We mourn the passing of

our friend and colleague

James B. Macdonald

November 21, 1983

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invite you to submit a proposal
for a paper to be presented at
the October 1984 Conference on
Curriculum Theory and Practice.

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The Editors
The Journal of Curriculum Theorizing
53 Falstaff Road
Rochester, New York 14609
U.S.A.

JCT. ISSN: 0162-8453. Single copy: $10.

JCT

THE JOURNAL OF CURRICULUM THEORIZING 5:4

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JUL 12 1984

The Journal of Curriculum Theorizing is the publication of the Corporation for Curriculum Research, a not-for-profit corporation established to promote the advancement of curriculum theory and of teaching and learning in schools and universities. Manuscripts and correspondence should be addressed to:

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Chief Administrative Officer
The Journal of Curriculum Theorizing
53 Falstaff Road
Rochester, New York 14609
U.S.A.

Subscription rates (in U.S. dollars: Individuals $28/1 yr., $48/2 yrs. $68/3 yrs.; Institutions $38/1 yr., $68/2 yrs. $98/3 yrs.: graduate students $21/1 yr.: for air mail delivery outside North America, add $5. For those outside the U.S. and paying in your currency, take into account present currency exchange rates. Send your check or Master Card/Visa account number and expiration date (made payable to the Corporation for Curriculum Research) to Ms. Zaccone, address above.

Advertising rates and information: available from Ms. Zaccone. Four issues mailed each calendar year, winter, spring, summer and fall.

The Journal of Curriculum Theorizing is assisted by the University of Rochester, the University of Dayton, Bowling Green State University, and St. John's University.

Technical Assistant: Eileen Duffy

Authors alone are responsible for the content of their articles.
JCT is referenced in the Universal Reference System, Plenum Publishing Company, New York, New York.
Printed in the United States of America.
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Cover: Children at the Window
Georg Friedrich Kersting 1785-1847
68x52 Kunstmuseum Dusseldorf

Thanks to John "Book" Marshall

JCT

Volume Five, Issue Four
Fall 1983

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Editor's Note

This issue opens with a gentle and informative address to South Korean scholars by the distinguished Canadian educator and curriculum theorist Tetsuo Aoki. The essay will be welcomed especially by those readers who are unfamiliar with "reconceptualist" literature.

Aoki's essay is followed by the second in a two-part series by Leigh Chiarelott on Dewey's concept of experience. Sometimes as elusive as it has been influential in Western educational practice, the concept is here clearly articulated and illustrated.

In the next piece we stay in the West, but it it is the West of the American Indian we – through Terry Tempest Williams' vignettes -- glimpse. I wish we academics described our experience with imagery as rich as that which typifies Terry's and the Navajo's descriptions of theirs.

The problem of two cultures is, of course, not only anthropological but academic as well, and I wish C. P. Snow were alive to reply to Ellis Joseph's thoughtful critique of the idolatry of Reason, Technology, and Matter. We live in a time when Matter has obscured Spirit, Joseph states, and until we restore our vision of the Immaterial, specifically of the Divine, we cannot resolve the estrangement between Science and Technology on the one hand, and the Humanities and humanism on the other.

From the divine we are taken to the mundane, as Florence Krall allows us inside the chairperson's door. Administration may be mundane, but Krall's articulation of it is anything but, as she asserts her vision and voice in lyrical ways, ways which denude the pretense of administrative office. It is an essay at once beautiful and wise.

In a wise reply to his critics, Bill Doll concludes this issue. I think you will agree: Bill has the last word.

A new section appears in this issue, one in which we will print selected letters to the editor. Jean Erdman writes about the Bergamo conference; Ed Milner remembers Jim Macdonald.

W. P.

Towards a Dialectic Between the Conceptual World and the Lived World: Transcending Instrumentalism in Curriculum Orientation

Ted Tetsuo Aoki
University of Alberta

"We do not need theories so much as the experience that is is the source of theory"
R.D. Laing in *The Politics of Experience*

We must intensify our ability to look at the world directly and not through the half-opaque medium of concepts, which distorts every given fact into the all too familiar likeness of some generic label or explanatory abstraction."
Aldous Huxley in *The Doors of Perception*

"The only source of knowledge is our life as we live it daily and as we experience it prior to any theoretical experience."
Zygmunt Bauman in *Towards a Critical Theory*

"The whole universe of science is built upon the world as directly experienced and if you want to subject science to rigorous study...,we must begin by reawakening the basic experience of the world of which science is the second order experience."
Merleau-Ponty in *Ways of Understanding Religion*

An Unfolding of Myself to You

To be invited to touch the soil of your homeland and to be allowed to grasp your hands is for me an occasion that beckons me to proffer myself to in-dwell with you. In truth, I cannot help but regard this in-dwelling as a joyous meeting of your life-world and mine, enjoined in meaningful conversation. Such a thought evokes Michael Oakeshott's eloquent

saying of what a conversation, properly speaking, is:

> "As civilized human beings, we are the inheritors of a conversation, begun in the primeval forests and extended and made more articulate in the course of centuries. It is a conversation which goes on both in public and within each of ourselves. It is the ability to participate in this conversation, and not the ability to reason cogently, to make discoveries about the world, or to contrive a better world, which distinguishes the human being from the animal and the civilized man from the barbarian. Indeed, it seems not improbable that it was the engagement in this conversation (where talk is without a conclusion) that gave us our present appearance, man being descended from a race of apes who sat in talk so long and so late that they wore out their tails. Education, properly speaking, is an initiation into the skill and partnership of this conversation in which we learn to recognize the voices, to distinguish the proper occasions of utterance, and in which we acquire the intellectual and moral habits appropriate to conversation. And it is this conversation which, in the end, gives place and character to every human activity and utterance."1.
>
> Michael Oakeshott in *The Voice of Poetry in the Conversation of Mankind"*

From my standpoint as a teacher educator situated within the crucible of Canadian culture, I sense as a Canadian a deep-rooted resonance with fellow educators in South Korea. I locate this resonance in that which is central to our notion of nationhood - a socio-cultural ambience which supports a view of education in a contemporary historical setting which bespeaks of freedom and responsibility experienced in the fullest sense only within the last half century. Each of our nations is marked by an ongoing effort to contribute anew a lived reality that reflects the prople's vigorous hopes and aspirations, much of which seems to be vested in the education of our children and youth. For this reason, I eagerly look forward to engage you in conversation in which you and

I can learn, as Oakeshott so advised, to recognize each other's voices, "to distinguish the proper occasions of utterance, and in which we acquire the intellectual and moral habits appropriate to conversation."

The Voice of Dr. Chung: A Questioning of Instrumentalism

> We cannot expect personal, social and professional ethics to prevail among people habituated to the *instrumental...way of life*. In these people the exploitation of other,...of even themselves...is characteristic. I would argue that the notion of *alienation* is intimately and basically connected...with instrumentalism simply and plainly because people so oriented have no value, no interest, and *no feeling of 'here and now'*.... Therefore, they are alienated persons who are haunted by ontological doubts about their own being. [2]
>
> President Bom Mo Chung, Chungbuk National University, South Korea

These profound words were expressed by Dr. Bom Mo Chung, an educator whom I deeply respect, in a critically reflective article on educational planning in South Korea. His remarks, an insightful commentary on the root orientation within which programs for education have been developed in South Korea, are a clarion call to South Koreans and others to turn their eyes upon themselves in an effort to come to a fuller understanding of the ground that have made possible educational planning in South Korea. For me, Dr. Chung speaks fundamentally to curriculum issues as I understand them.

Dr. Chung's critique of instrumentalism as a way of life is totally relevant to curriculum issues as we understand them in North America. For a teacher educator such as myself, his statement provides a singular occasion to turn thoughts reflectively to a fuller understanding of my own situation. Such an understanding calls for a disclosure of curriculum orientations that are now becoming visible in North America. To this disclosure I now wish to turn.

Current Curriculum Literature: A Quest for Alternative Orientations

If we are to explore even casually current curriculum literature in North America, we can derive a sense of tension

between the past and the present. I regard the existence of this tension as a symbol of promise and possibility for renewal. Let us look at some of the titles of current publications:

1. Elliot Eisner and E. Vallance (eds.) *Conflicting Conceptions of Curriculum*[3] (Eisner and Vallance contend that the instrumentalist conception of curriculum is but one of many possibilities.)
2. Edgar Faure, *et al.*, *Learning to be.* A UNESCO Report.[4] (The title suggests a going beyond *learning to do.)*)
3. William Pinar (ed.), *Curriculum Theorizing: The Reconceptualists.* [5] (Pinar suggests the urgency of re-formulating our traditional way of theorizing about curriculum.)
4. Michael Apple, *Ideology and Curriculum* [6] (Apple urges the need to understand the "hidden" ideological underpinnings of curriculum.)
5. John Goodlad, *et al.*, *The Conventional and the Alternative in Education.*[7] (Goodland suggests the need for awareness of possibilities beyond the conventional.)
6. Ted Aoki (ed.) *Toward Curriculum Evaluation in a New Key*[8] (We suggest in this monograph that the instrumentalist mode of curriculum evaluation is but one of possible modes of evaluation.)
7. Henry Giroux, *et al.*,(eds.) *Curriculum and Instruction-Alternatives in Education.*[9] (Suggests alternative orientations both in curriculum and in instruction.)
8. Paulo Freire, *Education for Critical Consciousness* [10] (Freire urges the centrality of reflection in education.)
9. James Macdonald and E. Zaret (eds.) *Schools in Search of Meaning,* a publication of the Association for Supervision and Curriculum Development.[11] (The title compels us to focus on meaning as a form of knowing.)

Do not the titles of these books provide clues to the kind of fresh questioning of the field in which curriculum people are now engaged? Even the language of these titles begins to disclose their interests in reconceptualizing the curriculum field, in understanding alternative paradigms or ideologies within which curriculum thought is embedded, in transcending instrumentalism in curriculum thought to

embrace beingness and critical consciousness, and in viewing schools engaged in a search for situational meaning. They seem to be insistent in speaking to an effort to transform the world of curriculum.

To appreciate the current North American curriculum situation, it will be helpful even briefly to get a sense of the historical emergence of "curriculum" in North America.

The Emergence of "Curriculum" as an Administrative Category

Bill Pinar and Madeleine Grumet who style themselves Reconceptualists describe the emergence of "curriculum" as an administrative category. They write:

> The curriculum field did not begin as a field at all. Unlike educational psychology, philosophy of education, the field of curriculum did not originate as an extension or application of an extent discipline. Rather, the field is usually said to have begun in Denver in the 1920's due to administrative "need". Evidently Denver Superintendent Jesse Newlon decided that someone in the central office ought to be attending to the curriculum, in specific subjects, in specific schools, and through the district overall. (Cremin, 1975). So he hired a classroom teacher, perhaps one who had indicated interest in curriculum matters, as the first curriculum director or co-ordinator. This origin is very important in understanding why the American curriculum field developed as it did, and why it is undergoing what is now undergoing. [12]

The origin of curriculum as an administrative category reflects the management interest, not of curriculum people proper, but of supervisors, consultants, and other educational administrators. This management interest was clearly reflected in the instrumentalist ends-means ethos in the early curriculum books. Among these, the most notable curriculum text was Ralph Tyler's book, *Basic Principles of Curriculum and Instruction*, published in 1949 at the University of Chicago. Curriculum people almost fondly refer to these basic principles as the Tyler Rationale which in its formulation read as four key questions:

(1) What educational purposes should the school attain?
(2) How can learning experiences be selected which are likely to be useful in attaining these objectives?
(3) How can learning experiences be organized for effective instruction?
(4) How can the effectiveness of learning experiences be evaluated? [13]

Essentially, in his rationale, Tyler said: Set first of all goals and objectives; then determine and arrange the learning experiences so that students can attain these objectives; and then, at the end, evaluate the effectiveness of the learning experiences in terms of the goals and objectives initially set. It is a linear ends-means, instrumentalist rationality. It has enjoyed the support of practical common sense and has become the dominant mode of curriculum thought and action in North America. In its common sense appeal, it tends to conceal the taken-for-granted assumptions of an instrumental mode of life.

Successors of Tyler have attempted to systemize curriculum thought within this instrumentalist orientation. Notable among them are Mauritz Johnson, Jr., and George Beauchamp.

In effect, Mauritz Johnson, Jr. elaborated Tyler's Rationale using systems theory as his schema using the language of input, throughput, output and feedback.[14] Using such language he spoke of the curriculum development system, the instructional system, and the evaluation system. George Beauchamp, author of *Curriculum Theory* [15] leaned heavily on theory as a conceptual system, and attempted to interpet curriculum development as applied theory. Hence, both Johnson and Beauchamp reflected strongly the technological ethos of science, and thus provided scientific elaboration of the Tylerian framework.

To understand the underlying interests and assumptions of the technological ethos is to understand the scientific tradition, what I refer to as the empirical analytic orientation of which the technological orientation is an applied derivative.

