

Harold Rugg on How We Come to Know:
A View of His Aesthetics

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Among the notions central to curriculum thought is the principle of rational deliberation as the key to problem solving and renewed activity. Its classic and paradigmatic formulation is contained in *HOW WE THINK*, one of John Dewey's major works. In it, rational deliberation is reduced to a variant order of five sequential phases believed to be constitutive of one's reflective thought when dealing with very simple or highly complex problems.

(1) suggestions, in which the mind leaps forward to a possible solution; (2) an intellectualization of the difficulty or perplexity that has been felt (directly experienced) into a problem to be solved, a question for which the answer must be sought; (3) the use of one suggestion after another as a leading idea, or hypothesis, to initiate and guide observation and other operations in collection of factual material; (4) the mental elaboration of the idea or supposition as an idea or supposition (reasoning, in the sense in which reasoning is a part, not the whole, of inference; and (5) testing the hypothesis by overt or imaginative action.¹

Among curriculum specialists, Harold Rugg was perhaps the first to challenge this paradigm in any systematic way. This is something we have yet to recognize and grapple with, even though it may indeed have programmatic as well as theoretical implications for curriculum studies. We have to go beyond simple biographies² of Rugg and begin to take and examine his work much more systematically. A place to start is with his aesthetic views. I think these provide a key to what he was after. We know, for example, that as a social reconstructionist he gave aesthetics too important a role in the cultural evolution of American society to exclude it from his educational program. Greatly influenced by the writers associated with *SEVEN ARTS* -- e.g., James Oppenheim, Van Wyck Brooks, and Waldo Frank³ -- and the work of a number of American artists -- e.g., Ralph Emerson, Walt Whitman, Louis Sullivan, Frank Wright, Isadora Duncan, and Alfred Stieglitz -- he was convinced, after studying the matter extensively, that "*the discoveries of the American esthetic frontier since 1890*" had to form "*the life and program of the coming school of the mid-twentieth century.*"⁴ A close analysis of his published writings reveals this to be a consistent and recurrent theme.⁵

This knowledge is revealing and important. But it is not sufficient. It tells virtually nothing of Rugg's real interests. To get at these interests, we have to seriously consider the source of Rugg's conviction: a belief that aesthetics--as conceived by practicing artists rather than philosophers of art, who, according to Rugg, lacked actual experience in the arts--held an important key to a reconstruction of what we have come to understand, accept, and take for granted as the paradigm of genuine thinking. He argued throughout that he had found reason for this reconstruction in the aesthetic contributions of contemporary artists. "*But to*

me the most significant single outcome from the study of the concepts of the creative artist in the affirmations of Emerson and Whitman, of Sullivan and Cézanne, of the whole creative army of today," he concluded in *CULTURE AND EDUCATION IN AMERICA*, "has been the cumulative confirmation of one hypothesis: there are other modes of human response than that of the experimental method of knowing."⁶

Rugg argued that this hypothesis, rather than replace Dewey's principles of reflection, actually placed them in their proper framework. "This does not put intelligence out of the psychological picture; nor does it detract from the giant contribution of Dewey in building a pragmatic psychology of the problem," he explained. "It keeps intelligence, problem-solving, and habit, but strives to keep them in their most effective places."⁷ To Rugg, the problem with rational deliberation, problem-solving, and experimentalism seemed rather simple: "The psychological stress on intelligence and the acts of problem-solving thinking and habit has long closed our minds to the true role of the expressive acts of me."⁸

The fact that Rugg challenged and sought to reconstruct a central principle behind pragmatism is sufficient to warrant an examination of his views. There is no doubt that our faith in rational deliberation still guides much of what we do. Deliberation, for example, is at the heart of Schwab's recent formulations⁹ and Walker's descriptive accounts of curriculum development.¹⁰ Perhaps an analysis of part of Rugg's work may yield serious implications for this apparent trend in curriculum inquiry. His views on aesthetic creation provide a starting context.

