Chapter 13   The Language Arts Framework

§ 1. The Definitional Problem of Language Arts

There seems to be general agreement among both educators and the public that something called "language arts" should be taught in public schools. What is this something? What are the real educational purposes of teaching it? What sorts of instruction does it include? The first two questions likely seem trivial at first glance and the third only slightly less trivial because it is slightly more controversial. At the surface level, yes, these are rather trivial questions because the number of situations in which a person finds himself compelled to read something are legion. As soon as one scratches beneath this surface, however, one finds these questions are not at all so trivial as they first seem. Ample proof of this is displayed by the fact that controversies do exist over the details of what should be put in a "language arts" curriculum. For instance, there are some who argue passionately that it should include at least some of the works of Shakespeare and Dickens; others roll their eyes at this and exclaim, "What? Are you kidding? Why?" Taking these sorts of disagreements out of the realm of opinion and establishing objectively valid bases for their answers requires us to more clearly understand what "language arts" are and how they are related to the twenty-four general functions of public instructional education (figure 1).

In general an ***art*** is *the disposition or modification of things by human ability to fulfill an intended purpose*. The notion of "language arts" would follow from this as the disposition or modification of "language" – i.e., using language purposively and in various ways in order to *do* something. It would seem all is well if in fact we know what this thing called "language" is that we are to use to do something. Well, we all know what "language" is . . . or do we?

Like a great many ideas we take for granted and casually use, the idea of "language" is not really so simple as most of us take it to be. Indeed, if you are not a prisoner of adult egocentrism, soon after you seriously undertake to state a general definition of "language" you will discover that by asking the question you have opened a metaphysical as well as a psychological can of worms. Reber & Reber (2001) provides an excellent statement of the psychological problem of defining what "language" is:

> **language**   All know the meaning of this term: a language is what we speak, the set of arbitrary conventional symbols through which we convey meaning, the culturally deter-mined pattern of vocal gestures we acquire by virtue of being raised in a particular place and time, the medium through which we code our feelings, thoughts, ideas and experi-ences, the most uniquely human of behaviors and the most ubiquitous behavior of humans. Yet, as the term is used, it may mean all of these, none of them, or even things very different.
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> The conviction that we know the meaning of the word *language* lasts only so long as we refrain from attempts at specifying what we know. To appreciate the problem of definition and use here, consider the following questions: (a) Is the system of manual signs used by the profoundly deaf a language? (b) Are the synthetic systems developed for the pro-gramming of computers true languages? (c) Are the invented coding systems of socio-political reformers such as Esperanto to be classified as languages? (d) Should the sequence of motor movements, body positions, gestures and facial expressions that convey meaning be regarded as a language? (e) Are there valid reasons for labeling the communi-cation systems of other species languages; for example, those of bees, dolphins and chimp-anzees? (f) At what point in the emerging vocalizations of an infant do we want to con-clude that it now has language?
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> These questions and many more like them cannot easily be answered. They are presented here to illustrate the complexity that the word carries, a complexity that renders any straightforward definition useless. [Reber & Reber (2001)]
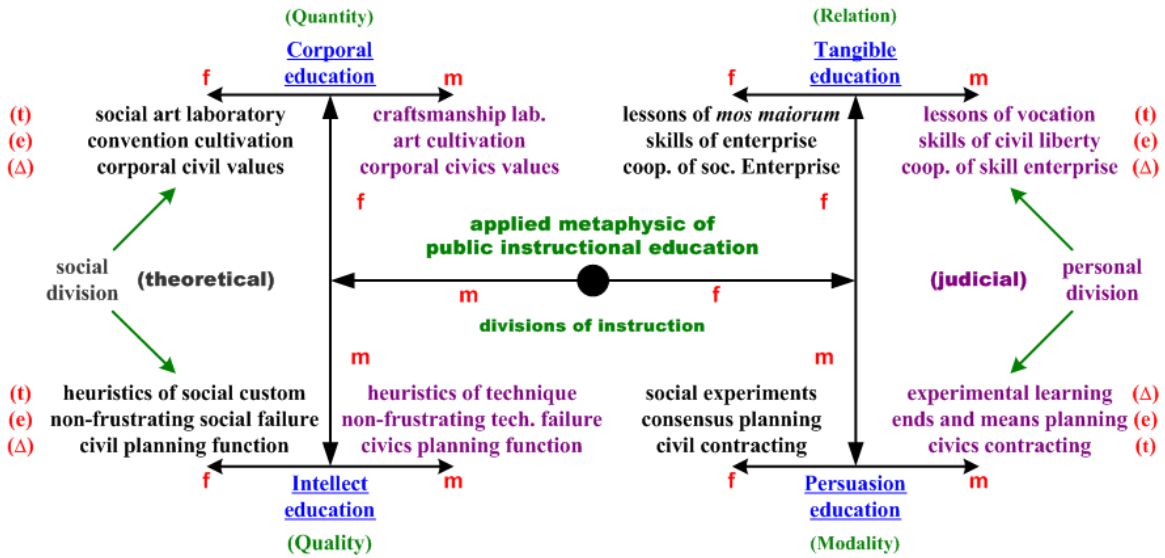
Figure 1: 3LAR structure of the twenty-four functions of public instructional education.

No small part in this difficulty is played by the fact that the words we use and what we choose to name things have enormous and diverse effects on *what* we understand and *how* we understand as we use language representations. Every sentence he hears evokes in a listener meaning implications that are constituted by reflective judgments, which is to say meanings are *subjective* consequences of aesthetic laws. Bacon called this phenomenon the idols of the market:

> The idols of the market are the most troublesome of all, those namely which have entwined themselves round the understanding from the associations of words and names. For men imagine that their reason governs words, while, in fact, words react upon the understanding; and this has rendered philosophy and the sciences sophistical and inactive. . . . Hence, the great and solemn disputes of learned men often terminate in controversies over words and names, in regard to which it would be better . . . to bring such disputes to a regular issue by definitions. Such definitions, however, cannot remedy the evil in natural and material objects because they consist themselves in words, and these words produce others so that we must necessarily have recourse to particular instances and their regular series and arrangement [Bacon (1620), pg. 31].

This "evil" (as Bacon called it) cannot be remedied by recourse to such things as the erudite sterility of mathematical semantics theory or by formal analysis of grammars, although a great deal of effort to do so has been put forth in both approaches. Formalism, because it abstracts all material content from its Objects, cannot explain or deal with the fact that human beings (in particular, English speakers) have no trouble understanding either of the following two sentences:

> Time flies like an arrow;
> Fruit flies like a banana.

However – and this tends to illustrate the distorting grip formalism can have on our thinking – when some people encounter these two sentences juxtaposed (as they have been here), they attempt to make the second match the grammar of the first – with the result that the second momentarily strikes them as nonsensical until they realize, e.g., that "flies" is a verb in the first sentence, a noun in the second. Computer scientists, or at least those who spend most of their time working with "computer languages," seem to be particularly susceptible to this effect. Perhaps this is because of a "habits of the shop" effect in their thinking.

As an idea, "language" denotes a generic and supersensible object under which a great many sensible phenomena are made to stand as species. Critically, this means "language" *per se* is an Object of mathematics – an *epistemological* construct with no *ontological* significance. This also means, among other things, that it *is* possible to define it. Reber & Reber didn't say a definition was impossible; they merely said it wasn't easy. To do so thoroughly a Critique of the usages we make of this concept and a developed applied metaphysic is needed by which an empirical science of language is connected to the metaphysics proper of human Nature. Accomplishing this would take an entire book, but for our present purposes it suffices to state the following operational *Realerklärung*: A **natural human language** is *a system of conceptualized vocalizations and gestures used by a human being for thinking and for communicating with other human beings*. This is a limited connotation for the idea of language *per se* but one appropriate for the purpose at hand. The topic of this treatise sets a *limiting context* for us, and that context can be expressed by the question: "What are we to understand 'language arts framework' to mean with regard to public instructional education?" This limitation of understanding means that in this book we will go no further than to understand "language" in terms of how the idea pertains to topic, subject matter, curriculum goal setting and instruction design *téchne*.

To explore this is to make an exploration beginning with the purposes of the institution. In its simplest terms, we institute *public* education in order to cultivate individual learner *Personfähigkeit* in such a way that our collective Community *Personfähigkeit* is strengthened and improved to the benefit of us all. That is the basis in the social contract which justifies the institution itself. What sorts of human abilities are those that appear to be cultivated by behaviors we have come to customarily classify under a logical heading of "practices of language arts"? What sorts of things does a person make disposition of or modify through the exercise of human abilities we habitually label and call "language" and here denote by "natural human language"?

§ 2. Empirical Aspects of Language Use

In his concurring opinion in the 1964 Supreme Court case *Jacobellis v. Ohio*, Justice Potter Stewart famously wrote, "I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description ['hardcore pornography'] and perhaps I could never succeed in intelligibly doing so. But I know it when I see it . . ." In some ways "language" is also a shorthand description for an undefined something people "know when they see or hear it." This is to say there are *aspects* of human behaviors we typically label as "language" aspects. What are some of these?

There appears to be no reasonable doubt that one of them is interpersonal communication. By this term I mean actions expressed by one person (the transmitter) such that these actions evoke the representation of specific concepts, affects, intentions, attitudes, expectations, or reactions in one or more other persons (the receivers) that the transmitter intends to evoke. This can be called the **external aspect** of language use. The two most common modes of transmitter expression that are typically labeled as "language use" (in the context of 'language arts' in education) are speaking and writing. The two most common modes of receiver impression (again in the educational context) are listening and reading.

There are, of course, other modes of interpersonal communication (e.g., 'body language'), but speaking/listening and writing/reading are the modes that language arts instruction traditionally focuses on. Other modes of interpersonal communication, especially visual arts and music (which I will jointly classify under something I will call *the esthetic arts*), differ from speaking/listening and writing/reading only inasmuch as the transmitter does not have a specifically intended effect he wishes to produce in the receiver and instead wishes to "move" the receiver in some (usually affective) non-specific way. The esthetic arts are typically treated under a sort of *potpourri*

framework called 'the humanities' by Institutes of education. In most ways this dividing of communicative arts is artificial. Songs can "move" the listener instrumentally, by means of the lyrics, or, oftentimes, by their combination. Poetry (including song lyrics) often uses words and phrases ('language') to "move" the receiver without aiming at a specific way of "moving" him. Theater arts often likewise "move" the audience in ways that may be either specific or non-specific but, in either case, are not *objectively* tied directly to what is specifically presented in the play or performance. Thus, *Oliver Twist* and the movie *August Rush* both tell more or less the same story of an orphanage boy who falls under the malignant influence of a Fagin and is rescued in the end by relatives with the aid of other people. In both the Fagin character is presented with some degree of sympathetic portrayal. A similar observation can be made for *Romeo and Juliet* and the musical *West Side Story*. Insofar as the cultivation of learner *Personfähigkeit* is concerned, any education framework division between language arts and the esthetic arts is to a degree capricious. Typical debates over their relative merits have no *real* ground for debate to be found in human nature and debaters argue over differences in judgments of taste. How they are differentiated and treated by education institution can, however, have many and wide ranging social effects such as the cultivation of tolerance vs. intolerance or equality vs. caste division and bigotry. Sparta provides an extreme example of such institutional effects [Kennell (1995)].

It also seems beyond reasonable doubt that there is an ***internal aspect*** of language use. Human beings use language to understand objects and circumstances, i.e., to facilitate thinking and reasoning. The sensible objects of natural human language are represented by concepts in the manifold of concepts. Reintroduction of concepts into the synthesis in sensibility alters intuitive connections to practical schemes and motoregulatory expression; in other words, the re-introduction accommodates perception, and this accommodation *is* human motivation. Language objects are used to build and extend one's intelligence and to solve novel problems. Observing this usage by human beings is almost straightforward. For example, Piaget noted that

> with the child, as with us, language would seem to enable the individual to communicate his thoughts to others. But the matter is not so simple. In the first place, the adult conveys different modes of thought by means of speech. At times, his language serves only to assert, words state objective facts, they convey information, and are closely bound up with cognition. . . . At times, on the other hand, language expresses commands or desires, and serves to criticize or to threaten, in a word to arouse feelings and provoke actions . . . But another point arises. Is it certain that even adults always use language to communicate thoughts? To say nothing of internal speech, a large number of people . . . are in the habit of talking to themselves, of keeping up an audible soliloquy. . . . The solitary talker invokes imaginary listeners, just as the child invokes imaginary playfellows. Whichever explanation is adopted, it would seem that language has been side-tracked from its supposed function [the external aspect], for in talking to himself, the individual experiences sufficient pleasure and excitement to divert him from the desire to communicate his thoughts to other people. Finally, if the function of language were merely to 'communicate,' the phenomenon of verbalism would hardly admit of explanation. . . . This is not the place to raise the vexed question of the relation between thought and language, but we may note in passing that the very existence of such questions shows how complex are the functions of language, and how futile the attempt to reduce them all to one – that of communicating thought. [Piaget (1930), pp. 1-2]

The internal aspect of language use has been noted scientifically since the time of the ancient Greek philosophers. Some speculators have gone so far as to declare that language and thought were one and the same thing – an assertion that is untrue but not uncommonly held by some today[1]. Hobbes, for example, held that 'thinking' was 'mental discourse':

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[1] Thinking is cognition through concepts. Some concepts are of audible objects, and when these concepts

> By *Consequence*, or Train of Thoughts, I understand that succession of one Thought to another, which is called (to distinguish it from Discourse in words) Mental Discourse. . . . This Train of Thoughts, or Mental Discourse, is of two sorts. The first is *Unguided, without Design,* and inconstant; Wherein there is no Passionate Thought to govern and direct those that follow . . . In which case the thoughts are said to wander and seem impertinent to one another . . . The second is more constant; as being *regulated* by some desire and design. For the impression made by such things as we desire, or fear, is strong and permanent or (if it cease for a time) of quick return. . . . The Train of regulated Thoughts is of two kinds: One, when of an effect imagined we seek the causes or means to produce it . . . The other is, when imagining any thing whatsoever, we seek all the possible effects that can by it be produced; that is to say, we imagine what we can do with it when we have it. [Hobbes (1651), pp. 17-18]

Although most of Hobbes' theory is wrong, it is worthwhile to note his speculation that "desire" (affectivity) is a governing factor in thinking is a concluded theorem of mental physics. As I discuss later, the affectivity factor has a very high level of pertinence in language arts instruction.

The internal and external aspects of language use directly pertain to the power of intellect (intellectual *Personfähigkeit*) and the power of persuasion (persuasive *Personfähigkeit*) in the overall power of a person. Because cultivation of *Personfähigkeit* is a direct Object of public instructional education, instruction design *téchne* for lesson objects and curricula must: (a) take into consideration *how* instructional topic, subject-matter, or curriculum design cultivate these powers (through their associated functions of public instructional education summarized in figure 1); and (b) make this a *primary* consideration. It is neither scientific nor sufficient to justify something (let us say the inclusion of reading a Dickens novel or one of Shakespeare's plays in an English class) on a claim that this something-as-an-educational-activity "makes the learner more cultured" or "makes him a better educated person." Personally, I think both can do both *but only if the lesson objects for which they are subject-matter are made to serve **explicitly** identified functional teaching goals*. A typical American high school learner is not very likely to 'relate' to the setting of a 19th century mill town in England, but he likely can and will 'relate' to this:

> Seen from a distance in such weather, Coketown lay shrouded in a haze of its own, which appeared impervious to the sun's rays. You only knew the town was there because you knew there could have been no such sulky blotch upon the prospect without a town. A blur of soot and smoke, now confusedly tending this way, now that way, now aspiring to the vault of heaven, now murkily creeping along the earth as the wind rose and fell or changed its quarter: a dense formless jumble, with sheets of cross light in it, that showed nothing but masses of darkness: – Coketown in the distance was suggestive of itself, though not a brick of it could be seen.