What I now wish to do is to discuss in the main two curriculum orientations, the empirical analytic (scientific) and the situational interpretive. In order to do this, I wish to ground my thoughts in a concrete program - the British Columbia Social Studies program as we found it when on behalf of the Ministry of Education of the Government of British Columbia, we conducted a province-wide evaluation of the social studies program (Grades 1- 12).[16]

To get a handle on this program, we initially scrutinized the official and quasi-official documents of the social studies program-as-plan. We examined the Program of Studies, the Curriculum Guides, Ministerial memoranda, and the like, and attempted to make sense of them by setting out sets of stated interests and concerns. Two of these sets are relevant to my discussion and hence, I would like to explore in some detail for each clearly reveals a curriculum orientation.

The Empirical Analytic Orientation: The Second Order Curriculum World

Let us begin by examining the first set of stated interests and concerns as we found them in the documents:

1. "The Elementary Guide stresses the *skills* of planning, observing, collecting, recording, classifying, analyzing, synthesizing, and interpreting."

2. "The Secondary Guide stresses *skills* that are necessary for mature geographic and historic understanding."

3. "The Geography 12 Guide refers to the *mathematical aspects* of geography as a means for interpreting human experience."

4. "The History 12 Guide compares the work of the *scientist* to that of the historian."

5. "Like the scientist the historian has a special need for scholarly virtues of *patience, objectivity, exactitude...*, both face the difficult task of selecting the most relevant from a mass of data, of *testing their hypotheses* against evidence..."

6. "The empirical method underlies most geographical research, but a *statistical and mathematical approach* is being greatly expanded because of the increasing availability of high speed electronic computers."

7. "To cause students to acquire a body of *knowledge* (comprised mainly of *basic concepts* or *principles* and *generalizations)* about the functioning of human societies both past and present, both at home and abroad." (Secondary Guide, p. 3).

8. "To cause students to develop some facility in using the *methods of inquiry* through which knowledge in the social domain is discovered and acquired." (Secondary Guide, p. 3)

Within this set the language used reflects what we popularly call the scientific orientation, what I here call the empirical analytic.

Emphasized is the use of the scientific method for analysis. The approach stressed is objectivity; hence the subject is distanced or detached from the object studied. The key technique is observation, a bedrock of the scientific method. The object under study is isolated and decontextualized.

This scientific orientation is also a technological one in its interest in control. In this sense it is akin to the Tyler Rationale in its ends-means framework. Eisner and Vallance describe it as follows:

> The scientific and technological orientation to curriculum is one that is preoccupied with the development of means to achieve prespecified ends. Those working from this orientation tend to view schooling as a complex system that can be analyzed into its constituent components. The problem for the educator or educational technologist is to bring the system under control so that the goals it seeks to attain can be achieved. [17]

This orientation, strongly instrumentalist in orientation, is rooted in the human interest of intellectual and technical

control of the world. Valued are efficiency, certainty and predictability. The root human activity within this orientation is work - intellectual (theoretical) and technical (practical). With the forms of knowledge within this orientation we are all familiar with - facts, generalizations, principles, laws and theories. To explain is to give causal, functional or hypothetical/deductive reasons.

Within this orientation man and world are deemed separable; hence, man can manipulate the objects in the world. Subject and object are separate domains; hence, one is able to understand reality that is out there and distanced objectively. Underlying this view is a belief that life can be explained away with certainty (at least with probability) and with predictability.

The underlying epistemology is positivistic - providing (1) basic theoretical studies we know as hard disciplines such as: physics, chemistry, geography, economics, mathematics, behavioristic psychology, system thinking and structural functionalist social sciences, and (2) derivative applied sciences such as management theory and engineering. The latter, in its more contemporary curriculum image, has been clothed in the language of management by objectives (MBO's), competency based education, criterion based education and testing, planning based on behavioral objectives, planning according to manpower needs. There are different versions of empirical-analytic grounded instrumentalist curriculum orientation that Dr. Bom Mo Chung had begun to question,i.e.,its embeddedness in an ontological alienated way of life. As we have already seen, the scientific and theoretical world is an abstract world of conceptual structure, a world *about* phenomena, wherein man and world are mediated by concepts. Because man and world are distanced, the social reality becomes a third person of "it", "him", and "them". It is objectified world within which even people are transformed into objects, their subjectivities reduced out. Within this world the time/space coordinates are objectified to the extent that they are absolute and universal. The "hour" and the "minute" today are the same as the "hour" and the "minute" tomorrow, and "the

yard" and "the mile" are identical here as they are in Canada. This conceptual theoretical world is devoid of the sense of historicity, and the guiding intentional interest is control through knowledge about the world and knowledge of how to do.

Much of the school curricula in North America by their very emphasis on "study" is cast within the framework of this second order conceptual world. Obscured or missing is the first order meaning structure underlying the second order structure of facts, generalizations, laws and theories.

Merleau-Ponty, a noted French existential phenomenologist, pointed to the importance of the first order world to a fuller understanding of any phenomenon. He said:

> The whole universe of science is built upon the world as directly experienced and if you want to subject science to rigorous study,...we must begin by re-awakening the basic experience of the world of which science is the second order experience. [18]

In much the same way, R. D. Laing, a social psychologist stressing the importance of lived experience stated:

> We do not need theories so much as the experience that is the source of theory. [19]

We need to heed what Merleau-Ponty and R. D. Laing have stated and come to some understanding of the world of being, the lived world of people..

The Situational Interpretive Orientation: The First Order Curriculum World

In order to begin our exploration of the first order world of lived experiences, let us examine set 2 of the stated interests and concerns as they appear in the British Columbia Social Studies program. Set 2 reads as follows:

1. "Social Studies should provide a *forum in which students may learn to deal with value questions* in an intellectually honest way. (Secondary Guide, p. 3)
2. "The teacher's role is to help children develop values (by *allowing students to define their personal situations*)." (Elementary Guide, p. 6)
3. "Through contrast and analogy, *the child's perspective for viewing* his own family is broadened." (Elementary Guide, p. 11).

4. "It is acknowledged that *each culture tends to view* its physical habitat *differently*." Secondary Guide, p. 6).
5. "History can give us *perspective*." (Secondary Guide, p. 11).
6; "It is possible to state objectives in a number of *different ways* and in the final analysis it is the individual professional teacher who must interpret printed statements and translate them into action." (Secondary Guide, p. 3).

This set of stated interests and concerns reflects a different orientation, one which I refer to as situational interpretive. It is a dominant orientation among recent Curriculum Reconceptualists. The orientation is of those who live within the "here and now" of the situation; hence, it reflects the insiders' situation and views. Acknowledged are possibilities of multiple approaches used to examine a phenomenon or a problem. The central interest is in communicative understanding of meanings given by people who live within the situation. The rules for the understanding of meaning are constructed actively by those who dwell within the situation.

To understand more deeply what we mean by living in a situation, we might explore Strasser's description of how a social/physical environment becomes a situation. In the following Strasser describes how for St. Bruno, a Catholic hermit, an environent becomes a situation:

> "In 1804 Saint Bruno went to establish himself as a hermit in a savage region of the French Alps. By the very fact that Saint Bruno seeks a place where he and his companions can devote themselves undisturbed in their meditations, the environment (physical geography) ceases to be an environment. The saint asks the mountains and valleys a question: "Where can I establish myself as a hermit? The mountains and the valleys reply, albeit wordlessly. They reply by what they are. Thus there begins a dialectic, in which things are involved negatively and positively. They are opposed to, or in favor of a certain human intention. They are "useful", "safe", "harmful", "unsuitable", "dangerous"

> Precisely because things arrange themselves, as it were, around an intention, a "situation" is born."[21]

The foregoing is meaningful, particularly for us who talk about the classroom environment. Within this orientation what we are interested in is how, when the teacher and the students come together, the physical and social environment is transformed into a pedagogic situation.

Werner's description of human meanings in situations is informative.

> One of the basic things we observe about man is that he constantly gives meaning to things: he is forced to define the ever-changing situations of which he is a part, to classify the things around him, to shape his perceptions, to interpret his experience, to anticipate the actions of others, and to interrelate the past and present. In other words, meaning is everything to man. Because it underlies all he does, he rarely recognizes the importance and pervasiveness of meaning for the human world.
>
> Metaphorically, he seldom questions, let alone recognizes the oxygen around him. He needs an anti-environment to make him aware of oxygen, as when he climbs a mountain or dives into water and recognizes his own shortage of breath. At these points, he realizes how important oxygen is as a component of his environment. So it is with the context of meaning which cradles his daily activities. Disturb meaning and man suddenly realizes that he does not experience the world randomly, but as a meaningful whole. [21]

Within this orientation, our central interest and concern is in intersubjective understanding of meanings people give. The root activity is dialogue within a community of people. The form of knowledge is not nomological (facts, laws, and theories) but rather it is situational meaning.

Understanding is of the meaning structure that actors in the situation give. Knowing is not acquiring facts, but rather meaning making and meaning giving. To explain is to strike a resonant chord by clarifying motives, common meanings, and authentic experiences.

Within this orientation man and world are intimately and directly related. The subjective and objective in man are one. Reality is not "out there" objectively; rather it is constructed intersubjectively. Within this scheme of things, the reality of classroom life as lived is seen as a construction of teachers and students who dwell within. Life is not fully explanable; it is profoundly mysterious, beyond the understanding of mere mortals.

The theoretical disciplines that focus on this orientation are rather new to most North American educators such as we in North America for, in one sense, we have been victims of the one-sided homage to science and technology that dominate mainstream North American education. To transcend such domination, we need to seek the help of people such as the Continental European scholars and Oriental philosophical scholars who did not succumb to the lure of "objectivity" and succeeded in retaining the notion of subjective involvement in understanding. Some of the disciplines within this orientation are phenomenology, sociology of knowledge, ethnomethodology, social linguistic analysis, and hermeneutics.

Current curriculum scholars of the reconceptualist persuasion are those who have made their home in these disciplines. Within this orientation curriculum developers and evaluators are not ends-means oriented. Rather they have an interest in seeking out the quality of the lived experiences of people who live within the situation. These developers and evaluators typically go beyond "number crunching" for they are concerned with disclosing the concrete human experiences that lie hidden underneath the numbers. They feel that the quality of life experiences within a lived situation is what matters pedagogically.

Curriculum interest within the Situational Interpretive World is clearly reflected in Faure's book, *Learning to Be*, or the ASCD book, *Schools in Search of Meaning*. If the quality of lived experiences is deemed important in curriculum, then embracing the Situational Interpretive orientation is essential. In North America, most curriculum developers seem little versed with this orientation, a condition which will need to be changed radically.

Dialectical Curriculum Orientation: A Dialectic Between the First Order and Second Order Worlds

Recognition of the existence of the First Order and Second Order worlds raises the question of the possible relationship between the two. I am encouraged to invoke the principle of the dialectic between the two worlds. In fact, I have come to understand the logic of lived experiences, like the logic of Zen, in terms of the logic of the dialectic. Is not this logic deeply embedded in Far Eastern culture and philosophic thought? How to reflect this logic in curriculum thought and action is a challenge to curriculum developers in North America.

Concluding Notes

Comment 1: We began the discussion of orientations with concrete statements of concerns and interests as they appeared in the B. C. Social Studies program and attempted to disclose the orientation of each set of statements so that we might grasp a fuller understanding of what we see before us. To reach this understanding took some reflective effort.

With this disclosure, I like to imagine teachers in British Columbia reading their curricular documents. Would they not have a better grasp of the curriculum if they are offered a fuller portrayal of what the text really says? We felt that teachers deserved a deeper understanding; we felt too, that the curriculum developers who claim expertise owe them this understanding. So, we recommend to the Ministry the following:

> "To aid teachers in moving towards consideration of perspectives (orientations), it is recommended that a full description of the perspectives incorporated...be carefully described in the curriculum guides. Students and teachers are entitled to a fuller explanation of the curriculum developers' knowing stance and interest. The curriculum developers' perspective toward the social world should not be hidden from users of the curriculum."[22]

Comment 2: Although the curriculum orientations discussed may not yet be in the mainstreamers' everyday talk when curriculum is discussed, I have come across them often enough to sense something of things to come.

I know, for instance, that within the State of Wisconsin's Department of Public Instruction, the Home Economics program is being revised within the framework of these orientations. I get excited by their excitement in their pioneer frontier work. For the love of me, I did not think that the field of Home Economics would be leading the curriculum people in using these orientations.

Recently, I was conversing with Professor Hunsberger, a reading specialist at the University of Calgary. We discussed the inadequacies of the traditional instrumentally oriented reading skills programs that reduce reading to instrumental skills. These programs, we felt, tend to miss the fundamental meaning of reading as human experience - as a hermeneutic relationship between reader and text. I am sure we will hear more from Professor Hunsberger as she interprets her thoughts into reading programs.