Toward a Descriptive View of the Creative Process

In his search for a more cogent explanation of cognition, Rugg turned to the arts. The aesthetic frontier as he called it provided him with a context wherein to proceed with a serious and long-term investigation into reflective processes that ultimately yielded results. He began by focussing primarily on aesthetic creation, which he took as a specific variant of creation generally. His first formulation of this complex process appeared in *THE CHILD-CENTERED SCHOOL*, published in 1928.¹¹ More than a third of this volume is concerned with artistic processes: "music, bodily education, painting, drawing, and sculpture, writing, dramatics."¹² A study of the underlying structures of these processes led Rugg to the following formulation:

*There is, first of all, that urge to create--hazy, intangible, it may manifest itself as a vague restlessness. There is, second, the illuminating flash of insight which suddenly reveals to the artist a conception, perhaps indefinite, of the meaning toward which he is groping. There is, third, the mastery of the necessary techniques. And there is, fourth, a long grueling enterprise of the integrative process itself -- the tenacious grip on application of the necessary techniques in shaping and reshaping the work as it develops; the successive stages of ruthless self-criticism; the rigorous sense of dissatisfaction with the work as it progresses; the insistence upon unsparing exactitude, precision; the constant polishing and changing.*¹³

Note, for example, the striking similarity between this model and Dewey's description of reflective thought (see *supra*). Both formulations describe a movement triggered by perplexity and concluding in a resolution of a problem. It's as if Rugg had yet to suspend completely

the pragmatic perspective he had inherited and consequently transferred it over to the arts. The only apparent difference in the two formulations lies with Rugg's introduction into the model of rational deliberation of "*the illuminating flash of insight which suddenly reveals to the artist a conception, perhaps indefinite, of the meaning toward which he is groping.*" Of course, Rugg's notion here is quite similar to Dewey's "suggestions." But Rugg's use of the language of illumination and revelation to describe perhaps a similar phase in knowledge acquisition smacks of intuitionism.

As we shall see, Rugg was to make much of his flash of insight later in his writings. But as to the intuitionism generally, it emerges again in 1947 with the publication of FOUNDATIONS FOR AMERICAN EDUCATION where the 1928 model was expanded considerably. Here knowing was equated with "primal awareness" or intuition, an intense feeling of the object "*through our body tendencies and stresses.*"¹⁴ This was seeing in its deepest sense: a "*grasp of significant relationships,*" "*getting hold of subtle meanings hidden from casual, superficial observation.*"¹⁵ Rugg felt that this deeper seeing, this primal awareness, required an intense penetration of the object of interest, a "*prolonged concentration, of observing, scrutinizing, weighing--waiting until the surface characteristics give way to inner relationships... 'Looking until it burns into my head.'*"¹⁶ There is a *meditative* quality here that is not present in Dewey's description of problem-solving. In contrast, Dewey's formulation is overly calculative: it seems to call for a manipulation of variables requiring of the individual complete conscious control. In Rugg's view, on the other hand, seeing in its deepest sense implies a giving of oneself to concentration, a quiet waiting for deeper relations, for significant meaning to emerge and be known. There is a kind of *quasi* loss of consciousness during which calculation does not figure. Rugg felt that this was as true for the thinker (science) as it was for the artist (art). Both science and art, as processes of acquiring and expressing meaning, are pervaded by an intensity bordering on meditation. There is a form of thought that may be said to involve more than mere calculation. In Heideggerian terminology, it is *meditative*, not calculative.¹⁷ Rugg seems to have understood the basic difference between the two: letting be (meditative) as opposed to controlling (calculative). This much was established in the 1947 volume.

What Rugg was not yet able to do there was offer a detailed psychology of the internal machinations underlying creative action. That is, although he had found the ingredient of concentration as fundamental to all creative activities, he was not yet able at that point to move confidently from a specific description of aesthetic creation to a general description of the basic structures of knowing. As a result, as late as 1952, he felt he had found minimal evidence to explain fully the underlying structures of creation, how the flash of insight as he called it suddenly came to be. After his retirement from Columbia Teachers College in 1952, therefore, he decided to spend the remaining years of his life studying this phenomenon in an effort to formulate a more general description of its workings. And it was not until the publication of IMAGINATION, published posthumously in 1963 by his colleague and friend, Kenneth D. Benne, that the fruits of his labor were publicized. In this posthumous text, two points stand out very clearly: the increasing importance he came to give the role of imagination in the creative process and the varied disciplinary sources brought to bear on its study. He had gradually come around to the conclusion that the study of imagination was the key to an understanding of knowing and creation as basic processes underlying the

generation of all knowledge. Imagination was found to be the point of contact, the link, between the aesthetic and all other forms of creation. Imagination became so important to him that he sought to understand it from as many perspectives as possible. Indeed, the multi-disciplinary approach he brought to this quest is rather impressive, to say the least. Besides drawing on the testimony of a number of artists and scientists regarding the nature of creation--insights which he compiled into an autobiography of the creative act--Rugg's encyclopedic study covered widely the so-called two great sources of knowledge: "*One is the tested, intuitive wisdom of the ages, both of East and West. The other is the profound conceptual consensus and the tested theories of what today we are calling the behavioral sciences.*"¹⁸ So, convinced that an understanding of creation rested in a sound theory of imagination, he argued that no discipline bearing on the problem could be left unexplored. Finally equating imagination with knowing, he expressed it this way:

*In attempting to develop a sound theory of knowing or imagining, therefore, we have no recourse but to make ourselves conceptual encyclopedists. We must know the essence of all knowledge relevant to our problem, and this is a gargantuan task. We must, for example, know our civilization, its development, current changes and problems, and the current knowledge of human behavior, growth, learning, and creative expression. To master the essence of all the material bearing on the nature of the imagination, we must gather, almost continuously, the basic concepts from the sciences and arts of man.*¹⁹

Rugg's Model of Imaginative Creation

Rugg's treatment of imagination is divided into three parts. Part one is a detailed description of the creative act. Here we find technical and non-technical analyses of the factors involved in the processes of imagining. The non-technical data was supplied by artists and scientists as they tried to document their own adventures in creation or knowledge acquisition. The technical data, on the other hand, came from psychological and physiological sources. In the second part, Rugg turned to the ways of releasing the imagination known to man: hypnotism, drugs, mysticism, yoga, Zen, and Eastern intuitionism. (Note that intuitionism is now reduced to one source of insights among many.) In part three, Rugg tried to synthesize all the evidence into a coherent theory of imagination. Of the final part, only one complete paper--a paper read before the Philosophy of Education Society shortly before his death--survives. A revision of this paper is what forms the third part of the posthumous volume. What we find here is Rugg's formulation of imagination in the format of seven theorems which attempt to synthesize previous conclusions with new knowledge. As it stands, the formulation may be taken as a model of knowledge acquisition. If only briefly, I would like to consider it at this point.

According to the paradigm, man comes to acquire knowledge through a creative process consisting of three stages: (a) a *conscious* preparatory period of baffled struggle, (b) an *interlude* or giving up in which the problem is pushed out of consciousness and left for the unconscious to work on, and (c) an experience of a flash of insight, the answer or solution to the problem.

It follows from this that knowing entails two structurally different but related processes: discovery and verification, also described as "moods." The experience of discovery (felt-thought) comes first and begins with felt uncertainties, with general feelings, of an intuitive

nature, that one is right and proceeding in the right direction. Once discovery is complete, the flash of illumination experienced, verbal formulation or verification (logical-thought) follows. For Rugg, this meant that there are two approaches to knowing: "*an inside identification with the object*" and "*an outside measured observation of it.*"²⁰ He traced the first of these approaches to the so-called "Great Doctrine" of the East, "*the doctrine of release of conscious mind--the no-mind of Tao or of Zen.*"²¹ Further, of the two approaches, he considered inside identification with the object as the central act in imagining. He felt that this inside identification occurred in the transliminal mind, his way of describing a dynamic psychological region or antechamber between conscious and unconscious mind where new meaning (his flash of insight) first emerges.

There is more to this construct of transliminal mind. First, Rugg considered the state of transliminality as the psychological condition most conducive to knowing. He argued, for example, that transliminal mind actually implies a state of "quite concentration," a state wherein we know before we know. As a semi-conscious state, an off-conscious state as he preferred to call it, transliminal mind is free from all censorship. That is, it is a relaxed state of mind receptive of all psychological messages. Further, "*it is also magnetic, with a dynamic forming power...it is hypnoidal, resembling the light trance of autohypnosis. It satisfies the criteria of the intuitively identifying mind of intense concentration, characteristic of the work of an Einstein, a Cezanne, a Laotzu, a true Indian Yogin, or a Zen master artist.*"²² As he saw it, this is what made transliminal mind the only possible psychological region wherein new meaning could conceivably originate.

But how does such meaning actually come to be or acquired? According to Rugg, in a state of relaxed concentration, there is an unconscious search for fit which results in *symbolic transformation* of psychological content into a meaningful response. "*Psychological message is transformed into psychological meanings; input is synthesized into output. Fantasy motor images are transformed into metaphor-images.*"²³ Metaphor, then is what makes conceptualization of meaning possible. The functions of metaphor and symbolic transformation are lacking in Dewey's formulation of knowledge acquisition. Along with the finding of meditative functioning as an element in knowledge acquisition, these are among the contributions Rugg made to our understanding of the generation and apprehension of meaning.