> The wonder was it was there at all. It had been ruined so often that it was amazing how it had borne so many shocks. Surely there never was such a fragile china-ware as that of which the millers of Coketown were made. Handle them never so lightly and they fell to pieces with such ease that you might suspect them of having been flawed before. They were ruined when they were required to send laboring children to school; they were ruined when inspectors were appointed to look into their works; they were ruined when such inspectors considered it doubtful whether they were quite justified in chopping people up with their machinery; they were utterly undone when it was hinted that perhaps they need not always make quite so much smoke. [Dickens (1854), chap. 17, pg. 407]

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are used for cognition some of them, being language object concepts, can be said to constitute thought. Other concepts are of visual objects, and in their case the person is said to "think visually." Others still are concepts of bodily motions and when these are used the person is said to "think tactilely." It is an over-generalization to assert "language *is* thought" or "thought *is* language." It is an educational error to over-emphasize any one of these many modes of thinking at the expense of the others.

Although there is a more or less obvious *mos maiorum* lesson that could be attached to this particular subject matter, its *primary* relevance for instructing a learner lies in the civil planning function of intellect education and the civil contracting function of persuasion education (figure 1). A typical high school learner is not likely to later be a person responsible for erecting a slum (which would be where a lesson of *mos maiorum* would enter in), but he *is* likely to be called upon as a citizen to be involved in considering socio-economic-political issues of community life and he might even become involved in planning for them – and these are how the planning and contracting functions crucially enter in as part of his cultivation *as a member of the Community with citizens' Duties to fulfill*. If a teacher does not clearly recognize which functions of public instructional education (figure 1) are relevant to a particular lesson object for cultivating the learners, then he is likely to misplace the lesson and unintentionally contribute to a future spectacle of, for example, people gathered in a crowd telling each other, "Tsk, tsk, tsk, they shouldn't build that slum," while watching it happen without lifting a finger to change or stop it.

One challenge for teachers lies in figuring out how to effectively deliver the instruction. I don't mean to disrespect Dickens, but the man didn't write schoolbooks, didn't write for inexperienced young people, didn't write 21st century prose, and – forgive me, Charles – at times his narrative is as dry and dreary as a hike across the middle of the Sahara Desert. Just making pupils read *Hard Times* does not guarantee any *lesson* objects are taught whatsoever. Instruction (and teachers) must *guide* learners in a direction the Duties of public instruction *requires* them to go. To use the excerpt above as an example again, the lesson should arm the learner against the deceits of propaganda[2]; it should not make him join a mob and go hang industrialists from the lamp posts.

In addition to internal and external aspects of language use, there is a scheme-building aspect as well, and this aspect is pertinent to corporal education. Perhaps the most time honored exhibition of this aspect is presented by the use of any of the various alphabet songs used in pre-schools and kindergarten to teach young children the letters of the alphabet and the associations of their printed symbols with their vocalizations. This sort of instruction functionally corresponds to the craftsmanship laboratory and art cultivation functions of corporal education (figure 1). It is not difficult to understand that alphabet song exercises and other similar exercises evoke building sensorimotor schemes by the children. These schemes build upon earlier schemes of recognition and eventually produce mobilization of, for example, schemes of rhyme recognition, e.g.,

"A B C D E F **G** . . . H I J K L-M-N O **P** . . ." &etc.

It is perhaps less widely appreciated that the sort of scheme developments and conservations that are implied by alphabet-song learning phenomena appear to be special cases of a class of broader phenomena observed in studies of memory and intelligence, e.g. Piaget (1968), Piaget & Inhelder (1968). In psychology these sorts of learning behavior appearances are variously known as "chunking," "automation," or "coding." Chunking phenomena have been studied since the 1950s and many mathematical model conjectures describing it functionally have been offered. Some of these conjectural models are not-inconsistent with requirements of the principles of mental physics, e.g. Grossberg (1984; 1986), Cohen & Grossberg (1986; 1987). There remains a great deal of work to be done to tie mathematical conjecturing to causative explanation of learning phenomena, including the learning of reading, but on the whole a significant amount of conjectural modeling progress has been made in regard to catching up with empirical instruction practices teachers have been using for centuries to effectively teach reading.

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[2] You might think Dickens misrepresented the industrialists of his day with his biting irony. If you do, it is worthwhile to know that Thomas J. Watson, Jr., the CEO of IBM, criticized American businessmen for almost exactly the same thing and in words no less biting than Dickens' [Watson (1963), pp. 95-107]. The staples of uncivic free enterprise propaganda are not dissimilar to Dickens' prose and are still used today.

The rudimentary ability to read is, however, the bare beginning of what language arts instruction attempts to accomplish. To be able merely to read is one thing. To comprehend and retain what is read is another. Almost none of the public and academic discussions about children's and college students' ability to read are about the basic ability to read. In academic circles the problem is almost always phrased "reading *at grade level*." I have in fact **never** met an American-educated college student who cannot read. I have met many – very sizable fractions of the student body – who have difficulty *comprehending* what they read, *applying* what they have read in other contexts, or *retaining* what they have read. Comprehension and the ability to relate what is read to other concepts and phenomena are at the root of the debates and controversies over "reading" in the United States. **Literacy**, by which I mean **the ability to understand meanings from the interpretation of written material**, is the primary issue of concern in the U.S. If you examine the common core reading standards by grade level, you will find that *reading* is **not** what these standards are designed to try to measure. The object of the measurements specified in the CCSSI standards is *literacy*. The standards attempt to gauge it by means of example exhibitions.

It might help for starters if we called the problem what it really is. The abilities a person is expected to be able to demonstrate in order to be called 'literate' is, as Gordon & Gordon contend, a function of the social, economic, and technical demands of living in one's particular Society at one's particular time in history [Gordon & Gordon (2003), pg. xv]. It was much easier to be considered literate in New England in 1690 than it is today. In economics, political science, the physical-natural sciences, mathematics, statistics, and technology, it pains me to say that a great majority of Americans today would have to be considered illiterate, and yet the great majority of Americans know how to read. Reading is propaedeutic to literacy but it is not literacy.

Naturally, if you call someone, especially an American, 'illiterate,' he isn't going to like it. He's going to think you're saying he doesn't know how to read – which he will strenuously point out to you isn't true *of him*, assuming he doesn't punch you in the mouth instead. I have never conducted a survey of middle school or high school pupils on the question, but I wouldn't be surprised if the majority of pupils either think illiteracy is a problem elsewhere in the U.S. but not in *his* school, or else express anger and frustration over having so many older people say that he and his peers cannot read. I might even be willing to lay a small wager that if the reading material happened to be written instructions on how to play a new video game, a typical American twelve-year-old would likely be enormously more 'literate' than either you or me. I know for a fact my nephew is more 'literate in this field' than I am – so much so I'm pretty sure he'd tell me I was illiterate were it not for the fact he is a very polite young man; and in this particular 'field' he would be correct if he did think so. Let us be clear about this basic point: reading and literacy are different capabilities though both are learned capabilities. It hinders Progress in U.S. Society when we confound the meanings of these two quite distinct terms. The education issue in the U.S. today is literacy, not reading.

Literacy, like reading, is an ability that is grounded in generalized schemes. Literacy as an ability requires the learner to cultivate higher mobile concepts of procedural schemata (chapter 10) than reading ability requires. The challenge here for instruction *téchne* lies in developing pedagogy and material that facilitates the cultivation of such schemata. As the learner progresses through his developmental stages, literacy instruction moves from a principal centering in the functions of corporal education to those of intellect and persuasion education, i.e. from *scheme-building* to *intelligence-building* and *equilibrium pursuit* [Wells (2012), chaps. 6-7, 9].

§ 3. Affectivity and Literacy Instruction

It is observable empirically that a skill which is unexercised for a long period of time is a skill that atrophies and can degrade to a level at which it is said the person no longer possesses it.

Perhaps as a youth you learned how to play the piano but haven't done so for twenty or thirty years. If asked to play one now, you might decline, saying, "I'm too rusty at it." We have many metaphors for describing skills we could once demonstrate but now cannot. Retention of most skills appears to require their periodic exercise. Literacy appears to be a skill that falls into this category. This points to one of the challenges in language arts instruction: How to get learners to *choose* to regularly exercise literacy skill once they are out of the school system. To put this into more psychological terms, what must instructional practices do to *condition* a learner to continue to use and exercise language arts skills after he leaves the classroom?

A second key challenge is how to get a learner to acquire literacy skills in the first place. I often hear people ask, "How do we get children to read?" – a question usually asked in a context of "how do we get children to read *at their own volition?*" when there is no one coercing them to read. The unspoken supposition underlying a question like this is that merely the bare action of reading ensures literacy – a supposition that is in no way scientifically supportable.

There are two cultivations at which literacy instruction must aim. The first is cultivating **comprehensive reading** as an acquired habit. By "comprehensive reading" I do not mean simply understanding what one has read but rather *reading in such a way that: (1) concepts are con-structed as a consequence of this action; (2) these concepts are* **structured** *in combinations that have a broad scope of objects;* and *(3) the reader can* **use** *them to satisfy his intentions.* In the manifold of concepts, a broader-scope concept is one which has a greater extensive sphere and a wider latitude than another concept of narrower applied scope [Kant (*c.* 1770), 24: 259-261]. Broader-scope concepts are higher concepts in the manifold and thus are more abstract than the concepts standing under them. They are synthesized by prosyllogism from multiple particulars [Wells (2011)], in relationship to which they stand as a common higher mark. In the partial manifold of concepts illustrated in figure 2, concept A is a broader concept than concept B because more concepts and a larger number of coordinated concepts stand under A than under B and, therefore, concept A has a greater extensive sphere and a wider latitude than concept B.
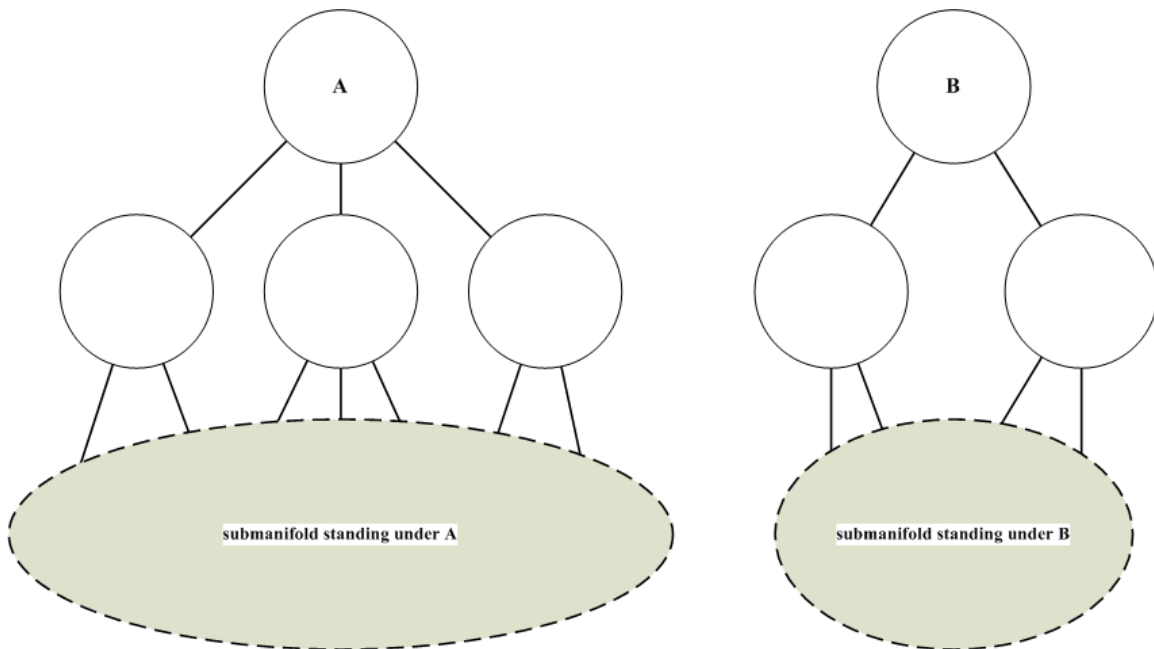

Figure 2: Illustration of broader vs. narrower concepts. In this figure, concept A is a broader concept than concept B because there are more concepts standing under A with a wider span of coordinated concepts standing immediately under A than there are standing under B. A broader concept is a mark of more objects and greater breadth of understanding than a narrower one and for this reason is a concept of greater scope.

For example, I mentioned earlier that *Oliver Twist* and *August Rush* both tell, in the abstract, the same story despite differences in time, place, and the nature of the characters. Comprehensive concepts that understand both stories are synthesized from particulars that a learner judges to be common elements of both. He might not recognize these elements as common merely by reading an *Oliver Twist* story[3] and watching *August Rush* (because of the phenomenon of juxtaposition), but suitably designed *exercises* aimed at having the learner synthesize an anasynthesis of the two can bring about his construction of a broad comprehensive concept understanding them both. The movie *Apocalypse Now* and the Conrad novel *Heart of Darkness* likewise "tell the same" story in different settings with different characters. Pairings like these occur frequently.

If these two subject matter pairs, *Oliver Twist + August Rush* and *Heart of Darkness + Apocalypse Now*, are then combined by additional exercises, it is possible to evoke a still broader synthesis in a concept with a meaning implication for the learner that connects **to a developed practical maxim** of "looking for commonalities in diverse things." A maxim of this sort is what is required in order for **habits of comprehension** to form. Comprehension isn't an *a priori* capacity; it is a *skill* a learner must develop and cultivate. It is a skill propaedeutic to cultivating a renaissance man. My point here is that comprehension – and so literacy as well – is cultivated not by a single lesson event but by an artfully crafted *combination* of lesson events designed around *a common lesson object*. I also want to emphasize that different learning media – reading plus movie-watching in the example case given here – should be looked at as instructional vehicles of a *common* lesson object for producing an intended result. Here is one reason why capricious or artificial logical divisions between different kinds of subject matters (e.g. those of language arts, theater arts, and mathematics) **are harmful to the mission of public instructional education**. Once a learner has constructed maxims of comprehension, he *will* use these maxims in applications to other subject matters, e.g. those of science, business and so on. This is because he discovers that by using these maxims he finds it easier to achieve re-equilibrations after disturbance events (and *all* learning involves some initial disturbance event). The practical rules in the manifold of rules have no cognitive object; every one of them is constructed and placed in the manifold to serve the categorical imperative of pure practical Reason for equilibrium. This is why the maxims can become mobile and get applied to all sorts of experiential circumstances.

I wish to strongly emphasize this point. Skills a learner acquires by means of *comprehension lessons* of language arts (and other arts) do not remain *confined* to language arts (or theater arts or other esthetic arts). Comprehension is a mobile skill once it is acquired. This means instruction in language arts *also* provides the learner with comprehension skills he can use for mathematics, for science, for business, and for every other activity in life that involves intelligence.