In the field of Second Languages, vitally interesting things seem to be happening. In French as a second language, for example, the visual/oral oriented programs (like *Voix et Image*) are being severely criticized for their overly instrumental orientation, ignoring, as some are arguing, the meaning of second languages at the root level. Even the popular immersion program is being questioned for its mono-linguistic/mono-cultural orientation. Some are advancing bilingual second language programs that are oriented towards a dialectic between the mother tongue and the second language. I foresee a paradigm shift of some consequence.

Even within our Faculty's undergraduate teacher education program, promising course changes are coming about. Here is a sketch of our cappingstone course for undergraduates we refer to as the "Senior Elective" (a fourth year course):-

1. A suitable Senior Elective experience is one in which a student combines *personal action* and systematic *reflection on action.*
2. A suitable Senior Elective experience should expand the student's *awareness of the teacher's role* by systematic *analysis of assumptions and values*; by reconceiving the role of the teacher as a skilled leader and by being aware of the dynamics of organizations

and of human relationships therein.

3. A suitable Senior Elective should seek to link the *universal with the particular, the concrete, day-to-day world of personal action* with the world of ideas, values, symbols, or more generally, with *systems of meaning.*[23]

The theme is situational through and through, corresponding to our second orientation.

Let me wind up with a little episode - my chance to talk with Maye Mullins, a science educator in Curriculum Studies in my Department. We had been discussing how in curriculum we can deal with both the conceptual world (Orientation 1) and the lived world of people (Orientation 2). She came to me last week with Zukav's *The Dancing Wu-Li Masters: An Overview of the New Physics* in hand. She read to me a gem:

> "When a child stands in awe and mystery of a falling rose petal, then it's time to teach the law of gravity."

I assume she intends to begin with the student's situational meaning (Orientation 2) and then move to the conceptual world (Orientation 1). In my view, Maye understands curriculum orientations in a deep rooted way.

Dr. Bom Mo Chung is right. We must not allow instrumentalist programs to deprive students of the feeling for "the here and now", or to alienate them to the point that they are haunted by ontological doubts about their own being." We as curriculum people have become aware of possible ways to overcome instrumentalism. Hence, I see an exciting future in store for us.

* * *

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The Role of Experience in the Curriculum: Application of Dewey's Theory of Experience

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In 1965, Richard C. Phillips reviewed the history of the term "experience" in curriculum building (Phillips, 1965). It was evident from his research that the concept of experience had received a diverse usage in the design of curriculum and instruction. The various experienced-based designs and instructional materials that emerged from these conceptions illustrated a confused array of interpretations and indicated the need for a guiding set of principles by which experienced-based curricula could be more systematically developed. Unfortunately, only a handful of efforts at clarification have been attempted since 1965.

Most often, the concept of experience in curriculum practice has been equated with activity and designated as "learning by doing." The curriculum or instructional materials are then designed to present as many interesting experiences as possible to the learner under the assumption that this will heighten interest and motivation and result in more meaningful learning. While there may be some logical and empirical justification for this approach, it represents only a portion of what a substantive experience-based design should contain.

Based upon research into the role of experience in education, it was determined that the bulk of curricula labeled as experience-based or experiential lacked at least one of the following necessary components: (a) the reconstruction of prior experiences as a starting point for the design of conceptual learning sequences; (b) the analysis of significant personal and/or social experiences through the use of inquiry/problem solving approaches; or (c) the involvement in new experiences within a systematically organized framework of skills, concepts and attitudes. It should be stressed that all of these components have been linked at one time or another to effective experiential curricula (Coleman, 1976) in the literature, but their translation into actual curricular

practices has been minimal. [1]

Given this problem, the purpose of the study was to determine if a manageable set of principles for the development of experience-based curricula existed in theory and if these principles could be developed into a practical set of implementable guidelines. The intent of the study was to concentrate on the micro-design aspects of curriculum (what would be labeled as the selection and organization of learning experiences in the Tyler Rationale) rather than the macro-design aspects (e.g. ends sought statements, goal analysis, needs assessment, etc.).

Due to the ambiguous nature of the term experience curriculum alluded to above, it was determined that one of the sources of this ambiguity should be thoroughly investigated. For this reason, John Dewey's theory of experience was chosen as the most appropriate theoretical source. Though stated most explicitly in *Experience and Education,* the theory has been expressed, analyzed and revised by Dewey and others in numerous prior and subsequent writings. As a result, the theory had been open to a wide range of interpretations (or misinterpretations) by those who sought to implement it.

For purposes of the study, an experience-based curriculum was defined as using *experience* in the following ways: (1) as a source for learning activities which would be illustrative of the concept, skill, generalization, principle, etc., being taught. In other words, what elements in the learner's background of experiences already existed prior to instruction that could be reconstructed during the process of instruction; and (2) as a means for developing new learning experiences which would be built upon the experiences previously reconstructed. This is a device for sequencing based upon an experiential continuum. The definition thus became the vehicle by which the rhetoric on experiential learning was analyzed and interpreted and the curricular practices labeled as experienced-based were evaluated.

Working from this definition, the analysis of the literature led to the conclusion that an effective experienced-based curriculum could be developed systematically if four principles were utilized in the micro-design process. The four principles inferred from Dewey's theory of experience are:

(1) The selection of learning experiences should be based upon the continuity and interaction of the learner's prior, current, and consequent experiences.

(2) Sequencing should be based upon the development of the learner's *experiential continuum*.

(3) *Action and reflection* should be utilized in the reconstruction of prior experiences and the introduction of new experiences.
(4) *Subject matter* should *emerge* through the process of inquiring into antecedent and consequent experiences.
What follows, then, is an examination of each of these principles in order to establish basic definitions, provide supporting evidence to further clarify the assumptions underlying the principles and present illustrative examples to demonstrate their application. Examples will be drawn from contemporary curriculum practices and materials which illustrate the principles either partially or totally.

Continuity and Interaction

Of the four principles enumerated above, the necessity for continuity and interaction of experiences was considered by Dewey to be the most crucial (Dewey, 1938). Continuity refers to the sequential relationship among experiences: that each experience takes something from those encountered before and modifies those which follow (Dewey, 1938). Experiences do not exist in a vacuum. They affect each other proactively and retroactively with their degree of educativeness related to the amount of connectedness perceived by the individual. Though a learning experience may, in and of itself, be interesting and enjoyable to students, without being linked cumulatively to other experiences, it is of limited educative value (Dewey, 1938).

At the same time, the curriculum developer must also be aware of the interactive nature of experiences. Interactive experiences contain both an objective and subjective element. They link the individual to his/her environment. As Dewey points out:

> A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth. Above all, they should know how to utilize the surroundings, physical and social, that exist so as to extract from them all that they have to contribute to building up experiences that are worthwhile (Dewey, 1938)

Hence the interaction of the learner and the surroundings

would include such factors as familial and peer relationships, awareness of community, state, national and international membership, media influences, etc.though not in such neatly unfolding concentric circles as some social studies educators would have us believe. In addition, the physical environment of the learner must be incorporated into the curriculum both inside and away from the classroom.

The educative power of an experience is based upon the relational contexts that are created (Pollock, 1960). An experience-based curriculum is not a spectator curriculum. The student does not stand on the sidelines as an onlooker (Pollock, 1960). Rather, s/he is intimately involved because the experiences are ultimately his/her own on both an individual and collective basis. This means, for example, that the formation of language skills or political awareness is individual but at the same time part of a "community" development. Language is learned to communicate thoughts and feelings (Martin, 1966) and political skills such as decision-making, influence, and the use of power are developed by children in order to become more active members of their environing world (Chiarelott, 1978). These skills are formed through interactive experiences and thus lend themselves to experience-based approaches.

Operating together, the concepts of continuity and interaction provide focus to the selection of experiences. In the *Sounds of Language* (Martin, 1966) reading series, for example, Bill Martin, Jr. draws from the student's prior oral experience with language and modifies the subsequent experiences through language in the form of print. Within the context of the subject matter, the student is encouraged to bring his/her prior *oral* framework of experiences into the understanding of the *written* word. Similarly, Fannie and George Shaftel's *Values in Action* (Shaftel, 1970) utilizes role playing to reconstruct value conflicts students may have experienced in their own establishment of human relationships. Continuity is enhanced by having the students become aware of the consequence of behavior; i.e., an experience will alter subsequent experiences. Following much the same perspective, Richard Remy's and Roger La Raus's *Citizenship Decision-Making* La Raus; Remy, 1978) (CDM) materials provide a set of structured experiences that

encourage the teacher to draw from and link students' experiences in group decision-making in their environment. The concept of making decisions about rules is introduced by having students identify rules they made or are affected by in the home, school, community, or among friends. They then reconstruct a situation in which they encountered rules and finally apply principles of rule governed behavior that they have deduced to a new problem in which a decision about rules is needed (Chiarelott, 1978).

As noted earlier, the continuity and interaction of students' prior, current and subsequent experiences is critical to the design of experienced-based curricula. They provide the criteria for the selection of learning experiences. As such, they cannot be separated. They "intercept and unite" (Dewey, 1938). Without the balance between continuity and interaction, experiences will either be unconnected or depersonalized. Thus, an adequate design must attend to developing within the learner a sense of how the experience encountered relates to his/her perceived environment and and understanding of the cumulative effect of these experiences.

The Experiential Continuum

Central to the concept of continuity is the development of the learner's experiential continuum. Dewey, if fact, used the terms synonymously, but for purposes of this study, the experiential continuum will be examined separately. This is done in order to emphasize its importance in not only selecting learning experiences but in sequencing them. Any sequencing in an experienced-based curriculum should clearly demonstrate how a continuum of experiences is emerging in a progressive, spiraling fashion. The spiraling should develop not by way of the disciplines as it does in Bruner's approach but as an ever-expanding series of experiences that build upon one another and increase one's capacity to solve problems.

The experiential continuum, as Dewey points out, affords an occasion "by which the child is moved to educe and exchange with others his store of experiences, his range of information, to make anew observations, correcting and extending them in order to keep his images moving, in order to find mental rest and satisfaction in definite and vivid

realization of what is new and enlarging" (Dewey, 1963). This creative act of enlarging upon experience is most effectively accomplished when the school is connected with life. Again, Dewey says, "that the experience gained by the child in a familiar, commonplace way is carried over and made use of there, and what the child learns in the school is carried back and applied in everyday life, making the school an organic whole, instead of a composite of isolated parts" (Dewey, 1963).

Perhaps the most lucid description of the role of the experiential continuum is provided by Robert Pollock when he says:

> Like James, he (Dewey) looked on experience as a continuum, and not at all as a 'rudderless raft.' As he saw it, man does not live his life amidst events which are indifferently neutral to him, for these events are taken up into an integrated scheme which forms a more or less coherent story. Dewey describes this temporal process as an integrated series of episodes whose wholeness imparts to each episode a meaning it would not have if it were part of another story. Hence human consciousness has a dramatic quality which cannot be ignored when we view man in the full concreteness of life and history.
>
> Man is actively engaged within a growing process involving the whole world, and through his active partipation, the story unfolds. And meaning itself takes shape within the unfolding story; each moment contributes to a 'continuum of *meaning* in process of formation'. (Pollock, 1960)

Thus, the development of the experiential continuum is a vehicle for deriving meaning from experiences which, at the time, may appear unconnected.

The formation of linkages among in-school and out-of-school experiences in an experience-based curriculum is critical to the development of a continuum, and sequencing becomes of paramount concern. Many excellent schemas exist for organizing and sequencing content (Posner; Strike, 1976), and several of these can be adapted for use in an experience-based curriculum. The strongest of these would

be the ones that emphasize the relationship between antecedent experiences and their consequences. Curricula that incorporate student involvement in decision-making and problem-solving would appear to lend themselves to the development of an experiential continuum because of their focus on creating alternatives and weighing consequences.

Though not explicitly stated, the *Sounds of Language* materials could be used to help make the student more aware of his/her language experience continuum. Much of this would be contingent upon the teacher's ability to link the child's oral language forms to a consequent set of written transcripts. The sequential development of language would need to be continuously stressed in these activities.

Though the *Experience-Based Career Education* curriculum uses the project method as a primary mode of learning, they place a heavy emphasis on the use of inquiry and problem-solving skill development within the content of the projects (N.I.E., 1976). There also appears to be more external direction and structure than in Kilpatrick's original proposal. The possibility for developing an experiential continuum is directly related to the effectiveness of the advisory group sessions since this is where students' experience-based learning is supported and expanded. The emphasis would seem to be more on connecting experiences gained through the projects than on linking prior experiences or seemingly unrelated outside experiences to current projects. Thus, the sequencing would have to be developed primarily through experiences gained in the projects and would be educative (in the Deweyan sense) only if there was a progressive expansion of career-development skills via these experiences, and these were reflected back in such a way as to incorporate the prior or unconnected experiences.