In sum, Rugg's views of knowledge acquisition hinge on a descriptive psychology of the internal workings of imagination. A view of the general features of this model shows Rugg aiming at: (a) a psychological description of the conditions necessary for knowing to run its full course, and (b) a disclosure of the procedures underlying its operation. Now, whether these contributions can be helpful to us remains to be shown.

Implications for Curriculum

Rugg viewed his conclusions as warranting a call for both theoretical and programmatic changes: (1) *a new and more systematic look at behavioral theory*; (2) *a "re-examination... of our established doctrine of experience"*; (3) *the creation "of the School of the Second Freedom--that of the inner freedom of the relaxed, threshold-mind of intuitive discovery"*; (4) *a serious consideration of the need "to provide a program of designed movement" (i.e., dance) in schools*; (5) *a turn to a bio-social-psychological linguistic apparatus so as to overcome "the ancient dichotomy between mechanical and organic explanations of behavior"*; and (6) *a working out of an "over-arching philosophy that will motivate our youth today."*²⁴

Rugg defined these as educational imperatives, courses of action logically stemming from his conclusions. At the level of educational theory, he was hopeful that commitment to his work would lead to a conceptual revolution that would *"be appropriate to a revolutionary culture."* As he saw it, intellectual conditions required a paradigmatic shift. *"We are living in one of those recurring cycles in the history of thought,"* he wrote, *"when many old conceptions are outmoded, have served their tentative usefulness; some have actually been disproved. New horizons loom before us, comparable to those faced by Kepler, Galileo, and Newton, and we listen now to new physical theorists, new behavioral theorists, and new expressional artists."*²⁵

I think there is sufficient reason to interpret Rugg's message as suggesting to educators a need to replace pragmatism as the guiding and organizing source of thought and action. In a sense, his model stands as a pioneering step in that direction. As noted, Rugg's interest in aesthetics derived from his dissatisfactions with the pragmatic paradigm, if you will, of how man comes to create or acquire meaning. The process had been reduced to conscious problem solving, and Rugg felt that there was a kind of *semi-psychology* built into this conception which led educators to deal with only *"less than half of man."* The solution, as he saw it, was to reconstruct this pragmatic notion so as to take account of behavioral factors that his investigations had disclosed. As it stands, the model does push for a rejection of Dewey's statement on how we think. But the problem here is that Rugg did not specifically explore how commitment to his model might further guide educators beyond the constraints of pragmatism. So, the immediate question that one needs to address in this context is whether Rugg's model may have other specific implications for the kind of pragmatism embedded, say, in curriculum discourse. For curricularists currently looking toward the employment of aesthetic models, the question may indeed appear intriguing, for one can reasonably interpret their efforts as a search for non-pragmatic modes: what Dewey in his letter to William James called *"the liberation side"* to knowledge.²⁶

Although I'm not presently prepared to exploit all the possible implications of Rugg's model for Pragmatism as we have come to understand it in curriculum inquiry, there are two specific areas one can point to which Rugg might have been implicitly addressing in his set of imperatives and where the employment of his model may indeed be useful. Take, for example, Dewey's theory of action as articulated in his *THE CONTINUUM OF ENDS-MEANS*.²⁷ Curriculum specialists often point to this model as a fairly accurate description of human activity. In fact, it is usually employed as a standard against which to measure the validity of technological approaches to curriculum design. Briefly, the argument here is that the technological model misconstrues the organic relationship existing between ends-means so well articulated by Dewey. I'm not about to suggest that the claim is unwarranted. On the contrary, Dewey's theory of action does retain a kind of organic relationship between ends-means that is not found in the naive behaviorism implicit in technological approaches to curriculum inquiry. However, although it does represent a more accurate description of human activity, Dewey's means-ends model reflects problems when examined in the light of Rugg's description of imagination. Let me explain.

Embedded in Dewey's description of human action is the principle of rational deliberation as the key to problem-solving and renewed activity. The principle is perhaps best reflected in the following statement: *"To the degree in which desires and interests are formed after critical survey of the conditions which as means determine the actual outcome, the more smoothly continuous become subsequent activities, for consequences attained are then such as are*

evaluated more readily as means in the continuum of action."²⁸ Rugg's model discloses, however, that rational deliberation may constitute but one phase in the process of problem-solving. In fact, the model even implies that, although deliberation may be *necessary*, it is not, as Dewey intimated, *sufficient*. Rugg's notion of relaxed-concentration figures significantly here, for it suggests a later and perhaps more important phase overlooked by Dewey. It may well be that ends-in-view may not appear initially as *imaginatively* clear to the actor as Dewey would have us believe. Rugg's description of how the flash of insight emerges suggests that a clear end-in-view need not be present in the initial stages of problem-solving activity. What may only be present is simply *consciousness of a problem* or a *paradigmatic anomaly*, to paraphrase Kuhn. In such a case, ends-in-view may be *sufficient* but not necessary.