I have often observed, for example, that engineers who are broadly acknowledged by their peers in engineering to be "excellent" engineers almost always exhibit additional skills in esthetic arts (music, literature, stage-acting, etc.), non-engineering crafts (e.g., woodworking), or other kinds of activities not usually associated with "engineering skills." My evidence is anecdotal; so far as I know, there have been no scientifically designed studies documenting this. But the mental physics of comprehension is not especially difficult to understand in its broad implication, and this implication says that skill-building through comprehensive language arts education (and divers esthetic arts education as well) has non-obvious benefits for occupational and other skills not traditionally associated with those arts. Humanities teachers have claimed this for a long time. Mental physics tells us they have been correct to claim this for all this time.

The second cultivation is the cultivation of the learner's act of educational Self-development, by which he constructs particulars needed for cultivation of comprehension. The prosyllogism

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[3] I say "an *Oliver Twist* story" because it doesn't necessarily have to be the Dickens novel that the learner reads. He could, for example, read a "classics illustrated" abridged version of it, e.g. a "graphic novel."

that synthesizes comprehension skill cannot begin without aliments for its synthesis – particular learning of particular subject matters – because all new higher learning proceeds from the particular to the more general. How does literature supply aliments and what must literature instruction do in order to effect a learning of particulars? What in literature "engages" a learner?

The root answer is: *evocation of a learner's aesthetic Idea function* [Wells (2009), chap. 7, pp. 240, 260-264]. In order to present this answer in a way I deem likely to be the least difficult to initially grasp for the most people, I begin with a familiar notion I usually try to avoid because of the many technical difficulties it leads to: the role of what are commonly labeled "emotions."

§ 3.1 Averill's Emotional Creativity Conjecture

James R. Averill, a psychology professor at the University of Massachusetts at Amherst who studies phenomena of emotion psychology, wrote,

> Art and literature appeal to the emotions as well as the intellect. The nature of that appeal is not well understood; this is due, in part, to the fact that the emotions themselves are not well understood. Great literature, it is sometimes suggested, appeals to emotions that are basic to human nature. An alternative suggestion is that great literature refines, stretches, and ultimately transforms the emotions. . . . I present arguments in favor of the second view. [Averill (2001)]

Averill tells us that by "great literature" he means "literature that has universal appeal across time and culture." If we take "universal" literally here, it would have to be said that there is no such thing as great literature, but if we replace "universal" with "atypically broad" then Averill's description is likely as good as any other. He tells us he considers "rhetoric" to be as much a part of "great literature" as imaginative literature. I will remark that a case can be made for a similar point of view in regard to poetry and nonfiction.

The core of Averill's paper, however, does not so much lie with this or that kind of literature. His focus is on the question of how rhetoric, literature and esthetic arts "appeal" to people. It is clearly only a figure of speech to say a novel or a poem "appeals" to anyone. Does a thing of paper and ink get down on its knees and beg you to read it? It is unclear why and when the word "appeal" acquired its psychological connotation of "any action which serves to stimulate emotions or desires in others" [Reber & Reber (2001)], but this is the connotation Averill is using. Even this connotation has problems. A book or the written lines on a sheet of paper are not actions, so whose action is being referred to? An author's or artist's? If so, we would have to say the author or artist makes an appeal to a reader or viewer in one of the Latin connotations of the word's root, i.e., *appellare*, "to speak to or accost." It is mere transference to personify the source of this "speaking or accosting" in the written work. Averill begins with this personification and later steps back from it to introduce the author or artist as the source of "the appeal."

Let us agree to interpret the word "appeal" here to be a reference to "emotions" experienced by someone in response to literature or any product of language arts. This is an interpretation that is consistent with the thesis in Averill (2001). What subjective effect, then, is the subject of this notion of the "appeal" of rhetoric, great literature or another product of a language art? Averill conjectures that the model illustrated in figure 3 provides a context for this effect.

There are two schools of thought in psychology for relating a work of literature or rhetoric to "emotions." These are represented by pathway (a) and pathway (b) in figure 3. Averill correctly points out that if one conjectures that (a) involves so-called "basic" emotions then this conjecture is highly suspect because the hypothesis that "basic emotions" exist at all is suspect. Critical epistemology tells us the idea of "basic emotions," e.g. Plutchik (1980), has no objective validity.
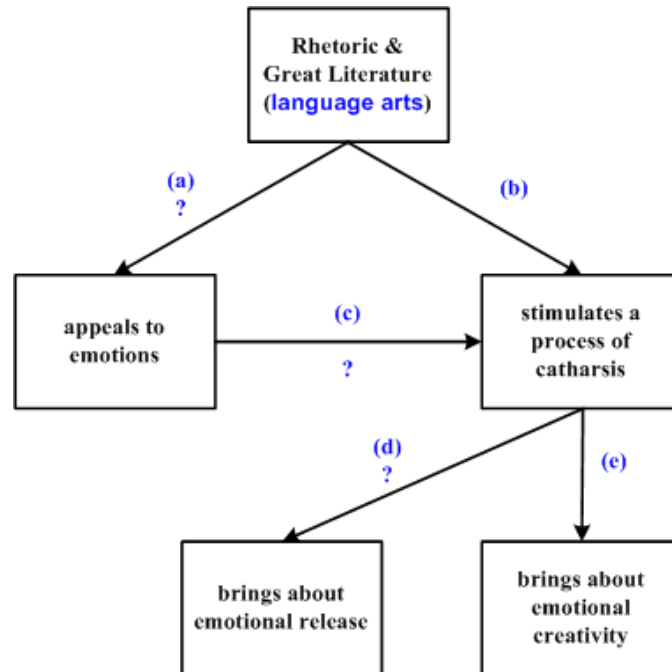
Figure 3: Modified depiction of Averill's conjectural model of emotional response to rhetoric or great literature. In this conjecture, a product of language arts effects a stimulation of some process of catharsis in the reader or listener. There are two conjectured pathways by which this process could be reached. Pathway (b) is a direct path: the work immediately stimulates the process. The second route is by first arousing an emotional reaction, pathway (a), which subsequently stimulates the catharsis process, pathway (c). One must then face the question of what "catharsis" is or does. There are two competing views here. The first is that catharsis brings about an "emotional release" in an Aristotelian connotation, pathway (d). The second conjectures that "catharsis" is a process bringing about emotional creativity, pathway (e).

In the Critical epistemology, an *emotion* is a description of a subjective experience and isn't a primitive function of the phenomenon of mind. Regarded as an object, an emotion is an affective perception in which a feeling of pleasantness or unpleasantness is produced by a momentary inhibition of actions followed by stronger motoregulatory expressions [Kant (1790), 5: 226]. Averill questions whether 'emotional appeal' is a proper way to look at "what makes great literature great" [hence the '?' symbol along pathways (a, c, d) in the figure]. He argues in favor of pathway (b-e), i.e., he argues for *redefining* 'catharsis' as 'a process of refining emotions.'

Can he justify doing that? He argues there are two schools of thought about 'catharsis.' The first – pathway (d) – is the Aristotelian school [Aristotle (4th century BC), 1341^b32-1342^b17; (*c.* 335-330 BC), 1449^b28] used in Freudian psychology to mean 'emotional release.' However, there is a longstanding problem with understanding what Aristotle meant when he used the word '*katharsis*' in *Politics* and *Rhetoric*. The Greeks had two common usages for this word, which Barnes explains in the following way:

> The word *"katharsis"* is used in two relevant Greek contexts: in medical texts, it refers to purgation (to the effects of emetics and laxatives); in a religious context, it refers to purification. Does Aristotle mean that tragedy [in theater] rids us of our emotions, or that it refines our emotions? No text [of Aristotle's] gives us a clear answer to the question, and we may wonder whether either answer is particularly plausible as an account of the effect of tragedy on its audience. [Barnes (1995), pg. 277]

In *Politics,* Aristotle spoke of connections between *'katharsis'* and music education:

> [We] must therefore give some consideration to tunes and rhythms, and to the question whether for educational purposes we must employ all of the tunes and all of the rhythms or make distinctions . . . And since we accept the classification of melodies, made by some philosophers, as ethical melodies, melodies of action, and passionate melodies . . . and as we say that music ought to be employed not for the purpose of one benefit it confers but on account of several (for it serves the purpose both of education and of purgation[4] . . . and thirdly it serves for amusement, serving to relax our tension and to give rest from it), it is clear that we should employ all the harmonies, yet not employ them all in the same way, but use the most ethical ones for education, and the active and passionate kinds for listening to when others are performing (for any experience that occurs violently to some souls is found in all, though with different degrees of intensity, . . . for some persons are very liable to this form of emotion, and under the influence of sacred music we see these people, when they use tunes that violently arouse the soul, being thrown into a state as if they had received medicinal treatment and taken a purge . . .) [Aristotle (4th century BC), 1341[b]17-1342[a]15].

Aristotle's education context here is *political* education, hence 'ethical music' for political education, other kinds of music for other purposes. Nothing he says rules out using other kinds of music for other *educational* purposes. Inasmuch as similar things can be said for language arts, theater, and other esthetical arts, his remarks about them being "employed not for the purpose of one benefit it confers but on account of several" has a broader scope than only music. What, if any, would be a correct social-natural *use* for language arts in public instructional education?

American debates about relative merit or importance for divers traditional subjects (music vs. mathematics; social studies vs. science, etc.) have always been carried out with a very narrow focus on some occupational or Taylorite "utility" thesis. This is not merely a baldly presumptive way of looking at education; it is an ontology-centered viewpoint that disregards the learner as a focus and center of public education. The traditional regard for "utility" is one that looks upon the learner *only as a means to others' ends* without regard for the other half of *all* social compacts – namely regard for the learner *as an end in himself*. Lack of regard for the learner in this respect is at the same time lack of regard for the basic condition necessary for every social compact. It reflects an attitude of regarding the learner as one of the ants in Plato's communist Society. This is to say that this traditional presumption is deontologically immoral and antagonistic to long-term survival of the Society. Public education *must* satisfy *both* the compact's term *and* condition.

Is Averill's 'catharsis' idea a more learner-centered *and* socially justified notion for education? Here is where his context model and 'emotional creativity' conjecture are relevant. He tells us that by 'emotional creativity' he means "the way catharsis exerts its influence, as opposed to a 'purgation' of preformed emotions." Since this refers to pathway (e) in figure 3, this explanation seems to be a circular argument. However, the circle can be broken by first understanding that when Averill speaks of 'emotion' he does so in the context of an entire mini-theory of 'emotions' [Averill & Thomas-Knowles (1991)] and one cannot casually interpret what he writes without being aware of at least some of the tenets of this mini-theory[5]. Within the context of his mini-theory, Averill tells us that we are to understand the term 'emotional creativity' to mean,

> Emotional creativity is the development of emotional syndromes that are novel, effective, and authentic. [Averill & Thomas-Knowles (1991)]

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[4] *katharsis*. Rendering Aristotle's word as 'purgation' is an interpretation given his text by the translator. It is not unequivocally clear that 'purgation' rather than 'purification' was the context Aristotle was using. His 'third service' remark about amusement seems more consistent with the notion of an "emotional purge."

[5] As Reber & Reber (2001) point out in their entry for "emotion," psychological definitions of emotion are actually mini-theories about the underpinnings of phenomena we label as "emotional." This is the case with Averill's conjecture and his hypothesis about emotional creativity.

Averill uses the term 'emotional syndromes' to refer to what most people call "emotions." He tells us elsewhere that,

> The term "emotion" covers a broad range of phenomena. No single account of it will fit all instances. [Averill (2011)]

If "no single account will fit all the instances," then a psychologist is more or less professionally obligated to try to provide a more comprehensive treatment of the subject, and so arise emotion mini-theories in psychology. Averill correctly rejects the hypothesis that innate "basic" or "atomic" emotions exist as part of human nature and instead tells us,

> I have argued that emotions are social and individual constructions and hence subject to creative change (but not immune to biological influences). [Averill (2001)]

In other words, if I was born and raised in Iowa and you were born and raised in China then my "emotions" are not the same as your "emotions." According to Averill, this is because

> Society provides us with a set of beliefs and rules that, together with biological predispositions . . . help constitute the emotional syndromes recognized in ordinary language (e.g., anger, fear, love, and grief). These syndromes are part of the culture into which we are born. During socialization an individual acquires (internalizes) the relevant beliefs and rules to form emotional schemas – cognitive structures that help shape the feelings and behavior of the emoter, emotee, and any third-party witnesses to the emotion. Emotional schemas do not "run off" automatically during the course of an episode. Rather, a good deal of improvisation occurs. The results of such improvisations may, in turn, feed back to alter the beliefs and rules that help constitute the emotional syndromes. The slow accumulation of such changes, diffused through society, is one of the ways that emotions undergo historical change and diverge across cultures. [*ibid*.]

If this has you thinking that, somewhere in all this, the whatever-it-is that *you* call emotion is disappearing from the discourse, all I can say by way of reassurance is that I think so too. Such is what happens in emotion mini-theories. One thing, however, does seem clear in all this: Averill's thesis *is* taking into its account both the personal and social dimensions of the learner.

Averill's references to 'emotional schemas,' 'beliefs and rules,' 'cognitive structures,' and 'shaping feelings and behaviors,' taken together, point at what mental physics calls the judgmentation cycle and the free play of imagination and understanding (chapter 12). It does so in a context that implies the emotee (the person expressing physical behaviors we typically say indicate "emotion") has undergone a disturbance to his equilibrium and is trying to re-equilibrate. Because during such an effort accommodations are made to his manifold of concepts, and possibly to his manifold of rules as well, it is objectively valid enough to say that Averill's "emotional creativity" is producible as an outcome. *If* we agree to say so, then "catharsis" in figure 3 refers to acts of both aesthetical and teleological reflective judgment during judgmentation. Averill's earlier statement that "emotional syndromes" are "developed" during "emotional creativity" is then valid but *only insofar* as we take "developed" to mean "conscious representing of the matter of affective perception as presented by acts of aesthetical reflective judgment."

