

Chapter 16 The Aesthetical Arts Framework

§ 1. The Non-definition of the Aesthetical Arts

The definitional issues for mathematics and the physical-natural sciences differ in kind from the definitional issue for the aesthetical arts. These first two topics at least have somewhat clear identifiers in the present education institution in the United States and some Idea of their topics. In contrast, the aesthetical arts framework has no generally accepted definition at all nor do many people seem to be concerned that it does not have one. Roughly and crudely, one can say the aesthetical arts consist of "the arts and humanities." This, however, is not a sufficient description. "The arts" includes the technical arts as well as the 'fine arts' and 'performing arts' but the former is conventionally excluded from what traditional educology means to imply by the term 'the arts.' The term 'humanities' has several descriptions but no definition. I begin by exploring the problem of non-definition for 'the humanities.'

Scribd[®], a private sector on-line digital library service, contains a page contributed by an anonymous author ("legeirk_11") where 'the humanities' is described in the following way:

At present we know of humanities as a loosely defined group of academic subjects united by a commitment to studying aspects of the human condition and a qualitative approach that generally prevents a single paradigm from coming to define any discipline. Unlike other subjects, it is not a group of scientific or technical subjects. [Scribd: legeirk_11]

According to this description, it would seem 'the humanities' is merely a *potpourri* of topics that are not claimed by another and better-defined division of knowledge. Wikipedia describes 'the humanities' as "academic disciplines that study human culture."

In setting up the National Endowment for the Humanities (NEH), the U.S. Congress took its shot at defining the humanities in the 1965 National Foundation on the Arts and Humanities Act. As amended, this description states that 'the humanities'

includes but is not limited to the study and interpretation of the following: language, both modern and classical; linguistics; literature; history; jurisprudence; philosophy; archeology; comparative religion; ethics; the history, criticism, and theory of the arts; those aspects of social science which have humanistic content and employ humanistic methods; and the study and application of the humanities to the human environment with particular attention to our diverse heritage, traditions, and history and to the relevance of the humanities to the current conditions of life. [taken from the NEH web page 'About the NEH']

As Aristotle noted over 23 centuries ago, a proper definition cannot include in it the term being defined. The "definition" above is so open-ended and vague that it can take in any conceivable area of study short of magic or astrology.

On one of its web pages, Stanford University describes 'the humanities' as "the study of how people process and document the human experience." It seems to me that, taken at face value, this description either omits a great deal or else takes in every conceivable topic, including physical-natural science. Which it is depends on how one interprets the phrase "how people process . . . the human experience." The University of Idaho, a public land grant university, describes it as "academic disciplines that seek to understand, appreciate, and critique the human condition in all its depth and range of meaning." The Ohio Humanities Council describes it as "the stories, ideas, and the words that help us make sense of our lives and our world."

Given the variety and vagueness of these and other attempts to describe what we are to understand by the term 'humanities,' it is little wonder that the Common Core State Standards Initiative

(CCSSI) makes no attempt to break out a 'humanities' framework. The CCSSI merely lumps all of this together under "English Language Arts & Literacy in History/Social Studies, Science, and Technical Studies." Different public school districts tend to avoid the use of the term 'humanities' altogether and offer various collections of courses that are usually presumed to be "humanities topics," "fine arts topics," "performing arts topics," and other topics such as film, photography, conceptual art, and printmaking. These courses tend to be among the first targets for cutbacks or holdbacks whenever a school district runs into a budget shortfall. Only a minority of parents tend to be alarmed by the relatively low priority most districts assign to "arts and humanities" offerings. It often seems likely that local parental enthusiasm would be more favorably aroused by offerings in commercial art (because, at least, there are jobs associated with this) than by offerings in fine arts. It is unfair and unreasonable to decry attitudes like this as "Philistine" when the general topic cannot even offer a definition of what it is, much less convincingly explain why anyone should care about it.

If there is a discernible Idea contained somewhere in all this, it would seem to be something related to whatever people judge to be relevant to what Bloom called "that part or aspect of man that is not body" [Bloom (1987), pg. 356]. Bloom was harshly critical of the condition and status of 'the humanities' in American universities:

The third island of the university is the almost submerged old Atlantis, the humanities. In it there is no semblance of order, no serious account of what should and should not belong, or of what its disciplines are trying to accomplish or how. It is somehow the repair of man or of humanity, the place to go to find ourselves now that everyone else has given up. But where to look in this heap or jumble? It is difficult enough for those who already know what to look for to get any satisfaction here. For students it requires a powerful instinct and a lot of luck. The analogies tumble uncontrollably from my pen. The humanities are like the great old Paris Flea Market where, amidst masses of junk, people with a good eye found castaway treasures that made them rich. [Bloom (1987), pg. 371]

When those entrusted with the stewardship of some branch of knowledge cannot even offer to explain to others what this branch contains, it is not in the least surprising if the public declines to foot the bill for its instruction. "Instruction for what?" is a legitimate question. Yet it would be clear folly to presume that "the part or aspect of man that is not body" is not worthy of scholarship or preservation through education. An Idea – a regulating principle of education – is required here if this sort of education is to be justifiable under the social contract. Without it, requiring every citizen to foot the bill for it through taxation is a thorough injustice. What is this Idea?

§ 2. The Idea of Cultivation of Aesthetical Intelligence

In seeking a regulatory Idea to govern an instructional framework for arts and humanities, it is revealing to consider the defining idea of what constitutes "fine art." Fine art is described as "art developed primarily for aesthetics, distinguishing it from applied art that also has to serve some practical function" [Wikipedia]. Indeed, this linkage is so close that there are some people who tend to regard esthetics and 'good taste' as being defined by fine art rather than fine art being defined by esthetics. Among some art connoisseurs, and among some artists as well, if you do not appreciate some particular painting or sculpture praised by 'the art establishment', your lack of such appreciation is sometimes used by that community as an excuse to pejoratively label you as a person who "lacks good taste." This reversal is not objectively correct, but the fact of the reversal itself demonstrates some intricate interconnection exists between esthetics and fine art.

In American English, 'esthetics' and 'aesthetics' are two spellings for the same word with the same dictionary definition [Webster (1962)]. The only distinction one might draw between them is that 'aesthetics' is sometimes used to mean "the doctrines of taste." Both versions of the word

derive from the Greek word *aisthētikos*, which means "perceptive by feelings." Webster's gives the following dictionary definitions:

aesthetics, esthetics: the theory of the fine arts and of people's responses to them; the science or that branch of philosophy which deals with the beautiful; the doctrines of taste.

esthetics: the study or philosophy of beauty; theory of the fine arts and of people's responses to them: also spelled aesthetics.

There are people who claim that there is no such thing as a "doctrine of taste." This viewpoint is implicit in the old saying, "There is no accounting for taste." Regarded from the viewpoint of any ontology-centered metaphysic, there is no resolution for this disagreement without imparting some objectively non-valid ontological significance to or reification of the notions of 'beauty' and 'ugly'. Plato, for example, placed 'beauty' in his pantheon of Platonic ideas, which his philosophy holds to be more "real" than the physical world ("the world of opinion"). It is otherwise when we regard it from the viewpoint of an epistemology-centered metaphysic. For example, Santayana wrote,

Therefore, although nothing has commonly been less attractive than treatises on beauty or less a guide to taste than disquisitions about it, we may yet hope for some not merely theoretical gain from these studies. They have remained so often without practical influence because they have been pursued under unfavorable conditions. The writers have generally been audacious metaphysicians and somewhat incompetent critics; they have represented general and obscure principles, suggested by other parts of their philosophy, as the conditions of artistic excellence and the essence of beauty. But if inquiry is kept close to the facts of feeling, we may hope that the resulting theory may have a clarifying effect on the experience on which it is based. . . . We shall therefore study human sensibility itself and our actual feelings about beauty, and we shall look for no deeper, unconscious causes of our æsthetic consciousness. [Santayana (1896), pp. 6-7]

Santayana's treatise is set up to explore "the sense of beauty" empirically, i.e., by keeping his inquiry "close to the facts of feeling." The Critical Philosophy – in particular, Critical metaphysics proper regarded from the judicial Standpoint – delves deeper than this by exploring what is necessary for the possibility of experiences we call "esthetic." The result is a Critical distinction between "esthetics" (which retains the dictionary definitions given above) and "aesthetics." The term *aesthetic* is reserved to mean *the doctrine of the laws of sensibility*. The study of this doctrine is called *Aesthetic*, i.e., *the science of the laws of sensibility*.

The laws of sensibility are those laws of the mental physics of the phenomenon of mind that deal with the process of reflective judgment, the synthesis in apprehension and apperception, the synthesis in imagination, and their interactions through free play of imagination, understanding, and the process of determining judgment. Figure 1 illustrates the thinking and judgmentation structure of the phenomenon of mind. In this figure, the boxes bearing the labels apprehension and apperception, imagination, and reflective judgment are governed by the laws of sensibility.

A key finding of mental physics is that thinking and objective perception are not independent of affectivity and reflective judgment. Moreover, *affective* representations of reflective judgment provide for the root origins of *objective* cognition. Among these subjective representations are those which are called judgments of taste. Human beings are born with *no a priori* knowledge of objects. This at once raises the question of how *any* knowledge of objects can then be possible. The Critical answer to this question is that representations in sensibility by which motivation (the accommodation of perception) brings about satisfaction of practical Reason's unrelenting first law of equilibrium are *preserved* by being *made objective because of* an act of *reflective judgment*.

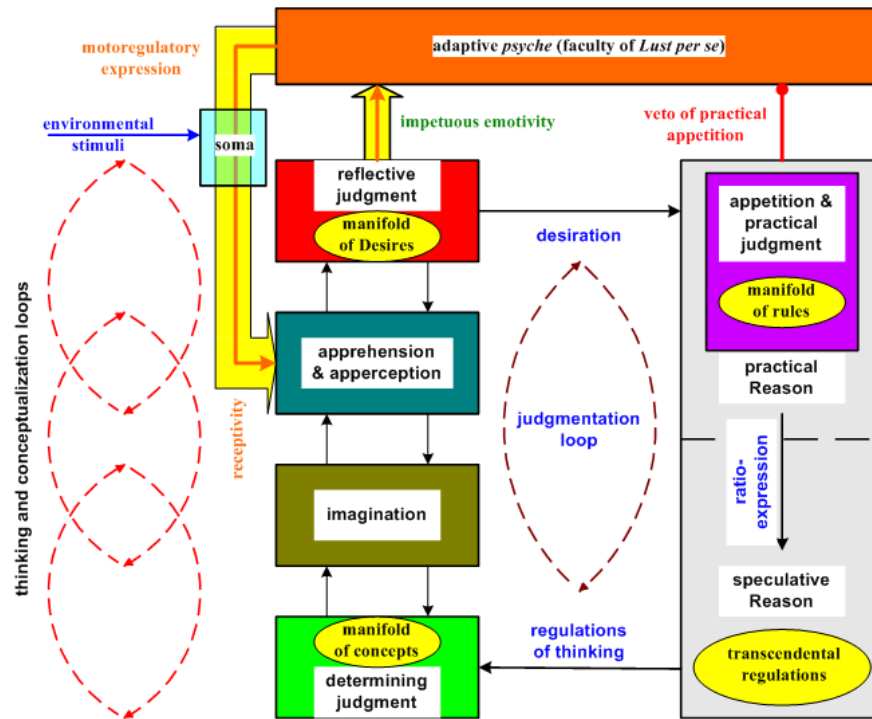


Figure 1: Information flow and the structure of thinking and judgmentation in the phenomenon of mind.