Action and Reflection

Reconstruction of prior experiences and the introduction of new experiences within the curriculum are made more meaningful when both action and reflection are used. The critical element in their utilization is the discovery of the appropriate degree of balance between them. Generally,

curricula labeled as experiential have been long on action and short on reflection. A case in point involves many teacher education programs that have jumped on the field experience bandwagon under the assumption that more is better. While the actual experience of working with students in a field or clinical setting may prove valuable, it also has the potential for being mis- or non-educative. The necessity for reflective reconstruction of those experiences is critical for effective learning. This problem was discussed at some length by Dewey in an often overlooked essay entitled, "The Relation of Theory to Practice in Education" (Dewey, 1966), written in 1904. Similar difficulties with the balance between action and reflection can be identified at virtually every level and type of schooling.

In *Democracy and Education*, Dewey warned against reducing action and reflection to mere trial and error. He pointed out that we often see the connection between a way of acting and its consequences, but do not see *how* they are connected. We miss the details of the connection (Dewey, 1961). The function of reflection, then, is to: transform a situation in which there is experienced obscurity, doubt, conflict, disturbance of some sort, into a situation which is clear, coherent, settled, harmonious (Ratner, 1939).

The reflective process thus follows the five step problem-solving method consistently referred to by Dewey: (1) involvement in a problem situation; (2) development of a hypothesis; (3) analysis and exploration of the hypothesis; (4) refinement of an elaboration upon the hypothesis; and (5) testing the hypothesis (Dewey, 1961). Using this format, the reflective process could be approached through any one of several well-developed teaching models such as the group investigation, social inquiry, jurisprudential or inquiry training models (Joyce; Weil, 1972).

In following Dewey's schema or others based upon the scientific method, one needs to overcome the tendency to equate action with activity and reflection with covert or passive behaviors. Reflection need not only involve discussion. In some instances, the methods may be reversed. The action phase could be introduced through a non-active

medium such as a discussion or demonstration in which a thought is actively pursued. The reflective phase might then be approached through an actual reconstruction of an experience encountered previously. In this way, through role-playing, socio-drama, simulation, etc., the initial doubts, conflicts, or obscurity could be observed, analyzed and clarified. The critical characteristic to remember about reflective thought is that it is transitional. It mediates an experience, moving it from the accidental and casual to the relatively settled and defined (Pollock, 1960).

By the same token, the tendency to overuse action needs to be guarded against. The desire for "doing" could leave the learner in the position of having a tremendous number of experiences which cumulatively lack any substance because they are incomplete. As a result, the learner develops a preference for what Pollock calls "situations in which the most can be done in the shortest time" (Pollock, 1960).

Existing curricula and instructional materials that utilize action in their experience-based programs are relatively easy to identify. Most often, the action takes the form of overt activity usually employing concrete referents or direct in class and/or out of school experiences. Less common are the programs and materials that combine an appropriate blend of action and reflection. Those which utilize some of the models alluded to earlier tend to be more succcessful in their implementation of the action-reflection principle.

Language-experience approaches such as *Sounds of Language* appear to fulfill the criteria presented by first recording students' stories based on their experiences, transcribing them and then having students read the stories. The oral-written communication is then analyzed in terms of the experience and the language used to describe it. Other methods employ creative, fanciful stories which reflect the kinds of experiences students have had with fantasy.

Values in Action tends to follow the Deweyan schema for developing the reflective process. The action phase may either be stimulated by a real experience or through role-playing and socio-drama. Reflection occurs during the re-enactment of the initial role-playing episode and usually

results in the creation of generalizations and decision-making.

The *CDM* materials follow much the same tactic in their lessons though the reflective process is concretized considerably through the use of a decision tree. Adapted from methods used successfully by businessmen and social scientists, the *CDM* decision tree actually resembles a tree with its trunk being the occasion for decision and its branches being the alternatives and consequences. As in the *Values in Action* materials, the desired goal is more effective, better informed decision-making.

The Emergence of Subject Matter

Even though Dewey went on at some length about the important role of subject matter in an experience-based curriculum, his precepts often went unheeded by both contemporaries and present day advocates. Most notable was the "project method" developed by William Heard Kilpatrick, since its influence was so wide-ranging and pervasive. Because of its inordinate stress on child-centeredness, the organized bodies of subject matter were relegated to chance discovery within the context of the four types of projects Kilpatrick described. This lack of structure was incompatible with what Dewey believed to be the emergent role of subject matter. As Lawrence Cremin points out in his analysis of Kilpatrick's child-centered project method:

> Dewey, too, talked about problem-solving as central to education, and Dewey was deeply concerned with the interests and purposes of children. But Dewey's enterprise...was to develop a new curriculum to take the place of the old–a new body of subject matter, better ordered and better designed, that would begin with the experiences of the learners and culminate with the organized subjects that represented the cumulative experience of the race (Cremin, 1964).

Apparently, Kilpatrick had chosen to disregard Dewey's statement in *The Child and the Curriculum* in which he described the child and the curriculum as two limits defining a single process, that process being the continuous reconstruction of experience moving from the child's present experience into the organized studies or subject matter (Dewey, 1902).

In addition to the over-emphasis on child-centeredness, the experience curriculum also suffered from its stress on life-adjustment. Reginald Archambault examined the philosophical base of such curricula and determined that their major weakness was a lack of synthesis between subject matter and experience (Archambault, 1956). Thus, important concepts might not be learned simply because they weren't encountered. Much of this occurred because developers failed to get beyond those experiences that led to the adjustment to existing conditions. In their efforts to provide immediate experiences, they failed to incorporate Dewey's concern for recognizing persistent societal values as a foundation for making judgments about and changes in the environing world (Archambault, 1956).

These well-meaning but misguided practices were surprising in that Dewey explicitly discussed the role of subject matter in some detail in both *Democracy and Education* and *The School and Society*. Central to Dewey's conception of the subject matter emerging from student's experiences was the role inquiry played in understanding the experiences encountered. Through action and reflection, the inquiry process would be energized and would culminate in a more meaningful understanding of concepts, principles, generalizations, attitudes and skills that comprise the subject matter. Neither the mode of inquiry nor the subject matter encountered would be indigenous to any one discipline or course of study since neither personal nor social knowledge lend themselves to such narrow compartmentalization. In this way, Dewey envisioned the unity of knowledge as each experience was related to the larger whole of social life (Dewey, 1963).

Of equal importance was the necessity for viewing organized bodies of truth (subject matter) (Dewey, 1938) as a vehicle for expanding upon the unorganized nature of many of the learner's daily experiences. Successful applications of this principle have neither viewed the learner as the sole source of subject matter nor have they expected the learner to attain the same degree of facility with the subject matter as the skilled, mature individual. Rather, the experiential

continuum is expanded upon through such technical skills as planned repetition until the learner, through reflection, begins to discern how his/her set of experiences represent the concept being taught. Effective teachers, especially at the elementary level, do this quite often, but the problem is to develop an emergent conception of subject matter in a systematic way so that the reconstruction of experience is a continuous process.

The *Sounds of Language* and *Citizenship Decision-Making* materials appear to employ both inquiry and the progressive reconstruction of experiences in a systematic fashion. Facts, concepts, and ideas are not fractionalized but are seen as part of a unifying set of experiences. Both work from an already established framework of experiences that the child brings to the curriculum but they synthesize these experiences with a discernible subject matter.

In *Sounds of Language*, Martin encourages the teacher to draw the children's unique perceptions about the structure of a word, a sentence and a story. This drawing out process, Martin believes, has meaning because the children are encouraged to "sneak up" on the discovery of language patterns and verbalize what they've known from experiences with oral language. The *CDM* materials employ a similar kind of "sneaking up" process though in a more structured format. Using such phenomena as leadership and followership (deciding whether to go along with the gang), cooperation and conflict (settling an argument over an interpretation of rules), and influence and power (parent-child negotiations over bedtime) (Chiarelott, 1978), the materials introduce the students to the politics and governance of their everyday lives.

The *Values in Action* and *Experience-Based Career-Education* curricula also have somewhat of an emergent nature to their subject matter. Like the materials discussed above, these curricula also transcend traditional subject matter boundaries, and this creates a more unifying effect on the content encountered. Both utilize a process/content approach which engages the students in an exploration of

their experiences and leads toward an understanding of essential concepts and skills. However, much of the exploration is not structured, and the person employing these curricula must be facile with guided discovery strategies. Otherwise, there would be a temptation to allow an aimless meandering through experiences.

Conclusions

Though the description of four basic principles for designing experience-based curriculum concentrated on Dewey's theory of experience and utilized a limited number of illustrative examples, this does not imply that ideas and practices for experiential learning are limited only to these sources. Rather, the intent was to provide a historical context for the principles and a base from which to extend the further exploration of theorists and practitioners.

For example, contemporary analyses of phenomenological perspectives on experience are generating a substantial set of ideas for balancing Dewey's naturalistic philosophy. These analyses point up the fact that theories of experience neither began nor ended with Dewey, while showing that we cannot afford to ignore the influence of his work, however misunderstood, on current curricular and instructional practices.

In addition, the basic principles can provide a tool for evaluating experience-based programs and materials to determine if they are theoretically sound. Recent work in the math-science,[36] social science, [37] and interpersonal rela-enhanced by an assessment of the products developed. The recently developed taxonomy of experience[40] could be given a similar critical appraisal to determine if it can be a useful guide to the development of experiential learning sequences.

In short, it would appear that the "sorting out" of theories of experience is a necessary proces in both the development and evaluation of curriculum and instructional materials with an experience-base. The principles enumerated and described in this study are an example of this sorting out process.

* * *

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Bergamo.
October 31 -- November 3,
1984

Write the editors for details.

Earth And Story: A Revival of Relationships as Shown Through the Navajo Way

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Curator

I'm a collector. On my desk sits a small leather pouch, weather-beaten, full of trinkets from the desert. I have carried it with me everywhere in Navajoland. It is my link with the Dine. I am shy. The People are shy. The objects inside give us courage to speak. Share.

I shake these objects out of their origin and spread them across my desk; what stories they tell: pieces of white shell, turquoise, obsedian, coral, rocks, sand, sage, yucca, a bouquet of feathers bound by yarn, coyote fur, a bone from Black Mountain, deerskin, wool, a potshard and some corn pollen. Something is missing--I shake the pouch four more times and from the bottom of the bag rolls out the Storyteller, a clay figurine from Jemez.

Nothing unusual. Just the sort of paraphernalia you would expect to find sitting on a curator's desk in the Utah Museum of Natural History.

I am new here. When interviewed for this job, I was asked if there were any problems I could foresee.

"Just one," I said. "Everything in this Museum is dead; past tense."

I saw a look of horror and astonishment come over the Director's face.

". . .beautifully dead and remarkably old," I tried to rephrase in an encouraging tone, but I could see there could be no retraction.

I also made the mistake of asking my superior if they had done any research on the long-term effects of mothball inhalation. This was a concern of mine as I know I would be spending considerable time with the bird stud skins. He assured me there was absolutely nothing to worry about, since they were now using a new insect deterrent called

Edolan U, which had been previously used in the dry cleaning business. It is guaranteed to be safe for humans and most effective in feather preservation. My mind was eased. He then proceeded to voice his concern and skepticism over the dermestids population which was being kept in Room 312 by Dry Drundmann for the purposes of cleaning skulls.

"I just know some of those beetle-larvae are infiltrating the Museum."

I mused over this image. Thousands upon thousands of voracious beetle-larvae, armies of them, robbing the Museum of every nonliving, living thing. An act which would surely send the Museum into oblivion.

I felt for the man and wondered if ulcers had ever been part of his medical history.

As he took me around the Museum, I immediately sensed good humor in the staff. Peter, the artist in charge of exhibits, moonlights on the side by painting fiberglass fish. As I admired his mounts, I commented on how irridescent the belly scales were, very lifelike.

"Thank you," he said. "I am quite thrilled with this new discovery of mine. It's called purple pearl. I can buy it in bulk at Zim's Create-a-Craft.".

Evidently a neighbor of his who paints plastic grapes had introduced him to this special glaze and that has made all the difference in his fish.

I could not be as enthusiastic about the freeze-dried reptiles; this is a new technique used by museums across the country to preserve reptile specimens in natural looking poses. I think this absurd. People could never mistake a freeze-dried rattlesnake in a defensive coil for a living one about to strike. Or could they? What pretense. We are not accustomed to looking into snake's eyes, or for that matter those of any other animal. Too threatening.

Then there is Charles, a white-haired man in his fifties who is responsible for the Museum's antiquities. He is a devout technician who believes everything has its place downstairs under strict lock and key. Recently he approached Harvard's Peabody Museum to see if they might not return the White Mesa collection of the early 1900's back to Utah. As of today, no reply.

Later, he explained to us in a staff meeting, the grave misunderstanding which exists between the public and the Museum. For example, about six years ago, the University of Utah discovered that Brigham Young University, a private institution to the south, had a male Anasazi corpse which belonged to them. A representative from the Museum was sent down to retrieve the missing mummy. Of course Charles was sent. Charles picked up the mummy right on schedule and sensitively placed him in the back of his Ford station wagon. He covered the sun-parched remains with a piece of white canvas. Very routine. The aboriginal figure measured almost six feet in length, making it impossible to cover both the head and feet. No worry, Salt Lake was only forty miles away. The mission seemed to be accomplished.