Averill also includes in the description above behavioral expression (emoting) as part of what constitutes an 'emotional schema.' In mental physics terms, this part of his description calls for a co-determination of reflective judgment and the logical division of *psyche* in the phenomenon of mind. Such co-determination *is a basic acroam* of mind-body reciprocity in mental physics. In the epistemology of mental physics, this co-determination is called *the synthesis in continuity* between reflective judgment and *psyche*. It is illustrated in figure 4 [Wells (2009), chap. 7].
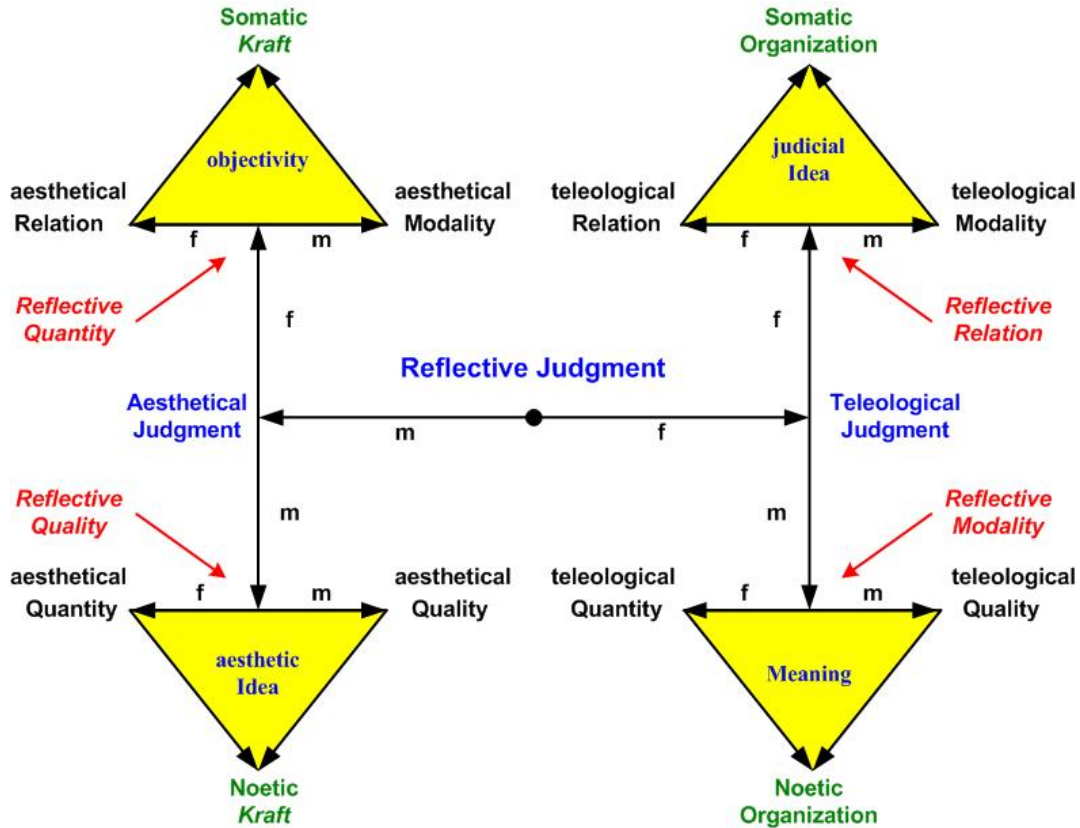
Figure 4: Structure of the synthesis in continuity between reflective judgment in *nous* and the logical division of *psyche* in *nous-soma* reciprocity. Noetic *Kraft* is the power of *nous* to produce or suffer effects.

Although Averill's mini-theory is not objectively valid as a causative explanation we can use in education science, his *empirical* hypothesis is not something that just dropped out of the sky. There are observations and experiments going into it, conducted in accordance with psychology's standards of good practice, and Averill's mini-theory contains some amount of truth even if its mathematical conjectures do not stand up to epistemological requirements of Critical theory. We have to accept that, whatever demerits its final *rational* product might harbor, psychology research is not to be simply dismissed and ignored. What, in particular, are we to take out of Averill's hypothesis and apply to the earlier questions about language arts instruction?

First, it is beyond reasonable doubt that affectivity plays a fundamental role in the acquisition of the aliments spoken of earlier and in the use of these aliments by a reader in cultivating literacy skill. Second, it is beyond reasonable doubt that objects presented in literature provide conceptual particulars indispensible for alimentary aspects of comprehension. Inasmuch as comprehension in understanding involves conceptualization of supersensible objects (e.g., the idea that *Oliver Twist* and *August Rush* "tell the same story"), and supersensible objects can *never* be given through receptivity, there *is* a creative aspect at work in literacy cultivation. Averill holds that

> Emotions are related to creativity in three main ways. First, as *antecedents to creativity*; second, *creativity can be an emotional experience*; and, third, emotions themselves can be creative *products*. [Averill (2011)]

In Critical theory, **creativity** is *the power of the aesthetic Idea to stimulate the process of thinking by summoning concepts from the manifold of concepts into the synthesis of <u>reproductive</u> imagination in such a way that these concepts become partial representations and* materia ex qua

for the synthesis of productive imagination. What is produced by productive imagination, in the context of this discussion, are the broader concepts upon which literacy depends. Whatever the Critical flaws in Averill's conjecture are, affectivity and creativity *are* fundamental factors in cultivating literacy skill. This brings us to the constitutive Critical function of the aesthetic Idea.

§ 3.2 Literature, Creativity, and the Aesthetic Idea

The Critical term **Idea** always refers to a *regulative principle* of the phenomenon of mind. Some of these are constitutive, others constituted. An Idea is never a constitutive principle *of* any mental representation but rather is a principle for *how* mental representations *are made*. Kant introduced *aesthetic* Ideas in the context of a discussion about the phenomenon of creativity:

> In an aesthetic significance, *spirit* [6] is called the animating principle of the mind. That, however, by which this principle animates mind, the stuff it uses for this, is that which suitably sets the powers of mind soaring, i.e., into such play that these powers are self-maintained and even self-strengthened.
>
> Now, I maintain that this principle is none other than the capacity for presentation of *aesthetic Ideas*; by an aesthetic Idea, however, I mean that representation of imagination that occasions much thinking, though without it being possible for any determinate thought, i.e., *concept*, to be adequate to it – which, consequently, no language fully attains or can make intelligible. One readily sees that it is the counterpart (pendant) of an *Idea of reason*, which is, conversely, a notion to which no *intuition* (representation of imagination) can be adequate. . . .
>
> Now if to a concept were imputed a representation of imagination that appertains to its presentation, but which by itself gives rise to so much to think that it can never be concentrated in a determinate concept, hence which aesthetically enlarges the concept itself in an unbounded way, then here imagination is creative and brings the capacity for intellectual Ideas (reason) into motion, to wit: at the instigation of a representation it gives more to think about than can be grasped and made distinct in it (although it does, to be sure, appertain to the concept of the object).
>
> We call those forms which do not make up the presentation of a given concept itself, but only express, as supporting representations of imagination, the consequences connected with it and the affinity of it with others, (aesthetical) attributes of an object whose Idea, as an Idea of reason, cannot be adequately presented . . . They . . . give occasion for imagination to spread itself over a multitude of kindred representations . . . and give an *aesthetic Idea*, which serves that Idea of reason in place of logical presentation, although really only to animate the mind by opening up for it the prospect of an immeasurable field of kindred representations. [Kant (1790), 5: 313-315)]

The logical division of *psyche* is the division of animating principles of *nous-soma* reciprocity, *nous* is the division for mental phenomena, and *soma* is the division for physical phenomena. *Nous-soma* reciprocity means mind and body phenomena are co-determined. Neither can be regarded as the cause of effects in the other because causality implies time sequencing. Mind and body phenomena are only known to us conjointly and so each *must* be regarded as partial cause of the other and *at the same time* as partial effect of the other. The relationship between mind and body is a relationship of *co*existence. There is no "mind-body problem" in Critical epistemology because the division between mind and body is a *logical*, not a *real*, division. In other words, it is a strictly *mathematical* idea and does not require (indeed, the theory *forbids*) positing the distinct *res cogitans* and *res extensa* of Descartes' metaphysics. Mind is the object of *nous*, body is the object of *soma*, and *psyche* unites them in one **real** object, namely, a human being.

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[6] Kant means 'spirit' in a connotation like, e.g., community spirit, team spirit, school spirit, etc.
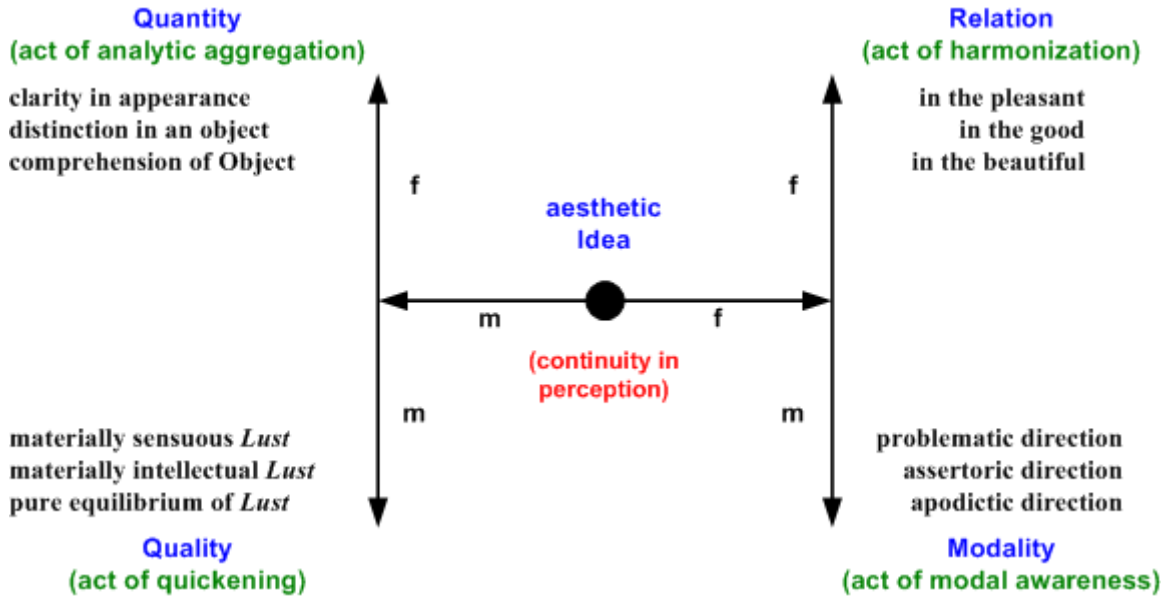
Figure 5: 2LAR structure of the aesthetic Idea as the principle of the synthesis in continuity of perception.

Kant specifically called an aesthetic Idea an animating principle, and this places the *synthesis* of aesthetic Ideas squarely in a relationship with the logical division of *psyche* [Wells (2009), chap. 4]. In figure 4 the yellow triangles depict the synthesis in continuity in relationship to *psyche* in the mathematical model. Noetic *Kraft* contains the animating principle for the power of *nous* to produce or suffer effects. The functional *momenta* of the aesthetic Idea are laid out in figure 5. The general principle, under which the others are functional *momenta*, is the principle of **continuity in perception** [Wells (2009), chap. 7]. Now, how is this experientially manifested?

I think it is not unlikely that you *personally* have had at least one memorable experience when your perception of one thing seemed to set off a flood of other perceptions that seemed to come to you "from out of nowhere" and left you feeling like you had just achieved an insight going beyond anything contained in the initial perception. It is an autistic experience and we use phrases like "my eyes were opened" or "that really struck home" to try to describe it. Sometimes people simply emote their experience by exclaiming "Wow!" or "Ooh!" or by just opening their mouths. I have lost count of how many times I have seen students in my classroom do one of these things when all of a sudden they "get it." In some instances the flood of thoughts comes so fast, with one image following another so quickly, that the person might describe his feeling as a "brain overload." Instances like these express in appearances acts of the synthesis of an aesthetic Idea.

Other instances are even harder to describe. Perhaps you have heard a story of a stranger's heroism or a child's plight that inexplicably brought tears to your eyes. Perhaps you have seen others exhibit this reaction. In cases like these people are often at a complete loss to explain their emotive behavior. A person might say he was "touched" or it "got him right in the heart." A person who has these sorts of experiences is sometimes said to be "tenderhearted." Some people describe the experience as "sublime." That which is called "empathy" seems to be a subjective experience belonging to this class of affectivity.

Experiences of these sorts "feel energizing" – the subjective experience seems to impel the person to action. This is the notion conveyed by the German word *Lust*[7]. It is also the animating

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[7] *Lust* (pronounced "loost") does not mean the same thing as the English word "lust." *Psyche* is correctly called "the faculty of *Lust per se*"; aesthetical reflective judgment is the faculty of **feeling** *Lust* or *Unlust*.

principle of noetic *Kraft* in *psyche* (refer to the glossary). This would be a good time to re-read the Kant quotation from above. The animating principle of the aesthetic Idea is a principle of *creativity*. Where before there was only a particular and concrete understanding, in its aftermath there is a broadened scope of understanding. *Literacy as a skill is an ability to exploit the human capacity for aesthetic Ideas*. Thus, Averill is correct when he links "great literature" or "great rhetoric" to "creativity." Toynbee rather arrogantly presumed that only a small number of special people are "creative." Mental physics says this is hogwash. *All human beings are creative*. Not all people *cultivate* their creative capacity. Language arts instruction *aims at cultivating creativity through literature and rhetoric*, and in this way cultivates a learner's *Personfähigkeit*.

For most of its history, science has tended to try to ignore and has downplayed affectivity and the aesthetical. This is an error for which Santayana strongly criticized scientists:

> Natural history and psychology arrive at consciousness from the outside and consequently give it an artificial articulation and rationality which are wholly alien to its essence. These sciences infer feeling from habit or expression so that only the expressible and practical aspects of feeling figure in their calculation. But these aspects are really peripheral; the core is an irresponsible, ungoverned, irrevocable dream. Psychologists have discussed perception *ad nauseam* and become horribly entangled in a combined idealism and physiology; for they must perforce approach the subject from the side of matter since all science and all evidence is external[8]; nor could they ever reach consciousness at all if they did not observe its occasions and then interpret those occasions dramatically. . . . Perception is in fact no primary phase of consciousness; it is an ulterior practical function acquired by a dream which has become symbolic of its conditions and therefore relevant to its own destiny. Such relevance and symbolism are indirect and slowly acquired; their status cannot be understood unless we regard them as forms of imagination happily grown significant. In imagination, not in perception, lies the substance of experience, while knowledge and reason are but its chastened and ultimate form. [Santayana (1905), pp. 49-50]

I think Santayana was being a bit too poetical in talking about dreams, but consider this: All science comes from scientists through their imaginative cognitions that transcend the raw *dabile* of sensuous receptivity. Physicist and Nobel laureate Richard Feynman said,

> What we [physicists] need is imagination, but imagination in a terrible strait-jacket. We have to find a new view of the world that has to agree with everything that is known, but disagree in its predictions somewhere; otherwise it is not interesting. And in that disagreement it must agree with nature. If you can find any other view of the world that agrees over the entire range where things have already been observed, but disagrees somewhere else, you have made a great discovery. . . . A new idea is extremely difficult to think of. It takes a fantastic imagination. [Feynman (1965), pp. 171-172]

Where does a "fantastic imagination" come from? The answer is: *it is cultivated*. Those who downplay, disparage, or dismiss language arts in education downplay the part of instruction that opens the very first window available to begin cultivating the skill of comprehension that exercise of a child's capacity for aesthetic Ideas makes possible. I don't know how many English teachers are aware that what they do builds scientists *more* than instruction in mathematics does; I am of

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[8] Santayana would have better said, "they *think* all science and all evidence is external." Thinking so is one of the severe hangovers of 19th century positivism. Science in the 20th century, led by findings in physics, was forced to abandon positivism. Positivism was an attitude, not a principle or a philosophy. It was an ontology-centered prejudice that failed to deliver what it had promised to deliver. Are we then to keep adhering to it and spend our capital on it while it returns nothing for the investment? If we do then we are choosing to throw away what Bloom called "that aspect or part of man that is not body, whatever that may be." [Bloom (1987), pg. 356].

the opinion that it is very few. Mathematics skills are the feet the practice of science walks upon; language arts skills are its wings. But language arts instruction as it is practiced today does not grow these wings except in cases of fortunate individual accidents.

Children particularly (but many adults, too) have narrow and limited bases in experience to draw upon. One resource imaginative literature instruction provides is *substitute experience*. It lets the learner experience vicariously through the protagonist's story. He meets situations he has never encountered (and never will in precisely the same way), and these arm him with alimental matters for metaphors and similes – the foodstuff of broader concepts. Reasoning with metaphors or similes is the basis for what Kant called *inferences of analogy*. When two things have partial similarity, inference by analogy speculates they will also be similar in other things that are known about one of them but not about the other. Analogy infers from known properties of one thing to further properties of the same thing, drawing the inferred properties from the analogous object.