To put this another way, *affectivity drives objectivity* in the mental physics of mind. For many centuries, scientists tried to avoid any mention of "feelings" or "emotions" in their doctrines of science. It was not until the late twentieth century that scientists began to take "feelings" and "emotions" seriously enough to devote serious scientific study to them. One of the more profound findings of late twentieth century neuroscience is that, far from "emotions" impeding "rational thinking," *the capacity to make affective representations is crucial for rational decision making and for the ability of human beings to make "good" decisions*. One landmark case that appears to settle this issue beyond reasonable doubt is the case of a patient identified as "Elliot" reported by neurologist Antonio R. Damasio of the University of Iowa [Damasio (1994), pp. 34-51].

Obviously, Damasio's findings are empirical. Moreover, his theoretical conjectures in search of causative explanations are not free of ontology-centered errors. Nonetheless, his root thesis, which can be validly stated as "affectivity drives objectivity," is objectively valid and conforms to theorems of mental physics. The significance all this has for public education is very deep rooted.

Viewed practically, *intelligence* is the capacity to constitute a state of equilibrium towards which tend all successful sensorimotor and cognitive adaptations and all assimilatory and accommodatory interactions between a human being and his environment. Typical usages of the term "intelligence" almost always carry an objective implication for the contexts in which the term is used. However, the subjective element of judging is always present and non-negligible in all human actions we call "intelligent" actions. In order to single out and focus on this aspect, I introduce the term *aesthetical intelligence*, i.e., *the capacity of Critical Semantics to establish meaning implications by affectively orienting thinking*. Critical Semantics is the transcendental Logic of combining cognitions and affective perceptions with action expression to produce real meanings. The function of semantics in understanding and expression of meanings is depicted in figure 2, the Weaver's model of human meaning representation and expression [Wells (2011)].

In recent years psychologists have introduced the term "emotional intelligence" as part of the effort to better enfold phenomena placed under the umbrella term 'emotion' into behavior theories

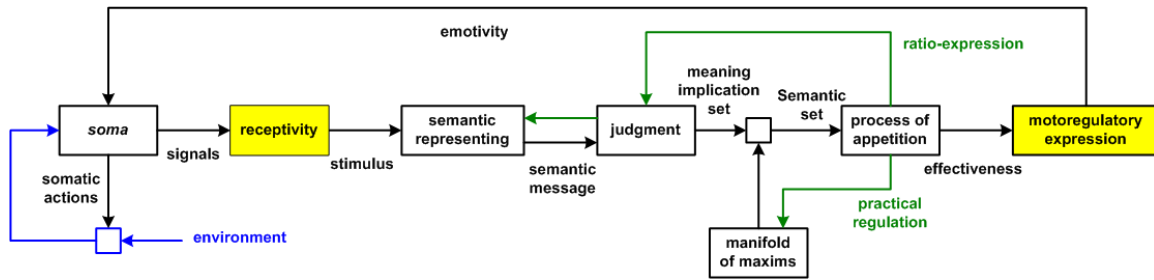


Figure 2: Weaver's model of the mental physics of meaning representation and expression.

[Salovey *et al.* (2000)]. Aesthetical intelligence is not the same thing as emotional intelligence, although some of what is currently studied by emotional intelligence researchers does fit within it. Salovey *et al.* wrote,

Affective phenomena constitute a unique source of information for individuals about their surrounding environment and prospects, and this information informs their thoughts, actions, and subsequent feelings. The essential assumption in our work has been that individuals differ in how skilled they are at perceiving, understanding, and utilizing this emotional information, and that a person's level of "emotional intelligence" contributes substantially to his or her intellectual and emotional well-being and growth. [Salovey *et al.* (2000)]

Salovey *et al.* explicitly mention "skill" here, and mental physics teaches that the use of the term in this context is objectively valid and proper. However, the manifold of Desires (figure 1) is not a structure because it is not self-conserving. We do not "remember emotions"; we *reproduce* them. How, then, can there be such a thing as "emotional intelligence" or, more to the point, aesthetical intelligence? The answer to this is found in the way intuitions are formed in apprehension and apperception. Every intuition is judged in such a way that it is *made symbolic* of some practical root meaning expression. This symbolism is supplied by representations of the process of aesthetical reflective judgment [Wells (2009), chap. 8, pp. 310-311] and is conceptualized in determinant judgments through the primitive notions of Modality [Wells (2009), chap. 5, pp. 190-191]. The reintroduction of a concept into the synthesis in sensibility by reproductive imagination alters *affective* perception as well as *objective* perception. What this means is that the symbolism that is given to an intuition is conserved when that intuition is conceptualized and, thus, the conservation that is required in order to develop a skill is supplied by the conservation of the structure of the manifold of concepts. Symbolism is conserved by conceptualization.

This is not an idea alien to your experience. Hearing a familiar old song played on the radio – an objective perception – can retrigger "old emotions" you felt years ago. Parents keep photo albums of their children when they were very young and in later years take these old albums out of the closet and look at them to bask in nostalgic reminiscences of those days. Affective and objective perception do not battle each other. They are, metaphorically, partners in a dance.

If psychology has lately begun slowly coming around to recognizing affectivity is pertinent to intelligence, educology has not quite come to this point yet. Curriculum and instruction *téchne* design must take into account the basic interplay of affective and objective judgments, and this accounting has been missing in educology. I have already noted in chapter 14 that a teacher's gateway to learner cultivation in mathematics is via the judicial, i.e. reflective, process of judgmentation. Here I will make this assertion stronger and say that this is so for *all* topics, not just mathematics alone.

The process of reflective judgment is the judicial process by which intuitions made symbolic are connected with motoregulatory expressions that provide the root meanings for intuitions and

concepts. One of Piaget's observations of a 16 month old girl named Lucienne illustrates the nature of this quite vividly:

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. . . . Here begins the experiment which we want to emphasize. I put the [watch] 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 its contents and sliding her finger into the slit to make the chain come out. It is of course this last procedure 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; Lucienne apparently 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 inability to think out the situation in words or clear visual images she uses a simple motor indication as "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 means of thinking out 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. [Piaget (1952), pp. 337-338]

Reflective judgment is *objectively* autistic. By this I mean that the representations of reflective judgments cannot be communicated by the person who represents them to another person. Sixteen month old Lucienne, who could not yet talk, obviously did not reason out the solution to her watch chain and matchbox problem in the way an older person would (i.e. through using words as symbols). However, the *objective* autism of reflective judgment does not mean reflective judgments are *subjectively* autistic. Lucienne quite obviously succeeded in "communicating with herself." Something like this is meant when a person says he is "in touch with his feelings." The impetuosity or "vital impulse" of reflective judgments cannot be divorced from reasoning. As Santayana said,

Vital impulse . . . when it is modified by reflection and veers in sympathy with judgments pronounced on the past is properly called reason. . . . Reflection gathers experiences together and perceives their relative worth; which is as much as to say that it expresses a new attitude of will in the presence of a world better understood and turned to some purpose. [Santayana (1905), pp. 2-3]

What I want to especially emphasize here is the *inventive creativity* involved in Lucienne's simple act. She clearly demonstrated that *she had made an analogy*, likening the opening of her mouth to the opening of the matchbox slit. Now, there likely is no time in life when you were more aware of objects by means of your mouth, through oral haptic perception, than when you were a baby. One need only consider the infant's dogged insistence on putting every object he can lay hold to in his mouth. It is one of his earliest schemes for getting to know new objects. Indeed, haptic perception is a key factor in the overall development of a child's concepts of space [Piaget & Inhelder (1948), pp. 17-43]. However, there is obviously no objective *a priori* or other kind of objective knowledge that *necessitates* associating opening the slit of a matchbox with opening

and closing one's mouth. The association Lucienne *created* can be explained in no other way than as a judgment of a state of harmonization in the free play of imagination and understanding. This kind of judgment is a judgment of the subject's inner state and is adjudicated by the process of aesthetical reflective judgment. All judgments of this kind are *reflective* judgments; the manifold of Desires, with its attending process of reflective judgment, knows no objects. Robert Zajonc, a sometimes controversial psychologist, was on the right track in writing,

Affect is considered by most contemporary theories to be postcognitive, that is, to occur only after considerable cognitive operations have been accomplished. Yet a number of experimental results on preferences, attitudes, impression formation, and decision making, as well as some clinical phenomena, suggest that affective judgments may be fairly independent of, and precede in time, the sorts of perceptual and cognitive operations commonly assumed to be the basis of these affective judgments. . . . It is concluded that affect and cognition are under the control of separate and partially independent systems that can influence each other in a variety of ways [Zajonc (1980)].

A person who can skillfully make use of his capacity for reflective judgment and affective perceptions to accomplish his purposes, as baby Lucienne did in the example above, can be said to practice an aesthetical art. More formally put, *aesthetical art* is *any art purposively directed at changing or influencing a person's behavior or values by means of his aesthetical intelligence*. Mental physics places beyond reasonable doubt the fundamental importance of aesthetical intelligence and the ability to practice aesthetical arts in the overall cultivation of the power of a person in all three of the areas of intellectual, tangible, and persuasive *Personfähigkeit*.

Here, then, is the Idea of an educational framework for aesthetical art. It is: *cultivation of all of a learner's capacities of intellectual, tangible, and persuasive Personfähigkeit by means of cultivating his aesthetical intelligence*. Arts and humanities can benefit learner skills in **all** areas.

§ 3. Context, Aesthetical Messaging, and Arts of Discovery

The discussion just concluded began with the concept of fine art. There are other topics that are generally lumped into "the humanities" as well, and so it is appropriate to ask if the Idea for a framework just given is broad enough to cover those parts of the humanities that are not fine arts. Is there some educational or instructional link between fine art and, say, jurisprudence? If not, then the Idea has not the width to cover all of the special topics lumped together as 'the humanities.' If so, then what is that link and its context in the aesthetical arts framework?

One general link is rather obvious. Fine art, jurisprudence, literature, languages, and all the rest are *exclusively* products of human invention and creativity. Human nature, specifically the human being in his character as *homo noumenon*, is indubitably a common link, recalling to mind Protagoras' dictum, *Man is the measure of all things*.