This is an anomaly that, to my knowledge, Dewey never actually resolved. The point of relaxed-concentration as a dimension of creative thought did not really figure in his treatment of aesthetic experience, a thesis that had been expected to serve as the corrective to the kind of instrumentalism implicit in pragmatism.²⁹ Even in this context, deliberation seems to figure as the key explanatory device. It is true that in this context Dewey did argue "*that imaginative experience exemplifies more fully than any other kind of experience what experience itself is in its very movement and structure.*"³⁰ But this insight remained just that, an insight he never fully explored. He failed to explain what was *psychologically* possible and perhaps necessary in a creative and liberating experience. It was left to Rugg to provide an explanation.

The second example relates to a problem embedded in Dewey's general pragmatic scheme. Leroy F. Troutner has claimed that Dewey's framework leaves no room for the *individual existent* or existence as a category as such.³¹ That is, the importance of existence *qua* existence or man *qua* man is eliminated and reduced to a biological organism constituting a functional unit in the more larger and important process of experience.³² Troutner has specifically argued that:

*Dewey's standard frame of reference is inadequate, especially in an educational context, because it cannot accommodate man's subjectivity, i.e., a self-conscious being who knows that he knows that he is. The transactional event is ideal 'subject-matter' for science, and no one will deny that the scientific method is very effective in handling some educational problems, but there is a significant difference between seeing education primarily in terms of the application of science to educational problems and seeing education primarily in terms of the becoming of a person, between seeing education in terms of the organism-environment problematic' and seeing education in terms of the person's lived reality. That which is most distinctive about man, i.e., his interiority, and hence most important to education, cannot be accommodated in Dewey's standard frame of reference.*³³

In a way, Rugg's scheme of reference would lead us into the kind of subjectivist position that Troutner describes as lacking in Dewey's framework. But more important, the model would allow a shift away from talk of the primacy of experience and into talk of the primacy of subjective action. Perhaps this is one of the things Rugg had in mind when he wrote of the need to re-examine our doctrine of experience.

Thus, here we have two very clear examples of how Rugg's model may indeed guide us out of pragmatism and into other forms of language and description. Admittedly, these areas require much more systematic attention and analysis than can be given here. The new overarching philosophy called for by Rugg may well hinge on the results.

In addition to the programmatic changes suggested by Rugg himself (i.e., see 3 and 4 above), there are other implications to be drawn from his work. I will consider five: namely, its implications for (a) curricular organization, (b) the conceptualization of curriculum activity, (c) curriculum criticism, (d) our current notions of knowledge acquisition, and (e) curriculum theorizing.

The first implication is actually presupposed by and must be considered prior to the implementation of Rugg's curricular imperatives (see *supra*, numbers 3 and 4). It has to do with how the employment of Rugg's model would imply a specific modal organization of educational knowledge. To show this, Basil Bernstein's model of educational transmission may be helpful here. Allow me to illustrate.³⁴

Bernstein argues that educational knowledge (socially defined public knowledge) is realized through three message systems: (1) curriculum, what passes as valid knowledge, (2) pedagogy, what passes as valid transmission of knowledge, and (3) evaluation, what passes as valid realization of knowledge on the part of the taught. Bernstein uses the concepts of classification and frame to determine the structure of these message systems. Classification, for example, is used to determine the basic structure of curriculum. Thus, this concept refers to the degree of boundary strength between contents. Curriculum areas may be strongly or weakly insulated from each other. Strong insulation between contents implies *strong* classification and *closed* relations between contents. These are the basic features of a *collection* type of curriculum. The different contents (i.e., history, art, mathematics, etc.) are kept apart. On the other hand, weak insulation between contents imply *weak* classification and *open* relations between contents. This is the basic structure of an *integrated* type of curriculum. The different contents are brought together and subordinated to a central idea.

Unlike classification, the concept of frame is employed to determine the structure of pedagogy. As such, it refers to the degree of control that the teacher and the child have over the selection, organization, timing and pacing of knowledge being transmitted and received in the classroom. According to Bernstein, the degree of frame strength affects the coefficient of power in the pedagogical relationship: that is, the stronger the framing, the less control a child is bound to have over the procedures structuring transmission.