While driving home from Provo, Charles decided to make a quick stop at the Lehi Drive-in. They have an unusually good reputation for chicken-on-a-bun. When he returned to his car, there stood half the population of Lehi with the local sheriff and two highway patrolmen ready to issue him a warrant for his arrest in suspected homicide! Luckily Charles could defend himself by showing the officers the official transfer papers, legitimizing the mummy's release from B.Y.U., but that did little to erase the puzzled scowls of the townspeople. Such is the plight of museums.

I climb back up the stairs. Stories. All these people who work here are a story. Layers upon layers of stories-- that's what we are. Even the dead animals stuffed into museum exhibits have something important to say.

As I return to my office, the intense south sun shines on a recent letter from a friend. My eyes focus on the second paragraph:

> Story, as an idea as well as an act, is in my mind almost all the time. It is like a stone I carry with me, which looks like a buffalo. Every once in a while I take it out and look at it. Each time I see something I did not see before.[1]

My mind wanders. It's a typical Salt Lake summer and this building offers no air conditioning. I am sweating and uncomfortable. Irony. I am reminded of days when the

desert heat healed me, forcing me to walk bare souled and exposed. As I come back to these desert treasures scattered across my desk, I become homesick for a place that is not my home. But I have relatives there. I lean back into my chair, close the door and dream of turquoise skies until I can feel warm breezes carrying the scent of sage and pieces of white shell.

NOTES

1. Letter received from Barry Lopez, July 10, 1980.

* * *

A Bouquet of Feathers Bound By Yarn

Birds. A bouquet of feathers bound by yarn. If I offer them to Sun and push off with my mind, can I then know flight? Each one of these feathers is a gift. A plume of power. A lesson. I never know when I will find one or where, much less from whom. But suddenly it appears, as though the individual bird says, "Here I am."

I was in search of Great Horned Owl. I knew she lived in the eastern stand of cottonwoods. Her nest was still visable; summer's dressing had not blocked it from the sky. I crossed barbed wire fences, waded through streams and ultimately trespassed on old man Spartk's land. I was driven. For some reason I had to establish eye contact with Owl. I could feel I was getting close, or perhaps I was just tired--wishing Owl's grace would befall me. Then, I saw her. She flew. So quiet and elegant, she drifted over the meadow. Low. With a tempered upswing, she landed in an aspen. I had to look twice to make sure she was there as the grey-tawney feathers merged beautifully with the tree. Yes, she was. I could not be content with distance between us. Just as I contemplated my next move, she left, as effaciously as she had appeared. Gone.

I entered the coniferous forest that she had slipped into. Shadows grew. All sounds became amplified until I winced

at each distraction. A snap of a twig gave rise to my paranoia. For a fleeting moment, I caught sight of myself, perhaps in the river's reflection. This was too contrived. I was leaving Owl no space. My simple wish had become a grand intrusion, typical of my intensity.

"Give it up," I said to myself. "Be grateful for the presence you have been granted."

So I released myself. The chase was off. I turned around and walked back through the meadow.

It was a splendid afternoon. The entire world seemed green--the kind of green only plants can exude. I took delight in the myriad of shapes and patterning among leaves. My eyes scanned the forest floor, and then I noticed a break in the tapestry. What I took to be a brown leaf, became a feather, Owl's. I was touched incredibly. By letting go of my obsession I had found her path. Not wanting to make more of this, I quietly kept on walking, this time very respectfully paying attention to such nuances as where the small birds' voices waxed and waned. I changed my direction. It was a pleasure to walk so intuitively. A few feet ahead I could see another feather--this time from the breast of Owl. It was finely transparent with hints of striping. I held it up in the air as a gesture of peace. Sunlight filtered through. The wind sneaked up from behind me and kidnapped the feather from my fingers. I followed. Slowly, the feather drifted south and then fell. I picked it up and let the wind take it where it may--again and again and again. Finally I picked it off from a wild rose in the meadow. I looked up and, in such a simple way, stood before her, Great Horned Owl. Amazing.

We spent the better part of a day together. She was always aware of my presence and I hers, but we went about our business, as one does in the company of friends.

I have never been able to figure out why owls are so often associated with the darker side of life: ill omens, sickness and death. To me, they are birds of astounding illumination, their eyes the reflection of Moon. Strong feminine ties hold us together.

In the Navajo Way, Owl and Eagle are the transformed

children of the Tse Bi Dahi Monsters. As was mentioned, Monster Slayer charged Owl with the knowledge that they shall never harm earth people; that they will live absolutely without any meanness in them.. He left them with the prediction, "In days to come men will listen to your voice and know what will be their future: sometimes you will tell the truth and sometimes you will lie."

And the story continues:

> After Monster Slayer had completed his business with nothing more to do, he was determined to go home. Unfortunately, he soon found out there was no way for him to descend the rock. Nothing but a winged creature could reach or leave the ledge on which he stood.
>
> As he gazed across the land below him, he noticed Bat Woman walking along near the base of the cliff. "Grandmother," he called. "Please come and rescue me from this cliff. "
>
> "Hush boy, and be patient," she answered as she hid behind a rock. Again she came into view, and again he begged her to carry him down, but she gave the same reply. This happened three times.
>
> When she appeared for the fourth time, Monster Slayer pleaded, "I will give you the feathers of Tse'nahale if you will take me off this rock." When Bat Woman heard this, she approached the base of the rock, then disappeared under the ledge where he stood.
>
> Suddenly he heard a strange flapping sound and a voice calling to him: "Shut your eyes. You must not see how I ascend."
>
> He did what he was told, and the next thing he knew, Bat Woman stood behind him.
>
> "Climb into this basket, and I will carry you down," she said.
>
> "Grandmother," he said, "I am afraid to enter your basket as the strings it hangs on are as thin as a spider web."
>
> "Have no fear," she replied, "I have carried deer in this basket many times. The strings are enough to bear you."
>
> With Bat Woman's assurance, Monster Slayer climbed

into her basket and was safely transported to earth. Together they plucked the two Tse'na'hale and put the feathers in her basket. Monster Slayer kept only one large wing feather from each of the birds as his trophies. He warned Bat Woman, upon her travels, not to take the path of the giant sunflowers, or something unpredictable might happen. Despite his warning, that is exactly where she walked.

She had not taken many steps among the sunflowers when she heard a fluttering sound behind her. A little bird of a peculiar appearance flew past her close to her ear. The more steps she took, the more fluttering she heard–with more and more birds of varying plumages flying over her shoulder in every direction.

Bat Woman was astonished. She had never seen such incredible colored feathers before. She looked all around her, until, suddenly, she noticed that all the birds were flying out of her own basket. She tried to hold them in, to catch them as they flew out, but her actions were in vain.

Finally she laid down her basket and watched helplessly. Her feathers changed into little birds of all kinds: wrens, warblers, titmice and the like–flying away until her basket was empty. Thus it was that the little birds were created.

Birds color Navajoland like a living rainbow. In fact, according to the Dine, rainbows are covered with feathers, which give them their color. So often I have sat on the edge of the desert with voluminous clouds encircling me and seen an arched prism with wings spanning the horizon.

The Navajo refer to birds as "fliers" or "naa'aii." I have also heard the children call them "tsidii." My favorite name for birds among The People, however, is "the airborn." I receive such a clear image of birds soaring on heated air currents, full and exuberant. I see white-throated swifts winging through canyons and nighthawks slicing twilight. Bats and flying insects are also a kin to birds within the Navajo mind.

The name and classification of birds in the Navajo Way elicits the essence of each species, reflecting keen perception

and thoughtful observation. Interaction. Gladys Reichard elaborates on the Navajo classification of natural objects:

> Navajo catagories are inclusive, complementary, analogous; rather than distinctive, exclusive and homologous--they are more religious than scientific.[1]

She goes on to say,

> In working out a Navajo ethno-ornithology, the tribal scheme of classification (analogous, religious) should be kept in mind. It includes male and female divisions, some of which may be separate genera, although, too, they may be rationalized so to bring sub-species, species or genera together. The categories will certainly be set up to include birds believed to contribute similar powers to ritual; to differentiate large and small, perhaps intermediate sizes; other classes may be determined by calls, colors, markings, odor and habits.[2]

Examples of this Navajo nomenclature include red-shafted flicker, known as "at'a'hayaałchii" or "wind-area-under red." Mountain chickadee is referred to as "ch'ishiibeezhii" because it beautifully describes its call. Downy woodpecker is "tsinyiłkaałii" or "tree-pecker." All three of these birds have been named according to either color song or behavior. Other examples include: marsh hawk, mamed "ch'iltaat'-agii," meaning "one-flying-close-to-weeds"; and the family of swallows identified as "tałchoozhii" or "water-players::[3] One could list endless examples to illustrate the Navajo scheme of things. Each name creates an environmental picture.

I speculate over the Anglo nomenclature of birds: Wilson's snipe, Forster's tern, Swainson's thrush, Lewis' woodpecker, Townsend's warbler, LeConte's sparrow, and even common egret: What natural images do these names conjure up in our minds? What integrity do we give back to the bird with our labels? I'm afraid only egocentric possessiveness and bogus assumptions.

Birds and animals within the Navajo mind acquire mythic stature. They are approached in both nature and

storv as possessing those qualiities inherent to them, yet greatly magnified. For example:

> ..the white might take the vulture for a repulsive bird not worth contemplating, where the Indian saw a creature who never drank a drop of water, and whose eyesight was keener than any other bird. An effort to concentrate intensely on the vulture's power might get a small war party safely through open desert country.[4]

Vulture. Gregarious mute with no need for water and sharp eye for enemies.

This same type of integrity is expressed through the taboos that accompany flora and fauna, also indicative of The People's values. Franc Newcomb collected some of these practices, offering insight and vision to the Navajo Way.

> It is a Navajo belief that every form of animal or plant life on the face of the earth belongs to the god that created that particular plant or animal and gave it life; therefore, human beings have no right to use or destroy any part of this creation without permission from the creators.[5]

Similarly,

> In the Navajo religion, each small form of life is accorded a proportionate spiritual status, ceremonial respect, and economic importance as that given to any of the greater forms of creation. Worms, insects, beetles, and birds are all protected by as stringent taboos as are the buffalo, the coyote, and the bear. None of these things, large or small, may be killed unless there is some special purpose or reason for the killing; and then certain rites or prayers must accompany the act to guard against a possibility of evil results.[6]

Birds specifically are associated with the following practices and taboos found in the following excerpt.

> 'Never kill a bird.' 'Never eat the flesh of a bird.' The Navajo reservation is a veritable bird sanctuary because many members of its feathered population are considered sacred and others are accreditd with evil

powers to that all are protected by very stringent taboos. Any form of life that wears feathers or possesses wings that spread like a fan, are associated with the winds, the clouds and the various forms of moisture. The wing of the dragon-fly, the wing of the moth, or the spread tail of the bird are all cloud symbols and transversely, the small cirrus clouds are called the feathers of the rain-bird. The symbol of the summer thunder storm is a bird with spread wings from which rain and lightning. descend.

There are many birds whose cries are supposed to call for rain. The most common of these are the quail, the kill-deer, the snipe, and the plover. Yellow birds and blue birds are respected because of their coloring, as yellow is the color symbol of pollen, while blue indicates summer skies, abundant vegetation (green and blue have the same ceremonial significance), ripe corn, and turquoise. Birds whose feathers are flecked with white are said to have been marked by water-spray or foam, which is termed 'water pollen.' This association with water gives these birds partial control over certain forms of moisture. Some birds are sacred because they were given charge of the wild flowers, the grass seed, and the grains. Domestic fowl are not included in any of these taboos and their feathers are never used for ceremonial purposes.[7]

Birds are sacred. They are harbingers of spring as well as augers of evil. Ritual surrounds them. One only has to have spent brief moments in spring with birds to know their own sense of ritual.

I have spent hours watching Sandhill Cranes flock to fertile meadows and dance. Courtship. With outstretched wings, they engage themselves in deep bows to one another, then move to bounding leaps, with each long leg extending out, then in–out, then in. As these tremendous birds partake in their amorous ritual, it is as though time is placed on a feather. Suspended. Each impassioned jump becomes a floating gesture. Each pairing of cranes is an added assurance of specie survival. And so it is with the Navajo.