People are frequently called upon to make decisions or begin undertakings without having all the facts they would like to have to support their decisions or actions. In management this is called "decision making with risk," the risk being the unknown factors at the time of the decision. The ability to make decisions with risk is essential in business, in managing, and in responding to sudden emerging situations. How is it possible that people are able to make such decisions?

They do it by means of inferences of analogy, comparing the present circumstances to other circumstances they have known about and judge to be in some way similar. A judgment of similarity, however, is always a reflective judgment. A person judges the comparands not to be *the same* but rather *enough alike*. Note that such a judgment is not objective and the decision or action is not reached from an objectively sufficient ground. It is subjective and is reached from a subjectively sufficient ground. Obviously such decisions can and sometimes do go awry; often this occurs from the discovery of new facts, and the person adjusts his decision or action accordingly. But he would not have been able to decide or act at all if he had not been able to form his original inference. The more comparands he can draw upon for his inference, the sounder his decision or action is likely to be because the greater the variety of *materia* the inference is drawn from, the more cognizance the person has of contingencies and variations.

An inexperienced learner cannot sufficiently understand an argument like this because it is too abstract, too removed from what he knows through experience. He might nod his head and agree (and quite likely will say he understands it), but this is a mathematical (non-real) understanding. He has nothing by which to "relate it" to the world of his experience, no examples he can use to *make* it real for him. Imaginative literature, when it is well written, provides him with concepts he can use to *build up* to literacy in more abstract matters. Consider the following subject-matter taken from the novel *North to Freedom*:

> But what now? He must go northward: that was what the man had told him. For the first time since he had arrived in Italy, David could think about the man calmly and dispassion-ately. He had told him to go north till he came to a country called Denmark. But why should he do what the man had told him? Was he not David, his own master, who decided for himself? In the camp, of course, you had to obey the man. He was the commandant, and it had never occurred to David not to obey him. He had seen only too often what happened if you failed to obey even an ordinary guard.

> But now there was no longer any reason to obey him. Or was there? The bundle *had* lain under the tree, and when he had gone south, he *had* come to Salonika. And there *had* been a ship sailing for Italy there. He had not yet discovered any trap set for him by the man – but perhaps there was one in that country called Denmark. It was all very puzzling, and David could find no answer. How could he put any trust in what the man had told him to do when he knew more surely than anything else in the world that the man hated him and always had?

> "But I've no need to worry about that now," he said to himself. "If the bit of Italy I've been in so far juts out into the sea as I think it does, then I'd better go more to the east, for that's the direction the land seems to follow. And if I stay free long enough, I may even find out why the man hated me and was still prepared to let me go." [Holm (1963), pp. 56-57]

North to Freedom is an exceptionally well-written children's novel, the tale of a twelve-year-old concentration camp escapee with plenty of action and tension to keep a young reader age 9 to 13 engaged in the story. Even many adults enjoy it. It contains many useful lessons in it all by itself that would not be lost on a child reader. But it also contains some seeds for broader "life lessons" that can be cultivated by judicious selection of other material to be juxtaposed with it. For example, the excerpt above obviously presents a situation in which the young protagonist is being compelled by an ever present but unseen danger to journey into places utterly unknown to him, and possibly fraught with unknown perils, seeking a destination also unknown to him and it-self fraught with uncertainty. Consider juxtaposing this subject-matter with the following:

> I shall be telling this with a sigh
> Somewhere ages and ages hence:
> Two roads diverged in a wood, and I –
> I took the one less traveled by,
> And that has made all the difference. [Frost (1920)]

What lesson objects do you suppose could be taught using these two works (taken together with a few others as well)? A lesson object about how to face uncertainties, perhaps? A lesson object that there *are* uncertainties to be faced in life? A lesson object about finding the courage to take risks? A lesson object that one's decisions have consequences? All these and more.

I won't presume to try to tell experienced teachers what manifold possibilities might all be unfolded. My point is that multiple subject-matter materials can and should be weaved into a *theme* constituting an *underlying* lesson of broader scope than is or can be presented in any of the individual works alone. A pupil won't "get it" right away – and perhaps not for some time – but if the instruction is properly designed and accompanied by other exercises (e.g. short essays), this pedagogy can be applied to teaching structured around the *functions* of public instructional education (figure 1). Any one single subject-matter in isolation is of little value by itself to either a learner's *Personfähigkeit* or the collective *Personfähigkeit* of Society. In combination they can be made to have very broad impact and scope. This produces **synergy** from lesson-synthesis.

Imaginative literature is not mere entertainment or leisure activity. Well-written works *always* mesh themselves into the fabric of human life and activity. If they did not, no one would read them and no one would call them "well-written." In his essay on war, Dyer commented,

> Actually, Troy was destroyed after a long siege – the excavated ruins show evidence of huge fires and destruction among the great stone buildings of the city and refugee hovels packed tightly between them – but Homer did not write his account of the siege until four centuries later. It was about eight centuries after that when Virgil wrote his vivid account of the sack of Troy, in a personalized style that would never have been used by those who had lived through the event. What he writes is almost all fiction, but it is also as true to the essence of the disaster as if he had been there himself. He lived in a world where some un-fortunate city met its end like this every few years for as long as memory ran, and he had no more freedom to distort events and emotions of such a siege than a modern European writer would have to misrepresent an air raid: too many people knew what it was really like. [Dyer (1985), pg. 31]

Fiction, then, offers an author's insights into human nature and the nature of Man-and-Society

(this is so even in fantasy fiction) or Man-and-Nature or both (e.g., Hemingway's *The Old Man and the Sea*). The literature and poetry from which subject-matters are drawn must be compatible with the learner's stage of mental development. But this does not preclude classic literature from being included because the events and meanings of the story make up the possible subject-matters. Thus, Homer's *Iliad* can be retold in the form of an illustrated graphic novel for children who are still too young to tackle the *Iliad* itself. This, not veneration for a classic just because it is classic, is why and how their subject-matters should be taught.

To exercise the capacity for aesthetic Ideas, and thereby build comprehension and literacy skills, the subject matters presented to the learner must be juxtaposed by design and within a short timeframe. There must be a plurality of matters and they must all be chosen to revolve about an intended lesson object. They must be appropriate for the developmental stage of the learner and appeal to the learner's *affective* stage of development because it is *learner affectivity* (his subjective judgments of taste) that determines whether or not he will engage with the material. Dewey and other PEM reformers in the early 20th century placed entirely too much *objective* emphasis on subject matter in their educology speculations, e.g.,

> to satisfy an impulse or interest means to work it out, and working it out involves running up against obstacles, becoming acquainted with materials, exercising ingenuity, patience, persistence, alertness, it of necessity involves discipline – ordering of power – and supplies knowledge [Dewey (1915). pg. 17]

and not enough affective emphasis in it – even though Dewey knew that it is here, *and only here*, where a teacher can reach a learner, i.e.,

> The child lives in a somewhat narrow world of personal contacts. Things hardly come within his experience unless they touch, intimately and obviously, his own well-being, or that of his family and friends. His world is a world of persons with their personal interests, rather than a realm of facts and laws. Not truth, in the sense of conformity to external fact, but affection and sympathy, is its keynote. . . . Again, the child's life is an integral, total one. He passes quickly and readily from one topic to another, as from one spot to another, but is not conscious of a transition or break. . . . The things that occupy him are held together by the unity of the personal and social interests which his life carries along. [Dewey (1902), pg. 67]

When instruction is not delivered to the learner's world, it is not delivered at all.

The raw materials of instruction – books, poems, videos, etc. – are not object lessons but only prefabricated material from which a teacher *builds* object lessons. If suitable building material is not found in the prefabricated materials available (e.g., published textbooks), *then a teacher must construct it from rawer material* like a carpenter might custom build the kitchen cabinets. The design of object lessons and the design of supporting materials from which the subject matters will be drawn are inseparable in instruction *téchne*. Mandating "standard" textbooks, etc., appealing as this is to Taylorism's obsessive-compulsive mania for centralized control as well as to individuals' satisficing nature of problem-solving, is incompatible with fulfillment of the Duties of public instructional education. There can be no silos erected separating teachers and authors of supporting materials if success within the language arts framework is to be achievable. An English literature teacher who cannot *author* something – essays, short stories, poems, a comic strip, instructional videos, *something* – is like a reading teacher who cannot read.

This point is pertinent for the next section of this chapter. Earlier I made a comment regarding the "source of the appeal" said to be associated with a work of literature. Comprehension skill in regard to intelligence-building is an aspect of intellect education but it is also an aspect of persuasion education.
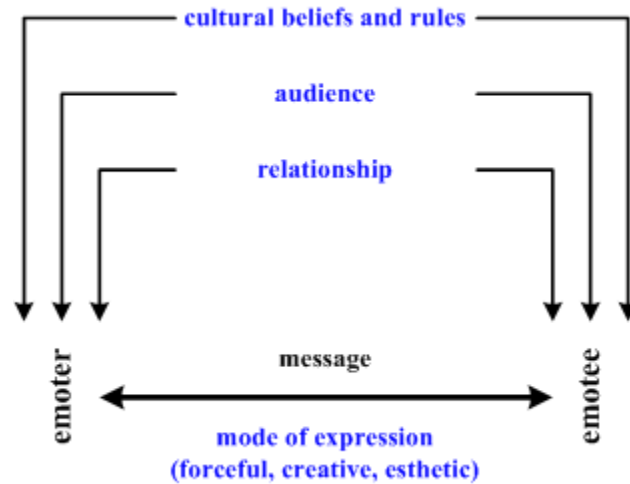
Figure 6: Averill's emotional episode environment model.

Averill presented an interactions model of communication between an author and a reader. His model, in slightly modified form, is depicted in figure 6. In this figure, an author would be in the role of the emoter, a reader would be in the role of the emotee. The figure depicts the environment of what Averill calls an "emotional episode" [Averill (2001)].

The main point he strives to make with this model is that there is an entire environment of Pertinences that factor into effective interpersonal communication, whether this is face-to-face and direct or indirect through literature. This environment includes cultural beliefs and rules (i.e., moral customs), the specific audience the message is aimed at, and the relationships between the emoter and the emotee. This context is important for understanding the "catharsis" process in Averill's model in figure 3. There is, in addition to the primarily instructive context of Averill's idea, a learner's aspect to it as well. In the next section, the discussion turns to this aspect.

In earlier examples, I paired up novels and movies to illustrate combining *heterogeneous* subject-matters. This can be an effective tactic of pedagogy because heterogeneous materials such as these engage the learner's attention through multiple sensory modes of receptivity. Tactics like this – e.g., "audio-visual aids" – have long been used in the classroom and I think teachers who use them have *at least* an intuitive grasp of the effectiveness of the method. Merely because one might be concerned with a "language arts framework," this does not mean that pedagogy should attempt to make a real division among subject-matter materials just because one is a book and another is a film. To share with you a personal anecdote, I still remember one especially influential lesson I received *once* when I was a pupil in primary school a half-century ago. That particular day the teacher presented to us a set of short film clips accompanied by a short piece of classical music (specifically, it was Mussorgsky's *A Night on Bald Mountain*, as I came to find out much later). When she began the lesson, she asked us to decide which of the film clips we thought the music was about. One of them featured battling dinosaurs, another a scary cartoon set in a spooky setting, the third was a sailing ship caught in a storm at sea, and I no longer remember what the fourth one was. Today I regard her original question as objectively meaningless, but that turned out *not* to be the lesson object I took away with me that day. What I learned to *do* (again, I only realized this much later in retrospect) was to deliberately *look* for commonalities among heterogeneous materials. The lesson was a lesson in *comprehending*. I found something common in all three film clips I do remember plus, of course, *A Night on Bald Mountain*.[9]

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[9] If you're interested, my vote that day was for the battling dinosaurs. I was obsessively interested in dinosaurs at that age and felt the energetic movement of the music was worthy of saurian fierceness. I could not

§ 4. The Capacity for Synthetic Combining and Expressive Language Arts

When a learner obtains vicarious experience through literature the learning lesson is only half completed. Literacy, comprehension, and creative skills are not demonstrated until the learner exhibits *the synthetic capacity to produce his own expressions of knowledge*. Expressive skills of writing, speaking, and rhetoric enter into the language arts framework *to complete the lessons*.

Psychological studies have amply documented the *Dasein* of a phenomenon often called the **synthetic incapacity** of the young child [Piaget (1930), pp. 221-232]. Piaget wrote,

> For if things are perceived in the light of the moment, without order or organization, if the work of rational attention is to deal with them one by one and not in groups, then the child will naturally juxtapose things and events in his mind without achieving their synthesis. M. Luquet has described this phenomenon under the name of synthetic incapacity in connection with the drawings of children. The child artist will juxtapose pieces of one and the same whole but will be unable to connect them together. He will draw, for example, an eye alongside of a head, and so on. Now, even in drawing, one realizes that this phenomenon outweighs many technical factors (clumsiness in handling a pencil) and has its roots in the thought of the child. . . . [Piaget (1930), pg. 221]

> All these facts agree in proving a certain synthetic incapacity in the thought of the child, and show that this incapacity bears primarily upon the schematism of judgment or upon the relations existing between judgments. But does this mean that the mind of the child is peopled with a multitude of juxtaposed ideas and judgments unconnected by any bond, as appears to be the case to the outsider? In other words, has the child himself a feeling of chaos and discontinuity? It is obvious nothing could be further from the truth, and that for any deficiency in objective relations there is a corresponding excess of subjective relations. This is shown to be the case by the phenomenon of syncretism which seems to be the opposite, but is really the complement of juxtaposition.

> There is one particular feature in the structure of childish ideas which serves as a transition between juxtaposition and syncretism: we mean the relation which unites terms that have been separated by synthetic incapacity. When there is no occasion, such as drawing or language, for the child to break up the object by analysis, these are, as will be shown in a moment, perceived syncretically. But once they have been broken up and that synthetic incapacity renders their synthesis impossible, what is the relation which gathers the juxtaposed elements into a group? M. Luquet has noted with great truth that it is a relationship of membership and not of inclusion, by which he means . . . that an arm drawn alongside a manikin is perceived by the child as 'going with' the manikin, not as 'forming part of' his body. [*ibid*., pp. 225-226]

In terms of the mathematics of mental physics, an intuition is a singular perception that can be likened to an atom. Now, a free atom is a singular whole that is nonetheless said to contain parts – its electrons, its nucleus, and (penetrating 'further into' its nucleus) its protons and neutrons, and (penetrating further still) its 'quarks.' None of these are apparent in a free atom. To 'get at the parts' physicists have to do something to the atom (put it in interaction with other things) in order to extract appearances of, say, electrons, protons, or neutrons.