Now, unlike extant modes of curriculum organization which presuppose and in many ways tacitly reinforce an organizational mode of highly classified and framed educational knowledge, Rugg's scheme would call for a *declassification* of educational knowledge and an *integrated* mode of organization. The major reason for this lies in the principle embedded in Rugg's framework: namely, imagination as the source of created and articulated meaning, in all areas of knowledge. It is a principle that one would have to contend with when dealing with the question of curricular organization. The different contents would be brought together and subordinated to the idea of imagination as the organizing principle of all knowledge. As an approach to curricular organization, the practice would replace the current mode of setting art apart and insulating it from other subject areas. As I have argued elsewhere, rarely has anyone looked at the problematics implicit in this current mode of curricular

organization: the child is socialized into believing that aesthetic qualities and experiences are common only to art and the humanities.³⁵ It is possible for children to infer and acquire from these experiences that aesthetic qualities are not to be found, felt and enjoyed in connection with other areas of knowledge. Moreover, it is also possible for them to infer and acquire the false pretense that only artists are fortunate to experience the process of creation. Thus, one way of approaching these issues is to consider curricular organization from the perspective implicit in Rugg's framework: that knowledge must be organized in such a way that the imaginative origins and aesthetics of all knowledge are accentuated.

The second implication of Rugg's model is that it can serve as a type of critical framework against which we can evaluate current research and practice. This is what proponents of curriculum criticism³⁶ have failed to capitalize on in their search for alternate language forms. Their ahistorical approaches to aesthetic issues in curriculum inquiry have prevented them from considering how Rugg's model can indeed function as a viable, evaluative critical scheme for looking at, say, what currently passes as creative activity in both research and practice. Rugg's model is heuristic in that it permits us to raise a number of questions in this regard. Are the models of creative action descriptive of a *reconstructed logic or logic in use?* (Rugg's model points to the logic-in-use constitutive of creative processes of artists and scientists.) Do these pattern creation after a three stage process? Do our models of curriculum design account for the two-fold mode of symbolic action? Is there an emphasis, for example, placed on the importance of gesture? How is the process of symbolic transformation construed? Is it valued? Do models of research and practice account for felt-thought? In other words, is there a conceptual distinction made between discovery and verification?

These are critical questions that one can raise in the analysis of curriculum materials, art programs, and research designs. What one would be doing here is examining from a critical perspective whether systems of knowledge distribution and research procedures are reflective of what we now know of the processes of creative thought and knowledge acquisition. Is the knowledge of how creative thinking actually proceeds being accurately represented when distributed to children? When empirically explored, is it being properly measured? How is the problem construed or defined? Take for example, the question whether there is a conceptual distinction made between discovery and verification. This question has been relatively ignored in the research literature dealing with discovery teaching and learning. Only recently has there been a serious attempt to defend verification as a distinct and crucial variable that educational researchers must begin to incorporate in their notions of discovery teaching and learning.³⁷ But even here, the call is for a view of verification as the end state and defining criterion of discovery. A commitment to Rugg's model would force us to consider a more convincing and perhaps more accurate view: discovery and verification as constituting two distinct phases in the much more general process of knowledge acquisition.

There is the third implication. Since Rugg's model describes processes of personal creation, its reflective use in curriculum discourse could be instrumental in perhaps framing the essential features of our work. In other words, by applying the model we might be able to conceptualize curriculum activity in terms of a three-stage process involving essentially discovery of a problem and baffled struggle, transliminality and symbolic transformation. What we would be really saying here is that curriculum design entails this sort of process. This mode of construing curriculum activity might help in describing so-called non-deliberative

processes. In talking about such processes, Decker Walker resorts to the concepts of "creation" and "trials" and admits that *"he can say little about creation except that it is undoubtedly guided by the principles and the examples found in platform and deliberation."*³⁸ Of trial, he says that it *"may include imaginative rehearsals, personal trials by the creator, informal trials with project staff and students, and formal trials with students using experimental controls and objective measures."* He offers, however, no detailed description of these processes. If these non-deliberative processes seem to exist in curriculum development, should we not attempt to offer even a rough description of them? It seems reasonable, I think, to inquire into our language of description when wanting to talk about these non-deliberative processes. Would Rugg's model be more appropriate for making sense of non-deliberative processes? I think the question is at least worth raising and exploring.

The fourth implication has been intimated throughout. The model forces us to revise our notions of knowledge acquisition. Dewey's model of reflective thought is a case in point. Equally important is the oversimplification of knowledge acquisition built into technological approaches to curriculum development; that knowing implies identification and/or attainment of goals. Needless to say, Rugg's model would be quite instrumental in (a) replacing this position, and (b) describing a much more accurate view of how we come to know and acquire meaning.