I think it is obvious this human link is so broad that it covers not just all humanities topics but *all* educational topics, including the sciences and mathematics. Because that which covers everything covers nothing, more refinement is required to understand how this linkage specifically applies to humanities topics. This is to say that each possible humanities topic in education science requires a *specifying concept* for clearly setting out its context within an overall curriculum. Given what was said in §1, i.e. the general lack of treatment a definition of 'the humanities' has received in education theory, complete coverage of specifying concepts for all of the divers humanities studies is a work-to-be-done with a scope beyond the practical limits of this present treatise. What this treatise can do is provide a principle of orientation and guidance for local teachers to use *to develop* particular specifying concepts congruent with the purposes for the institution of public instructional education. The one I propose here is: regard for humanities

subject-matters as *materia* for the cultivation of *arts of discovery*.

One context for the concept of the art of discovery was set out for the sciences in the previous chapter. In the context of the fine arts and the humanities, it refers to *the making and understanding of aesthetical messages* that produce in the receiver of such messages a refinement of aesthetical intelligence in his making of new meaning implications by the process of reflective judgment. When I speak of making aesthetical messages, I refer to an author of a work *making his work convey* to another person an orienting of that person's development of value constructs pertinent to both his social character as a member of his Society and the socio-contractual virtue and value norms of his Society overall. The teaching challenge here subsists in the fact that these sorts of messages are essentially autistic – that is, these are messages *words* do not convey to the person who receives the message. Words convey concepts of objects and objects are not the essence of aesthetical art messages. Rather, the essence lies in what Kant called the *Civilisierung* or "civilizing" of a person [Kant (1803), 9: 450]. *Civilisierung* means effecting in a person habits and maxims conforming to a Society's civil norms in his actions and behaviors.

Examples of aesthetical messaging – message-sending in which the words used are not the message but, rather, are used to stimulate an affective state an orator intends to produce – are very common. Pep talks given by athletic coaches are examples of this. Recently I saw an excellent example during an elimination round game at the Little League World Series in Williamsport, PA. It was the last inning of the game and the visiting team had just made a five-run rally to take the lead by two runs. I think you can appreciate that the twelve and thirteen year old players on the home team became very demoralized. Coach Dave Belisle gathered them together just before they went up to bat for the last time and gave them a fiery pep talk. "Did you *like* what they did to C.J.?" he asked them. (C.J. was their pitcher). At the end of it, the players almost exploded back onto the field. A retired baseball player working the game as sports commentator reacted to the speech by saying, in a noticeably awed voice, "Wow. I'm going to put the uniform back on." In a scene worthy of a Hollywood movie, the re-energized little players rallied at their last at-bat to score three runs and win the game. Some will think this sounds pretty corny, but this is the fact of what did happen. Personally, I think there is nothing corny about it whatsoever.

Greek and Roman classics, such as Thucydides' *History of the Peloponnesian War* and Caesar's *The Gallic War*, contain many examples of orations by generals prior to major battles. Modern historians are properly dubious of the orations themselves – after all, there were no scribes present taking down the actual words that were spoken – but the practice of giving such orations before battles in classical times is factual. In point of fact, it does not matter if these speeches are accurately recorded or not because *the message is not in the words*. It is in the emotional arousals produced in the soldiers. I think no one who has ever been a leader of a group of people who successfully faced and overcame some great challenge is likely to doubt the importance of using aesthetical messaging to energize people to rise to the challenge. Contrast this with the defeatism of the French government in May, 1940, whose demoralized leadership hastened the surrender of France in World War II.

These examples obviously pertain to leadership and persuasive *Personfähigkeit*, but the principle applies to the other the headings of the power of a person as well. When someone remarks that a work of literature, a poem, a play, or a musical piece is "soul stirring," the remark exhibits the *Dasein* of an autistic effect the work had on the commentator. Saul Bellows wrote,

Imaginative Literature I examines several masterpieces of ancient literature and of the literature of the Middle Ages and the Renaissance which aim at a total view of human life. Dante's avowed purpose was to summarize existence in every aspect. . . . It is perhaps too much to say Chaucer and Rabelais intended to depict a civilization, but that is what they have done. . . .

In modern times such unity is lacking. . . . Nevertheless, writers have continued, with varying degrees of success, the attempt to make an all-embracing synthesis. . . . A modern writer finds in the literature of antiquity and the Renaissance the most generous and noble images of human existence. There men are godlike or even partly divine. In the modern age, poets and novelists have studied man in his commoner, more familiar condition. They have written realistically of everyday life, of the *merely* human. . . .

These classics . . . belong to anyone who has the ability to take them, to everyone who understands and is moved by them. They are not transmitted in an inert state from generation to generation. Those who read them are changed by them. They are sources of not only wisdom and pleasure but of energy and power. [Bellows (1961), pp. v-viii]

When great literature, poetry, or theater conveys lessons of courage, fidelity to Duty, and the overcoming of adversity, it does so affectively by stirring a sense of awe or inspiring a Desire to emulate. It bestirs the learner to make himself better than he is and become a person who inspires emulation by others. Without it a people regress to a state of pathetic apathy found in all peasant and serf Societies subjugated by despotic rulers. The practice of denigrating heroes or taking pains to show they are, like all of us, human beings with flaws is counter to the purpose of public instruction in the humanities. That practice is one of the egregious errors of demoralization that came out of the American civil war of the 1960s and early 1970s from a lesser American version of the Lost Generation of Europe who survived the horrors of World War I. Before any person will *make himself better than he presently is*, he must find some inspiration to make the effort. Lesson objects of humanities instruction must be designed with this in mind. It provides context for the functions of public instructional education in the aesthetical arts framework.

Jurisprudence, too, has its educational home within the instructional context for the art of discovery. Law school professor and former U.S. Attorney General Edward H. Levi wrote,

The readings in philosophy of law and jurisprudence raise questions about, and attempt to secure answers for, problems which are central to the relationship among individuals in an organized society. Many of these relationships, legal in nature, are taken for granted when no unusual strain is placed upon them; yet these relationships, even for the situations of the everyday, may be quite complicated and may involve justifying or explanatory concepts which are the most intricate. Important questions are inherent in any situation where the coercive power of the state is brought to bear to confirm a transaction, to settle a dispute, to punish or condemn, or to redistribute the wealth of the community in terms of an evaluation of the worth of men. Extreme situations are useful in revealing these questions and in indicating the difficulty of applying some of the concepts which are often accepted without thought. . . .

It hardly needs emphasis that these are times of stress and change which make urgent a renewed understanding of our basic jurisprudence and philosophy of law, and which invite us to consider whether those concepts so powerful and important for domestic tranquility can be used in some measure to aid in the accomplishment of an international order. [Levi (1961), pp. v-ix]

In these present days, when special interest lobbies and political action groups daily work behind the scenes, out of the eye of the public, to influence political parties to pass special interest laws sacrificing citizens' civil liberties to authoritarian aims of those special interest groups, there is as much, if not more, urgency for public education in jurisprudence. This applies not to the minority of individuals intending to pursue legal careers, but to the entire body politic of citizens, who in a Republic must forever guard against despotisms and tyrannies characteristic of the antisocial flaws of representative democracy. This latter is one of Mill's core themes as well as one of James Madison's in *The Federalist*. Part of the *skill* required for being a citizen in a Republic is the skill of participating in what Hutchins called "the Great Conversation" over the concepts of those

traditions we say define our civilization [Hutchins (1952)] and hinge upon *value* judgments.

So, too, it goes with other skills and abilities exhibited by particulars in those activities we traditionally classify as arts and humanities, be they performing arts, literature, the interpretation of history, &etc. These activities demand an individual make an investment of a portion of his nonrefundable stock-of-time but at the same time resist demands by others to explain their "cash value" or justify the effort expended. Can such demanded explanations be answered otherwise than by saying the activities reflect a person's *vocations* (understood in the context of the lessons of vocation function)? In Book I of the *Nicomachean Ethics*, Aristotle asked what the *εργον*¹ or "function" of a man might be. He meant this question in a context of "What does a man try to achieve? What is his purpose?" Aristotle as much as asks, "What is the good of *being* a human being?" instead of being, say, a rabbit or a tree or an insect. He came to conclude that

[The] goodness or efficiency . . . of anyone who has some function or business to perform is thought to reside in that function; and similarly it may be held that the good of a man resides in the function of a man if he has a function. . . . And what precisely can this function be? . . . [If] we declare that the function of a man is a certain form of life as the exercise of the soul's faculties and activities in association with a rational principle, and say that the function of a good man is to perform these activities well and rightly, and if a function is well performed when it is performed in accordance with its own proper excellence – from these premises it follows that the Good of a man is the active exercise of his soul's faculties in conformity with excellence or virtue . . . Moreover, this activity must occupy a complete lifetime; for one swallow does not make a spring, nor does one fine day [Aristotle (date unknown), 1097^b20-1098^a20].

This is Man's uniqueness as Aristotle's "rational animal." Aristotle did not presume one man's exercise or form of life must be the same as another's. Nor did he claim that excellence or virtue are obtained in any other way than by learning and practicing them. A part of the "complete lifetime" taken up by a person's *εργον* must go to "hearing the call" of his *εργον* and learning it with excellence. In this regard, his ethical theory is congruent with what Critical epistemology doctrine teaches, namely, every human being *makes himself* the person he *chooses* to become.

Each of us *builds* this choice *holistically* one step at a time over the courses of our lives by the actions we choose to take. Aesthetical intelligence is crucial for learning how to make these choices well – each one always being nothing else than a determination grounded in subjective judgments of taste. Its cultivation, being intricate to this most crucial individual development, relies *essentially* on cultivating a person's skill in what was earlier called the art of discovery. In chapter 15, pg. 490, I mentioned *Lost in Learning* [Timothy (2010)]. Timothy's concept of the art of discovery, when set in its proper context with aesthetical intelligence, provides a look at how the art of discovery can be an energizer for determinations of vocation *and* for skill cultivation in all kinds of particular arts, including the technical arts. With appreciably superior fluency than Aristotle, essayist Adam Timothy expressed this idea in the following way:

The seed of greatness lies in each of us.

Its cultivation is the labor of a lifetime.

And yet . . . from the moment we are born, we inherit a gift so profound, so extraordinary, that it should never be taken for granted.

The gift is simply our ability to know or to understand something today which we did not fathom the day before.

In short, we are able to LEARN . . . and through learning, we open the doors to our most

¹ The Greek word *εργον* (*ergon*) means work, deeds, occupation, or function.

daring dreams.

Yet in an age where the primary motivations for education are often pecuniary in nature, we tend to lose sight of the pure poetic elegance of learning as the substance of life itself.

True learning is INNATE and passionate. It requires neither coercion nor cajoling. It springs naturally from our desires to grow, to create, and to make meaning of life.

While composed of many interim accomplishments, it is less a destination or a diploma than an epic voyage taken over the course of a lifetime. [Timothy (2010), pg. 8]

In this context the art of discovery and what Timothy called true learning are almost synonymous.

