means. This, then, is the axiom: *the learner will always seek means he holds-to-be good means*. I call this the **axiom of good means**. The task of education here is fairly obvious I think: it is to educate in regard to what he will *regard* as good in a means. Expressed in popular language, this is "education about how to do things right."

Metaphysical axiom MA$_t$ of rational persuasion education subsumes the cosmological Idea (Reason regulates for apperception of *absolute completeness* – perfection – in the person's state of *Existenz* in equilibrium) under coherence of all actions with his Ideal of *summum bonum*. We place this under the specifying concept and within the context of the portable concept of persuasion education. Here the major acroam places a qualifying condition on the kind of apperception that the learner is to be conditioned to regard as satisfactory. Although the manifold of rules contains no object concepts and only presents a structure of rules, this structure is linked, through reflective judgments, with the manifold of concepts. An Ideal is an Object by which the person understands an Idea not merely *in concreto* but as something determinable through the Idea alone. The cosmological acroam specifies this to be apperception of a perfected equilibrium. But this means no less than that the person uses all his knowledge to make his equilibrium more perfect and so the axiom states *persuasion education is education for Progress in acting on principles*. An Idea (as opposed to an idea) is ultimately understood, with objective validity, as an idea of a regulating principle. I therefore call this the **axiom of principled satisfactions**. The axiom does no more than state: learners can and must be *cultivated* to act from a basis in general principles rather than merely on impulse and inclination.

§ 3. The Transcendental Schematics of Persuasion Education

The three functions of Modality in appetitive power are wish (Δ), choice (e), and will (t) [Wells (2009), chap. 9 §1.2]. **Wish** is *an act of appetitive power responding to a need of Reason without prior knowledge of what will satisfy this need*. Logically it is a problematic function. A proposition ⟨*x* is *y*⟩ carrying problematic Modality is fully expressed ⟨I think *x* might-be *y* (?)⟩. A **need** (*Bedürfniß*) is something that is subjectively necessary for the satisfaction of some end or purpose, and for practical Reason this end is always equilibrium.
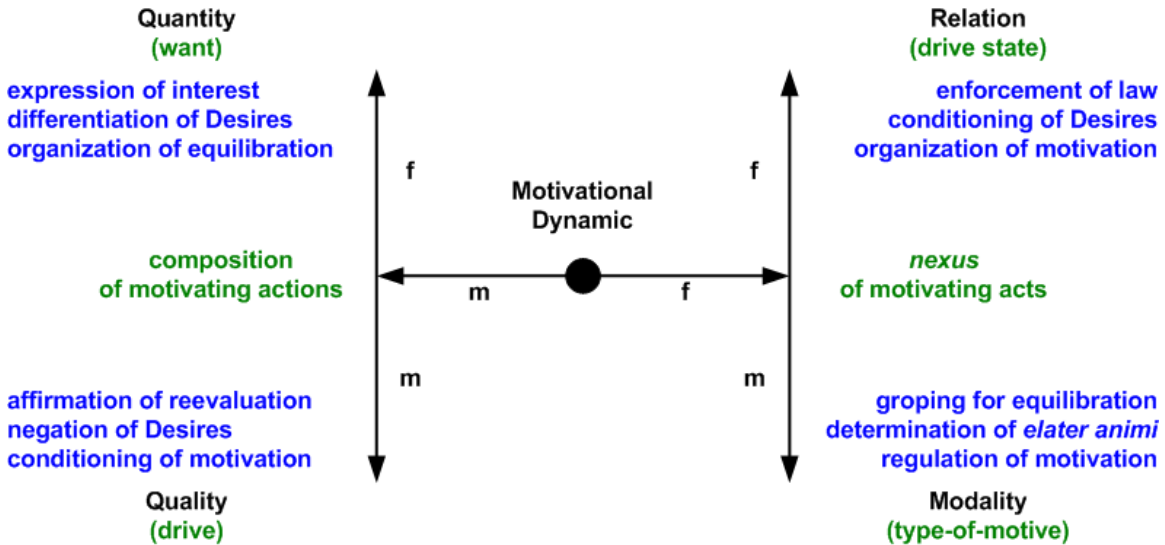
Figure 9.4: 2LAR of the motivational dynamic. The *momenta* shown in the 2LAR are orienting and regulative functions of motivation *per se* (accommodation of perception). There are three pure modes of synthesis involved in motivation organization and regulation. These are: (1) a **reevaluating** synthesis for unity of consciousness {expression of interest, affirmation of reevaluation, enforcement of law, groping for equilibrium}; (2) a **reconciling** synthesis for congruence between the manifold of Desires and the manifold of rules {differentiation of Desires, negation of Desires, conditioning of Desires, determination of *elater animi*}; and (3) a ***Lust*-organizing** synthesis for continuity in Meaning {organization of equilibration, conditioning of motivation, organization of motivation, regulation of motivation}. When mixed modes of *dynamis* in judgmentation are considered these functions produce $3^4 = 81$ energetics of motivation.

However, for the Modality of wish the Organized Being does not know what action will satisfy this need. The Modality of wish in appetition does not imply an anticipated counteraction to a disturbance but, rather, denotes the initiation of a (possibly lengthy) kinetic of *reevaluation* in judgmentation. Put another way, wish in appetition "touches off" (evokes) a series of acts of ratio-expression that constitute a type-of-motive in the motivational dynamic called *groping for equilibrium* (figure 9.4). The Modality of wish persists in appetition throughout the process of adaptation until a state of equilibrium is achieved. The first step in this process is a pure mode of motivation synthesis called the ***reevaluating synthesis*** mode (refer to the figure caption in figure 9.4). Other, and usually mixed-mode, steps follow afterwards and constitute the making of a practical episyllogism of judgmentation.

In adults and older children, the groping action involves the application of heuristic procedural schemes as the person attempts to meet his practical need. However, because these schemes must themselves be developed (they are not innate), the core characteristics of groping actions are built up very early in childhood and can be observed during what Piaget termed Stage IV in the development of sensorimotor intelligence [Piaget (1952), pp. 210-262]. It is too much of a digression into a topic that properly belongs to a natural science of empirical psychology to go into the details of this process here, but a few of Piaget's remarks concerning the origins of this sort of intelligent adaptation behavior are pertinent to the discussion. Piaget reported that in Stage IV development,

> The essential novelty of the situation which we shall now study is that: the child no longer merely tries to repeat or prolong an effect which he has discovered or observed by chance; he pursues an end not immediately attainable and tries to reach it by different intermediate "means." As far as these means are concerned it is true that familiar schemes are always involved and not new means; but, granted that the subject no longer limits him-

self to reproducing that which he has just done but pursues a distant goal, he adapts the familiar schemes to the particulars of this situation and so raises it to the level of a true "means." With regard to the "purpose" it goes without saying that the child does not decide about it in advance in the sense that we manage, through reflection, to impose a plan on our conduct independently of any external suggestion. It is always under the pressure of perceived facts, or by prolonging a recent reaction, that the child acts. His acts are still, therefore, in this sense conservative and have no function other than the use of his earlier schemes. That conforms, moreover, to the fundamental law of assimilation and we do not see how it could be otherwise. But – and it is in this sense that the goal is set in advance and that the situation is "new" – obstacles intervene between the act and its results. Where the child wishes to grasp, to swing, to strike, etc. (as many ends as are consistent with primary and secondary circular reactions), circumstances erect barriers he must clear. Hence it is a question of keeping in mind the "goal" to be reached and of trying different known means of surmounting the difficulty. The act of intelligence properly so called develops in that way, to the extent that it is differentiation of the secondary circular reaction and involves to a higher degree the "reversal" in the consciousness which constitutes the intention and of which we have spoken before. [Piaget (1952), pp. 212-213]

Piaget's science is limited to empirically characterizing the behavioral facts observable by the psychologist. It could not, and does not, get to "the root of the matter" of the causal mechanism necessary for the possibility of the behaviors he observed and reported. That level of explanation requires mental physics. Hence, when Piaget wrote "the child wishes to grasp" etc. he was using the word "wish" in its common dictionary connotation of "to long for; to crave." In mental physics the technical term *wish* does *not* mean this. Instead, it denotes the evocation of acts of ratio-expression necessitated by the fundamental law of practical Reason in circumstances the person has not learned how to successfully deal with previously.