Similarly, an intuition is a representation that is said to 'contain parts' but, like an atom, these parts are not *distinctly* represented in the representation of the intuition. They are not 'apparent.' When the intuition is re-cognized by imagination to represent its concept, the concept also does not distinctly represent the parts. However, when the concept is re-introduced into the process of apprehension by reproductive imagination, at that point it can be broken up (analyzed) to make its

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have explained my choice to anyone on that day however. I "just knew it." It was an aesthetic Idea. For years afterward, whenever I heard *A Night on Bald Mountain* it was, to me, "the dinosaur music."
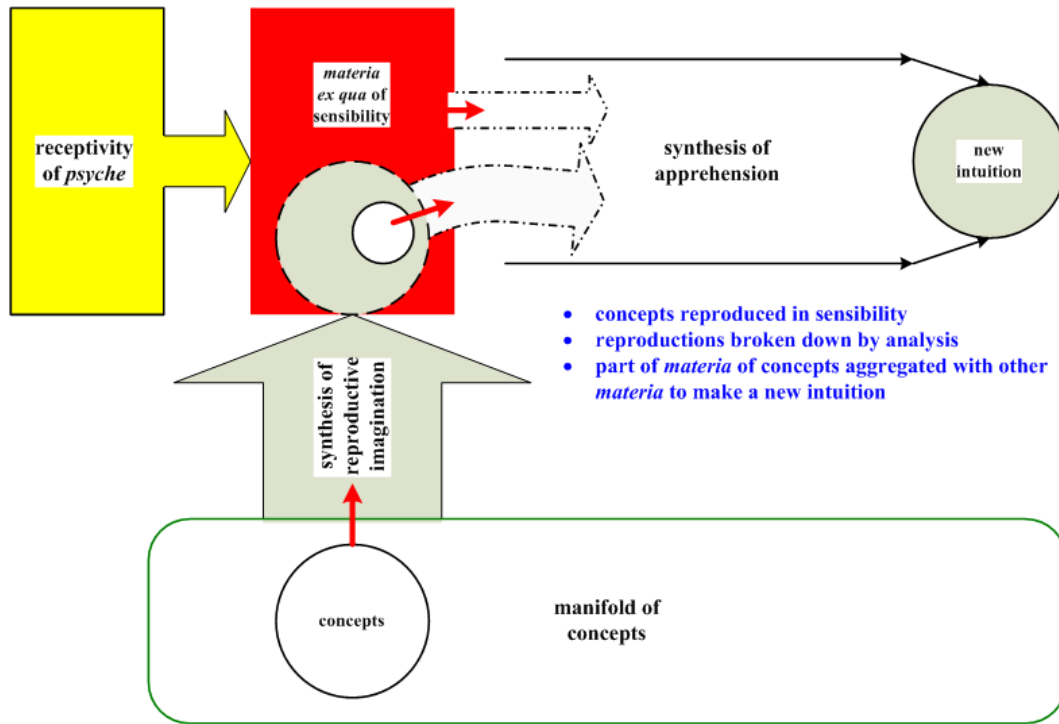
Figure 7: Illustration of analytic aggregation in the synthesis of the aesthetic Idea.

constituent *materia in qua* (that originally went into its intuition) available once again as *materia ex qua* for the synthesis of a *new* intuition. Like the electrons, protons, and neutrons of an atom, the pieces can be 'extracted' from the reintroduced concept [Wells (2009), chap. 3 § 1, chap. 6 § 2]. In the synthesis of a new intuition, the process of assembling the 'pieces' that end up comprising the *materia in qua* of the new intuition is called an ***analytic aggregation***. The synthesis of an analytic aggregation is Quantity in the synthesis of the aesthetic Idea (figure 5). Figure 7 illustrates this process of analytic aggregation.

When a child exhibits juxtaposition in his drawings, his individual and particular acts of drawing (e.g., of an arm, a head, an eye, etc.) have *the object of his drawing*, ***not*** *the object being drawn*, as the focus of his attention and the logical expedience of his reflective judgments. This is what Piaget meant by "the occasion of the drawing." The objective matters in the free play of his imagination and understanding are not what "hold together" his practical actions. Rather, the unity of purpose expressed by his actions is "held together" by his moment-to-moment affective perceptions in the on-going synthesis of apprehension (figure 8) to produce what William James described as a "stream of consciousness." James wrote,

> As the total neurosis changes, so does the total psychosis change[10]. But as the changes of neurosis are never completely discontinuous, so must the successive psychoses shade gradually into each other, although their *rate* of change may be much faster at one moment than at the next.
>
> This difference in the rate of change lies at the basis of a difference of subjective states of which we ought immediately to speak. When the rate is slow we are aware of the object of our thought in a comparatively restful and stable way. When rapid, we are aware of a

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[10] James uses the words 'neurosis' and 'psychosis' in the older, original connotations these terms had for psychologists. By 'neurosis' he is referring to neural activity (what the brain is doing). By 'psychosis' he is referring to the total mental state or condition of a person at a specific moment in time.

passage, a relation, a transition *from* it or *between* it and something else. As we take, in fact, a general view of the wonderful stream of our consciousness, what strikes us first is this different pace of its parts. Like a bird's life, it seems to be made of an alteration of flights and perchings. The rhythm of the language expresses this, where every thought is expressed in a sentence and every sentence is closed by a period. The resting-places are usually occupied by sensorial imaginations of some sort, whose peculiarity is that they can be held before the mind for an indefinite time and contemplated without changing; the places of flight are filled with thoughts of relations, static or dynamic, that for the most part obtain between the matters contemplated in the periods of comparative rest. [James (1890), vol. I, pg. 243]

Although James came to this idea of 'substantive' and 'transitive' parts of thought ('perchings' and 'flights') from considerations of brain activity, the Critical acroam of thorough-going *nous-soma* reciprocity tells us it is objectively valid to reason in this way. Like two sides of the same coin, somatic activity in the brain coexists with mental representation activity in the phenomenon of mind, and mental representation coexists with some somatic activity. Modern neuroscience and psychology are correct to pair 'mind actions' with 'brain actions.' The mistake modern neuroscience and psychology make is in *speculating* that brain activity "causes" mental activity – a supposition that sets brain activity and mental activity in a relationship of *successive* existences instead of a unitary state of *co*existence. Only the latter has objective validity in accordance with Critical epistemology. The former is the illegitimate child of ontology-centered metaphysics.

As a child ages, juxtaposition comes to characterize his exhibitions of thinking less and less (although it is never eliminated even in adults). This is not because of biological maturation but, rather, because accompanying his aging is his growth of experience with its attendant expansion of his manifold of concepts *and* its attendant expansion of his manifold of rules. The synthesis of the pure intuition of time, which is a mathematical ordering synthesis, produces the representation of a 'timescape' rather than a one-dimensional 'timeline' [Wells (2009), chap. 3], and this presents more possibilities for combining more *materia* – specifically, objects codetermined with *multiple* practical purposes – in his free play of imagination and understanding. In a manner of speaking, James' stream of consciousness is a process of turbulent flow. However – and this is my key point here – this possibility does require enrichment of his manifold of rules just as crucially as it requires growth in his manifold of concepts. In particular, the capacity for comprehension requires practical maxims in the manifold of rules and procedural schemata of comprehension conceptualized in the manifold of concepts.
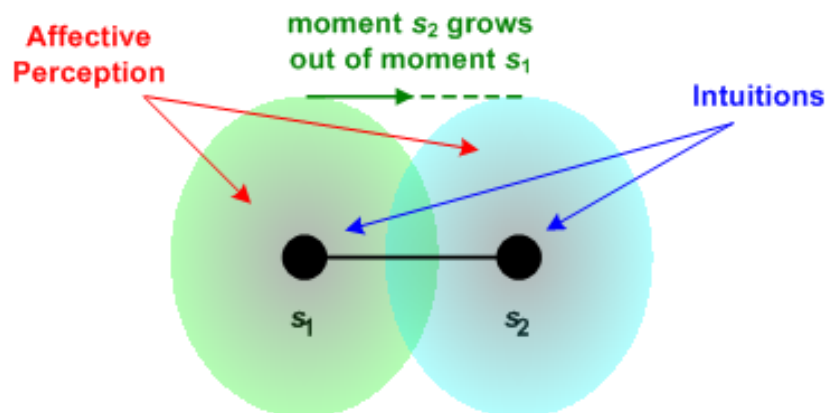

Figure 8: A single timeline kinetic in the synthesis of an intuition at s_2 that grows out of an intuition at s_1. Unity in the free play of imagination and understanding during the synthesis is maintained by the person's representations of affective perceptions, which are adjudicated by the process of reflective judgment and 'fill the time of transition' between moments of perceived intuitions.

A moment ago I spoke of a distinction between the object of a child's drawing and the object being drawn. When a child is drawing a drawing it is his action (drawing a drawing) that is the object of his thinking and his expressions of practical rules. He will *say* he is drawing a house, a bird or whatever, but this is the mere verbalization of a connection between his *intention* and his *actions*. That these are distinctly different parts of his overall activity can perhaps be appreciated by considering the difference between the first draft of a writer's work and the final draft after it has been proofread and corrected. If there was an actual unity of expression between what the writer wrote and what he intended to write, his first draft would be a completely accurate expression of what he intended to write. In practice – whether one is writing a lengthy essay or just a short memorandum – the first draft of a written work almost always requires corrections be made until what is written is an actual expression of what the author intended to write. This is something so commonplace that Ziegler devoted a chapter to it in her monogram on creative writing:

> One of the differences between the amateur and the professional writer is the latter's willingness to revise and rewrite, to cut and throw away – however painful and bloodletting the operation may be.
>
> Revision of both fictional works and nonfiction includes two processes: first, reorganization of material, if necessary, and, second, a long look at paragraphs, sentences, and words. [Ziegler (1968), pg. 107]

I think it more likely than not that anyone who has ever spent much time teaching classes has at one time or another come to rue typical students' inattention to proofreading and correction of their written materials. In business it is an unwise executive who does not bother to read what his secretary has typed up before signing it. Phenomena like these demonstrate that connecting what is written or drawn or said with what was intended to be written or drawn or said is not automatic. It requires the development of specific habits for the connection to be made. These habits have to be cultivated and honed by practice – in short, they have to be *learned*. The examples I present to you here are, in fact, particular examples that *do* stand under the general idea of *comprehension*.

To summarize: There is a distinction between knowledge of an object one speaks or writes about and the action of speaking or writing about it. A person *demonstrates* his literacy and comprehension of what he has learned through reading and study *by his ability* to speak or write about it factually and persuasively. In order to accomplish the latter, a person must overcome both his tendency to juxtapose concepts – because it is the nature of written material to present by juxtaposition – and his tendency towards syncretism in his own concepts of experience. The latter is overcome by analysis, the former by means of developed maxims for **synthetic combining** of juxtaposed items of knowledge and opinion. Once the learner has mastered the mechanico-intellective stage of physically being able to write, this consideration establishes the place of writing, speaking, and rhetorical skills within the language arts framework as *the active learning elements* of the language arts framework. Although it is not traditionally included as language art, it is important to also recognize that *drawing skill is a visual communication skill belonging to the same class of active expression skills that stimulate the capacity for synthetic combining*.

§ 5. The Expressive Skills: Writing, Speaking, and Rhetoric

One remark I hear many teachers make – and with which I agree up to a point – is that by teaching something to someone else, a *teacher* learns more about the topic than his pupil does. My observation has been that this seems to occur most noticeably and frequently the first few times one teaches a particular course or topic, and seems to happen less and to happen less often when the course or topic is one the teacher has taught many times. Broadly speaking, this is likely to be because a teacher must answer learners' questions, and to do so typically requires the teacher to re-view the topic from another's point of view – which is to say it requires him to

overcome his own adult egocentrism and develop the habit of asking himself questions like, "What does what I just said mean?" and "How do I know such-and-such is true?" It might be close to a tautology, but there is significant wisdom in the old saying, "If you don't say what you mean, you won't mean what you say."

Similarly, cultivating literacy and comprehension skills in a learner depends in large measure on cultivating in him habitual maxims of asking himself questions of this kind. Put another way, to do so is to cultivate a habit of initial skepticism about the veracity of concepts when these are used in *new contexts*, differing from those that occasioned their first conception, and then to follow this up with a habit of persuading *oneself* of the truth or falsity of the concepts as they are understood in the divers connotations attending different contexts.[11] Santayana wrote,

> [Skepticism] is an exercise, not a life; it is a discipline fit to purify the mind of prejudice and render it all the more apt, when the time comes, to believe and act wisely; and meantime the pure skeptic need take no offense at the multiplicity of images that crowd upon him if he is scrupulous not to trust them and to assert nothing at their prompting. Skepticism is the chastity of the intellect, and it is shameful to surrender it too soon or to the first comer; there is nobility in preserving it coolly and proudly through a long youth, until at last, in the ripeness of instinct and discretion, it can be safely exchanged for fidelity and happiness. [Santayana (1923), pp. 69-70]

As a discipline, the exercise of skepticism is a tool for combating the ignórance of dogmatism:

> Criticism surprises the soul in the arms of convention. Children insensibly accept all the suggestions of sense and language, the only initiative they show being a certain willfulness in the extension of these notions, a certain impulse towards private superstition. This is soon corrected by education or broken off rudely, like the nails of a tender hand, by hard contact with custom, fact, or derision. Belief then settles down in sullenness and apathy to a narrow circle of vague assumptions, to none of which the mind need have any deep affinity, none of which it need really understand, but which nevertheless it clings to for lack of other footing. The philosophy of the common man is an old wife that gives him no pleasure, yet he cannot live without her and resents any aspirations that strangers may cast on her character. . . . People are not naturally skeptics, wondering if a single one of their intellectual habits can be reasonably preserved; they are dogmatists angrily confident of maintaining them all. [*ibid.*, pp. 11-12]

All human beings begin life as naïve realists and what Santayana describes here is a result of this. Learning how to overcome the tendencies of dogmatism – which is itself an exhibition of type-α compensation (ignórance) – is a skill of enrichment for one's intellectual *Personfähigkeit*.

Here is where *exercises that stimulate this enrichment* are required in instructional education. Writing, speaking, and rhetoric are three important examples of this sort of stimulation. However, as topics of instruction these are not of value in and for themselves. Rather, their value for public education is grounded in *how they are made to serve* the learner's *self*-enrichment in regard to, first, his skills of literacy and comprehension and, second, his skills of persuasion. *Téchne* for instruction in writing, speaking, and rhetoric must be based on this grounding.

Aristotle opened his treatise on the *téchne* of rhetoric with the remark,

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[11] If you carefully examine the Socratic method Plato presents, especially in his early dialogues, I think you will be able to see that the core of Socratic inquiry amounts to putting concepts to the test of new contexts for them and seeking to discover whether or not a contradiction is found. As the first object concepts form in the first two years of life, the practical nature of the root meanings of these concepts not only leads to the naïve realism of children but also establishes deep foundational maxims that *work* in the limited experience of the child. Conservation of manifold structure preserves them and tends to render *new* contexts traumatic.

> Rhetoric is a counterpart of Dialectic; for both have to do with matters that are in a manner within the cognizance of all men and not confined to any special science. [Aristotle (335-330 BC), 354[a]1]

Aristotle treated the subject of dialectic in *Topics*. He described what he meant by dialectic in the opening sentence of that treatise:

> The purpose of the present treatise is to discover a method by which we shall be able to reason from generally accepted opinions about any problem set before us and shall ourselves, when sustaining an argument, avoid saying anything self-contradictory. [Aristotle (dates uncertain), 100[a]18]

Aristotle tells us that reasoning constitutes a "demonstration" when "it proceeds from premises which are true and primary or of such a kind that we have derived our original knowledge of them through premises which are primary and true." If, on the other hand, reasoning proceeds "from generally accepted opinions" – which means the truth of the premises is uncertain – then one's reasoning is dialectical and the argument a person produces is a dialectic rather than a demonstration.

One way of looking at how rhetoric is regarded as a "counterpart" of dialectic is to think of dialectic as argument appealing to another's objective logic, whereas rhetoric appeals to his judgments of taste and his feelings of *Lust* or *Unlust*. Both can be called methods of persuasion; the difference is the manner by which the other is persuaded.