§ 4. Cultivation of Aesthetical Intelligence

§ 4.1 The Juxtaposition Issue

Traditional presentation of subject-matters in the arts and humanities has always juxtaposed subject-matters, usually with significant time-lag gaps in learners' experiences with them and with each experiential contact presented independently of previous ones. This is true in uneven degrees for the subject-matters of other topics, but there is a much greater variety of subject-matters in the humanities and arts and this presents a much greater challenge to instruction in these topics. Mathematics and individual special sciences tend to have more unified subject-matters with less "jumping around" among them because of the thematic unification given to math and science by their defining Ideas. Consequently, experiential time gaps are also a factor of concern in math and science instruction but are less of a hindrance to learning than is the case for arts and humanities.

The issue of concern is juxtaposition and the phenomenon of synthetic incapacity [Piaget (1928), pp. 221-232]. For young children, synthetic incapacity is merely a characteristic of their stage of development (preoperational thought). As the child's mental development progresses, synthetic incapacity gradually fades into the synthetic capacities displayed by older children and adults. This is due to a natural structuring and extension of, first, the child's manifold of rules and, second, his manifold of concepts aided by his complementary capacity for syncretism. However, what should not be neglected in this natural process is the role played by the learner's developed maxims of thinking. Because maxims of thinking are substructures within the manifold of rules, the learner himself is not cognitively aware of them and therefore he does not think about how he thinks nor does he take notice of thinking. Development of maxims of thinking is primarily an outgrowth of groping for equilibration. Maxims that have worked for him in the past (in terms of achieving reequilibrations) are reinforced by repeated use. This tends, *ceteris paribus*, to rigidity in thinking that is further fixated by the structuring that takes place in his manifold of concepts.

When subject-matters are presented in semi-isolated bits and bobs without frequent reuse and re-reference, this experiential factor tends to lead to semi-isolated concepts having narrow scopes. Such concepts, because they have fewer connections of determinant judgments with other concepts, have correspondingly fewer *contexts* for the learner. This makes them vulnerable to ignorance by type- α compensations. This ignorance phenomenon is called *forgetting*.

I do not mean to imply that the phenomenon of forgetting is a simple phenomenon. There is neurological evidence that some forgetting phenomena might be correlated with the physiology of synapse formation in the brain. In particular, it is known that the initial formation of new synaptic junctions goes through stages called short term potentiation, transient or "early" long term potentiation, and consolidated or "late phase" long term potentiation [Kandel (2000)]. It has long been known that synapses in the brain are both formed and pruned (i.e., the synaptic junction "breaks" and its connection is lost), and that stabilization and permanence of synaptic junctions is highly dependent on repeated electro-chemical activity at the synapse [Craig & Lichtman (2001)].

The principle of thorough-going *nous-soma* reciprocity, which is one of the principal acroams of Critical metaphysics, tells us that biological changes in synaptic connectivity in the brain *must* affect mind function and that acts of mental representation *must* affect brain function. Mind and brain functions are reciprocally co-determining and the long-standing "mind-body" division is merely a mathematical division, not an objectively valid *real* division [Wells (2006), chap. 4, pp. 270-274]. This means any Cartesian mind-body duality *in any form* is without objective validity.

The hypothesis that synaptic formation, pruning, and plasticity are physiological mechanisms of learning, remembering, and forgetting is widely accepted by neuroscientists and is regarded as being *almost* beyond reasonable doubt. Your author agrees in this with the majority opinion of neuroscientists. *However*, while these biological mechanisms appear to provide *one* causative explanation of remembering and forgetting, this does not mean they make up the *sole* causative explanation, i.e., "the only way it happens." Remembering and forgetting are very complicated *psychological* phenomena and there is no objectively valid principle that says *any* complex phenomenon must have one and only one explanation for *all* its appearances. To say so is rather like saying whenever a bridge collapses the collapse is always caused by the same thing. That just isn't true, *nor is it likely to be true* that there is one and only one causative phenomenon responsible for remembering or forgetting. Physicist Henry Margenau correctly pointed out,

A science enjoying the richness of data possessed by biology is likely to show a feature which, although present on the lower plane of physics, did not come to a clear focus there. It is the opportunity to represent one given empirical sequence by several different causal chains, and we shall call it the *multiplicity of causal schemes*. . . . In biology, multiplicity of causal schemes is probably important enough to be studied in its own right. It may give rise to levels of explanation, perhaps to an entire hierarchy of explanations, each a causal one, and each at a different stage of organizational integration. Thus, there may be a theory framable in terms of molecules and molecular forces, another one in terms of thermodynamic systems, another in which cells and cytological interaction are basic concepts, and perhaps one that speaks to stimuli and responses. If a prognosis can be based on physics, one may judge it to be a very long time before the vertical connections between these schemes are completely understood. [Margenau (1977), pp. 416-417]

To Margenau's remark I will add that the same thing is true of psychology insofar as multiplicity of causal schemes and a hierarchy of such schemes is concerned. With regard to phenomena of memory, Grimwood *et al.* echoed Margenau's point:

We begin by asserting that there are multiple types of memory and that the exact role of synaptic plasticity in trace storage would depend very much on the neural network in which it is embedded. It is difficult to build on this bald assertion because serious testing of neural network models of memory is likely to require the simultaneous recording of hundreds (perhaps thousands) of single cells. . . . The field has not yet reached this state of sophistication. [Grimwood *et al.* (2001), pp. 555-556]

A concept is a mental object aligned in scale with the neural network level of modeling. Semi-isolated concepts are vulnerable to ignórance behavior because the paucity of their connections to other concepts *within a context* tends to make them peripheral to whatever content *of the context* is linked by meaning implications to the judgmentation cycle (figure 1). Earlier remarks of mine in this treatise might have left you thinking that type- α compensation behavior (ignórance) is a "bad thing." That is not true and it is probably time for me to say a few words in its behalf.

Type- α compensation can rightly be called a "self defense" mechanism against a person being overwhelmed by feelings of sublimity. What William James and others have sometimes called the "winnowing effect" of the phenomenon of *attention* – and, indeed, the phenomenon of attention itself – would not be possible if human judgmentation was not capable of type- α compensation.

Feelings of sublimity occur in aesthetical reflective judgment when the process of apprehension is incapable of capturing the present flux of the data of sensation in a single intuition.

An example of this is in order here. Perhaps you have personally been "overawed" by some personal experience you have encountered in life. I have occasionally had a few such experiences. One time during a trip to San Francisco I was meeting someone in the lobby of one of the city's downtown hotels. It was a large and, if I may be permitted an aesthetic opinion, garishly decorated lobby. When I walked in the door to the hotel, I was quite bedazzled for several seconds by the assault of colors and shapes I saw before me. I literally could see *nothing* because I was seeing *too much*. I could not pick out the front desk, the walkways that wound around the walls of the lobby, the brass-plated rails the lobby had in generous oversupply, the people coming and going in it, or any other distinct object. The sight was so dazzling that it brought me to a halt right in the doorway. The sensory assault even made me feel dizzy. The Quality of my affective perception, until I was finally able to break apart the visual image (through ignorance compensation), was the feeling of sublimity [Wells (2009), chap. 8, pp. 302-307].

A feeling of sublimity is always a disturbance factor for equilibrium. Type- α compensation is a quick method in judgmentation for removing such a disturbance and rapidly reestablishing one's equilibrium. It only fails to do so when there is some consciousness of cognitive dissonance that hinders harmonization of the free play of imagination and understanding in the synthesis of thinking. In pronounced cases, like the one I experienced briefly in the hotel lobby, the shock to equilibrium triggers a groping response in judgmentation that tries to winnow the data of sensation in such a way that nothing that minimally necessary for a judgment of aesthetical expedience in the reflective judgment is left out of intuitive cognition. Everything else in the *materia* of sensibility is ignored (not included in cognition) in the making of the intuition.

We generally become cognizant of sublimity when this groping process is unable to "sort things out" right away. In experientially familiar situations, the process completes so quickly that the individual is left unaware (does not become cognizant) of the disturbance. To use Piagetian terminology, familiar situations are those in which a person has a sufficient variety of schemes into which meaning implications of possible intuitions can be immediately assimilated. A class of phenomenon familiar to law enforcement officers that exhibits this shows up when different witnesses to the same event report conflicting accounts of what happened or give widely varying descriptions of people (especially perpetrators) who were involved in it.

Semi-isolated concepts in the manifold of concepts have a very limited number of sensorimotor schemes in which meaning implications have been formed. Groping in judgmentation therefore is far less likely to "land on" a meaningful intuition (during the free play of imagination and understanding) that includes a semi-isolated concept. Consequently, that concept is very frequently ignored during the synthesis of apprehension and apperception; it is "forgotten" even though the person does have that concept built into the structure of his manifold of concepts.

There is an old Arabian saying, "Repetition teaches even a donkey." What repetition does is build a concept into more sensorimotor schemes of assimilation (i.e., give it more meaning implications), and thereby increases the likelihood of that concept escaping dismissal by type- α compensations. Learning behavior in babies is characterized by extremely repetitive behaviors, which Piaget called "circular reaction" behavior [Piaget (1952)]. Piaget's empirical studies could do no more than note this sort of behavior as characteristic of the sensorimotor stage of cognitive development and could offer no causative explanation for it. It was just "something babies do." With the development of mental physics, the efficacy of circular reaction behavior has a natural explanation even though science still lacks an explanation for how human beings come to have the capacity for circular reaction. It certainly has "survival value" in evolution contexts because, in a manner of speaking, human beings "live by their wits" (have what appears to be the highest

cognitive capacity of any species) and sublimity is contrary to understanding and swift physical reaction. But "survival value" is not a root explanation for *how* human beings as a species come to *have* this mental capacity. It is, at present, just an empirical fact of being a human being.

Juxtaposition of subject-matters during instructional presentation favors type- α compensation achievement of reequilibration, as I said above. While this is still an important aspect for science and mathematics instruction, it is an even more important aspect in the aesthetical arts framework simply because aesthetical art subject-matters do not enjoy the same degree of topical unification that characterize subject-matters in science and mathematics. This makes development of good curriculum and instruction design *téchne* especially important for aesthetical art instruction. It also implies that *téchne* more efficacious for instruction in this arena is very likely to greatly benefit instruction in science and mathematics as well. Many people hold a traditional and long-standing prejudice, a mere opinion, that humanities and art education has nothing of substance to offer mathematics or science and that cultivation of aesthetical intelligence is likewise irrelevant to learning science or mathematics. The doctrine of mental physics tells us that this opinion is wholly incorrect. Aesthetical reflective judgment is involved at the roots with *all* learning phenomena; aesthetical intelligence is learning's autistic foundation. This means improvement in a *science* of arts and humanities instruction cannot but help to improve instructional efficacy for *all* topical instruction. The special province of the aesthetical arts framework is the cultivation of aesthetical intelligence – not because this cultivation is less important for the other frameworks but because it is absolutely *essential* for aesthetical arts instruction.