Finally, and perhaps more important, the model might help in another respect: namely, it exemplifies an approach to curriculum theorizing. While addressing a current concern in the field regarding the status of theorizing, Kliebard recently suggested that we look to Dewey's approach to theorizing as a possible guide. Kliebard referred specifically to Dewey's treatment of the Herbartian metaphor of recapitulation. What is exemplary of this treatment, Kliebard suggests, is the manner in which Dewey examined the metaphor, found problems with it, and then reconstructed it so as to disclose an alternate approach to curriculum organization. What I am suggesting here is that in Rugg's approach to the Problem of Knowledge acquisition, we find a theoretical procedure identical to Dewey's. Rugg took the extant metaphor of knowing as problem-solving activity, found problems with it, and reconstructed it so that it would take account of an imaginative, creative dimension. By doing this, he was able to say and work within an established tradition, consider prior contributions, and reconstruct meaning systems guiding on-going work. Thus, his conceptual model is most attractive. Not only does it exemplify an approach to curriculum theorizing, it also provides a different view of knowledge acquisition.

Conclusion

To summarize, I began the discussion with the claim that embedded in curriculum thought is a view of knowledge acquisition as a function of rational deliberation or problem solving. After tracing its source to John Dewey's classic formulation of how we think, I pointed out that Harold Rugg was perhaps the first among curriculum specialists to challenge such a view. After discussing his proposed formulation of imaginative creation as the key to knowledge acquisition, I drew a number of implications for curriculum: (a) replacement of pragmatism (that still needs to be worked out), (b) renewed interest in subjectivity, (c) criticism of current research and practice, and (d) reconstruction of current epistemic notions, (e) different conceptualization of curriculum activity, and (f) change in our approaches to curriculum theorizing.

Admittedly, the implications to be drawn from Rugg's work need a lot more systematic attention than was given here. Curriculum specialists, for example, may well decide against Rugg's view of knowledge acquisition. The model does provide a psycho-physiological description that some, if not all, would reject. But the issue regarding this model's, or any other model's, real use value is one that can't be resolved without first seriously considering the implications of its concepts, an approach that curriculum specialists must be seriously committed to, whatever the model. This means that we have to proceed with the intention of building on past contributions, if necessary. I do think that a highly productive way of contributing significantly to a field's development is to recognize contributions, acknowledge them, and work within them. Working within such contexts or, in Thomas S. Kuhn's term, paradigms, puts us in a better position, since we are on the inside, if you will, to deal with experienced anomalies and work toward conceptual reconstruction or eventual shifts in habitual perspectives. That seems to have been a vital part of Rugg's vision, and his contributions to our understanding of meaning and knowledge acquisition proved him to be on the right path. In a sense, his work is reminiscent of Gaston Bachelard's words: "*This is the very problem of creative life: how to have a future while not forgetting the past? how to ensure that passion be made luminous without being cooled.*"³⁹

FOOTNOTES

1. John Dewey, *HOW WE THINK* (Chicago: D.C. Heath and Co., 1933), p. 107.
2. See Mary L. Seguel, *THE CURRICULUM FIELD: ITS FORMATIVE YEARS* (New York: Teachers College Press, 1966); and Peter F. Carbone, Jr., *THE SOCIAL AND EDUCATIONAL THOUGHT OF HAROLD RUGG* (Durham, North Carolina: Duke University Press, 1977).
3. For an excellent analysis of Rugg's close association with *THE SEVEN ARTS*, see Mark Philips, *THE SEVEN ARTS AND HAROLD RUGG*, unpublished Master's Thesis, Columbia University. See, also, Rugg's contribution to *AMERICA AND ALFRED STIEGLITZ*, Waldo Frank, ed., (New York: Doubleday, Dorn and Co., 1934), pp. 179-98.
4. Harold Rugg, *FOUNDATIONS FOR AMERICAN EDUCATION* (New York: World Book Co., 1947).
5. See, for example, *AMERICAN LIFE AND THE SCHOOL CURRICULUM* (New York: Ginn and Co., 1936); *DEMOCRACY AND THE CURRICULUM* (New York: Appleton-Century-Crofts Co., 1939); and, *CULTURE AND EDUCATION IN AMERICA*, OP. CIT.
6. OP. CIT., p. 211.
7. *FOUNDATIONS FOR EDUCATION*, OP. CIT., p. xvii.
8. *Ibid.*, p. xviii. Rugg was quite correct in isolating this aspect of pragmatism as problematic. Dewey had discovered the same problem as early as 1903. In a letter to William James, Dewey wrote: "*I have something brewing in my head. What I call to myself "Truth as Stimulation and Control," a commentary in effect upon your "Sentiment of Rationality": to point out that in certain situations truth is that which liberates and set agoing more experience, in others, that which limits and defines, which adjusts to definite ends. It seems to me this will straighten out some objections to pragmatism, its seeming over-utilitarianism (the 'control' side), and provide a place for the aesthetic function in knowledge--"truth for its own sake," harmony, etc. (the liberation side).*" (Ralph Barton Perry's *THE THOUGHT*