Both demonstration and dialectic are aimed at providing the audience to whom the writer or speaker is trying to communicate with an objectively sufficient reason for holding-to-be-true what the communicator is telling them. Mental physics teaches that before a person can reach an objectively sufficient reason he must first reach a subjectively sufficient reason for agreement. So it is that even demonstration and dialectic rely on rhetoric up to a point. At the minimum there is a necessitation that persons comprising the audience accept the truth of the premises on the basis of a subjectively sufficient reason. This comparatively mild rhetorical factor is inherent in Averill's model (figure 6), where it is contained in the environmental factors of cultural beliefs and rules, specific audience, and relationships between emoter and emotee.

In most science and engineering journals, papers have a section in which the author establishes his paper's **context** by a brief synopsis I have come to call a 'standard argument' related to the technical material that comprises the main sections of the paper. Part of what a college student in physics or engineering learns in his 'major' consists of the standard arguments for his chosen field's paradigms. Standard arguments *are* premises. Students frequently have great difficulty understanding journal papers precisely because they have not yet learned these standard arguments. Journal papers are deliberately written for readers who are already 'knowledgeable in the field.' To everyone else the paper is often as indecipherable as Mayan hieroglyphics. For the paper's target audience, reference to a standard argument is a comforting rhetorical device for predisposing the reader to accept the rest of the paper if its logical arguments are sound and its empirical presentations adhere to accepted methodological practices of the field.

In a very similar way, lessons of *mos maiorum* and other functions in the social dimension of the learner are 'standard arguments' the learner must learn in order to harmoniously blend into his parent Society. This is to say that instructional *téchne* involves some rhetorical factors in lesson designs and instructive presentation. It is part of the mode of expression (figure 6) that affectively orients the learner toward objective lessons being presented.

This, however, still leaves the teacher facing the issue of how to cultivate these environmental factors of affectivity in the young learner – which, to put it another way, is to ask how 'standard

arguments' are themselves teachable. If, after all, standard arguments are part of the rhetoric of instruction needed for persuading a learner to learn the lesson intended, what is necessary when the lesson intended is aimed at teaching 'standard arguments' themselves?

This is where rhetoric in what might be called its "raw" form enters the teaching picture. In his treatise, Aristotle described 'rhetoric' as

> the faculty of discovering the possible means of persuasion in reference to any subject whatsoever. [Aristotle (*c*. 335-330 BC), 1355^{b}25-30]

This operational description of rhetoric is consistent with Averill's proposition that "effective emotional expression presumes a theory . . . of rhetoric" [Averill (2001)]. Averill's proposition goes along with Aristotle's proposition that a theory of rhetoric presumes an implicit theory of 'emotions.' *Rhetoric designed to appeal to learner judgments of taste* is the key to teaching initial standard arguments. It is worth noting that until around the 17th century 'rhetoric,' as the study of persuasion, was explicitly part of Western formal education and held to be one of the 'liberal arts.' Averill makes a noteworthy comment implying *poetry* is a vehicle for this sort of instruction:

> Rhetoric . . . focuses on concrete human actions within particular contexts. In this respect, rhetoric has less in common with theory than with poetry.
>
> [Poetry], as here conceived, is a play of the imagination that finds expression in symbolic form. Emotions can be poetic in this sense . . . Poetry . . . is closely allied not only to rhetoric, but also to the emotions. [Averill (2001)]

Skillful use of rhetoric when used in spoken form can properly be called 'oratory.' Thus, rules of practice constituting 'good oratory' have their immediate counterparts in rules of practice that constitute 'good writing.' It follows from this that exercises for building rhetorical skills, literacy skill, and expression skills are interrelated to each other. For this reason, as a pupil goes through the learning stage where he masters the mechanical maxims for being able to print and write, it is important for instruction to not crisply divide 'speech' and 'writing.' Rather, instruction in both should be provided to the learners in every grade. Primary schools in America do in fact keep these combined in the initial school years by, e.g., incorporating Show & Tell exercises into classroom instruction. What generally is not done in the American institution is to maintain the combination through the later primary school grades and the middle school years.

Let us take a look at some of the 'rules of oratory' to see how these likewise apply to writing. Cicero, who is deservedly regarded as one of the premier master orators of classical antiquity, tells us there are five foundational precepts of oratory:

> For to begin with, in regard to what benefits a free-born man of liberal education, I will not deny that I learned these commonplace and well-worn precepts of teachers in general: First, that the duty of an orator is to speak in a style fitted to convince; Next, that every speech has to do either with the investigation of a general question, wherein no person or occasions are indicated, or with a problem that is concerned with specific individuals and times; Moreover that in both cases, whatever the subject for debate, it is usual for inquiry to be made in respect thereof, either whether a deed was done or, if it was done, what is its character or whether it appears to have been done lawfully; Further, that contentions also arise out of the construction of a document, wherein there is some ambiguity or contra-diction, or something is so expressed that the written word is at variance with the intention; and again, that to all these kinds certain modes of proof are assigned as appropriate. . . .
>
> And, since all the activity and ability of an orator falls into five parts, I learned that he must first hit upon what to say; then manage and marshal his discoveries, not merely in orderly fashion but with a discriminating eye for the exact weight as it were of each argument;

next, to go on to array them in the adornments of style; after that to keep them guarded in his memory; and in the end deliver them with dignity and charm. I had also been taught that, before speaking on the issue, we must first secure the goodwill of our audience; that next we must state our case; afterwards define the dispute; then establish our own allegations; subsequently disprove those of the other side; and in our peroration expand and reinforce all that was in our favor while we weaken and demolished whatever went to support our opponents. [Cicero (55 BC), Bk. I, pp. 96-98]

There are two pieces to Cicero's precepts I wish to distinguish and discuss. The first is relationship of his oratorical precepts to more general precepts of argumentative expression. The second is the elements of affectivity and propaganda inherent in these precepts.

Cicero presents not only his five precepts but, in addition, five actions for the orator to take and five goals he has for these actions. It is tempting at first brush to suppose each precept is a rule or guideline for selecting an action as the means for fulfilling a goal. However, the way in which Cicero presents the maxims, actions, and goals does not obviously lend itself to identifying from them five crisply definable synthetic forms such as goal + precept $\rightarrow$ action. This is not the place to develop a transcendental Logic of oratory, but let me at least extend them a bit to cover rhetorical aspects of authorship[12] in general. So rephrased, Cicero's precepts become:

precept 1.   The work must be expressed in a style fitted to convince, persuade, or other-wise attract its intended audience to accept the author's intended message. _Comment_: A story or other work of imaginative literature is written to have a desired effect on its audience. To "attract" an audience's acceptance means to move them to this desired effect. Similarly, a scientific paper or other nonfictional work is intended to not only inform the audience of some new fact, theory, or hypothesis but also to persuade them of the veracity of what the author says, i.e., to "attract" them to his point of view.

precept 2.   Every authored work contains some topical question, either of a general or of a more specific nature. _Comment_: If something is not in question or regarded with some degree of doubt by audience members, the authored work has no message to convey. In some cases, the question might be one that is new and being presented for an audience's consideration. New scientific discoveries tend to be of this nature. In lengthier works of imaginative literature, raising questions in readers' minds has an important dramatic effect. For example, in Holm (1963) the character known only as "the man" looms like a dark and omnipresent shadow over the protagonist. A question hovering over most of the novel is, "Is the man a villain?" He is certainly a man who does villainous and deadly things, but did he help the boy or has he ensnared him in some deadly trap?

precept 3.   The author must investigate the question of precept 2. _Comment_: An author cannot present the question unless he has an answer for it to propose. This means the author must himself investigate the question, understand it, and work his understanding of it into the authored work. For example, some young researchers make the mistake of thinking that merely discovering some problem exists is enough to write a paper about it. Scientific journals, on the other hand, never publish such papers if the author does not go further and propose a solution for it. Competent authors of works of imaginative literature never raise questions and then drop them unpursued from the story. Any question raised somewhere in their stories always turns up again later. An effect this tactic can have on a reader is to provoke him to build broader concepts in his manifold of concepts due to contexts attaching to the question. This cultivates comprehension.

precept 4.   Contentions arise as a result of ambiguities, disagreements of opinion or inter-pretations, or from contradiction between documentary materials and stated intentions.

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[12] I use the word "author" here to denote the originator of any written or spoken work, whether this work is imaginative or nonfiction literature, graphic art, poetry, or a speech.

Comment: Cicero has a twofold interest in contention. First, the orator must avoid having contentions arise between himself and his audience. Second, he wishes to raise contentions between the audience and his opponent. This orator's maxim generalizes to the form of *conflict* in a work of imaginative literature or *refutation* in a work of non-fiction. In the latter case, the refutation might be either refutation of a previous theory or hypothesis or it might be a refutation of prior models or modes of looking at an un-solved scientific problem. In the case of the former, a conflict is a key part of the structure of a story and is designed to attract the readers' sympathies for the protagonist and antipathies toward the antagonist. For example, Ziegler tells us

> At the beginning of the story the writer must also indicate or imply the *theme* and the *problem* or the conflict. He has to show the purpose of the story and what it is about. The first paragraphs of [Faulkner's "A Rose for Emily"] imply that it is going to be concerned about the theme of the *Outsider*, a victim of her time and place, of the effect of Southern traditions upon a person born too late for them. The beginning of the story also suggests a conflict between Miss Emily and the town, between the forces each represents. [Ziegler (1968), pg. 31]

precept 5. Appropriate modes of proof or demonstration are required to resolve contentions and provide answers to the questions. *Comment*: By proof or demonstration I mean presentations by the author which convince the audience of or win their agreement with the author's resolution of contentions or questions. For example, in Holm (1963) the inexplicable and apparently contradictory behaviors of 'the man' eventually are explained by an unexpected discovery the boy makes at the old woman's cabin in Switzerland. The resolution is convincing to the reader and for the first time gives the young protagonist a concrete goal that impels him for the rest of his journey to freedom.

In order to cultivate the learner's power of persuasion, these precepts must be cultivated, first in his practical manifold of rules, then as conceptualized procedural schemata in his manifold of concepts, and finally as broader concepts of pragmatic maxims in his manifold of concepts. The instruction he receives for this takes time to accomplish because the learner cannot move swiftly from a basic and largely mechanical knowledge of *how* to write to well cultivated skill in *what* he writes. The experience that instruction must see to it he acquires involves a back-and-forth, give-and-take between examples from his reading skill instruction and the gropings of his writing skill exercises. Cicero's precepts are concerned with properties of the authored object rather than those of the author. The latter is bound up with Cicero's five *aims* of a skillful author:

Aim 1: Secure the goodwill of your audience.

Aim 2: State your case (i.e., present your arguments, evidences, or, in short, your *theme*).

Aim 3: Define the dispute or matter under contention.

Aim 4: Establish your proofs, conjectures, and allegations (tell your story) and refute or disprove those of opposing views.

Aim 5: Emphasize what is favorable to your argument and convincingly discredit what is unfavorable to your argument.

Many scientists and engineers I know will take exception to at least the first and fifth of these aims. Underlying this is a sort of semi-mystical faith that "the facts speak for themselves" with an attitude that those who do not "listen to the facts" are in some way committing a kind of moral fault. In actuality, *facts never speak for themselves* because nothing is a "fact" until a person *thinks* it is a fact and understands it *in some relevant context*. Merely because *you* think something is a fact and *you* think the context is obvious does nothing to guarantee someone else will think it is a fact or will find its context "obvious." To presume they will is adult egocentrism.

The five aims and the five precepts can only be learned conjointly. The aims pertain to the author, the precepts to that-which-is-authored. Broadening a learner's concepts and cultivating his comprehension skills require both a specific object for his actions of authorship *and* instruction that teaches him *how* to effectively communicate with others. A learner judges things by their outcomes. If he judges himself unsuccessful in the outcomes of his efforts, then his frustrations will bring about formation of practical maxims that make authorship a practical object of *Unlust* to him – he will make authorship something he seeks to avoid rather than to cultivate.

Cicero's *author's actions* are bridging actions pertaining to conjoint learning of the precepts and the aims. A teacher's instructional *téchne* must therefore focus on motivating the learner to make these actions habitual as well as teaching him to make a habit of improving how effectively he performs these actions. Cicero's five author's actions are:

Action 1: Determine what you are going to say or write.

Action 2: Gather up and organize discoveries and facts, and determine their appropriate weighting in terms of their significance for the effects they will have on the audience.

Action 3: Adorn these discoveries and facts with an effective and appropriate style of presentation. <u>Comment</u>: To recognize effective and appropriate style of presentation is more or less to recognize that you are trying to communicate your ideas and opinions to other human beings. What is sometimes called a "conversational style" is enormously more effective at accomplishing this than the so-called "formal" style adopted in most scientific publications. Mathematics, science, and engineering journals are notorious for ignoring this, with the consequence that they are also notorious for being outstanding examples of extremely poor and unintelligible writing. If you wished to hinder Progress in science and technology, you could hardly find a better way to do it than to compel scientists to write in the style present day journals compel them to use. Consider this slightly tongue-in-cheek caricature Davis & Hersh present of an "ideal mathematician":

> The ideal mathematician's work is intelligible only to a small group of specialists, numbering a few dozen or at most a few hundred. This group has existed only for a few decades, and there is every possibility that it may become extinct in another few decades. . . . To his fellow experts, he communicates in a casual shorthand. . . . This breezy style is not to be found in his published writings. There he piles up formalism on top of formalism. . . . His writing follows an unbreakable convention: to conceal any sign that the author or his intended reader is a human being. [Davis & Hersh (1981), pp. 34-36]

Action 4: Keep your discoveries and facts in mind as you write. <u>Comment</u>: This might seem like a trivial point not worth mentioning. In actuality, many authors tend to forget this while writing their first drafts. To convince another person, that person must be skillfully led to the conclusion without apparent contradictions arising along the way. This can only be done if the author adheres to this action and avoids rambling off into irrelevancies. Sometimes something might almost unavoidably *seem* like it is unrelated or irrelevant simply because of the scope or nature of the topic, and situations like this are not infrequent. Because of this, an author must persuade the audience to *trust* that he really is going somewhere and making a relevant point, and to do that it is important for him to adhere to action 4 everywhere else so that the audience, in a manner of speaking, says to itself, "I don't see where he's going with this, but he has always pulled things together before so I'll play along with him for awhile this time."

Action 5: Deliver your arguments, facts, and demonstrations with dignity and charm. <u>Comment</u>: Very few people take someone seriously if his style of expression is vulgar and consistently conveys an impression of ignorance, crudity, or bias. As the old saying goes, everybody has an opinion. An author must give his audience a reason to listen to him rather than give them an excuse to turn away. A bigot or a fanatic only preaches to

his own choir. Vulgarity and indignant expression are frequently taken as clues raising suspicions that the communicator's purpose is *propaganda*.

Rhetorical skill goes to persuasive power in writing or speaking. Comprehension goes to the learner's intellectual *Personfähigkeit*. As a learner succeeds in formulating broader concepts in his manifold of concepts, one observable factor connected with this achievement is a demonstrable ability to form inferences of analogy by exhibiting the use of simile and metaphor. Writing and speaking exercises in which the learner produces imaginative literature or speeches (storytelling) serves a dual purpose: first, it brings into play and exercises the learner's processes of reasoning and understanding that promote conceptualization of broader concepts; second, it provides the teacher with observation data by which the learner's power of comprehension can be qualitatively gauged and tracked.