Some amount of presentational juxtaposition seems to be practically necessitated by the nature of subject-matters in their diversities. All human beings learn from the particular to the general and this means that particular lesson objects must be presented to the learner. This particularity is the root of juxtaposition in instruction. The question is then: Is there a way to make juxtaposition *promote* synthetic capacity through instruction? The possibility of this implies *téchne* must make or stimulate some kind of synthesis as juxtaposition + syncretism.

Syncretism only occurs for *materia* presented in sensibility. This means that the first target for instructional *téchne* is the fuller integration of concepts into a great number of contexts so that these concepts cease to be semi-isolated in the manifold of concepts. To put this more clearly, one must bring more contexts forward in which a concept of a lesson object is *made* to be engaged. A way to do this is to engage the learner in exercises in which he is to employ the concept in similes and metaphors. One might call this "the Lucienne principle." The idea here is to exercise learner ability to *make analogies*. Analogy is the vehicle that carries concepts from one context to others.

One often sees this used in poetry to powerful effect. For example, the concept of a passage from brilliant youth to dimmed old age can be fitted by analogy into one of Robert Frost's poems,

Nature's first green is gold,
Her hardest hue to hold.
Her early leaf's a flower;
But only so an hour.
Then leaf subsides to leaf,
So Eden sank to grief,
So dawn goes down to day.
Nothing gold can stay. [Frost (1923)]

Consider an exercise of pairing up this poem with the image of figure 3 and its caption

When you are still shiny and new
Then you find the world is too.



Figure 3: When you are still shiny and new
Then you find the world is too.

Regardless of whether you are a person who likes poetry or not, I think I would not be going too far out on a limb if I guessed that you have, at some time or another during your life, come across something that seemed to have some quality of being "all shiny and new." Your newborn child, perhaps? The smell of your first set of pencils when you began kindergarten? Your first sight of your first love, maybe? I would ask you to ponder the following question. When you come across something shiny and new, could it be you have also come across, at the same time, a part of yourself that is still shiny and new? If so, some things gold *can* stay.

The immediately objective connection between these examples is so slight it is almost nil, but the affective connection between them can be very intense. From such examples plus a few more, the learner can undertake exercises in finding other examples that 'feel the same' to him, i.e. discover affective bindings among divers objects that, while different, somehow *seem* to be the same. **Seeming** (*Schein*) is that Quality of perception that induces judgments of experience [Kant (c. 1777-80), 28: 234]. It is describable as that condition of a person's mental state in which the representations in sensibility contain the possibility of perception under the acroam of formal expedience in reflective judgment [Wells (2006), chap. 6, pp. 510-512].

Subject-matter presentation in aesthetical arts instruction is always an attempt to produce in the learner presentations in sensibility that have this Quality. To succeed in doing so, the teacher must be able to "feel" an analogy himself and strive to "get the learner to feel something too." Bear in mind that what I am talking about is a Quality of human aesthetics that is about as autistic as perception can be. Its objective description – which is our means of communicating affectivity – must practically resort to circumlocution, metaphor, and simile because of this.

Here is one place where artists' descriptions of music or dance can be a starting point for understanding this notion of 'seeming.' Musicians speak of "movement" in music – something "carrying" a listener along in a sort of affective flow. Classical music depends on this to "capture" the listener, whereas popular music, with its A-A-B-A structure, pleases the listener aesthetically by the familiarity and, to a degree, predictability of this movement schema.

It is instructive in this regard to remember that to the ancient Greeks "motion" (*kinesis*) meant *change of any kind*. When a banana turns brown that is, to the Greeks, a motion. Likewise, to induce a learner to make metaphors or similes requires a him to experience a flow of affective change in his perception with a sense of continuity, a feeling of *Lust*, a sense of transeunt interest, and a feeling of tendency [Wells (2009), chap. 8, pp. 295-317]. Indeed, seeming is what is called

a "moving power" in sensibility. A learner will not be able to objectively describe such a motion, but he will exhibit it in his externalized body expressions (e.g. facial expression, posture, gaze, etc.; for example, look at these in the baby in fig. 3). One might say that in this type of teacher-pupil interaction, the teacher is like a musician playing the instrument of the learner's *psyche*. A sound knowledge of Kiesler's operationalizations and the D-PIPOS circumplex [Wells (2012b), chap. 8] is a *sine qua non* for instructing of this kind. I say more about this in the next subsection.

It is often said that art imitates life, but it is no less true that life also imitates art. It is by the power of a person to *make it a habit* to seek analogies of affect that the person learns to cast his mind more broadly and farther afield. A not-uncommon lesson practiced by many teachers is to expose pupils to poems or other subject-matters and ask, e.g., "What did the poet mean by this?" I think it is fair to say the outcomes of such exercises have at best mixed success. Some pupils seem to find some deeper meaning, others of a more pragmatic and immediate bent think the lesson – and, by proxy, the class – is a waste of time "because you can't *know* what the poet meant." Well, it doesn't really matter what the poet meant; what matters is cultivation of the *learner's* aesthetical intelligence. To cultivate this, the learner's practical *maxims* for seeking and making common meaning implications must be developed. This can only begin with well-crafted examples that can be used to provoke this seeking and making; the learner must first learn *it can be done* before he is asked to *do* it. In commonly occurring conventional lessons the teacher is forced to rely upon learner accidents of experience that a given learner might or might not have ever had. It is a sounder tactic to first *provide* relevant experiences, such as guiding him to the discovery that the two examples given above can be meaningfully related, before attempting to effect more open-ended creative exercises, e.g., "What things do *you* think are like this poem?"

In a similar vein, history lessons can be made to stand as metaphors or similes for later as well as current events. "Caesar crossed the Rubicon." What other 'Rubicons' can you think of? Why are they 'Rubicons'? No doubt the examples you come up with feel like 'Rubicons,' but can you explain *why* you can call them 'Rubicons'? Because there was only one real Julius Caesar and only one real Rubicon that he crossed, *your* examples cannot be *objectively* the same. But they are certainly *aesthetically* the same *to you* or else you wouldn't have come up with them. Exercises in the cultivation of aesthetical intelligence are exercises in finding common meaning implications for divers objects. Instructional education often states by fiat that such-and-such *means* this-or-that, but a learner's aesthetical intelligence cannot be cultivated by fiat. We must spend more time providing instruction directed at what makes meanings meaningful. Aesthetical intelligence is the fountainhead for the making of meanings.

§ 4.2 Learner Personality and Social Style

Because judgments of taste adjudicate learning that cultivates aesthetical intelligence, learners' individual maxims of personality and social style cannot be ignored. It follows from this that a teacher must become a sort of interpersonal psychologist. Some people develop 'people-person' skills while they are growing up through accidents of personal experience that promoted them. Roughly 50% of Americans develop relatively superior skill levels in this. The other *circa* 50% do not develop a 'people-person' orientation because their experiences either did not promote it or actually hindered it. However, *all* people can be *trained* to develop the skills if they have personal incentives to learn them. The Wilson Learning Corporation and a few other companies are in the business of providing practical training of this sort [Wilson Learning Corporation (2011)].

The effectiveness of interpersonal communication between individuals, the types of situational circumstances valued by individuals, and manners of non-verbal semantic messaging expressed by individuals are empirical characteristics studied by personality and social style theory. It is not necessary for a teacher to hold a degree in psychology in order to understand and apply the theory

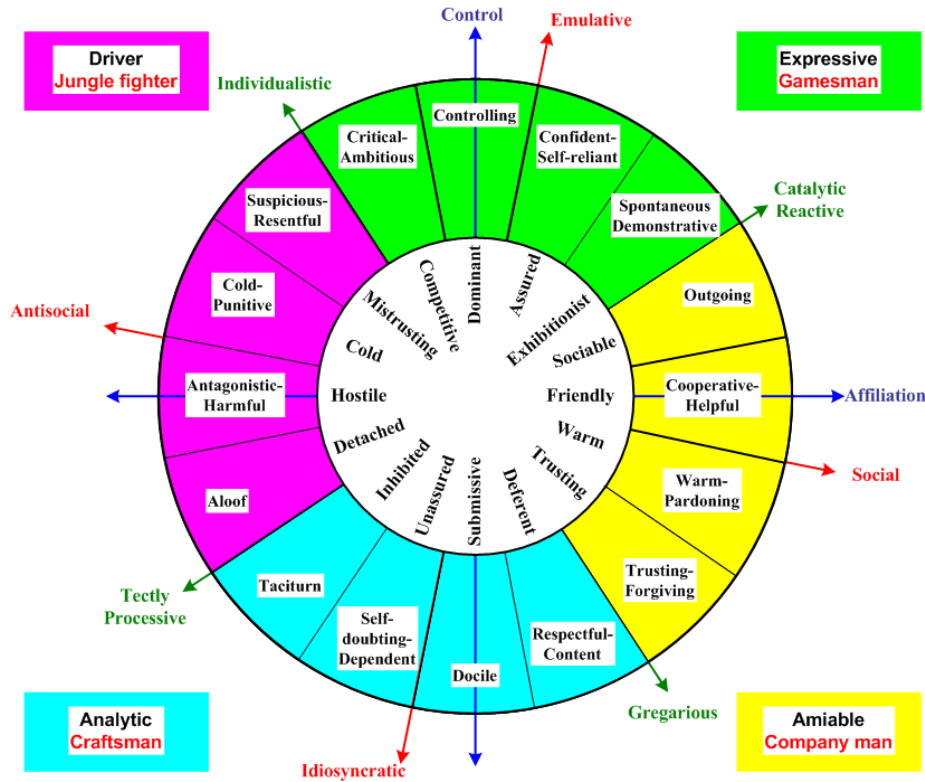


Figure 4: The Kiesler-Wilson-Maccoby circumplex models overlaid on the axes of the D-PIPOS circumplex model. The normal-range Kiesler operationalizations are given in the inner ring. Extreme-range Kiesler operationalizations are listed in the outer ring. Operationalization degrees vary in a continuum along the radial dimension of the circumplex. Color codes depict the Wilson-Maccoby characterizations. Circumplex axes label behavioral characteristics of the individual as these are assessed by others. The figure depicts the D-PIPOS axes. This depiction is presented here with the Idiosyncratic and Emulative axes mirror-rotated around the Antisocial-Social axes as these were depicted in figure 1 of chapter 4. There is no psychological significance to this rotation and figure 4 here is isomorphic with figure 1 of chapter 4. Correspondence between the D-PIPOS/ Wilson/ Maccoby axes are as follows: Individualistic/ high-assertive/ competitively-focused goals; Catalytic reactive/ high-responsive/ intangibles-valuing; Gregarious/ low-assertive/ socially-focused goals; Tectly processive/ low-responsive/ tangibles-valuing. The axes delimit boundaries between the Wilson social styles: Driver, Expressive, Amiable, and Analytic.

in the classroom or school setting, but it is important to the effectiveness of instruction for the teacher to understand the main empirical factors. These are summarized by the D-PIPOS model that was briefly introduced in chapter 4. This model is discussed in more technical detail in Wells (2012b), chapter 8. The D-PIPOS model is a synthesis of circumplex models for interpersonal social styles (the Wilson circumplex), interpersonal relationship styles in terms of what an individual values and focuses upon (the Maccoby circumplex), and his exteriorized forms of non-verbal operationalizations he uses to transmit semantic messages during interpersonal communication transactions (the Kiesler circumplex). Figure 4, the D-PIPOS circumplex, summarizes these factors.