Yet the disturbance that provoked wish in appetition *must be* successfully dealt with, and here "dealt with" means precisely *any achievement of a state of equilibrium*. Failure to successfully remove the affective disturbance by reestablishing equilibrium can have the most severe and debilitating effects on an individual's mental health. Neuroses, even psychoses, result from failure to accomplish a state of equilibrium in reciprocity with the environment (they are equilibria *not* in reciprocity with external environment). The empirical psychology of wish is therefore pertinent to the study of abnormal psychology and psychiatric therapy. I think this is greatly unappreciated in present day psychology. Wish in appetition is, in a manner of speaking, a violent event because it involves *necessitated breaking of old habits and the establishment of new ones*. This is one primary reason why type-α compensation (ignórance) is vital in human reasoning. Ignórance is not a character flaw; it is a mechanism of psychological Self-defense because in some cases *it is the only way the person finds to deal* with the disturbance. All instances of what until relatively recently were called cases of hysterical neurosis are extreme examples of type-α compensation, and the compensation behavior is evoked by wish in appetition.

It might be supposed that teaching ought to be aimed at eradicating ignórance behavior but this is untrue, almost certainly unaccomplishable, and if it were accomplished it would result in severe psychological trauma for the learner. In some circumstances education to hinder ignórance behavior is obviously very important, but this must not be overgeneralized. The Modality of wish in appetitive power is the gateway to provoking the development of procedural schemes by which the learner learns to cope with the contingencies in life he will later encounter. The real educational aim is to teach the learner to develop healthy and productive means of exploiting wish in appetition, and these means require the development of procedural schemata.

It is certain Piaget had not yet conceived the idea of procedural schemes in 1952. He tells us this himself. This idea did not appear in the Piagetian corpus until 1981 from his research on the topics of possibility and necessity. Even then Piaget's theoretical findings were, and are, in a

nascent stage of development. This, of course, is no criticism of Piaget.[3] The fact is that advancement of theory in this area of developmental psychology requires mental physics, and that development did not occur until another twenty-five years had elapsed from the publication of *Possibility and Necessity*. Nonetheless, and visible in hindsight, empirical evidence for the development of procedural schemata early in the life of the child *had* turned up in Piaget's research into the development of sensorimotor intelligence. We find it in behavioral phenomena characteristic of what Piaget called Stage V of sensorimotor intelligence [Piaget (1952), pp. 263-330]:

> During the third of the stages which we have delineated, the child, by manipulating things, constructed a series of simple schemes due to the "secondary circular reaction," such as "shaking," "rubbing," etc. These schemes, while not yet coordinated, nevertheless comprise, each in itself, an organization of movements and perceptions and, consequently, a commencement of putting objects into interrelations. But this organization, remaining within each scheme, does not involve a clear distinction between "means" and "ends" and this putting into relationship, for the same reason, remains entirely practical and does not lead to the elaboration of actual "objects." [4]

> In the course of the fourth stage, which immediately precedes this one [stage V], the secondary schemes become intercoordinated and so give rise to the complex actions which we have designated "applications of familiar means to new situations." This coordination of schemes, which clearly differentiates "means" from "ends" and so characterizes the first acts of intelligence properly so-called, insures a new putting into relationship of objects among themselves and hence marks the beginning of the formation of real "objects." But two circumstances limit the difference which separates it from those of the fifth stage. In the first place, in order to become adapted to the new circumstances in which he finds himself . . . the child at the fourth stage limits himself to intercoordinating familiar schemes except for differentiating them through progressive accommodation while adjusting them to each other.[5] In the second place . . . the relations which the child establishes between things still depend on completed schemes of which only the coordination is new . . .

> The fifth stage . . . is, on the contrary, primarily the stage of elaboration of the "object." It is characterized, in effect, by the formation of new schemes which are due no longer to a simple reproduction of fortuitous results but to a sort of experimentation or search for novelty as such. Moreover, in correlation with this same tendency, the fifth stage is recognizable by the appearance of a higher type of coordination of schemes: the coordination directed by the search for new means.

> Now both of these behavior patterns protract those of the preceding stages. . . . The only difference is that in the case of "tertiary" reactions[6] the new effect obtained fortuitously is

---

[3] There is a legitimate criticism to be made of publishing practices almost all scientists are compelled to follow. Under the pseudo-philosophy of positivism, a scientist was expected to report only so-called "positive" findings directly supported by experimental evidence. This had what I presume was probably an unintended consequence, namely, that open questions yet unresolved, and unsuccessful efforts to explain nature, eventually came to be discouraged and, later, actually censored out of scientific publications. Most scientists, upon completing a piece of research, are keenly cognizant of questions the findings raise or leave hanging without answers, but the practices of editors and publishers treat these as unimportant. This is a policy I find difficult to regard as anything but absurdly counterproductive to scientific advancement. Questions are the energetics of scientific research. They are sometimes more important than the "positive" findings are themselves. Newton and Maxwell knew this; apparently many young scientists do not.

[4] I think it is important to point out here that Piaget did not use the word "object" in the same context as that term is used in Critical metaphysics and mental physics. When Piaget says "object" he means *thing*. Confounding the terms object (*Gegenstand*) and thing (*Ding*) is a mark of ontology-centered thinking.

[5] You might find it helpful here to refer back to chapter 7 and figure 7.5.

[6] Piaget's name for the behaviors characteristic of Stage V.

not only reproduced but modified to the end that its nature may be studied [by the child]. With regard to "discoveries of new means through active experimentation" they simply crown the coordination of schemes already in use during the fourth stage, but the reciprocal adjustment of the schemes which we have described in the preceding chapter becomes accommodation for the sake of accommodation, that is to say, a search for new procedures.

But if the behavior patterns of the fifth stage protract those of the fourth and so constitute their natural growth, they nevertheless mark decisive progress and the beginning of a really characteristic phase. In effect, for the first time, the child truly adapts himself to unfamiliar situations, not only by utilizing the schemes acquired earlier but also by seeking and finding new means [*ibid.*, pp. 263-265].

In terms of appetition, the Stage V behaviors are not indicative of the Modality of wish but, rather, of the Modality of choice. ***Choice*** is *an act of appetitive power with assertoric evocation of ratio-expression for the purpose of harmonizing the free play of appetitive power and judgmentation*.

To properly grasp this it is important to understand that the motivational dynamic (figure 9.4) is the representation of the *Existenz* of a human being's potential power to organize and regulate accommodation of perception (which is motivation *per se*) [Wells (2009), chap. 10 §3]. Assertoric Modality in propositional logic is illustrated by ⟨I think *x* is *y*⟩. Under the Modality of choice, judgmentation is oriented and directed to a practical end, namely the *determination* of an appetite of activity specifically evoked for the purpose of regulating equilibration. All specific determinations are assertoric. In contrast, wish is an orientation for finding a *determinable*. All positing of determinables in representation are problematic.

In the case of choice, the disturbance to equilibrium can originate from spontaneity alone and without assistance from receptivity in *psyche*, in which case it is indicative of that peculiar class of affective disturbances we commonly call *curiosity*. In the motivational dynamic for such cases, Quantity of choosing is expression of interest, Quality of choosing is negation of Desires, Relation of choosing is organization of motivation, and Modality of choosing is determination of *elater animi*. This is a mixed-mode energetic in judgmentation involving all three pure forms of synthesis, i.e., reevaluating synthesis (in Quantity), reconciling synthesis (in Quality and Modality), and *Lust*-organizing Meaning synthesis (in Relation). The Stage V behaviors Piaget observed and reported are all strongly indicative of curiosity in judgmentation.