In some ways, use of simile and metaphor is a kind of mimesis. The story told in *West Side Story* can be regarded as a lengthy simile of *Romeo and Juliet*. The same can be said of most cases where a later story (whether in written or theater art form) is a retelling of some earlier work. There is a somewhat subtle distinction to be drawn between: (*i*) a work that is a 'creative' simile to some earlier work, e.g., *West Side Story*; and (*ii*) a work that is formulaic with little or no innovation exhibited. Such is the case in many regular television series and in much of the pulp magazine fiction of bygone years. It is true that what constitutes an innovative simile vs. what is a 'formulaic' cannot be crisply defined. Individuals make this call on the basis of their personal judgments of taste. In this, imaginative literature is judged in ways similar to Justice Stewart's famous "I know it when I see it" opinion on pornography. Isaac Asimov wrote,

> In the 1920s science fiction was becoming a popular art form for the first time, and no longer merely a tour de force in the hands of an occasional master such as Verne or Wells. Magazines devoted exclusively to science fiction appeared and "science fiction writers" made their appearance on the literary scene.
>
> And one of the stock plots of science fiction was that of the invention of a robot – usually pictured as a creature of metal, without soul or emotion. Under the influence of the well known deeds and ultimate fate of Frankenstein and Rossum, there seemed only one change to be rung on this plot. – Robots were created and destroyed their creator; robots were created and destroyed their creator; robots were created and destroyed their creator –
>
> In the 1930s I became a science fiction reader, and I quickly grew tired of this dull hundred-times-told tale. As a person interested in science, I resented the purely Faustian interpretation of science. [Asimov (1964), pg. 10]

Literary criticism of this sort is, of course, one person's opinion of another person's product. In the context of the language arts framework of public education, *this is irrelevant* to the teaching mission because the viewpoint of literary criticism *is a viewpoint external to the learner*. Whether or not an authored work by a learner is 'creative' is "in the mind of the learner" provided that the authored work is not an outright plagiarism. Indeed, near-plagiarism by a learner in the early stages of receiving his language arts instruction *can be a tactic by which the learner learns how to develop what Cicero called 'style.'* **All human beings learn from the particular to the general**, and it is generally an error for a teacher to be rigidly intolerant of a beginner's more-likely-than-not use of near-plagiarism. Rather, the teacher should view the teaching problem as one of gradually cultivating the learner's development of his own style. "Re-tell it in your own words" writing assignments are examples of a cultivating tactic a teacher can use for instructive purposes for this cultivation. By means of it, a learner learns his own practical maxims of writing and expression, a learning stage propaedeutic to his eventual development of his own unique style.

At the same time style skill is being cultivated by "re-tell it" types of assignments, the specific reading matters being *coupled* to writing lessons can at the same time be used as subject material for other functions of public instructional education (figure 1). Again, imaginative literature is not mere entertainment in regard to education; it is a proxy for experience young learners have not yet acquired. Judging from his work, Robert Heinlein, another noted science fiction author, seems to have understood this point:

> 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]

The tired old tactic of "read a book; do a book report" has very little educational value because it has no learner-centered aim, no specific skill cultivation as its target. It is not difficult for a learner to discern when instruction is without purpose. I don't know how many Americans took away from their high school years a loathing of Dickens, but I suspect the number is huge and I'm fairly certain how Dickens-as-subject-matter was used is responsible for a large part of this. To cultivate the learner's powers of literacy and comprehension, a teacher must get him to *want* to read, and the most direct appeal for this is the factor of appeal *to his private Duties-to-himself*. This learner-centered targeting is a rudimentary guiding principle for not only reading but also writing and speaking (expression) instruction, and is a key reason why *reading and writing exercises must be closely coordinated and coupled **by design** in instructional education*. As it was for 'Mike,' Heinlein's computer character, the entire atmosphere of the language arts framework should be designed to deliver to the learner what Heinlein called the "gestalt of life" in the learner's Society.

§ 6. Propaganda Analysis Instruction

I said above there are two aspects of Cicero's precepts. The second aspect is propaganda.

Each of us is bombarded daily with propaganda from all points on the compass. Preparing the learner for his responsibilities and Duties as a citizen requires that he be armed against the deceits inherent in almost all the propaganda exposure he is subjected to every day in our Society. This is an instructional mission properly assigned, in part, to the language arts framework and, in part, to the mathematics framework discussed in the next chapter.

The word 'propaganda' was originally a neutral term and meant nothing more than "getting the message out" to people the communicator wished or needed to inform about something. Today's darker and negative connotation of the word is largely due to World War II and Nazi Germany's Ministry of Propaganda, which consistently spread falsehoods as a standard tactic for getting the German people to go along with their Nazi rulers. Every government and large organization today has one or more departments for "getting the word out," but none of them call this department a "propaganda department." Specifying what precisely it is that makes a message 'propaganda' is not an easy thing to do, but communiqués people generally agree are examples of propaganda do share a number of common characteristics. Merrill & Lowenstein tell us this about propaganda:

> Regardless of which of the many definitions [of propaganda] one is examining, he finds certain core ideas about propaganda: "manipulation," "purposeful management," "pre-conceived plan," "creation of desires," "reinforcement of biases," "arousal of preexisting attitudes," "irrational appeal," "specific objective," "arousal to action," "predetermined end," "suggestion," and "creation of dispositions."

Out of all these terms one may gather a certain impression about propaganda. It seems that propaganda is related to an attempt (implying *intent*) on the part of somebody to manipulate somebody else. By manipulation we mean *to control* – to control not only the attitudes of others but also their actions. Somebody (or some group) – the *propagandist* – is predisposed to cause others to think a certain way, so that they may, in some cases, take a certain action. Propaganda, then, is the effort or activity by which an initiating communicator intends to manage the attitudes and actions of others by playing on their preexisting biases with messages designed largely to appeal to their emotions and/or irrationality.

The propagandist does not want his audience to analyze or think seriously about his message. He does not want to be questioned about his remarks. He does not want to be forced to deal in specifics or to present evidence. He has what Harold Lasswell has referred to as a noneducational orientation; by this he meant that the ends or solutions had already been determined before the search for truth began. . . . Propaganda is not an invitation to the audience to contemplate, to analyze, to think, to question. It is an invitation to come to rather quick conclusions or to reinforce existing conclusions. It is an invitation to change or strengthen one's attitudes and to involve oneself in an action of some type. . . .

Before looking more specifically at propaganda . . . perhaps it would be well to make these points about the propagandist: 1. He is *not* disinterested, 2. he is *not* neutral, 3. he *has* a plan, a purpose, a goal, 4. he *wants* to influence, to persuade, to affect attitudes and action, and 5. he is not interested in his audience members making up their own minds on the basis of a fair and balanced presentation of information. [Merrill & Lowenstein (1971), pp. 214-215]

Points 1-4 can usually be said equally of almost all communicators. All four points are true, for example, of the author of this treatise. The three volumes of *The Idea of Public Education* are all part of a larger agenda to reestablish the founding principles of the American Republic and to promote social, economic, and political reforms consistent with the founding Ideals of our Republic. It is Merrill & Lowenstein's fifth point that crisply distinguishes a propagandist from other communicators.

Almost every single political election campaign today communicates with the electorate solely through propaganda. Most political movements likewise constantly use propaganda to try to win support for their agendas. Judging from all the examples I have ever seen or heard, I conclude that every political "attack ad" is propaganda and is intended to deceive. For both the major political parties of today, the consistent political message seems to consist of nothing more than, "Don't make those Democrats (Republicans) your rulers! Make us Republicans (Democrats) your rulers!" Rulership is contrary to every social contract and is an Un-American institution.

Not all commercial advertisement can be properly labeled propaganda. An advertisement like, "Macy's is having a sale!" is not propaganda, although "50% off all items!" might be. But a great many present day commercials and ads can properly be labeled propaganda. Quite often propaganda messages lie to their audiences either by omission of facts or by making misleading representations of facts. "Four out of five doctors recommend Miracle Pill!" is an example of propaganda that lies using statistics. A minority of advertisements avoid being properly labeled as deceits by presenting the message humorously and ironically in such a way that almost every person can see the advertisement as a lampoon or a joke. In these cases the implicit message is, "Hey, come give *us* a try instead of those other guys" – which is a not-unreasonable appeal. Perhaps the most famous example of this was the "We try harder" advertising slogan used by Avis Rent A Car from 1962 to 2012.

Whether spoken, written, or visual, rhetoric is the principal tool of propaganda. Cicero made this point bluntly in *De Oratore*:

A potent factor in success, then, is for the characters, principles, conduct and course of

life, both of those who are to plead cases and of their clients, to be approved, and conversely those of their opponents condemned; and for the feelings of the tribunal to be won over, as far as possible, to goodwill towards the advocate and the advocate's client as well. Now feelings are won over by a man's merit, achievements or reputable life, qualifications easier to embellish, if only they are real, than to fabricate where nonexistent. But attributes useful in an advocate are a mild tone, a countenance expressive of modesty, gentle language, and the faculty of seeming to be dealing reluctantly and under compulsion with something you are really anxious to prove. It is very helpful to display the tokens of good nature, kindness, calmness, loyalty, and a disposition that is pleasing and not grasping or covetous, and all the qualities belonging to men who are upright, unassuming, and not given to haste, stubbornness, strife or harshness, are powerful in winning goodwill, while the want of them estranges it from those as do not possess them; accordingly, the very opposite of these qualities must be ascribed to our opponents. [Cicero (55 BC), Bk. II, pp. 326-329]

It is not going too far to say that volume II of *De Oratore* is a textbook for propagandists. Cicero is not alone in teaching that emotional appeal, misdirection, and taking advantage of prejudices and biases are important rhetorical elements of "advocacy." Aristotle made a very similar point in *Rhetoric*.

All this is not to say that public instructional education should aim at or advocate to learners the use of deceptive propaganda tactics. However, it can be anticipated that every learner will be eventually a target of some propagandist's efforts. For this reason, teaching learners how to spot and analyze the products of propaganda is essential to cultivating them as citizens. Instruction in the language arts framework designed with this lesson object serves learner *Personfähigkeit* in the dimension of the learner-as-a-member-of-Society. It is, furthermore, the only place in the frameworks recognized by today's educational institution where self-defense against propaganda has a definable place to be taught.

§ 7. Recapitulation of the Language Arts Framework

A natural human language is a system of vocalizations and gestures used by human beings for thinking and for communicating with other human beings. All human languages are systems of symbols established by convention, and the symbols it uses can be audible, gestural, written, or expressed in divers other forms (hieroglyphs, knots in a rope, pictures, etc.). A language art is the use of language purposively and in various ways to do something and satisfy some purpose.

In the United States the common public language is English and language arts instruction is by convention aimed at cultivating literacy in English and skill in the use of English. I do not intend to imply that other languages are unimportant or that instruction in them is not instruction in a language art. However, other languages are, again by convention, placed within the humanities framework of public education. English acquires its special status because it is made to serve as the "common tongue" for all American citizens and the fulfillment of citizenship Duties requires every citizen to develop adequate proficiency in the art of English language.

Literacy skill and skill in language expression are the skills language arts education is tasked with cultivating in each learner. Language arts instruction goes beyond the rudiments of teaching reading, writing, speaking, and listening skills to take in comprehensive reading skills and skills of expressing oneself to communicate and persuade consistent with the functions of corporal, intellect, and persuasion education. I think it is likely obvious enough that Progress in learner tangible *Personfähigkeit* necessitates the cultivation of language art skills. Thus, language arts instruction is pertinent, either immediately or remotely, to all divisions of public instructional education depicted in figure 1. Literacy is the ability to understand meanings from the interpretation of written materials. Comprehensive reading is the skill of reading in such a way that the

reader constructs a manifold of broad concepts that he can use to satisfy many intentions. All objectively valid methods of evaluating the effectiveness of literacy and reading instruction must, consequently, be designed to assess the degree to which these skills are actually exhibited by the learners.

All lesson objects and instruction *téchne* must be designed based on the functions of public instructional education. This is because the purpose of the institution of public education is to cultivate citizens, each of whose *Personfähigkeit* is to be combined with those of other citizens to produce the overall *Personfähigkeit* of American Society. As the learner grows from childhood to adulthood, literacy instruction moves from being centered on the functions of corporal education to those of intellect and persuasion education. Language arts instruction must *condition* learners to make it their habit to continue to regularly exercise and improve their language arts skills. It must cultivate a habit of comprehensive reading.

To accomplish this, instruction *téchne* must be designed to appeal to learner affectivity and to cultivate learner development of schemes for comprehending. Literacy as a skill is an ability to exploit the human capacity for aesthetic Ideas, and so the principle of language arts instruction is evocation of the learner's aesthetic Idea function (figures 4 and 5). Language arts instruction aims at cultivating creativity through literature and rhetoric. This is done by stimulating and guiding the learner's process of synthesizing aesthetic Ideas.

Imaginative literature provides a vicarious substitute to be used to compensate for a learner's lack of personal experience. It provides aliments for building up his capacity for comprehension and literacy. Conditioning the learner to use similes and metaphors from imaginative literature is a key to cultivating his synthesis of comprehensive broad concepts as he learns from other areas of instruction, e.g. tangible skills education. Similes and metaphors are likewise the principal aliments for cultivating creativity in the learner, and creativity is the key to achieving Progress in Society overall. Instruction *téchne* should seek to structure lessons around broad themes that constitute a lesson object with broad underlying scope. This means that lesson objects span multiple instruction episodes and involve a variety of sensory media: visual, audible, and tactile. To use a metaphor, lesson objects are not limericks; they are symphonies that move the learners.

Expressive language arts exercises (writing assignments, speeches, graphic arts) stimulate and exercise a learner's capacity for synthetic combining. This is crucial for literacy and comprehension because the human nature of both syncretism and juxtaposition are antagonistic to productive creativity. Writing, speaking, and rhetorical skills are the active learning elements of language arts instruction. They complement and complete reading and listening skills. Cultivating literacy and comprehension depends in large measure on cultivating practical maxims for examining old concepts in new contexts and cultivating maxims of cautious skepticism. Such maxims and habits counteract the natural human inclination for type-α compensations that people otherwise naturally rely upon in order to deal with the trauma that occurs when their foundational and egocentric maxims and beliefs are challenged by experience. Writing, speaking, and rhetoric exercises are instructional methods that can be used to stimulate and cultivate the development of these maxims.

Effective instructional *téchne* always involves rhetorical factors that affectively orient the learner toward subjectively sufficient reasons to accept the objective factors in a lesson. Rhetoric, by design, is that part of written or spoken expression that appeals to learner judgments of taste. Cicero's precepts, rules of action, and communicator aims are very pertinent not only for the teacher's presentations of lessons but also are persuasion skills to be cultivated in the learner. Practice in developing rhetorical skills also tends to cultivate a learner's intellectual skills of comprehension and literacy.

To institute the type of language arts instructional education I have presented in this chapter

will require significant re-design of schoolbooks and other written materials. This is because most of these materials – for example, Dickens' novels – were never written to match young learners' stages of mental development and fail to appeal in a constructive manner to learner affectivity. The suitable use of many possible sources of materials – for example, graphic novels – has by and large not been adequately explored and has faced many groundless objections merely because they are not traditionally regarded as instructional material. The expertise-in-experience that is the most suitable for the development of effective instructional material is in the possession of experienced teachers. The notion that effective instructional material can be most efficiently and cost effectively provided by so-called "standard" textbooks or other materials evaluated and selected by appointed committees is a Taylorite fantasy and is antagonistic to effective public instruction.

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