It has been known since the pioneering work of Leary *et al.* [Leary (1957)] that how an individual views himself in terms of these factors usually differs, sometimes greatly, from how other people who frequently interact with him view them. Furthermore, an individual's habitual style and operationalizations frequently depend on the social setting he is in. For instance, an individual can exhibit a very pronounced Driver social style at work yet exhibit an Amiable style at home. His habitual styles and operationalizations can likewise change over time. For instance,

a pupil might be an habitual Analytic in grade school but an habitual Driver when he reaches high school. Therefore, while there would be practical advantages to ascertaining pupils' individual social styles (Driver, Expressive, Amiable, or Analytic) in order to provide his teachers with valuable information for how to manage and conduct teacher-pupil interactions, pupils' social styles would have to be reevaluated every year to account for changes that will be occurring. The social and interpersonal behaviors depicted by the D-PIPOS circumplex are *habitual* behaviors and habits do change over time. Methods for making such year-by-year determinations in the case of adults in the workplace have been developed by the Wilson Learning Corporation², but more research and development is needed in order to develop and verify methodologies appropriately designed at grade levels for application to pupils and students.

The causative objective ground for behavioral characteristics in terms of habitual social and interpersonal styles is the individual's manifold of rules in practical Reason (see figure 1). Individuals' habitual expressions as characterized empirically by the D-PIPOS circumplex reflect manifold of rules structures in the individuals (see chapter 4, figure 2, and the accompanying text). The process of pure practical Reason is the master regulator of all non-autonomic human behavior, and the nature of this regulation in every individual case is determined by the structure of his manifold of rules as this is legislated on the basis of experience by the process of practical judgment. The *materia ex qua* for this legislating construction is provided by judgments of desiration in the process of reflective judgment [Wells (2009), chap. 8]. Consequently, a learner's habitual maxims of behavior and interest are immediately tied to effects registered in his manifold of Desires (see figure 1). This affective manifold is affected by learner-teacher interactions and because of this it can be guided through cultivations of the learner's aesthetical intelligence.

Dewey said,

Another thing suggested by [traditional] schoolrooms, with their set desks, is that everything is arranged for handling as large numbers of children as possible; for dealing with children *en masse*, as an aggregate of units; involving, again, that they be treated passively. The moment children act they individualize themselves; they cease to be a mass, and become the intensely distinctive beings that we are acquainted with out of school, in the home, the family, on the playground, and in the neighborhood. [Dewey (1915), pg. 15]

Dewey was drawing a contrast between two opposing views of the challenge of schooling. The first, which might be called the 'efficiency' point of view, primarily focuses on the most efficient use of fiscal resources in carrying out the public education mission. This view is one necessitating an organization by which one teacher can teach a maximum number of children at once, a tactic that finds itself more or less forced to model learners with a common stereotype insofar as lesson and lesson presentation design is concerned. The second, which is closely linked to the Dewey-PEM thesis of 'child-centered education,' focuses strongly on learner individualism, a point of view that tends to promote abandonment of any stereotyping of learners because individual differences are regarded as paramount determiners of learning.

Both points of view are extreme and, like most extreme positions, fall short of adequacy. It is true that individual differences do matter and it is likewise true that the 'efficiency' viewpoint tends to what is sometimes called 'teaching to the lowest common denominator' and, ironically

² see www.wilsonlearning-americas.com/wlw/products/brv . It is not normally my practice to endorse any specific company or its products, but I do have direct experience with past results obtained by the Wilson people and this experience leads me to conclude their work is sound. I have no professional or financial connections or ties with the Wilson Learning Corporation. I have used their system as described in Wilson Learning Corporation (2011) for many years in my own laboratory with good results for laboratory personnel ranging from 16-year-old high school students, undergraduate and graduate college students, and faculty member colleagues. I do not have data regarding students or pupils below age 16 years.

enough, at the same time tends to promote an excuse for why instruction fails to reach some learners – namely that the learners it fails to reach are substandard in their intelligence. For the last few decades, 'teaching to the lowest common denominator' has been referred to by many non-educators as 'dumbing down' classes and coursework.

On the other hand, the 'child-centered' or 'individualism' point of view logically leads to the extreme of the 'one teacher/one learner' argument put forth by Rousseau [Rousseau (1762)]. This is, of course, an extreme that renders public schooling a practical impossibility and so even at the pinnacle of the child-centered education movement nothing like this was ever attempted. Dewey never advocated for the *Émile* model nor for a tactic of letting the child determine for himself the activities through which he was to be instructed. The 'projects method' advocated by the PEM was in this sense an attempted compromise between "efficiency" and Rousseau-like impracticality of an anarchy of purely individual educational Self-developments by the learners.

There is, however, an empirical middle ground. It is pointed to by the fact that learners exhibit behavioral style and social habits partially stereotyped by the Driver, Expressive, Amiable, and Analytic divisions of the circumplex model. The individual learner is himself the integrator of all aspects of his social environments and past experiences. I use the plural for social environments because every learner defines for himself his own personal society and this personal society, from the time a child enters public schooling, consists of distinguishable mini-Communities. First, of course, is the mini-Community of his family. But, in addition, he also lives in a society of playmates and, once schooling has commenced, schoolmates. This child's society might be called his "Kids' World." Children's Kids' World mini-Communities are a badly understudied aspect of child sociology. What is key to the phenomenon of childish personal society formation is that there are classifiable similarities that permit a degree of theoretical stereotyping that falls in between the efficiency extreme and the individualism extreme.

The four quadrants depicted in figure 4 distinguished by color code are characterized by distinct interests, values, and characteristics of interpersonal communication. Specific distinctions are discussed in technical detail in Wells (2012b), chapter 8. The existence of these differences arguably suggests instruction will be more effective if different instructional approaches tailored to style types are used. There is no significant existing research on specific teaching tactics tailored to style types; this constitutes an additional need for research into experimental methods that can be classroom tested on a small scale prior to general adoption³. Toward this end, the following summary of learner characteristics by social style quadrant must be taken into account by teacher-researchers [Wilson Learning Corporation (2011)].

§ 4.2.1 The Driver Quadrant. This learner responds best to communication that is clear, brief, and to the point. He is impatient with rambling or time wasting interactions. He appreciates straightforward, direct approaches that stick to the matter at hand in a pleasant manner. He dislikes interactions that are demonstrably excited, casual, or informal. He values clear facts and dislikes gaps and uncertainties. He dislikes bald speculations. He will take unfulfilled guarantees or assurances badly and perhaps with hostility. He is comfortable with specific "what" questions and dislikes rhetorical or irrelevant questions and repetition. He likes to have alternatives and options for what he can do with some facts related to the probability of success and effectiveness of these different alternatives. He likes to make his own decisions and conclusions and will resist being told how to do something. A Driver specializes in control. In instances of disagreements, he expresses himself by, and best responds to taking issue with, the facts. He responds poorly to dis-

³ It is not possible from the applied metaphysic of public instructional education [Wells (2012a)] to derive a theoretical formula for what kind of teaching approach would be 'the best'; indeed, the *deduction* of the general theory rather indicates that there can be no one single 'best' empirical method. The question at hand does not belong to metaphysics but rather to an as yet unrealized empirical science of education.

agreements that are expressed on a personal level ('fight' rather than 'flight'). He is persuaded by referring to objectives and results and is unconvinced by emotional appeals. After finishing one thing, he likes to move directly on to the next thing and does not respond well to pauses for getting personal or chummy. He likes to save time and be efficient in achieving his results. He needs a climate that allows him to forge his own structures and do things his own way. He needs encouragement that supports his conclusions and actions. He measures personal value by results achieved. He focuses on "what" rather than "who," "why," or "how." He is results-oriented and, interpersonally, is highly assertive and tends to "tell" rather than "ask." For personal growth he needs to learn to listen to others' views and recognize others' clues expressing how they feel.

§ 4.2.2 The Expressive Quadrant. The Expressive learner values personal interactions that support their dreams and intentions. He dislikes those that focus on logic, feasibility, or practical implementation details (he is a "people person" in contrast to a Driver's "object orientation"). He needs interactions that include relating and socializing and responds poorly to curtness and to interactions that are cold or reserved. He likes talking about his goals and aspirations and about other people's ideas he finds stimulating. He is bored by and dislikes talking about facts and figures, alternatives, or abstractions. He prefers fewer details and suggestions about ways to achieve goals. He responds poorly when his vision is contradicted or his decisions are not carried out by others. He likes to be asked for his opinions and ideas about people. He dislikes wasting time or judgmental behaviors by others, yet he needs to be given enough time to discuss his ideas and views. He dislikes excessive kidding around and he also dislikes too-diligent sticking to an agenda. He highly values receiving praise and testimonials from people he considers prominent or important and responds poorly to being talked down to or burdened with too much detail. He responds well to special, immediate and personal incentives and dislikes it when someone is dogmatic or prescriptive. He needs personal support for himself as an individual and support for his ideas. He is not moved by arguments supporting just the facts. He measures his personal value by praise and applause. For growth he needs to learn to check the facts. Being able to save effort is important to him and he needs a climate that inspires to his goals. He needs interpersonal interactions that are stimulating and supportive of his dreams and intuitions. He focuses on "who" rather than "what," "why," or "how." Although he is "people oriented," he is also highly assertive and tends to "tell" rather than "ask." An Expressive is a social specialist.