Stage V behaviors are not the only exhibitions of the Modality of choice in appetitive power. I suspect your common sense had already told you this. However, one can properly speak of choice only when more than one specific procedural scheme is possible for the Organized Being to select. When a procedural schema is not available to apply to a specific situation but a procedural scheme is, expression of that scheme is properly an act of what Kant called *arbitrium brutum* or "brutish choice." Kant discussed *arbitrium brutum* as well as two another synthesizing ideas, namely *arbitrium sensitivum* ("sensitive choice") and *arbitrium liberum* ("free choice") [Kant (1794-95), 29: 1012-1016]. The *momentum* of choice in appetitive power strictly refers to *arbitrium sensitivum*. Here choice is established according to a motivational dynamic in which the determination of appetite is affected, but not necessitated, by merely sensuous representation in sensibility. For this to be possible some rudimentary structuring and filling of the manifold of concepts must have already occurred, and so the actions of a new-born infant in Stage I of sensorimotor development are indicative of *arbitrium brutum*. New-born babies don't make choices properly so-called; they react to their affective perceptions with innate sensorimotor reflexes, and this is *arbitrium brutum*. By the time Stage V behaviors appear (arguably as early as sometime during Stage IV), the *Dasein* of choices *arbitrium sensitivum* is very firmly established empirically beyond a reasonable doubt.

Stage VI of sensorimotor intelligence development is characterized by the exhibition of behaviors that establish unequivocally a new mental advancement and one that implicates the *Dasein* of developed *procedural schemes for discovering procedural schemata*. The distinction between this and the process of discovering procedural schemata in Stage V is quite important. The child's Stage V behaviors can be called "active experimentation" and the activities do produce procedural schemata. However, the equilibrating object of Reason is not a schemata but rather new procedural *schemes*. One way to put this is that the child is discovering possibilities but has not yet become cognizant of the *possibility of purposive* discovery of possibilities. The effects of this cognizance is what Stage VI behaviors put on observable display. Piaget remarked,

> This new type of behavior patterns characterizes systematic intelligence. Now it is the latter which, according to Claparède, is governed by awareness of relationships and no longer by empirical groping. It operates, according to Köhler, by sudden structuralizations of the perceptive field or, according to Rignano, is based on purely mental experience. In short, all writers, whether associationists like Rignano, believers in "structures" like Köhler, or, like Claparède, believers in a more or less directed groping, agree that there exists an essential moment in the development of intelligence: the moment when awareness of relationships is sufficiently advanced to permit a reasoned prevision, that is to say, an invention operating by simple mental combination.
>
> We are consequently confronted by the most delicate problem which any theory of intelligence has to treat: that of the power of invention. Hitherto the different forms of intellectual activity which we have had to describe have not presented particular difficulties of interpretation. Either they consisted in apprenticeships during which the role of experience is evident, discovery consequently surpassing true invention, or else they consisted in simple applications of the familiar to the new. In both cases, thereafter, the mechanism of adaptation is easy to explain and the play of assimilations and of primitive accommodations suffices to explain all the combinations. On the other hand, as soon as the real invention arises the process of thought baffles analysis and seems to escape determinism. [*ibid*., pp. 331-332]

Piaget somehow managed to not sound baffled in his text which followed this. However, when one closely examines the speculations presented in *Origins* regarding Stage VI one finds them coming up a bit short in comparison with the earlier stages. I personally doubt if Piaget was as confident in the 1952 theory as one might be impressed into assuming. The rather notably jubilant tone that seems to come through clearly in the quote in chapter 7 [Piaget (1981), pg. 150] seems to me to imply that either Piaget wasn't completely confident about his findings in 1952 or that sometime later new findings in his research program shook that earlier confidence.

Yet if the explanatory speculations he reported in *Origins* are dubious, the same cannot be said of the observations he reported. These are very illuminating. One of them that I regard as among the most telling was the following rather lengthy one, which I urge you to study carefully:

> *Observation 180.* – Another mental invention, derived from a mental combination and not only from sensorimotor apprenticeship, was that which permitted Lucienne to rediscover an object inside a matchbox. At 1; 4 (0) . . . I play at hiding the [watch] chain in the same box used in Observation 179. I begin by opening the box as wide as possible and putting the chain into its cover (where Lucienne herself put it, but deeper). Lucienne, who has already practiced filling and emptying her pail and various receptacles, then grasps the box and turns it over without hesitation. No invention is involved of course (it is the simple application of a scheme acquired through groping) but knowledge of this behavior pattern of Lucienne is useful for understanding what follows.
>
> Then I put the chain inside the empty matchbox (where the matches belong), then close the box leaving an opening of 10 mm. Lucienne begins by turning the whole thing over,

then tries to grasp the chain through the opening. Not succeeding, she simply puts her index finger into the slit and so succeeds in getting out a small fragment of the chain; she then pulls it until she has completely solved the problem.

Here begins the experiment which we want to emphasize. I put the chain back into the box and reduce the opening to 3 mm. It is understood that Lucienne is not aware of the functioning of the opening and closing of the matchbox and has not seen me prepare the experiment. She only possesses the two preceding schemes: turning the box over in order to empty it of its contents, and sliding her finger into the slit to make the chain come out. It is of course this last procedure that she tries first: she puts her finger inside and gropes to reach the chain, but fails completely. A pause follows during which Lucienne manifests a very curious reaction bearing witness not only to the fact that she tries to think out the situation and to represent to herself through mental combination the operations to be performed, but also to the role played by imitation in the genesis of representations. Lucienne mimics the widening of the slit.

She looks at the slit with great attention; then, several times in succession, she opens and shuts her mouth, at first slightly, then wider and wider! Apparently Lucienne understands the existence of a cavity subjacent to the slit and wishes to enlarge that cavity. The attempt at representation which she thus furnishes is expressed plastically, that is to say, due to the inability to think out the situation in words or clear visual images she uses a simple motor indication as a "signifier" or symbol. . . . Lucienne, by opening her mouth thus, expresses or even reflects her desire to enlarge the opening of the box. This scheme of imitation, with which she is familiar, constitutes for her the thinking out of the situation. . . .

Soon after this phase of plastic reflection, Lucienne unhesitatingly puts her finger in the slit and, instead of trying as before to reach the chain, she pulls so as to enlarge the opening. She succeeds and grasps the chain. [*ibid*., pp. 337-338]

Sixteen-month-old Lucienne applied her "pulling" scheme to a wholly different sensorimotor problem than that of dragging out the watch chain. She applied it instead to widening the opening of the slit. This is invention and it produced a procedural scheme similar to an existing one but differing in temporal sequence (finger in – grope – pull – grasp vs. finger in – pull – grasp) and differing in the object of its application (matchbox instead of chain). Piaget went on to note that when he completely closed the matchbox Lucienne was unable to open the box.

Now, what has this to do with the transcendental schematic of rational persuasion education? The Modality of **will** is *a necessitated determination of appetitive power evoking ratio-expression for the purpose of making actual an object according to a tenet of practical Reason*.[7] Nothing in the immediately given data of sensation implicates the scheme Lucienne executed. Instead, what her behavior demonstrated was *treating a scheme as an object and using another scheme to regulate the execution of that scheme*. Succinctly put, her pulling scheme was *made necessary* by her "widening scheme" – which she put on exhibition by opening and closing her mouth. The purposive action was not directed at a procedural scheme but, on the contrary, to a scheme for generalizing that scheme – i.e., to a procedural schema.

Two comments Piaget made elsewhere are pertinent to the situation under consideration here. He made the first in a lecture not directly related to *Origins* that went thusly:

In problems of intelligence one encounters conflicts between perceptual experience and logical deduction. The subject must rise above the momentary perceptual configuration. He must free himself from it in order to bring out relationships that were not given in perception at the start. This involves decentration, which permits mastery of the present

---

[7] A tenet is a practical proposition in the manifold of rules that contains a determination of will. A practically particular tenet is called a maxim. A practically universal tenet is called a law.

situation by connecting it with former situations and, if need be, by anticipating future ones. That is how an operation works.

Our thesis here is that it is exactly the same with acts of will. Affective conditions are given which correspond to the perceptual configuration of intellectual operations. It is not a question of rejecting this affective configuration but of going beyond it by "changing perspectives" in such a way that relationships appear that were not given at the start. . . .