The Navajo term "nahaghá" is translated to mean

"ritual." This labels a large and significant category of Navajo behavior that non-Navajos least understand; thus it constitutes a major dimension of the estrangement dividing Navajos and non-Navajos.[8] The primary function of Navajo ritual is to maintain or restore "hozho." Rituals are the formulas by which harmony is restored. They are symbolic actions born of the Navajo's mythic reality. Donald Sandner substantiates this premise:

> By means of origin myths and cosmogonic myths, a picture is built up of what the world is, how it came to be, and how it may be expected to function in the future. It makes no difference whether the facts on which this world view are founded are true or not. The myth makes do with what "facts" it has, and goes about its business of creating an intuitive emotional interpretation of them. The rituals embody sacred action appropriate to the structure of the world built up by the myths. They go hand in hand, completing and complementing each other--the mythic reality and the ritual response.[9]

The Navajo's mythic view of the natural world and ritual serve to bridge the symbolic and the real. Clyde Kluckhohn maintains "the Navajo notion is that the universe works according to rules. If one can discover the rules and follow them, he may remain safe or be restored to safety." He goes on to say,

> Navajos accept nature and adapt themselves to her demands as best they can, but they are not utterly passive, not completely the pawns of nature. They do a great many things that are designed to control nature physically and to repair damage caused by the elements. But they do not even hope to master nature. For the most part The People try to influence her with various songs and rituals.....[10]

Given their view of the world as expressed in the symbols of language and ritual, Navajos find ritual behavior not only appropriate but also necessary to their personal well being and survival. The Navajo not only feels they should follow certain observances and avoid others; they find it dangerous to do otherwise.[11]

Birds and Navajo. Dance and ritual. I saw these elements merging together at a pow-wow in Lukachukai. So often dance, as we know it, is a means of entertainment or personal performance. At a pow-wow, dance becomes a mode of personal identity. Tribal roots are reaffirmed and explored, individually as well as collectively. On this summer night, I caught a glimpse of the Native American mind through dance.

We followed the crimson cliffs that serve as a backbone for Lukachukai, Arizona. As we drove into the town, first impressions were of dust and unyielding heat. We stopped at a gas station for a cool drink. On the window was a sign: POW-WOW AT THE RODEO GROUNDS JULY 15, 1979--8:00 P.M. We immediately seized the moment and decided to attend. Feelings of inadequacy crept in, embarrassment, as we drove to the celebration. We don't belong. Are Anglos shunned? For heaven's sake, don't take photographs. All these thoughts and many more saturated me.

We gave our tickets to the woman at the gate. Even my "yá'át ééh" did not come out right. Beads of anxiety gathered around my temples. At least my hair is dark. There must be over five hundred Indian people here--seven whites. We moved among the crowd and then I left the people I was with. I felt more comfortable alone. There is strength in solitude. Feelings of anticipation filled me, as I forgot myself and became absorbed in the occasion.

Pride mounted as families and friends gathered. Participants and dancers were getting ready, and a circle of pickup trucks with tailgates out clarified the arena. Colors--all around.

And then the Sunsheild Singers began. Young men singing high pitched chants. Eyes closed as they sang to the heavens. Vibrant. Virile. Central Singers joined in. Older men singing a lower pitch. Slower like deep drums. I felt a wisdom and power emerge from their repetition. Enlightened monotony. And then darkness.

The dancing began! What regalia! Skins, feathers, bones, shells, beads, claws, paint and brightly colored fabrics. Shields, rattles, fans, sashes, breast plates, headdresses,

moccasins and jewelry. Each dancer a dream figure, proud and beautiful. Together they all walked slowly in a circle, chests high, chins lifted. I sat in awe, feeling as though I was being spun into an ancient trance. Colored circles, drums and chants.

The Men danced first in a "War Dance." They were the epitome of power, grace and dignity. One man moved me beyond words. His physical strength could only be matched by the strength and character alive in his face. Direct. Proud. He wore a porcupine headdress with two eagle feathers dangling from the nape of his neck. A breast plate of bones covered his torso, buckskin leggins and moccasins that took the eyes down. A feather array attached to the small of his back gave him the appearance of flight. He danced and he danced hard and deliberately. In circles he danced and danced. I never saw him lose his focus. His eyes penetrated the night. With each beat, his spirit danced. My heart took on his cadence.

And then it was the Women's turn. Four young women participated in the "Shawl Dance." They swirled in one spot. Circular motions. With heads and backs low, their arms encircled the air around them with their shawls creating a canopy above them. I imagined great egrets with plumes circling their nests before landing. These women's small feet followed the murmur of earth and drums. Their moccasins seemed to be attuned to their hearts. Swirls. More swirls. Their shawls were the four sacred colors of the Navajo: red, yellow, blue and black. In their dance was the promise of life.

Finally, the Children danced, and unabashed joy ran into the arena. Yet, the power of tradition calmed them as they tried so very hard to concentrate on the drums, on their feet. Still, in the children's eyes I saw smiles. This was fun. For a small part of an evening they become the stuff Shamens are made of: an archetypal eye that bears the past and the future in their vision.

"Dance hard, little ones," I said under my breath, "For in the not so distant future you will be singing the slow, slow pitched chants."

The Pow-wows ended with all people walking around the arena to the voice of the drums. It seemed as though

hundreds of listening feet passed before me. In my heart, I danced with them.

As I hold this bouquet of feathers bound by yarn, I unleash them. Millions of colored birds burst into song.

* * *

NOTES

1. Reichard, Gladys. "Navajo Classification of Natural Objects," Plateau. p. 7.
2. **Ibid.** p. 12.,
3. Mayes, Vernon. **Birds of Navajoland.** Arizona; Navajo Tribal Museum, 1977. p. 22.
4. Lopez, Barry Holstun. "The Native American Mind." **Quest**, 1978, p. 123.
5. Newcomb, Franc Johnson. **Navajo Omens and Taboos,** The Rydal Press. Sante Fe. 1940. F-5.
6. **Ibid.** F-5.
7. Newcomb, **Op. cit.** F-5.8. Witherspoon, Ga
8. Witherspoon, Gary. **Language and Art in the Navajo Universe,** Michigan: University of Michigan Press. 1977, p. 13.
9. **Ibid.** p. 13-14.
10. Kluckhohn, Clyde and Leignton, Dorthea, **The Navaho.**
11. Witherspoon, **Op. cit.**, p. 180.

The Storyteller

The Storyteller. I picked her up in Jemez, New Mexico. When I saw her I knew I had met her before. The children hanging on her back, climbing up her knees, resting in her lap were my brothers and sisters, cousins, me. Her body was rounded like earth, and the faraway look in her eyes told me of the dreamlike trance she was in. Stories. Breath. I have heard them before, again and again. I can hear them today, again and again--from my great-grandmother, my grandmother, my mother--my storytellers. The clay figurine which falls out of my pouch is a sacred tradition.

We have all been nurtured on stories. Story is the umbilical cord that connects us to the past, present and future. Family. Story is a relationship between the teller and the listener, a responsibility. After the listening you become accountable for the sacred knowledge that has been shared. Shared knowledge equals power. Energy. Strength. Story is an affirmation of human courage. The source.

I became acutely aware of story's circular logic as I travelled among the Navajo. Coming from a tradition of inquiry, questions came from my mouth much in the same manner as Snake's tongue probes for environmental clues. I was searching. I wanted to learn where I was and with whom. But the Navajo did not disclose themselves directly in front of me. They spoke through stories, obliquely obliging an inquisitive child. If you cared enough to stay awhile, to let go of immediacy, allowing your mind to drift in and out, a story was spun, and suddenly you were cradled in its embrace. Answers once sought assumed wings, while the voice and eyes became the entrusted connection.

I remember asking a young boy, "What is the most important thing you learn in school?" I was expecting the usual linear response, "Reading, math, P.E." This was definitely not the case. He shared the following story:

> I knew a boy who everyone thought was retarded. He was slow and had little life in him. He went to the BIA school away from home. Finally they sent him back to his family and told them he was of no use. The family transferred him to the Shiprock Alternative School, where he learned who he was. He was brought up by his cultural roots and felt support by his Navajo brothers and sisters. This boy became President of the Student Council.

What is the most important thing one learns in school? Self-esteem, support and friendship, all poignantly revealed through story. As a result of many encounters such as this. the Navajo taught me to listen in a way I had never imagined.

Do I see this clay storyteller's belly rise? Could it be she is making a motion to speak? I lean forward and recall Galena Dick of Rough Rock, Arizona. She told us she knew where all the colors of sand lived. She told the truth. In a

very small radius, the rainbow had been grounded. There, on a remote hillside, subtle desert shades danced. I stood on the edge in disbelief. My hands helped me to internalize this phenomena as they caressed the blushing earth. Galena handed me a glass bottle. I watched her filter the grains through her fingers. Sandscapes. I followed her instructions and became lost in the process. Bands of creation carefully mixed, sifted. I felt as though I was creating my own planet: white, mauve, lavendar, grey, ochre, rust, pink, olive green, pale yellow, mustard, beige, taupe--all the colors these people live with, I became. A slight turn of the wrist, and mesas appeared!

We spent the afternoon together. Time was blinded as she unfolded strands of the Navajo Way before me. I felt as though I was sitting on a very old blanket as she wove me into one story after another. She spoke of sheep herding as a young girl, of running zig-zaggedly through the sage, of open air and clouds.

"I remember when I thought our home was around Black Mesa, underneath two clouds. They always seemed to be there. Guardians."

She told stories of "Kinaalda," the Navajo puberty ceremony where her mother and aunts washed her hair in the ceremonial suds of yucca root, and of the careful way they combed her black hair with traditional mountain grass mush in preparation for, in honor of, her womanhood. She lowered her head and whispered with respect the sacredness of Changing Woman. Then Galena's voice became strong as she told of her one hundred-and-eight-year-old grandmother who was born at Fort Sumner and made "the Long walk" back to Rough Rock as a child.

"You see, this is my home. My traditions are planted here." She then spoke of her grandmother's advice to follow the quiet life, and then she shared her fears of the time her grandparents will die.

"I'm afraid I will not know The Way."

Her words struck a sensitive chord within me, and I cried. I harbored her same fears and knew the depth of emotion from which she spoke. We are not so different.

We watched the sun move across the sky and commented

on the changing shadows--how they grew longer as the day progressed. She told me how important it is for the Navajo to rise and be counted.

> Sun is our father. He knows each one of us and when the first light shines upon the earth, He is making a count of His children. If you are awake and standing, you are counted as being alive. But if Sun peers inside your hogan and finds you lying down, asleep, you are counted as being dead.

"So, get up before that Sun and be counted as alive," she said smiling!

I couldn't help but laugh as I thought of all the years I have been counted as being dead. I assured her that I would make my best effort to greet the dawn, even if it were from my mind's eye while I was dreaming.

Galena's face was the color of the deep amber soil she was sitting on. I looked pale as I walked alongside her. Brown eyes, blue eyes; earth and ocean. As we parted, close to twilight, she handed me a bouquet of Navajo tea and some sprigs of juniper.

"Boil these tonight until they release their fragrance. Their juices will calm you."

I drank them, and they did.

Helena Rosa, born of winter snow, is another storyteller. Wise beyond her seventeen years. She breathes contemporary tradition, having been raised by her grandparents and schooled in Shiprock. Helena is the new Navajo generation with Fyodor Dostoyevsky in one hand and corn pollen in the other.

She tells of days when her grandfather rode on the backs of grizzly bears and lured rattlesnakes out of their dens by the power of a single word. Tears. I see her eyes shift inward and sense that Word passing through her heart. Silence. A prayer. She believes ritual language is a part of her daily communion with the land, and she begins to breath, her heart alive as a song flows out:

> The wild beasts, birds are my friends, Messengers. Protectors. Their sacred names, their ancient songs, are the keys to their world--a world of no time, a world of harmony. If everyone would look to their beast

> and fowl brother, one could learn the mysteries of Mother Earth. They were created by the Great One to aid us five fingers. To aid us in our need for food, to be our teachers in the lessons Mother Earth has for us. And our Mother, the Earth, the beautiful woman whom we live on, the trails of life that she adorns are the trails we travel. In my path, my life, I shall always look to nature because I am a child of nature in spirit.

I am moved. Before dawn of the next day, Helena and I slip into the female waters of the San Juan River. We immerse ourselves in clay-colored water, painted in ritual. I look upward and see Venus in the western sky, sparkling. Helena's eyes reflect the new moon. We wash each other's bodies with sage and dance obeisantly around the gentle rapids--arms outstretched, waists turning, breasts relaxed. Refreshed and renewed, we emerge onto the river's banks. We sink our toes into the crimson sand and bow our heads. Shiver. In silence we lifted the sun.

Storytelling awakens us to that which is real. Honest. It is the most pure form of communication because it transcends the individual. The Kalahari Bushmen have said, "A story is like the wind. It comes from a far away place, and you can feel it." [1] Those things that are most personal are most general and are, in turn, most trusted. Stories bind. They are connective tissues. They are basic to what we are.

But what about earth and story? Simon Ortiz, a Pueblo poet, states, "In continuance of the stories and songs--the earth shall continue."[1] Oral tradition reminds one of community. Community in the Native American Sense encompasses all life forms: people, land and creatures.[2] Barry Lopez extends this notion when he says. "The correspondence between the interior landscape and exterior landscape is story." [3]

I remember meeting Herb Blatchford, a Navajo Holy-man. I asked him if it was appropriate for a non-Indian to use Indian stories to illustrate a land ethic. Silence seemed to fill every space as I waited.