§ 4.2.3 The Amiable Quadrant. The Amiable learner values and seeks to preserve personal relationships with others above all else. He is a "we" and "team" person. It is personally important to this type of learner for interpersonal interactions to begin with a brief period of personal chit-chat aimed at reinforcing the interpersonal relationship prior to getting to the objective matter at hand. He responds poorly to omitting this personal prelude although he will not generally overtly express his dissatisfaction because he is interpersonally not demonstratively assertive. He values shows of sincere interest at a personal level through finding areas of common interest but does not like it when the interaction loses sight of its purpose through getting too personal. He values communication that is candid and open and reacts with suspicion and distrust to manipulation or hidden agendas. He likes talking and listening to personal goals and responds poorly to attempts to force the conversation toward quick decisions related to objectives. He responds well to presentations of the matter at hand that highlights people-related factors. He dislikes overuse of facts and figures to support a case for something. He needs to be asked "why" questions in order to draw out his opinion because he does not tend to share it without invitation. He reacts very poorly to situations that are demanding or threatening in an authoritarian sense, but he will not *overtly* fight back or rebel. It is very important for the teacher to watch closely for early signs of disagreement or dissatisfaction because an Amiable's externalized operationalizations of these are not assertive, tend to be covert, and are not willingly displayed out in the open. He needs clearly defined individual roles, responsibilities, and contributions to be spelled out and dislikes vague options or probabilities. He needs guarantees and assurances, and will react very negatively, by

means of avoidance behaviors, to broken or unsupported promises. He measures his personal value by the attention paid to him. He is not an initiator and needs to develop more initiative-making for his personal growth. He needs a climate that "suggests" rather than "tells." He is focused on "why" rather than "what," "who," or "how." An Amiable is a "people person" but expresses himself with low assertiveness and tends to "ask" rather than "tell." An Amiable is a specialist in being *supportive*. You must not be misled by the label "Amiable" that is used for this social style. The Amiable social style is not a style of naïve trust. Rather, one must *earn* the trust of an Amiable and will be tested for trustworthiness during every interpersonal interaction. Once you earn the distrust of an Amiable, that distrust tends to become a permanent feature of all your future interactions *and* an Amiable will thereafter seek to avoid you as much as possible. The social style is non-confrontational and this means an Amiable will not overtly "share" with you dissatisfactions he may be feeling. Once he casts you out of his personal society you will, in a manner of speaking, find yourself wandering his social wilderness as an exile for the rest of your days because once this point is reached he is not a forgiving person.

§ 4.2.4 The Analytic Quadrant. The Analytic learner values having things neat and tidy and he dislikes things that are disorganized or messy. He is a technical specialist. He needs you, as a teacher, to be thoughtful, to not rush him, and to be supportive of his principles. It builds your credibility with him if you present pros and cons for suggestions and not rush any decision-making process. An Analytic is *process-oriented* rather than *results-oriented*. He is a craftsman who presumes good process always means good results. He likes specifics and dislikes vagueness in regard to what is expected of him or of others. He expects others to do what they say they will do. He likes a well scheduled approach and step-by-step plans or instructions and is averse to leaving things to chance. An Analytic dislikes surprises, especially in regard to new approaches to which he has not previously agreed. He is not particularly moved by personal incentives unrelated to the matter at hand. If you disagree with him, he will respond well to an organized presentation of the reasons you disagree and respond poorly to gimmicks or tricky manipulation. He needs to be given time to verify the reliability of your actions. He values things that are accurate and realistic. He distrusts unreliable sources and dislikes haphazardness. He requires solid, tangible, practical evidence and will not use someone else's opinion as testimony or evidence. He needs time to be thorough in what he does and responds poorly to be pushed too hard or rushed. He measures his personal value by the activities he engages in. He tends to put off making decisions until he has thoroughly tested and verified them. For personal growth he needs to learn to make decisions more efficiently. He is a person who values self-pride and reacts badly to loss of "face." He needs a climate that provides him with details and allows him time to be accurate. He needs you to support his principles and thinking. He is focused on "how" rather than "what," "who," or "why." He is not highly assertive or a 'people person' and can be idiosyncratic and stubborn.

§ 4.2.5 Social Organizational Tactics in the School Environment. The characteristics of the four different principal social styles just discussed present problems and issues for how the learning environment in a school is set up and organized. The traditional organization of a classroom by learner age or grade level ignores the key differences in how learners aesthetically react to teaching methods and instructional *téchne*. If a teacher is unaware of these factors, the normal tendency will be for the teacher to approach instruction within his own social style and to not be cognizant enough of learning difficulties arising from differences between his social style and those of the diverse learners. In terms of social styles and their aesthetical effects, the traditional approach can appropriately be called a *homogenized class model* of school organization. This is a form of unconscious stereotyping that can and does hinder teaching and learning.

The opposite extreme to the homogenized class model is an organization that segregates by learner habitual social style. One might propose, for instance, grouping all the Drivers together in one classroom, all the Expressives in another, etc. This, however, has an undesirable consequence

of its own, namely, reinforcement of unconscious egocentrism in social style. The twelve functions of public instructional education in the social dimension of the learner [Wells (2012a)] aim, among other things, at cultivating the opposite of social egocentrism, namely, what Piaget called decentration. This means that a social style segregation model for classroom organization will severely hinder accomplishing half of the basic functions of public instructional education. This model also has the practical drawback of requiring more fiscal resources and staffing in the implementation of schools, and this is a factor of some significance given limited resources a Society can devote to the institution of public instructional education. It is an issue that can fairly be ranked a close second to the primary functional drawbacks.

It follows that a better technique for dealing with social style differences must compromise between the two extreme models. For example, it might be found that general factual presentation to the class as a whole accompanied by some follow-on tactics of small group exercises and individual teacher-learner interactions (organized around social style differences) would be a tactic superior to both "pure" models. Exercises or study group organizations can likewise be set up with a mix of *compatible* social styles. What I mean by "compatible" styles is this. The social styles separated by 180° in the circumplex of figure 4 are called "poison relationships." This is because the social style with which a Driver is most comfortable is the precise opposite of that with which an Amiable is most comfortable; likewise the Expressive and Analytic social styles are precise opposites. Unless the members of such mixed groups are highly versatile in their abilities to adapt their own social styles to the "comfort zones" of others – an ability that requires a somewhat high capacity of aesthetical intelligence – the more assertive members (Drivers or Expressives) will tend to dominate the group and alienate the less assertive members (Amiables or Analytics)⁴. Two styles are compatible if they are not poison relationships. This does not mean that compatible habitual social styles – say, for example, a Driver and an Analytic – will be totally comfortable with each other; they won't be. It is to say they are more likely to find ways to get along with each other and make allowances for what each regards as the other's "faults."

§ 4.3 Egocentrism, Decentration, and the Aesthetical Arts

The behaviors, values, and interests focuses just described are externalized appearances that reflect an individual's manifold of rules structure. A person is not conscious of this structure. He presumes himself to be "right" and *feels* contrary behaviors, values, and interests are "wrong." Because every person's private moral code is determined by imperative and tenet structures in his manifold of rules, situations and events contrary to many of the characteristics of the person's personal social style are, deontologically, moral issues to him. Because he is not conscious of this manifold, he will tend, *ceteris paribus*, to presume others see things and feel about things the same as he does. This is the very definition of Piagetian egocentrism. Moral realism, as Piaget defined that term [Piaget (1932)], accompanies egocentrism inasmuch as practical hypothetical imperatives and high-level practical tenets in the manifold of rules are what an individual unconsciously holds-to-be "rules of right and wrong, good and evil" in his action determinations. Cognitive understanding of his rules always lags his formation of the rules themselves. Un-conceptualized rules function as his *practical* beliefs.

⁴ As examples, people who are habitual Analyticians tend to need a lot of "personal space" around them. On the other hand, Expressives tend to invade other people's "personal space," an action that an Analytic finds extremely uncomfortable and offensive. In counterpoint, an Analytic's careful and step-by-step detailed approach to situations is contrary to the exuberance of Expressives and taxes their patience. A Driver tends to become impatient and demanding when results are not quickly forthcoming – expressions an Amiable, for whom interpersonal relationship trumps results, finds authoritarian, offensive, and unbearable. In counterpoint, the warm, personal behaviors an Amiable finds most cordial and appealing tend to drive Drivers crazy because they dislike "sharing feelings" and to want to "get the job done."

By the time a learner enters school the radical egocentrism of the first few years is behind him. As the socialization process progresses, native egocentrism gradually gives way to its opposite, namely, decentration. However, egocentrism is never eliminated even in adulthood, and so is always a factor in instruction. Lack of awareness of one's own social style and unconsciousness of differences between one's habitual social style and those of others are primary indicators of habitual egocentrism. A person's social style *versatility* depends on his degree of decentration.

Aesthetical intelligence is the power of mind through which decentration in an individual is effected. Egocentric concepts remain egocentric until their re-presentation in sensibility leads to disturbances to equilibrium, a condition which is first perceived in sense and feeling. The idea is a straightforward one: before any accommodation in the rule manifold can occur, the person must become aware that "something is wrong" – i.e., that rules and concepts which have worked for the individual heretofore have now encountered some empirical contradiction. Because this sort of knowledge is not inherent either in the practical rule structure (practical Reason knows no empirical objects and feels no feelings) or in the manifold of concepts, that leaves only one source for such knowledge perception: the manifold of Desires (figure 1). *Civilisurung* of the individual learner, with the attendant decentration effects of socialization and development of maxims of reciprocal Obligation and concepts of reciprocal Duties, consequently relies upon the cultivation of his aesthetical intelligence.

It follows from this that instructional education in the aesthetical arts framework serves all of the twelve functions of public instructional education in the social dimension of the learner (see figure 5). These functions were deduced in *Education and Society* [Wells (2012a), chaps. 6-9], to which I refer you for their explanations. The matters of immediate concern in this treatise are those pertaining to how aesthetical arts education can be made to serve these functions.

My first comment repeats something I said in an earlier chapter. The functions of education do not map one-to-one to courses. For example, the study of literature or history each serve multiple functions of education in the social division. The same is true for classics, languages, performing and visual arts, jurisprudence – in short, the arts and humanities as a whole.

My second comment addresses issues raised by the fact that all cultivation of the manifolds of rules and concepts, and of aesthetical intelligence overall, starts with and depends on experience. How, then, is a child – who is an inexperienced person – to acquire experience while in school? It

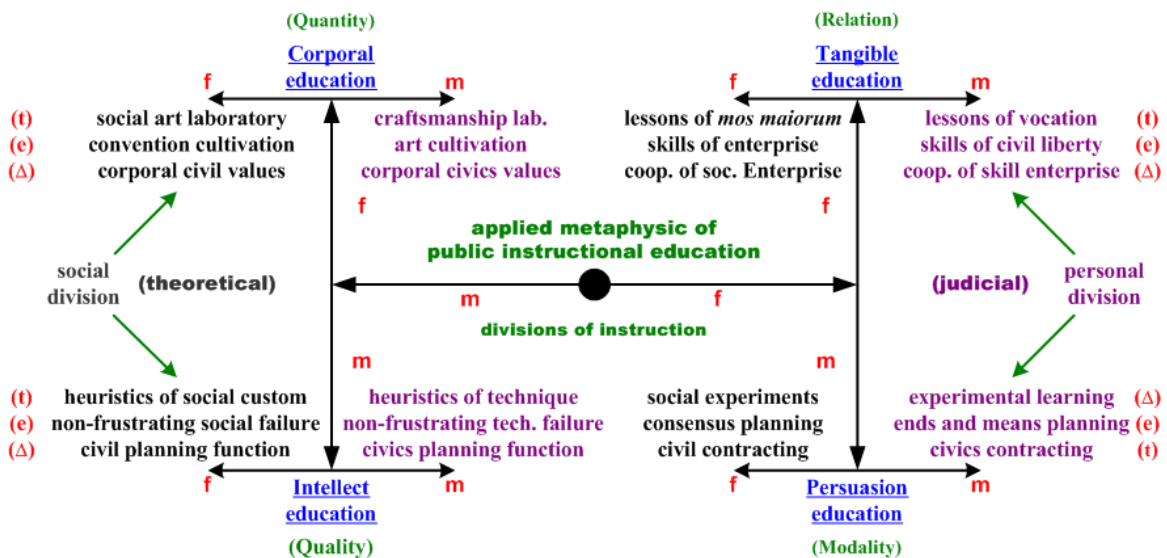


Figure 5: 3LAR structure of the functions of public instructional education.

could hardly be more clear that this cannot be adequately acquired by a child at first hand. Human beings, after all, spend their entire lives in the acquisition of experience. How is someone who is only five to seventeen or eighteen years old to acquire the relevant experience most men do not acquire at first hand until they have lived fifty or sixty years? It is clear that actual experience can not be the practical vehicle for instructional realization of the social functions of public education.