We end with this final formulation: the will is a regulation to the second power, a regulation of regulations, just as, from the cognitive point of view, the operation is an action on actions. [Piaget (1953-54), pp. 63-65]

Although Piaget got a few deeper details wrong, in his hypothesis above he was essentially correct in his interpretation of "what 'will' is." What he failed to bring out in the quotation just given was the deep connection between the Modality of will and practical necessitation. In regard to the latter, thirty years later Piaget wrote,

The principal results of the present research can be summarized in the following three points: (1) Necessity pertains to the compositions carried out by the subject and is not an observable datum inherent in objects; (2) it is not an isolated and definitive state, but the result of a process (necessitation); and (3) it is directly related to the constituting of possibilities that generate differentiations, whereas necessity is related to integration – hence, the two formations are in equilibrium. . . .

In short, necessity does not emanate from objective facts, which are by their nature merely real and of variable generality and therefore subject to necessary laws to a greater or lesser extent. They only become necessary when integrated within deductive models constructed by the subject. The necessity of p can thus not be characterized only as the impossibility of not-p, since new possibilities can always emerge, but must be described in Leibniz's manner as the contradiction of not-p, and this relative to a specific, limited model. . . .

Being closely allied to integration, necessity thus consists in an auto-organization *causa sui*. It is not an observable datum in the real world. It is a product of systematic compositions that involves a dynamic of necessitating processes rather than being limited to states. [Piaget (1983), pp. 135-138]

Mental physics calls this dynamic the motivational dynamic. Piaget got the logical essence right in this quotation, too, even if here he did fail to connect necessitation with will in appetition. Evoking a practical rule that is connected by practical hypothetical propositions to lower rules in an episyllogism in practical judgment is merely an act of choice in appetition. *However*, if the action leads to disturbance (or fails to extinguish disturbance) then an accommodation of the manifold of rules is made necessary by the categorical imperative. The determination of appetite in effecting regulation of the manifold is an act of will in the Modality of appetitive power.

I seem to remember mentioning earlier that understanding Modality is frequently a bit of a challenge and can require a great deal of contemplation. So it seems to be with Modality in the 2LAR of appetitive power. We now, however, have our three transcendental schematics explained: $\Sigma 4_\Delta$ (wish); $\Sigma 4_e$ (choice); and $\Sigma 4_t$ (will).

§ 4. The Functions of Persuasion Education

The single greatest threat to the *Existenz* of any Society is a breakdown of social-chemistry bonding relationships with generation of antibonding relationships among the divers mini-Communities within the Society as a whole. Breakdown of social bonds produces a granulated Society and potentializes the formation of a Toynbee proletariat. Generation of antibonding

relationships produces actual disintegration of the Society, resulting in its social death. What kind of Society it might be – political, commercial, a civilization, etc. – makes no difference in the end result. The only notable differences are in the number of people who are affected and the time period over which the disintegration and final collapse occurs.

The persuasive power of *Personfähigkeit* is the power of the person – whether an individual human being or a corporate person – to sufficiently communicate his (or its) ideas to others to gain their consent, agreement, or cooperation. Successful employment of persuasive power has as the least of its results the avoidance of forming antibonding relationships and as the best of its results the formation of social bonding relationships. It is, I think, obvious that persuasive power is therefore the means by which it is possible for a Society to sustain itself in Order and to achieve Progress for its civil Community. This is sufficient *causa sui* to justify making persuasion education a principal function of public instructional education. To understand the nature of persuasion education we must have its six functions obtained from the syntheses

$$\Sigma 4_t + MA_t \overset{SC(1)}{\rightarrow} f_{t,1} \qquad \Sigma 4_t + MA_t \overset{SC(2)}{\rightarrow} f_{t,2}$$
$$\Sigma 4_e + MA_e \overset{SC(1)}{\rightarrow} f_{e,1} \qquad \Sigma 4_e + MA_e \overset{SC(2)}{\rightarrow} f_{e,2} \qquad (1)$$
$$\Sigma 4_\Delta + MA_\Delta \overset{SC(1)}{\rightarrow} f_{\Delta,1} \qquad \Sigma 4_\Delta + MA_\Delta \overset{SC(2)}{\rightarrow} f_{\Delta,2}$$

where the specifying concept SC(j) is: the learner pursues equilibration, to the full extent that his liberty of action is unconstrained by the manifold of rules, until he achieves empirical consciousness of satisfaction of a state of equilibrium. The concept applied to the personal dimension of the learner is SC(1); the concept applied to the social dimension of the learner is SC(2).

Functions $f_{\Delta,j}$ are the functions of *social* persuasion education. They are deduced from the synthesis of the transcendental schematic of wish = ⟨an act of appetitive power responding to a need of Reason without prior knowledge of what will satisfy this need⟩ and the axiom of procedures = ⟨the learner's capacity for problem solving is limited by the sphere of his concepts of procedural schemes⟩. From the metaphysical axiom is deduced that the outcomes of social persuasion education must include Progress in the learner's capacity to invent procedural schemes to as great an extent of practical scope as he is capable of producing at the particular stage of his mental development. The transcendental schematic warns that there is no one set procedure or method the learner can employ mechanically and apply to every situation he encounters in contingent experience. The Modality function in the motivational dynamic corresponding to wish is groping for equilibrium. Groping is searching to find or establish something with inability to anticipate what outcome the groping action will produce.

Yet groping does not necessarily imply that the learner is "blind" in his search activities. If he really had no methodology whatsoever by which to proceed – which is what the metaphor of blindness implies – such a lack would indicate a complete lack of experience in solving empirical problems by groping. This, however, is a false supposition to make about human beings. Long before a child is mature enough to enter into public education as a pupil, he has already experienced educational Self-development activities during the development of sensorimotor intelligence. However, the nature of this experience is far more likely to be haphazard and non-systematic merely because of the contingency of real experience. The education function, in contrast, must produce systematic Progress in this nascent ability. This is to say that educational instruction must be instruction in heuristic methods of active experimentation.

Here I stress to you that "experimentation" is not and cannot be viewed in the majority of

natural sciences as being identical to the experimental methodologies employed by those fortunate sciences such as physics, chemistry, and biology where dead-matter manipulation often requires inventiveness but presents few fundamental barriers to practice. Many sciences are not in this sort of fortunate circumstance. What sort of physics-like experiment, for instance, could an economist carry out to test a theory of international trade policy? What sort of biology-like experiment could a political scientist carry out to test a theory of immigration policy? Most physical-natural scientists would answer, "none," and that is one reason why social and humane sciences have historically been segregated from the physical-natural sciences.

Yet experimentation *in its general context* is possible for social-natural sciences. Here a remark made by Bernard carries the most profound significance for the sciences. Bernard wrote,

> We can learn – i.e., gain experience of our surroundings – in two ways, empirically and experimentally. First there is a sort of teaching or unconscious and empirical experience, which we get from dealing with separate objects. But the knowledge which we gain in this way is also accompanied necessarily by vague experimental reasoning which we carry on quite unawares, and in consequence of which we bring facts together to make a judgment about them. Experience, then, may be gained by empirical and unconscious reasoning; but the obscure and spontaneous movement of the mind has been raised by men of science into a clear and reasoned method, which therefore proceeds consciously and more swiftly toward a definite goal. . . . In all experimental knowledge, indeed, there are three phases: an observation is made, a comparison established, and a judgment rendered. By the experimental method, we simply make a judgment on the facts around us by help of a criterion which is itself just another fact so arranged as to control the judgment and to afford experience. . . .
>
> Two things must, therefore, be considered in the experimental method: (1) the art of getting accurate facts by means of rigorous investigation; (2) the art of working them up by means of experimental reasoning, so as to deduce knowledge of the law of phenomena. We said that experimental reasoning always and necessarily deals with two facts at a time: observation, used as a starting point; experiment, used as conclusion or control. In reasoning, however, we can distinguish between actual observation and experiment only, as it were, by logical abstraction and because of the position in which they stand.
>
> But outside of experimental reasoning, observation and experiment no longer exist in this abstract sense; there are only concrete facts in each, to be got by precise and rigorous methods of investigation. We shall see, further on, that the investigator himself must be analyzed into observer and experimenter: not according to whether he is active or passive in producing phenomena, but according to whether he acts on them or not to make himself their master. [Bernard (1865), pp. 12-13]

To experiment, then, *means* nothing more or less than to engage in what Bernard called experimental reasoning. What method one employs to obtain the "other fact" to be used in making judgments about the "fact of observation" to be explained is not *generally* relevant. The relevance is merely particular and established according to whatever practical limitations confront a particular special science. There is, consequently, no reason whatsoever to hold that experiment in sociology or in political science or in education or etc. must resemble the special appearances of experiment in physics. Part of the task in any special science is to develop those special and particular methods of experimental reasoning, in Bernard's connotation of that phrase, appropriate to and expedient for the Idea that defines the special science itself.