"That's why they were created." He looked directly

into my eyes. I tried not to waver.

"Does it offend you," I asked?

"No, it does not offend me. But it may some. But some have a deeper knowledge than others." [4] Our conversation ended.

It is true that traditional stories evoke a sense of integrity, of wonder towards landscape, of earth and all its creatures. Animals are given "mythic proportion"[6] to clarify certain values, attitudes and lessons that should be continued. In direct contrast, animals are not mystified in the Anglo tradition. The wolf is plagued by "Little Red-Riding Hood" and the "Three Little Pigs"; is this inherent to wolf-ness?

We are not Navajo, however; we are not Inuit People or Sioux. We are who we are, contemporary citizens of this planet. Each of us bears a unique relationship with landscape, if we allow ourselves to let go–let go of cultural biases, of possessive holds--to experience earth as it is, raw and self-defined. We need visions. We need to imagine ourselves with animals, bathing in rivers, flying with Owl. For a people without natural vision is a people without sight. We need to rethink our existence, our time in earth's embrace. Humility. We need to close our eyes and remember. Rapport.

The land holds stories. We must travel into her company and become reacquainted, bringing back the Word to our children, friends. Oral tradition is always one step from being lost. And now earth walks alongside. Our language need not be eloquent, although earth speaks eloquently. Our voice need not be boastful, the earth boasts for nothing. Our hearts need not be sentimental although earth touches all. We just need to speak. Listen.

Through the Navajo culture, I have come back to my own. Circles. The little Jemez Storyteller on my desk breathes in and out. in and out, and gradually I see myself in her black eyes. Navajo rugs become handmade quilts--pieces of the old creating something new. I see my ancestor's blood on a gigham square--a speckle from a pricked finger. I cover myself with their labors and am warmed. Secure.

But for earth, I must go out and come in, borrow and create stories that will tell no lies. Pieces of white shell; turquoise, obsedian and coral; rocks, sand and sage; a bouquet of feathers bound by yarn; coyote fur and a bone from Black Mountain; deerskin; wool; a potshard and some corn pollen; you bring me your stories. You are alive. I remember. I dream.

But no, I have work to do. A group of children are waiting downstairs for a museum tour. Perhaps we will sit in a circle and pass around an ancient basket and tell stories of a past people, or, maybe, we will go outside and tell our own.

listen.

This living flowing land
is all there is, forever

We are it
it sings through us -

Gary Snyder

* * *

NOTES

1. Letter received from Simon Ortiz, May 25, 1980.
2. Conversations in Albuquerque, New Mexico, with Simon Ortiz, May 23-27, 1980.
3. Lopez, Barry Holstun. "Interior and Exterior Landscapes," Address given in Jackson Hole, Wyoming, April 10.
4. Conversations in Albuquerque, New Mexico, with Herb Bratchford, May 26, 1980.

On the Separation of the Humanities and Technology from Each Other: A Triadic Explanation

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It has been suggested over and over again that, in large part, the plight of the humanities has been due to their separation from technology. Similarly, when the weaknesses of technology are catalogued, its separation from the humanities is referred to frequently. The problem lies in neither of the "separations." Both the humanities and technology are, *de facto*, separated from the ultimate sources of the human spirit: God and religion. *Because they are both separated from God and religion, they are separated from one another.*

It may be hypothesized, incidentally, that these separations have occurred partly because of an inattention to sophisticated mental processes and not merely because the human subject in *its* growing sophistication gradually turned away from God and religion. An epistemic correlation is a sophisticated mental process which is seldom employed. It is a correlation which "joins a thing known in the one way to what is in some sense that same thing known in a different way."[1] The concept of value," for example, is known to exist in different ways in theology, economics, philosophy, and art. Yet, it is also capable of being treated integrally but seldom is.

It was revealed in October, 1975, that a National Center for the Humanities was planned under the chairmanship of Morton Bloomfield, Professor of English at Harvard. Professor Bloomfield claimed it was time for a resurgence of the humanities because the natural and social sciences have begun to experience the kinds of value questions that the

humanities are best equipped to handle. Of course, scholars in the humanities are not equipped to handle such questions, for they have avoided--sometimes almost with pride--making epistemic correlations. Indeed, we may dare to agree with Glaser [2] that scholars in the humanities must be generalists in Bronowski's mode if Bloomfield's dream is to be realized.

Bloomfield's dream has solid roots in the fifteenth and sixteenth centuries. Johan Sturm, the Brethren of the Common Lot, Wessel, Agricola, Reuchlin, Wimpfeling, and Erasmus (the *Dialogue on Ciceronianism*, it will be remembered, ridiculed the narrow tendencies of humanism), all were fifteenth and sixteenth century humanists and educators who stressed the relationship between humanism and religion and the advancement of mankind.[3] Indeed, Graves feels they "held that all learning is vain which does not lead to the advancement of mankind." [4]

In order to understand the current posture of the humanities it is essential to realize humanism in the fifteenth century had differing effects in the "North" (especially in France, the Teutonic countries, and England) from those in Italy:

> The peoples of the North, especially those of Germanic stock, were by nature more religious, and with them the Renaissance led less to a desire for personal development, self-realization, and individual achievement, and took on more of a social and moral color. The prime purpose of humanism became the improvement of society, morally and religiously, and the classical revival pointed the way to obtaining a new and more exalted meaning from the Scriptures. [5]

The humanism of the "South" was aristocratic and individualistic, being so identified with various courts, partrons, and sponsors. One may hypothesize the individualism did not represent the kind of solitary, quiet, internal activity needed to understand the very essence of things, but rather a possessive, selfish, stuffy individualism which separated the fortunate from the unfortunate, which curiously and ironically affected humanists in such a way that they indeed shunned interactions with the uneducated.

Northern humanism influenced John Colet who had an impact on changes in English schools. Colet founded St. Paul's school in 1509; and this institution was an outgrowth of Northern humanism, combining religious training with a study of the classics and dedicated "to the child Jesus."[6] After a century of development, institutions in the North and the English grammar schools (American secondary schools were modeled after them) fell into the decadence of formalism. This meant a preference of form to content, an emphasis upon grammar, linguistics, style, and memoriter and imitative methods.

Americans, then, seem to have inherited a humanism characterized by the decadence of formalism and by the emphasis upon man's self-realization largely unaided by transcendence. Let us consider briefly these two inheritances.

The decadence of formalism currently manifests itself in the mindless way in which inquiry occurs in the humanities. When one begins inquiry, one initiates it with what one has in the beginning, namely the problem. Since many problems confront us, it is necessary to classify the major kinds of problems. There are problems of logical consistency which occur in mathematical physics and pure mathematics. There are problems related to empirical truth which may arise in any number of sciences.[7] However, "besides problems of logical consistency and problems of the empirical truth of theory, i.e., problems of fact, there are also problems which, for the lack of a better name, may be called problems of value. In the social sciences and in the humanities...is that...it raises a question concerning what ought to be, rather than what is, the case."[8]

The "problem" the academic community employs to begin inquiry in the humanities is really not discernable. In so far as problems of value have been used by a segment of the academic community to initiate inquiry in the humanities, they have been used as *de facto* problems, not *de jure* ones. For example, it is rare when a first-rate creative artist bothers about the philosophy of his medium. Poe, however, asked himself: "Of all melancholy topics, what, according to

the *universal* understanding of mankind, is the *most* melancholy?" Death–was the obvious reply."[9] Perhaps we should be grateful enough that a *de facto* problem was raised in a philosophical treatise on composition. But one has to be tempted to wonder further about Poe's statement. Death in relation to what? To merely intratemporal phenomena? Extratemporal phenomena? Why is it "according to the universal understanding of mankind?" Poe didn't raise these *de jure* questions and neither do those who teach about him.

Dudley and Faricy, in their influential work, *The Humanities,* gazed upon the entire history of art and made the statement, with little fear of contradiction, that the greatest single source and subject of art in any country is religion.[10] This is, *de facto,* what, as a matter of fact, is. One thirsts for an elaboration of why religion has been such a recurring subject of art. Could it be that, through religion as source and subject, art may long have had a profound influence upon human beings? Could it be that something besides color mixtures and live relationships have had and, *de jure,* should have content value for man?

While Dudley and Faricy are sometimes reluctant to extend themselves beyond *de facto* concerns, they approach, perhaps because it is inevitable, identifying some hierarchical and *de jure* domains when discussing emotions in the arts. They freely assent "some emotions are admittedly of a nobler kind than others. Love is higher than hate; forgiveness is higher than revenge. The positive emotions are higher than the negative; the constructive are higher than the destructive."[11] They also approach a *de jure* concern by actually including a rather lengthy treatment of judgment in the arts. They indicate that if one speaks of judgment in the arts, one must consider "magnitude," or the worth of the artist's idea. For them difference in worth (or magnitude) "may be traced to differences in the kind and the degree of the emotions involved."[12] When treating the intensity of feeling, they state "the greatest magnitude occurs when we have a great emotion felt greatly."[13] One has to wonder about the source of such normative works as "higher" and "greatest."

When line in art is discussed, the average nonartist seldom internalizes such a formalism as being something which deserves to dwell within one's breast. However, in rare instances we are told "line is probably the earliest and simplest element in the visual arts."[14] We are told "probably because of its force, the vertical line stands for moral probity, exaltation, and inspiration. When we speak of the man who is 'upright' we mean the man of moral worth."[15] This power of the vertical has often been recognized; for example, "the vertical line is found in the *Castelfranco Madonna;* and "a great deal of the sense of majesty in the painting derives from the repeated verticals."[16] Formalism would have us merely study the intricacies of line in the *Castelfranco Madonna*; a *de jure* approach would have us gaze upon it for a sense of majesty, exaltation, uprightness, and moral worth.

How many students have been bored to tears by studying the *Canterbury Tales* as an example of the employment of the connective narrative? One could concentrate predominantly on the nature of the connective narrative; or one could, on the other hand, concentrate upon the nature and meaning of the various stories told by the different pilgrims who meet at the Tabard Inn to make the pilgrimage to Canterbury in order to visit the shrine of Thomas a Becket. One could dwell upon the meaning of the priest being in a subordinate position to the prioress.

In recent years students in rural areas have had the advantage of hearing symphony orchestras. Many times formalism, rather than concerns of meaning, constitute the excruciating prelude to hearing the music. They are told musical instruments are classified according to the way the vibrator is set in motion, by bowing, blowing, or beating. Those in which the sound is made by beating are called instruments of percussion; by bowing, stringed instruments; by blowing, wind instruments. The designation, stringed instruments, "may be the least satisfactory, however, because certain of the stringed instruments, the harp, for example are not bowed. Therefore, they are called stringed instruments, not *bowed instruments.*"[17] Now what is the point of such formalisms if other concerns of music are sacrificed to them?

The other inheritance, the belief that human beings can achieve self-realization largely unaided by transcendence, has progressively been fueled by technology. The instrument for influencing technology toward good ends is religion. However, if one thing can hope to control or influence another thing, it must connect itself with that other. And this an autonomous religion is what we have, and we have had since the early development of the "new learning" or the humanities.