This being so, that leaves only what I shall call 'vicarious experience.' The basic idea of this is quite simple: if a child cannot be expected to learn from actual firsthand experiences of his own, the experience of someone else must somehow be communicated to him in such a way that this vicarious experience *seems real enough to the child*. **Vicarious experience** is *knowledge acquired from secondhand sources that is communicated to a person by means of a harmonization of the free play of his imagination and understanding resulting from its presentation*. In this *Realerklärung* of the term, *knowledge* means *any conscious representation by or through which meanings are determined*.

This is not an especially new idea. Science fiction author Robert Heinlein explicitly invoked it in one of his novels as part of the development of his computer character, "Mike":

I used to question Mike's endless reading of fiction, wondering what notions he was getting. But turned out he got a better feeling for human life from stories than he had been able to garner from facts; fiction gave him a gestalt of life, one taken for granted by a human; he lives it. Besides this "humanizing" effect, Mike's substitute for experience, he got ideas from "not-true data" as he called fiction. How to hide a catapult he got from Edgar Allan Poe. [Heinlein (1966), pg. 109]

Imaginative literature is one obvious source of subject-matter for imparting vicarious experience to learners. Poetry is another. Music, particularly in its lyrics, is a third. History readings make up yet another obvious source for, as Santayana famously said,

Those who cannot remember the past are condemned to repeat it. [Santayana (1905), pg. 284]

There is a logistics problem in regard to having an adequate available supply of reading or singing material designed and authored for appropriate developmental stages of learners of different ages. Most imaginative literature, poetry, and music has not been specifically designed and written for instructional purposes, and so it has usually been left to the teacher or some selection board to try to pick out appropriate material from the commercial stock at hand. However, functional instruction is purposive; the functions listed in figure 5 all target and aim at some aspect of cultivating learner *Personfähigkeit*. Materials presently in use in school are not deliberately written with these purposive aims in mind. Designing and producing such material is another practical issue the institution of public instructional education must address.

One criticism that can be justly leveled at the usual ways arts and humanities have often been taught concerns what I will call 'guided follow through.' It is one thing to aesthetically move a learner by means of a powerful piece such as McCrae's World War I poem, *In Flanders Fields*,

In Flanders fields the poppies blow
Between the crosses, row on row,
That mark our place; and in the sky
The larks, still bravely singing, fly
Scarce heard amid the guns below.

We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow.
Loved and were loved, and now we lie

In Flanders fields.

Take up our quarrel with the foe!
To you from failing hands we throw
The torch; be yours to hold it high!
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields. [McCrae (1915)]

This poem, like many other works, can move the learner in some way, especially if augmented by visual art. But in what way and toward what purpose of public instructional education? It is true that each learner moved is moved in his own private and autistic way. But it is also true that follow through guidance can affect the lesson he internalizes and makes part of his understanding. It is often the case that instruction stops too soon, with merely the movement and not with the cultivation of learner *Personfähigkeit* and citizenship for which public education is instituted. This comes back again to the thesis of lesson *sequences* designed to attain to the goals and aims of the public institution. There are many places to which *In Flanders Fields* might conduct the learner. Instruction is irresponsible in fulfilling its Duty to the public when it does not undertake to guide the learner to a destination which serves public purposes under the social contract.

Part of this guidance concerns cultivating learner awareness of the social styles of others and of his ability to adapt his own social style in order to better cooperation, mutual understanding, and mutual Obligations and Duties. No social style is inherently "good or bad," "right or wrong." The ability to adapt one's own social style to be more compatible with that of another is called a person's social *versatility*. There are objective clues a person expresses that aid in identifying the habitual social style of another, but *judgment* of what these clues mean always comes down to the interpreter's power of aesthetical intelligence. What else have the arts and humanities ever been but attempts to move people toward decentration and appreciation for the views and feelings – the *humanity* – of others? But this movement is not effected if lessons are left at a level of autistic egocentrism, just as it likewise is not by arguments of objective logic or by a focus on job skills.

Furthermore, any particular subject-matter piece can usually be made to teach more than one object lesson. For example, *In Flanders Fields* taken by itself presents a clear message of a call to Duty and sacrifice, and this is one justified lesson in cultivating aesthetic intelligence and learner decentration. But it can be augmented with other material to *additionally* serve to counter the myth of "glorious" war and tame impulses that favor achieving private ends through violent means. For example, consider what aesthetical lessons are possible if it is augmented by another piece, such as

Ah, love, let us be true
To one another! for the world, which seems
To lie before us like a land of dreams,
So various, so beautiful, so new,
Hath really neither joy, nor love, nor light,
Nor certitude, nor peace, nor help for pain;
And here we are as on a darkling plain
Swept with confused alarms of struggle and flight,
Where ignorant armies clashed by night. [Arnold (1867), st. 4]

plus a third, e.g.,

In the execution of such a plan nothing is more essential than that permanent, inveterate antipathies against particular Nations and passionate attachments for others should be excluded; and that in place of them just and amicable feelings towards all should be

cultivated. The Nation which indulges towards another an habitual hatred, or an habitual fondness, is in some degree a slave. It is a slave to its animosity or to its affection, either of which is sufficient to lead it astray from its duty and its interest. Antipathy in one Nation against another disposes each more readily to offer insult and injury, to lay hold of slight causes of umbrage, and to be haughty and intractable, when accidental or trifling occasions of dispute occur. Hence frequent collisions, obstinate envenomed and bloody contests. The Nation prompted by ill will and resentment sometimes impels to War the Government, contrary to the best calculations of policy. . . . So likewise, a passionate attachment of one Nation for another produces a variety of evils. Sympathy for the favorite nation, facilitating the illusion of an imaginary common interest, in cases where no real common interest exists, and infusing into one the enemies of the other, betrays the former into a participation in the quarrels and Wars of the latter without adequate inducement or justification. [Washington (1797), pg. 973]

Real and effective aesthetical arts instruction consists of *sequences* of subject-matter presentations and lesson objects, all aimed at realizing specific functions of public education. Teachers of the aesthetical arts should be composers and conductors of *symphonies* of aesthetical movements in their learners. In this subsists *holistic* arts and humanities education. Without it education in the arts and humanities is fragmented, broken, idiosyncratic, and rudely swept away by the winds of adversity for lack of strong foundations solidly set in the bedrocks of human nature and Society.

I do mean to use the word "composer" quite literally. There is nothing, other than tradition and inertia, preventing the authoring of purposively designed instructional material for directly cultivating the learner for decentration and social intercourse. When one considers the fact that in present-day America children spend most of their discretionary hours with other children, and that children do form their own child mini-Societies that orient and influence their practical social maxims, enfolding children into the wider Society means, in part, counteracting the largely Duty to Self maxims childish mini-Society tends to promote. For example, one form of reading matter that lends itself quite naturally to emphasizing the fact that others do have different ways of seeing and feeling the same situation is the form of child-oriented literature known as *graphic novels* (better known fifty years ago as "comic books"). First, a graphic novel presents in pictures as well as words; this has the advantage of being able to at least partially communicate non-verbal messages by means of facial expressions and gestures. Second, devices such as the use of 'thought balloons' in the illustrations allows a side-by-side presentation of what two characters are thinking and feeling, thus immediately presenting to the young reader, through pairwise comparisons, some concrete examples better amenable to syncretism and favorable to cultivation of decentration. It is quite wrong to assume graphic novels are merely entertainment. They are possible vehicles of vicarious experience.

The same sort of thing is possible in non-graphic short story form by a literary device that can be called 'omniscient scanning'. Specifically, it is already common for an author to write in what is called the "author omniscient" point of view [Ziegler (1968), pp. 67-68]. In this style, the author can "enter the mind" of any of the story's characters at any time and shift from one to another at any time. The usual styles used in stories and novels do this one character at a time, and shifts from one character to another are presented serially in the storyline. This is juxtaposition.

In literature intended for instruction, there is another form of this possible which might lack the commercial appeals a commercial author must heed but can be made to counteract the effects of juxtaposition in young learners. This is to put the pages, or parts of some pages, into a two-column format and "enter the minds" of two characters at once. One of the characters is presented in the left-hand column, the other in the right-hand column so that their simultaneous views and feelings in regard to the same situation are set side-by-side. Some skill is required to keep the two viewpoints "synchronized" on the page so that a young reader can easily compare them, but this relatively simple device can be made to produce an effect similar to the "thought balloon" device

in graphic novels. I use the word "scanning" in "omniscient scanning" to emphasize the reader's ability to "scan back and forth" between the two columns as he compares what the two characters are thinking, feeling, and doing coincidentally with one another. Omniscient scanning was a method I used with much success for some creative writing assignments many years ago, when I was a college student. I used it particularly for a much-discussed and volatile socio-political issue of wide-spread concern in those days that was known as "the generation gap." In my writings on this topic, I would usually pair up an older character in one column with an adolescent character in the other. In other cases, I would pair up a "conservative" with a "liberal," or a "hippy" with an "establishment" character, or a Vietnam War supporter with an antiwar activist.

There are doubtless many other non-conventional methods waiting to be developed to tailor and combine reading matter, visual arts, music, theater, drama, dance, and so on to better fit instructional functions. It is only a matter of imaginative artists coming up with them. Omniscient scanning was, in a manner of speaking, "low hanging fruit"; it may take more of a creative stretch to come up with and develop other new matters and methods, but it seems clear enough that there is plenty of fruit higher up in the aesthetical arts tree still waiting to be picked.

Again, the general objective is to invent instructional material intentionally designed to move learners from a predominant egocentrism to the decentration necessary for better socializing young learners into the norms of their parent Society. As the practitioners closest to the manifold challenges of instructional education – and regarding them as professional practitioners of a new science of education rather than as mere instructional technicians – the development of such new materials, and the *téchne* employed in authoring and presenting them, falls naturally to teachers in recognition of their special occupational skills.

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