Experimental reasoning in science is but a specialized case of experimental reasoning by a learner, the main distinction being that traditionally we have called the latter "critical thinking skills." The aim is the same in both cases: to gain knowledge from facts of experience. The social persuasion education functions have as their objective Progress in the learner's skill in doing so. It

is shown above that for social persuasion education this involves skill in using and developing heuristics as means of experimental reasoning. The deduction of the function follows directly from this understanding. I call the function of social persuasion education the **experimental heuristics function**. In the personal dimension of the learner, $f_{\Delta,1}$ is: *inclusion in the curriculum of lessons and exercises in experimental learning of how to discover possibilities and options through the use of heuristics*. Possibilities and options, you will recall, are the structural matter of procedural schemata. In the social dimension of the learner, $f_{\Delta,2}$ is: *inclusion in the curriculum of lessons and exercises in heuristic social experiments for discovering common grounds and means for negotiating consensual agreements with other people taken both individually and in groups*.

I stress here that inclusion of *exercises* is essential to these functions. To learn the skills, the learner must Self-develop his *practical* maxims of heuristic thinking and reasoning. All meanings are at root practical and practical knowledge, structured in the manifold of rules, always precedes cognitive knowledge structured in the manifold of concepts. When Ptolemy speculated that all knowledge was theoretical before it was practical, he got it exactly backwards. Teaching methods have been perpetuating a Ptolemaic method of instruction for centuries and I think it is time to put a stop to it.

The functions of **empirical** persuasion education are deduced from the synthesis of the transcendental schematic of choice = ⟨assertoric evocation of appetite aiming at the achievement of equilibrium⟩ and the axiom of good means = ⟨the learner will always seek means he holds-to-be-good means⟩. This is a synthesis of an *a priori* end with means of achieving that end. In the case of this function an actual anticipation is involved, namely, that means of realizing an end are knowable from the production of satisfactions in affective perception. The educational function therefore pertains to Progress in learner skills of formulating anticipations of relationships between specific means and specific ends. I call this the **planning function** of persuasion education. **Planning** means *devising a scheme for doing, making, or arranging something*. In the practical Standpoint, to plan is to specify within a procedural schema specific placeholder options determined according to actual circumstances, as these are known to the learner, for applying the scheme to meet the predetermined end. In addition, the function must be able to handle empirical variations as these are encountered during the execution of the plan. Thus, an important part of Progress in persuasive power is the capacity to anticipate variations and to be able to flexibly react to unanticipated ones. Behaviorally, this equates to a compensation behavior Piaget called "superior behavior" [Piaget (1975), pp. 68-77].

In the personal dimension of the learner, $f_{e,1}$ is: *inclusion in the curriculum of lessons and exercises provoking Progress in the learner's ability to synthesize and identify objective ends he intends to achieve and objective means of achieving them*. Planning is a skill of reasoning and it is easy to observe that different people exhibit very different grades of planning skill. In many ways planning is the antithesis of habit, although the *habit of planning* is a developable habit. Yet, and despite the fact that good planning permeates every aspect of success in life, it is a skill that is traditionally taken utterly for granted or accounted to be a mystic, thus unteachable, "natural gift." I find it hard to see this as anything else than a fundamental error of ignórance. Covey wrote,

> "Begin with the end in mind" is based on the principle that *all things are created twice*. There's a mental or first creation, and a physical or second creation to all things. . . .
>
> It's a principle that all things are created twice, but not all first creations are by conscious design. In our personal lives, if we do not develop our own self-awareness and become responsible for first creations, we empower other people and circumstances . . . to shape much of our lives by default. We reactively live the scripts handed to us by family, associates, other people's agendas, the pressures of circumstances – scripts from our earlier years, from our training, our conditioning.

These scripts come from people, not principles. And they rise out of our deep vulnerabilities, our deep dependency on others and our needs for acceptance and love, for belonging, for a sense of importance or worth, for a feeling that we matter.

Whether we are aware of it or not, whether we are in control of it or not, there is a first creation to every part of our lives. We are either the second creation of our own proactive design, or we are the second creation of other people's agendas, of circumstances, or of past habits.

The unique human capacities of self-awareness, imagination, and conscience enable us to examine our first creations and make it possible for us to take charge of our own first creation, to write our own script. [Covey (1989), pp. 99-100]

Although Covey tends to meander into bouts of mysticism now and again, mental physics finds that what he writes here is congruent with the nature of being-a-human-being. Experience as well provides ample direct evidence it is empirically true in actual human experiences. Yet even a cursory examination of the educational environment the learner encounters shows that this environment actively mediates against and even hinders the learner's Progress in development of his planning skill and his habit of planning. In the context of the Social Contract, this is nothing else than a deontological moral fault built into the institution itself and grounded in antisocial habits of governance by monarchy/oligarchy.

In the social dimension of the learner, $f_{e,2}$ is: *inclusion in the curriculum of lessons and group exercises for producing consensus in planning ends and means of group Enterprises*. A new factor appears in the social dimension of the planning function, and this factor is centered on the concept of consensus. **Consensus** is *unanimity of agreement or consent in a group of people*. Our English word derives from the Latin *consensus*, which itself comes from *consentio*, to be of one mind, to agree. Divers popular manager-training courses found in the commercial sector often tout consensus-building as a pragmatically effective method of management. Consensus is much more than this. It is a concept lodged in the very heart of the Social Contract:

But, as men cannot engender new forces, but only unite and direct existing ones, they have no other means of preserving themselves than the formation, by aggregation, of a sum of forces great enough to overcome the resistance. These they have to bring into play by means of a single motive power and cause to act in concert.

This sum of forces can arise only where several persons come together: but, as the force and liberty of each man are the chief instruments of his self-preservation, how can he pledge them without harming his own interests and neglecting the care he owes to himself? This difficulty . . . may be stated in the following terms:

"The problem is to find a form of association which will defend and protect with the whole common force the person and goods of each associate, and in which each, while uniting himself with all, may still obey himself alone and remain as free as before." This is the fundamental problem of which the *Social Contract* provides the solution. [Rousseau (1762), pg. 13]

I do not know how put it any plainer than to say: In any Society when there is no consensus there is either tyranny or an anarchy of parties. In a civil Community both are injustices, and the institution of public instructional education is part of the justice system of Society.

The functions of rational persuasion education $f_{t,j}$ are deduced from the synthesis of the transcendental schematic of will = ⟨necessitated determination of appetites according to tenets⟩ and the axiom of principled satisfactions = ⟨education for Progress in acting on principles⟩. The synthesis implicates education functions for socially cultivating the learner according to expectations set by his Society for social intercourse, and for developing in him principles-based

necessitated habits governing his social conduct in a manner appropriate for Society's accepted conventions. Necessitated behavior, like necessity in general, has nothing problematic in its character. Neither is cultivated behavior according to a social convention in any way automatic. As Piaget found,

> Necessity is not directly observable but is always a product of deductive composition; and even in the case of connections considered causal, experience only furnishes regular successions: to go from this generalization to necessity, the subject's construction of a deductive model remains indispensable. [Piaget (1983), pg. 6]

The deductive model in this context is a model of the learner's Society in regard to its mores and folkways and in regard to its model of its ideal citizen. Rational persuasion education is thus seen to be none other than a deontological moral education-for-citizenship. This is in some respects a return to an old idea in education, and in other respects it is essentially different from that old idea. Historically in post-Dark Age Western civilization moral education was regarded by the great majority of people as the province of religious institutions. This presupposition was at the core of the founding of public education in nineteenth century America as well. Supposition of a religious basis for moral education is still probably the most prevalent supposition in Western civilization today. The Character and Citizenship Manual for moral leadership training of cadets used by the U.S. Civil Air Patrol throughout the 1960s made basic tenets of Judeo-Christian religious faith its "first statement of national faith." Chaplain Kullowatz wrote,