AND CHARACTER OF WILLIAM JAMES, II (Boston: Little, Brown and Co.), pp. 525-26. What is interesting about this controversy is that Rugg never acknowledged in his published writings Dewey's approach to the problem in ART AS EXPERIENCE, although he was indeed aware of this aspect of Dewey's thought and did, as a matter of fact, make occasional references to it in his later writings. There is, for example, a striking similarity between Rugg's conception of artistic design as organization of *forces* and Dewey's conception of the same process as organization of *energies*. If we take *energies* and *forces* as meaning the same, the conceptions are identical.

9. Joseph Schwab, THE PRACTICAL (Washington, D.C.: National Education Association for the Study of Instruction, 1970).
10. Decker F. Walker, "Curriculum Development in an Art Project," in William A. Reid and Decker F. Walker, eds., CASE STUDIES IN CURRICULUM CHANGE (London: Routledge and Kegan Paul, 1975).
11. Harold Rugg and Ann Shumaker, THE CHILD-CENTERED SCHOOL (New York: World Book Co., 1928).
12. IBID., p. 143.
13. IBID.
14. OP. CIT., part IV, p. 444.
15. IBID., p. 454.
16. IBID.
17. Martin Heidegger, A DISCOURSE ON THINKING (New York: Harper Torchbooks, 1966).
18. Harold Rugg, IMAGINATION (New York: Harper and Row Publishers, 1963), p. xviii.
19. IBID., p. xix.
20. IBID., p. 291.
21. IBID.
22. IBID., p. 293.
23. IBID., p. 298.
24. IBID., p. 310.
25. IBID., p. 314.
26. See note 8 above.
27. In Reginald D. Archambault, ed., JOHN DEWEY ON EDUCATION (New York: Random House, Inc., 1964), pp. 97-107.
28. IBID., p. 107.
29. See note 8 above.
30. John Dewey, ART AS EXPERIENCE (New York: Minton, Balch and Company, 1934), p. 281.
31. Leroy F. Troutner, "John Dewey, The Individual Existent, and Education," in PHILOSOPHY OF EDUCATION 1967: PROCEEDINGS OF THE TWENTY-THIRD ANNUAL MEETING OF THE PHILOSOPHY OF EDUCATION SOCIETY, pp. 84-96.
32. Leroy R. Troutner, "The Confrontation Between Experimentalism and Existentialism--From Dewey Through Heidegger and Beyond," in PHILOSOPHY OF EDUCATION 1968: PROCEEDINGS OF THE TWENTY-FOURTH ANNUAL MEETING OF THE PHILOSOPHY OF EDUCATION SOCIETY, p. 191.
33. IBID., p. 192.

34. I have drawn specifically from this paper, "On the Classification and Framing of Educational Knowledge," in CLASS, CODES AND CONTROL, Volume 3 (London: Routledge and Kegan Paul, 1973).
35. José Rosario, "On the Child's Acquisition of Aesthetic Meaning: The Contribution of Schooling," in George Willis, ed., QUALITATIVE EVALUATION (Berkeley, California: McCutchan, 1978).
36. See for example: Dwayne Huebner, "Curricular Language and Classroom Meanings," in J.B. MacDonald R.R. Leeper, LANGUAGE AND MEANING (Washington, A.S.C.D., 1966); John S. Mann, "Curriculum Criticism" and George S. Willis, "Curricular Criticism and Literary Criticism," in George S. Willis, OP. CIT.; and Elizabeth Vallance, "The Application of Aesthetic Criticism to Curriculum Materials: Arguments and Issues," a paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 23, 1976.
37. Kenneth A. Strike, "The Logic of Learning by Discovery," REIVEW OF EDUCATIONAL RESEARCH, 45 (Summer 1975), pp. 461-483.
38. Decker F. Walker, OP. CIT., p. 130.
39. Gaston Bachelard, THE PSYCHOANALYSIS OF FIRE (Boston: Beacon Press, 1968), p. 111.