> The recognition by our Founding Fathers that we are all creations of the Heavenly Father has been the true source of our national strength. It is here that the five remaining statements of national faith find their true meaning. It is in our acceptance of the Father-hood of God that we come to an understanding of the basic dignity of the individual with his severally created divine rights. It is because of our recognition of a joint birthright from God that we come to understand our responsibility to each other in working toward the common good.
>
> In understanding our divine origin, it was only natural that we should frame our Constitution and principles of jurisprudence basically upon His rules and guides. In fact, it can be rightfully maintained that our nation, from its beginning, has been built upon the fundamental concept of the recognition of the Fatherhood of God and the consequent brotherhood of man. This is what makes us so entirely different from Marxian communistic Russia where God is nonexistent, making man just a high form of animal life. [Kullowatz (1961), pg. 12]

I do not have the least doubt Chaplain Kullowatz was a principled man and a good citizen, but I'm not sorry to say there isn't the least degree of *objectively* valid truth in the absolute assertions he makes here. What he says here has subjective validity for many people but it is not held to be subjectively valid by *every* person. Farrand's *Records* of the Constitutional Convention records a great deal of debate and political philosophy grounded in the mores and folkways of eighteenth century America but not one word of religious doctrine as a supporting argument for so much as one single clause in the U.S. Constitution.

I do not expect a chaplain to do otherwise than to think and write like a chaplain, but when I was a cadet I had no difficulty finding "the true meaning" in *all* the *specific* moral leadership principles in Kullowatz' manual without the least appeal to any species of religious doctrine. The objective falsehood in Kullowatz' "first statement" is frequently an effective instrument wielded by orators and propagandists (Kullowatz was neither), but unless the population of a Society is utterly homogeneous in regard to religious faith, it is not difficult to see that sectarian doctrine cannot be made the basis for general moral education.

Religions of whatever sects constitute important mini-Communities in the majority of political institutions of Societies. They can be, have been, and in numerous present day examples are important benefactors of civil Community. They can also be, have been, and in a number of present day examples are institutions bearing responsibility for the commission of some of the most heinous, vicious, and antisocial enormities that pepper the pages of history. No religious mini-Community made to serve as the institute of public moral education can achieve enduring success either in promoting Progress or maintaining civil Order. Nor can any non-sectarian doctrine achieve enduring success in this role *unless* the basis of its theory is deontological and grounded in human nature. If it is not, such a theory is a non-human doctrine and will fail.

Sustainable mores and folkways are those moral customs that attract, gain, and continue to win the consent and allegiance of every citizen. The civil right *of a civil Community* to require a pledge of allegiance to those principles *as a condition of citizenship* is inherent in every social contract. It is not necessarily true that specific mores or folkways remain unaltered in the passage of time. It is the accident of my life that I was witness to the mores and folkways of middle America in the 1950s and can compare these to those of present day America. It is manifestly plain to me that the two are substantially very different. With respect to moral custom a social revolution took place in America in the 1960s. Speaking personally, I prefer most of the old ways – not all of them, but most of them – to the current ways. However, I neither expect nor demand that *you* concur with my judgment because all such subjective judgments are at root judgments of habituated taste. Consider the habituated moral custom, once prevalent in the antebellum South of nineteenth century America, inherent in following excerpt from *Huckleberry Finn*:

> Once I said to myself it would be a thousand times better for Jim to be a slave at home where his family was, as long as he'd *got* to be a slave, and so I'd better write a letter to Tom Sawyer and tell him to tell Miss Watson where he was. But I soon gave up that notion, for two things: she'd be mad and disgusted at his rascality and ungratefulness for leaving her, and so she'd sell him straight down the river again; and if she didn't, everybody naturally despises an ungrateful nigger, and they'd make Jim feel it all the time, and so he'd feel ornery and disgraced. And then think of *me!* It would get all around that Huck Finn helped a nigger to get his freedom; and if I was to ever see anybody from that town again, I'd be ready to get down and lick his boots for shame. That's just the way: a person does a low-down thing, and then he don't want to take no consequences of it. Thinks as long as he can hide it, it ain't no disgrace. That was my fix exactly. The more I studied him, the more my conscience went to grinding me, and the more wicked and low-down and ornery I got to feeling. And at last, when it hit me all of a sudden that here was the plain hand of Providence slapping me in the face and letting me know my wickedness was being watched all the time from up there in heaven, whilst I was stealing a poor old woman's nigger that hadn't ever done me no harm, and now was showing me there's One that's always on the lookout, and ain't agoing to allow no such miserable things to go only just so fur and no further, I almost dropped in my tracks I was so scared. Well, I tried the best I could to kinder soften it up somehow for myself, by saying I was brung up wicked, and so I warn't so much to blame; but something inside of me kept saying, "There was the Sunday school, you could a gone to it; and if you'd a done it they'd a learnt you, there, that people that acts as I'd been acting about that nigger goes to everlasting fire." [Mark Twain (1884), chap. XXXI]

Twain's Huck Finn is a fictitious character and the novel is fiction, but there is no doubt at all that the author captured, spirit and soul, one of white Society's dominant moral customs, endorsed by the dominant religious sects of that time, as they were prior to the Civil War. Attitudes of racism were still prevalent in the 1950s throughout America but today are held by only a small minority – one of the few social changes I hold-to-be a good change between the 1950s and today.

I call the function of rational persuasion education the ***contracting function***. In the personal

dimension of the learner $f_{t,1}$ is: *inclusion in the curriculum of lessons of civic Duties of* obligatio interna *with consciousness of* obligatione externa. The two Latin terms are technical terms in deontological ethics. *Obligatio interna* ("internal pledging") is a form of pledging in which pledger and pledgee are one and the same person. The matter-of-duty (*Verpflichtung*) for *obligatio interna* is a duty-to-oneself and the obligation is an obligation-to-oneself. *Obligatio interna* is logically categorical and relates the specific duty to a Duty-to-Self with regard to one's personality. Persuasion education here pertains to the learner developing *Self*-persuasion by guided vocational orientations of his Obligations-to-himself with regard to his personality.

Obligatione externa ("outward legal liability") is a legal liability the pledger willingly accepts by which: (1) he makes it his personal duty to commit to doing something at the choice of another person; and (2) he grants that other person and agents of the civil Community a warrant to compel his compliance in the event he refuses to carry out the duty to which he has pledged himself [Kant (*c*. 1784-85), 27: 260-274]. The contracting function mandates instructing the learner not only in his unalienated and alienated liberties but also Society's civil rights in regard to the learner's personal culpability for transgressions by specific actions his natural liberty permits him to take but his civil liberty does not.

In the social dimension of the learner $f_{t,2}$ is: *inclusion in the curriculum of lessons of civil Duties and civil rights of* obligatio externa *with consciousness of* obligatione interna. *Obligatio externa* ("outward pledging") is a form of pledging in which the pledgee is a person or group of persons other than the pledger. The matter-of-duty for *obligatio externa* is a duty-to-others *with* a reciprocal pledge from these others made to the pledger. *Obligatio externa* relates the specific duty to a Duty (of the pledger) with respect to the situation of the pledgee. This form is logically disjunctive, which means that determination of the pledger's duty is co-determined with a duty pledged to him, by the pledgee, that the pledger can compel the pledgee to fulfill in his turn.

Obligatione interna ("inner legal liability") is a liability a person *subjects himself to* but at the same time is linked to some duty to which he cannot be justly compelled against his consent by *another* person to perform. Such a duty is called an *imperfect duty* because the person cannot be legally compelled by another person to carry it out. A manifestation in experience of *obligatione interna* is encountered whenever a person suffers the sort of disturbance to equilibrium we usually call "an attack of conscience." In the literature example quoted above, when Huck Finn self-reports, "The more I studied him, the more my conscience went to grinding me, and the more wicked and low-down and ornery I got to feeling," he is reporting a manifestation of an *obligatione interna*. The judgment he renders *against himself* is that he deserves to be sent "to the everlasting fire" for what he holds to be his misdeed of helping a slave to escape slavery.

In more scientific terminology, *obligatione interna* is called *moral realism*. Piaget explained childish moral realism in the following way:

> We shall call [childish] moral realism the tendency which the child has to regard duty and the value attaching to it as self-subsistent and independent of the mind, as imposing itself regardless of the circumstances in which the individual may find himself.

> Moral realism thus possesses at least three features. In the first place, duty, as viewed by moral realism, is essentially heteronomous. Any act that shows obedience to a rule or even to an adult, regardless of what he may command, is good; any act that does not conform to the rule is bad. . . . The good, therefore, is rigidly defined by obedience [to the rule].

> In the second place, moral realism demands that the letter rather than the spirit of the law shall be observed. This feature derives from the first. . . .

> In the third place, moral realism induces an objective conception of responsibility. We can even use this as a criterion of realism, for such an attitude towards responsibility is easier to detect than the two that precede it. [Piaget (1932), pg. 111]
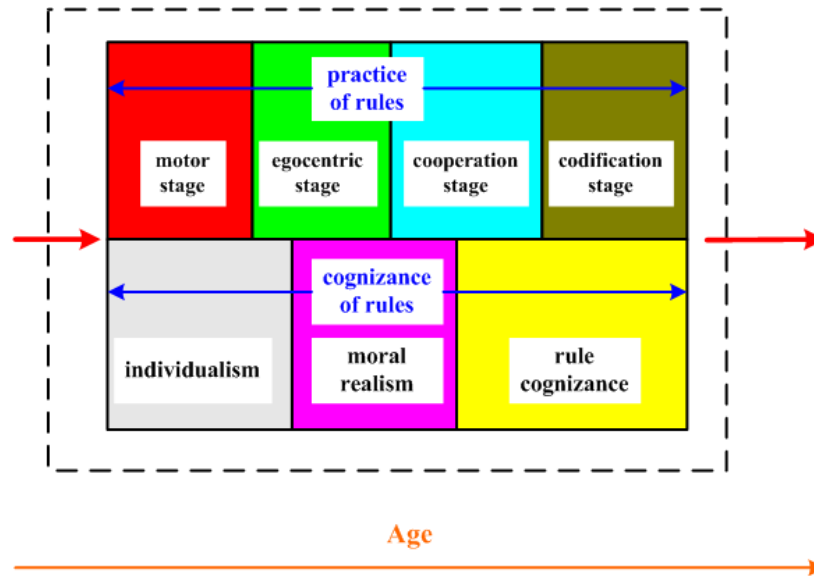
Figure 9.5: Empirical stages of rule practice and rule cognizance in *H. sapiens*.

Empirical studies of children conducted by Piaget showed that rule practice and cognizance of rules follows a specific developmental path in children. Figure 9.5 illustrates this finding. The greater significance of the phenomena for public instructional education is that *moral realism is never wholly eradicated in the adult* and, indeed, *the stages illustrated above tend to reoccur in later adult life* when the individual is confronted by new and typically tension-stimulating circumstances with which he has never before dealt. This is called *restaging* of rule development and adult moral realism reappears, in higher forms, in this phenomenon. However, in the case of adults we traditionally refer to the phenomenon of adult moral realism as *conscience*.

Kant erred by reifying phenomenal manifestation of *obligatione interna* as an Object he called conscience. He believed that every human being has a social conscience and that, furthermore, everyone has an identical version of it. We know today that both presuppositions are false. Kant's error came out of the same relapse into ontology-centered prejudice by which he equated "the moral law" and the categorical imperative. Nonetheless, Kant's description of "conscience" is a good metaphorical description of the manifestation of *obligatione interna*. He said,

> Conscience is an instinct to direct oneself according to moral laws. It is no mere capacity but an instinct, not to judge but to direct oneself. We have a capacity to pass judgment on ourselves according to moral laws. Yet of this capacity we can make use as we please. But conscience has a driving might to summon us before the tribunal against our will on account of our acts. Thus it is an instinct and not merely a capacity for judgmentation. It is on its own an instinct to direct and not to judge. [Kant (*c*. 1784-85), 27: 351]

Kant was wrong about "conscience" being an instinct and something innate in human nature. It is neither. The phenomenal impression of *obligatione interna* is nothing more and nothing less than a manifestation of developed maxims of reasoning through ratio-expression that people develop (independently and each for himself) during the apprenticeship of childhood. The relatively less developed and less interconnected character of a young child's manifold of rules is a mathematically sufficient explanation for the rigidity – and peculiarities – of childish moral realism. Moral realism in adults is indicative of a rule structure wherein there are some practical hypothetical imperatives of practical Reason that lack extensive connections for taking in a wider sphere of practical response maxims. *Obligatione interna* subsists in the connection network of

the manifold of rules. In this context, everyone makes for himself Objects of *obligatione interna*, but no two people make precisely the same practical Object. For example, the most commonly observed form of it in criminals is reflected in a frequent policeman's observation, "He's only sorry that he was caught."

The education functions of persuasion education pertain to educating the learner to integrate himself harmoniously into Society and its social contract. It is in this context that the function is called the contracting function of persuasion education. The contracting function in the personal dimension of the learner is properly called **civics contracting** because it pertains to vocational development of learner behaviors expressing interpersonal communication skills in social inter-course. The function in the social dimension is properly called **civil contracting** because it pertains to developing morality effecting Order and Progress in the Society as a whole.

§ 5. Pertinent Comments Regarding Persuasion Education

This completes the applied metaphysic of persuasion education as a 2LAR. In some ways this division of public instructional education is surprising. Although the portable concept of this division is persuasion education and its objective is Progress in the persuasive power of a person, the six synthetic functions here appear to say nothing about what one might naturally anticipate its topics to include. There is no mention or hint of oratory or of composition in writing. There is no explicit mention of communication skills nor specific mention of interpersonal psychology. There is mention of developing negotiating skills (experimental heuristics function) and of consensus building (planning function), but on the whole one might have expected these other topics to have been much more prominently on display in this metaphysic. There is no mention of rhetoric, yet Aristotle wrote,

> Rhetoric may be defined as the faculty of observing in any given case the available means of persuasion. This is not a function of any other art. Every other art can instruct or persuade about its own particular subject-matter . . . But rhetoric we look upon as the power of observing the means of persuasion on almost any subject presented to us; and that is why we say that, in its technical character, it is not concerned with any special or definite class of subjects. [Aristotle (*c*. 335-330 B.C.), Bk. I.II.1, 1355^{b}25-35]

Even so, there is more deep connection between the functions of persuasion education and Aristotle's *Art of Rhetoric* than one might at first suppose. Freese set out the following points made in common by Plato in *Phaedrus* and Aristotle in *Rhetoric*:

> But the most important point [in *Phaedrus*] is that the foundation of true rhetoric is psychology, the science of mind (soul) . . . The true rhetorician is assumed to have already settled the question whether all mind is one or multiform. If it is multiform, he must know what are its different varieties; he must also be acquainted with all the different forms of argument, and know what particular forms of it are likely to be effective as instruments of persuasion in each particular case. But a mere theoretical knowledge of this is not sufficient; he must have practical experience to guide him, and must be able to decide with-out hesitation to which class of mind his hearers belong and to seize the opportune moment for the employment of each kind of discourse. . . .
>
> In view of these facts, the three (in particular the first two) books of Aristotle's *Rhetoric* have been described as "an expanded Phaedrus." Thus the first book deals with the means of persuasion, the logical proofs based upon dialectic; the second with the psychological or ethical proofs, based upon a knowledge of human emotions and their causes, and of the different types of character. The questions of style and arrangement (which are only cursorily attended to in the *Phaedrus* in reference to the superiority of oral to written instruction) are treated, but less fully, in the third book. [Reese (1926), pp. xxv-xxvi]
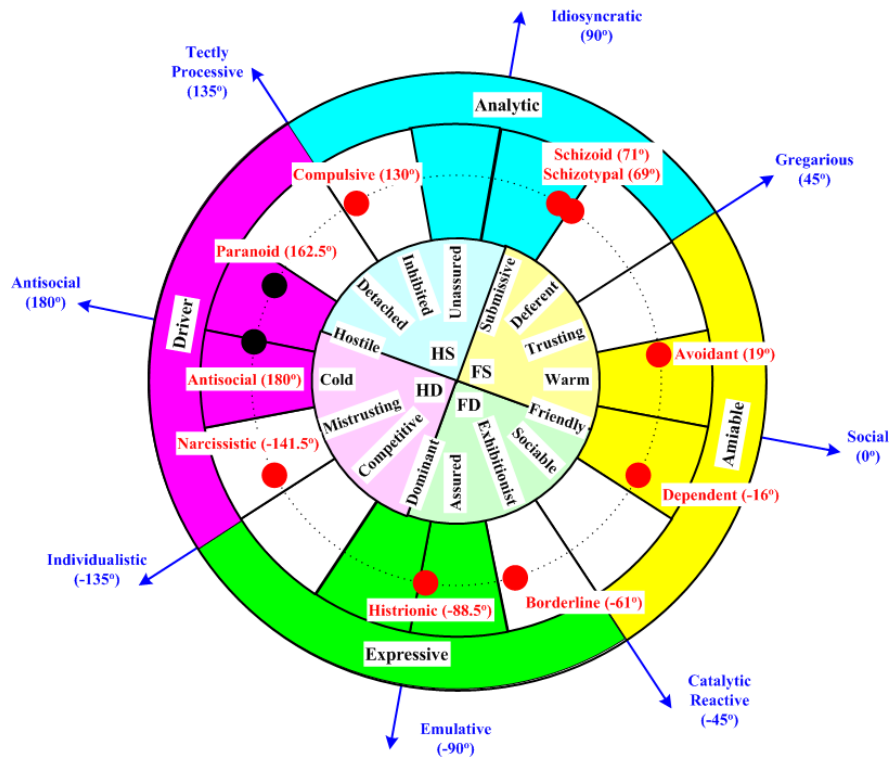
Figure 9.6: The D-PIPOS circumplex model of personality style, interpersonal operationalizations, and social style.

Freese's analysis of *Rhetoric* provides us with a hint as to some of the detail inherent in the lessons and exercises called for by the metaphysic. Where does "the rhetorician" obtain the "practical experience which guides him" or the "knowledge of human emotions and their causes, and of the different types of character" that the study of rhetoric requires? How does he become able to "decide without hesitation to which class of mind his hearers belong" and learn how to "seize the opportune moment for the employment of each kind of discourse"? How does he learn to persuade "with the psychological or ethical proofs"?

Progress in the learner's power of persuasion requires him to acquire rudimentary skills in social styles he exhibits in social interactions, to be aware he is transmitting non-verbal messages to other people by his operationalizations of expression, to be attentive to and interpret clues that others' operationalizations are sending him, to adapt his own social style to the habitual styles of those with whom he is interacting, to learn how to recognize these styles when he encounters them, and to understand predictable characteristics of different psychiatric personality styles. These factors are summarized in figure 9.6 by the D-PIPOS circumplex model of personality-interpersonal operationalizations-social style factors of social interaction [Wells (2012), chap. 8-9]. I am not saying that the learner must become a trained psychologist or psychiatrist; I am saying he must master the rudiments of these factors, which are empirically found to have crucial and fundamental impacts on social-chemistry bonding and antibonding phenomena encountered by every person every day in the experience of social living. If you reexamine the functions of social persuasion education and empirical persuasion education perhaps now you will be able to begin to appreciate the context these functions share with the factors I have just mentioned.

What, though, about the deontological ethics lessons inherent in the functions of rational persuasion education? Perhaps I have discussed the importance of this sufficiently already, but I think it is probably wise to make one last explicit point. All the eloquence and style in the world

will bring you not one whit of benefit if others think you are a scoundrel, do not trust your honesty, or hold your word or pledge to be worthless and unreliable. Even though *you* are not, I presume, a scoundrel, a dishonest person, or a liar, it is all too easy for a person to convince another person he is of precisely these natures all in the blink of an eye. People judge other people in these matters as subjective *judgments of taste*, and because every judgment of taste is rendered by an individual *with subjectively sufficient grounds of belief*, you can self-destroy in a minute a reputation you spent a lifetime building. This is the foundational importance of moral and vocational public instructional persuasion education. As Abraham Lincoln once told a caller at the White House,

> If you once 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. [McClure (1904)]

The applied metaphysic does not tell you the *details* that must go into the curriculum design, nor does it do this for any of the other three divisions. Those details always belong to the special social-natural science to which the metaphysic is addressed – a social-natural science of public instructional education in this case. Metaphysics is architectonic for science; it is not the science itself.

With this the applied metaphysic of public instructional education is completed at the 2LAR level of exposition. The treatise, however, is not quite finished yet because we must still address some important issues pertaining to the practicality of the institution itself. I take this up in the next and final chapter of this volume.

§ 6. References

Aristotle (*c*. 335-330 B.C.), *Art of Rhetoric*. various translations available.

Bernard, Claude (1865), *An Introduction to the Study of Experimental Medicine*, NY: Dover Publications, 1957.

Covey, Stephen R. (1989), *The Seven Habits of Highly Effective People*, NY: Simon & Schuster.

Farrand, Max (1911), *The Records of the Federal Convention of 1787*, revised edition in four volumes, New Haven, CT: Yale University Press, 1966.

Feynman, Richard P. (1948), "Space-time approach to non-relativistic quantum mechanics," *Reviews of Modern Physics*, vol. 20, p. 267[+].

Freese, John Henry (1926), *Aristotle: The "Art" of Rhetoric*, a translation of *Τεχνησ Ρητορικησ*, Cambridge, MA: The Harvard University Press (Loeb Classical Library®), reprinted 2006.

Friedrich Wilhelm II, King of Prussia (1794), "To Prof. Kant in Königsberg," in *Kant's gesammelte Schriften*, *Band XI*, Berlin: Walter de Gruyter & Co., 1922.

Kant, Immanuel (*c*. 1784-85), *Moralphilosophie Collins*, in *Kant's gesammelte Schriften*, *Band XXVII*, pp. 237-473, Berlin: Walter de Gruyter & Co., 1974.

Kant, Immanuel (1794-95), *Metaphysik Vigilantius (K_3)*, in *Kant's gesammelte Schriften*, *Band XXIX*, pp. 943-1040, Berlin: Walter de Gruyter & Co., 1983.

Kullowatz, Chaplain (Lt. Col.) Vernon F. (1961), *Operation Countdown: Character and Citizenship Manual*, Ellington Air Force Base, TX: Headquarters of the Civil Air Patrol-USAF.

McClure, Alexander K. (1904), *Lincoln's Yarns and Stories*. Quoted from *Bartlett's Familiar*

Quotations, 17th ed., Boston, MA: Little, Brown and Company, 2002, pg. 477.

Piaget, Jean (1932), *The Moral Judgment of the Child*, NY: The Free Press, 1965.

Piaget, Jean (1952), *The Origins of Intelligence in Children*, Madison, CT: International Universities Press, 1974.

Piaget, Jean (1953-54), *Intelligence and Affectivity*, Palo Alto, CA: Annual Reviews, Inc., 1981.

Piaget, Jean (1975), *The Development of Thought: Equilibration of Cognitive Structures*, NY: The Viking Press, 1977.

Piaget, Jean (1981), *Possibility and Necessity Volume 1: The Role of Possibility in Cognitive Development*, Minneapolis, MN: University of Minnesota Press, 1987.

Piaget, Jean (1983), *Possibility and Necessity Volume 2: The Role of Necessity in Cognitive Development*, Minneapolis, MN: University of Minnesota Press, 1987.

Plato (date uncertain), *Phaedrus*, various translations available.

Rousseau, Jean-Jacques (1762), *The Social Contract*, NY: Barnes & Nobel, 2005.

Santayana, George (1905), *Reason in Common Sense*, vol. 1 of *The Life of Reason*, NY: Dover Publications, 1980.

Twain, Mark [Samuel Clemens] (1884), *The Adventures of Huckleberry Finn*.

Wells, Richard B. (2006), *The Critical Philosophy and the Phenomenon of Mind*, available free of charge from the author's web site.

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.