> . . .the 'new Learning' was attended by 'humanism' the belief that the charm of the classics resides essentially in their humanness, their humanity, and that anyone who would recapture and hold the greatest charm in life must not prize the supernatural, the theological, or the ascetical above the natural, the human, the sensual. Satisfaction is better than sacrifice, and self-gratification, than self-denial. One should not look to the gods more than to one's self and one's fellows. Indeed, one should strive sympathetically to enter into the life and enjoyment of one's contemporaries and, perhaps above all, into the life and enjoyment of ancient Greeks and Romans. Such studies as might promote these ends were to be encouraged as 'humane letters'. . . as 'humanities.' [19]

One of the most tragic errors of the modern age consists in seeing the world as a purely temporal thing, the domain only of humans and nature, having no connection with a sacred or supernatural destiny.[20] In such a detached or anthropocentric humanism, culture, which is indeed a certain perfection of human beings, has come to consider itself an ultimate end. Everything above the level of reason has come to be despised, and the chief claim of such a humanism is to achieve happiness through the dominance of reason over nature while refusing the dominance of a supernature over reason.[21]

> Consequently truth and life must be sought only within the human subject; everything in us that comes from what is not ourselves (from what is 'other'), is a crime against sincerity. And thus everything extrinsic to us

> is the destruction and death of our interior. And every mean which common sense regards as uniting interior and exterior and bringing them into communication is in reality an 'intermediary' which separates them.[22]

Thus, we see that the liberty of the human subject would consist in the independence of its will in regard to every exterior rule. We have here an automomous or independent morality. We see also that the right of the spiritual to penetrate temporal activity is denied.[23] All is contained within the bosom of the human subject and its history. Such a humanism may be characterized thusly: "the left hand on the heart, the right stretched out towards the infinite, humanity cries: It is I who am queen of the universe; all that is outside of me is inferior to me, and I do not depend upon any majesty." [24]

Technology creates the illusion of immediate success, based on that which the eyes can see here and now. When human beings are technically frail, they are unable to dream of reigning in godlike fashion over external nature. Indeed, when one lacks technical means, it is much easier to keep one's eyes uplifted toward the spiritual. [25] Today there is little technical poverty as the medieval person knew it, for example. Technical progress has outstripped the mind; matter has gone faster than spirit and has thereby oppressed spirituality.[26] It is urgent, then, that the modern human subject even with its unsurpassable technical equipment, continue to look toward the eternal as its medieval relative did, by using creative energies to make the machine a positive force in the service of humankind.[27] Unfortunately, the modern human being's notion of progress will not let it look toward the eternal as the medieval person did. Modern person feels medieval person has been outstripped. Medieval human subject was undoubtedly good when it was considered modern, but having been outstripped, it is to be forevermore discarded. Thus we have the absurd dogma that progress

is continuous and necessarv. Everything which is modern is regarded as being good simply because it is modern. The future, naturally, will be still better. This is an historicism which would make all movements of human thought destined to be continually surpassed without end by other movements. Such an historicism excludes all distinction between true and false and the possibility that some movements of human thought are good for all persons, be they medieval or modern.[28] It is the very first principle of reason that one truth can not contradict another. Despite such a principle, it seems the humanities as they are taught today mirror the Jamesean view that reality is not comprehensible except through a multiplicity of heterogeneous truths and contradictory principles, one which is quite as legitimate as the other.[29]

We must realize that the progress of humankind up to medieval times and since then has not been automatic and necessary. Neither is it due to the triumph of any pure reason or technology which would invalidate the heritage and principles of the past.[30] Human history must be understood from a point of view beyond the immediate moment. It must be understood that there is something in the nature of human beings which breathes an air outside of time and a personality whose profoundest needs surpass the order of the universe.[31]

There is no attempt here to subscribe to a mode of thought which denigrates technology. Such a mode of thought reflects an archaic spirit. The attempt is to have technology influenced by an inspired reason lest that reason be destroyed. Technology has the curious tendency to destroy an inspired reason because it is so much the admirable product of the human subject's initiative. For example, when crops are lessened by calamaties, when the land in inundated by floods, when the machine doesn't work, and when rockets fizzle, the first movement toward the rectification of these things is the human subject. Thus, the human personality quite naturally develops the habit of initial movement. But there is a twofold movement at work in human culture. First there is the descending movement of divine plenitude "into human reality to permeate

and unify it. For God infuses in every creature goodness and lovability together with being, and has the first initiative in every good activity."[32] Then there is the second initiative, the movement of ascent by the human subject, in which it unfolds its energies toward God. The first movement is obviously what matters most; "to receive from God is of greater moment for man than to give to God, and he can only give what he has received." [33] The great error of modern times (and it is aided by problem solving strategies in technology and by the teaching strategies in the humanities) has been one of attaching more importance to the second movement than to the first, or to expect the first initiative to come from the human subject. [34]

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FOOTNOTES

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2. Nancy Ellen Glaser, "Humanities: Essential Component of Continuing Education," **Educational Leadership**, 33 (1975), 107.
3. Frank P. Graves, **A Student's History of Education.** New York: Macmillan Co., 1936), pp. 120-121.
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5. **Ibid** ppp.118-119.
6. **Ibid.**, p. 125.
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9. Edgar Allen Pie, "The Philosophy of Composition",**American Literature.** Joe Lee Davis, John T. Frederick, and Franklin Luther Mott, (eds.). (New York: Charles Scribner's Sons, 1948), p. 478.
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11. **Ibid.**, p. 473.
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13. **Ibid.**
14. **Ibid.**, P. 207
15. **Ibid.**
16. **Ibid.**, p. **208.**
17. **Ibid.** p. 154.
18. Northrop, **op. cit** pp. 364-365.
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20. Jacques Maritain, **True Humanism**. Trans. by M. R. Adamson. (New York: Geoffrey Bles, 1938) p. 101.
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24. Jacques Maritain, **Some Reflections on Culture and Liberty.** (Chicago: University of Chicago Press, 1933), pp. 5-6.
25. See Bronislaw Malinowski, **Magic, Science and Religion.** (Garden City, New York: Doubleday and Co., 1955), *passim.*
26. Jacques Maritain, **Ransoming the Time.** Trans by Henry Binsse. (Charles Scribner's Sons, 1941), p. 129.
27. Jacques Maritain, **Man and the State.** (Chicago: University of Chicago Press, 1951), p. 191.
28. Jacques Maritain, "The Contemporary Attitude Towrds Scholasticism," in John S. Zybura (ed.), **Present Day Thinkers and the New Scholasticism.** (St. Louis: B. Herder Book Co., 1926), p. 192.
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30. Jacques Maritain, **Christianity and Democracy.** Trans. by Doris C. Anson. (New York: Charles Scribner's Sons, 1944), p. 47.
31. Jacques Maritain, **True Humanism, op. cit.,** p. xii.
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33. **Ibid.**
34. **Ibid.**

* * *

Behind the Chairperson's Door: Reconceptualizing Woman's Work

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And she danced; she danced with the music and with the rhythm of earth's circles; she turned with the earth turning, like a disk, turning all faces to light and to darkness evenly, dancing toward daylight.

Preface

The chair and office I occupy are no big deal. I head the Division of Secondary Curriculum and Instruction in the Department of Educational Studies, itself a part of the Graduate School of Education within a state university. Like a nestled Russian doll, I am the one at the center with no face–a redundancy. Yet, this relatively insignificant position has brought a wealth of insight to this "graying eccentric" who, after thirty years of teaching and mothering, thought she knew all there was to know about woman's work.

The door behind which I sit opens into a small office with one wall of southern-facing windows. From my desk, I witness the progression of seasons: clouds building over the mountains to sudden, summer showers; leaves dusting the lawn autumn yellow: drab-coated gold finches, backdropped by winter snow, feeding on dry catkins; spring greening, creeping up the foothills. Cycles of life marching by in succession; years blending into an eternity–the diorama before me, offering gentle reassurance in support of the Earth, firm and stable.

It has been four years since I moved in here and closed the door behind me. In contrast to my previous

office, brick-lined at the end of the hall, this one is at the mainstream of department life. Even behind a closed door, I can sense the pulse of the place. Almost every person in the department passes by during the day for my door is strategically situated at the convergence of front hall, main office, and workroom.

Faculty typically begin their days with brief greetings as they pick up their mail and a cup of coffee and check in work with the head secretary. It takes no great insight to discern that from that point of juncture on, the lives of men and women flow in separate and distinct patterns: little fortresses joining hands with their own moats of expertise or sitting silently on self-constructed mountains fighting off assailants; sister moons, revolving around so many solar systems with their dark sides always turned away.

It is toward a deeper understanding of the dark side of women's work and a commitment to "dancing toward daylight" that this piece is dedicated. It is autobiographical for I am by nature and necesity introspective and closest to my own experience. And, I believe that until we, all of us, men and women alike, solve, understand, and liquidate our own experiences, we will be bound to a series of repetitions,[2] limits, and constraints that will prevent us from being equal partners in this earth dance.

Although I attempt to analyze the interaction of others in the affairs of the department, I claim no great expertise in interpreting their perspectives and, in fact, continue to maintain that empathic perspective taking is the most difficult of human endeavors. The value in self-revelation lies in how well one's point of view is opened to the interpretation of others and thus to dialogue, a hermeneutic process that helps us extract the meaning from the experience-text.

> To be human means to reveal what is hidden. Beings, however, incline intrinsically toward concealment; what things are is not self-evident to us. We must struggle to know the truth. Not arrogance, but necessity leads us to act this way. [3]

For years, I have been standing on the bank of a stream, a "concerned spectator," [4] watching women, myself included, caught up in the flow of male-dominated departmental life. What I reveal here is some of what I have learned.

Closing the Door

> For a man it is natural to be the aggressor and he takes defeat well. For woman it is a transgression, and she assumes the defeat is caused by the aggression. How long will woman be ashamed for her strength? [5]

Men and women suffer defeat in different ways. Whereas defeat is a threat to the male ego, to what he is, to his masculinity, adequacy, identity, it never calls to question a woman's femininity. She is never in doubt of that for she is informed monthly or whenever she becomes the source of "empathetic nurturance" for one of the children she or a sister has birthed.[6] Defeat reminds a woman all the more that she is suffering, not because of what she is, but because of what she is not, and furthermore, of what she can never become. She feels abandoned in an existential void, not with an injured identity, but with the sense that she is really nothing at all.

So it was with me when I moved into this office four years ago. I had lost the bid for chair of the division and two cherished relationships, one personal and one professional. On all accounts I felt jilted, abandoned, rejected. Reaching tenure that year did nothing to allay my self-doubts but, surprisingly, magnified my lostness. Each time I passed my reflection in the darkness of a window, I saw the eyes of a stranger looking back at me--open, curious, animal and childlike, eyes I had seen in women and children in Latin American and Indian villages--asking, "Who is this person? Why is she here? What is she doing? What does she want?"

Following the vote for division chair, several men (I was the only woman faculty member at that time) came to me and explained why they had not voted for me. "You weren't political enough. I had no idea you wanted to be chair." "If I had it to do over, I would vote the same way. I have more confidence in him." "Leaders are chosen not self-chosen." "I know you and you wouldn't like being

chairperson." I had no ready response, sitting silently as anger and resentment welled up in tears. I needed time to resolve the incongruence between my internal landscape, how I saw myself (knowledgeable about division affairs, hard-working, committed) and my external landscape, the way my colleagues saw me. It was a time for turning inward, for raising my inner landscape, out of private experience into the realm of professional studies.[7] I began autobiographical works, reconceptualizing interrelationships between students and myself in the context of ecological and cultural studies. I taught classes and developed a middle school certification program. I occupied my time well. But deep down, I longed for affiliation with colleagues, for the equality, interrelatedness and complementarity that appeared metaphorically to me in the natural world.

One day I bumped into Mary, a colleague in Special Education, and we said simultaneously, "We need to talk." Out of the talk and the need for it grew the college's Woman's Faculty Forum. A counselor from the Women's Resource Center joined us, keeping us honest and directed. With the help of others, I was able to raise anger, self-pity, and the tragedy of my life from the private and personal into the public and political realm. In supporting the needs of other faculty women, I began acknowledging my own oppression. I was not alone. Here it was all right to be angry.

Some faculty women, primarily those new to the college, did not join us. I understood their reluctance. I, too, as a beginning professor interested in full participation in professional life, had declined offers to join women's groups, feeling it a disadvantage to be identified with low status members without access to policy making or purse strings. Now with a new sense of detachment, I could watch the women, knowing full well who was in charge, forming allegiances with sources of power and resources. And I began understanding that their reasons for doing so were not just pragmatic but deeply psychological as well.

I began to see two primary variations on the male-female theme emerge. Some women submit to a patriarch, repro-

ducing without noticeable variation, the role to which most of us were socialized. Although intelligent and competent, they look to the man for their professional direction while denying their own power. Just as millions of housewives and other unpaid or poorly paid workers, they support unconditionally the right of the man in power to make history.

Sexual intimacy, children, and creative and aesthetic outlets can sublimate somewhat the inner conflict that self-abnegation begets, but eventually the mental or physical health of the "shadow worker"[8] is eroded. Mindless, and with no ethical responsibility for their acts, many of them turn blindly to neurotic consumption or to a self-centered hedonism that depletes the resources of the earth, undermines the effort of others working toward equality, and drives "their" men (whose side they stand by stalwartly) toward compulsive domination and progress in an effort to live up to unrealistic expectations. These women abdicate the development of their full potential by standing aside from the mainstream of human enterprise and allowing others to set their course. Although few academic women are subject to the overt submission described here, they nonetheless manifest subtle variations of this theme. Like suppressed workers they abdicate to external forces that define for them *what* they want for their lives rather than *how* they would like to or *could* live their own individual lives.[9]

More frequently, women join with men in teaching, research, and social life with the intent of becoming equal partners in the challenges and rewards of academic life. But as de Beauvoir so aptly pointed out, we do not share equally in life's rewards. Although we are not really a minority (we comprise at least half of the earth's population), we are deprived citizens of the Earth.

The stratification of positions held in our particular department is a case in point. Full professors in our department are all men. Whereas 78% of the men faculty are full or associate professors, 73% of the women are assistant professors or clinical instructors. Like women throughout the country in higher education, we are not making progress

toward equality.

All sorts of explanations have been offered for our lag in upward mobility. Lortie, for example, after comparing the commitment and hours on the job between married and single women teachers, concluded that careerism in education is undermined by the preponderance of women, primarily married women. Lortie failed to analyze the professionalism of men in the same light. His oversimplified conclusion was that married women teachers are less career-oriented than single women because they choose family over career.[10]

Our department percentages shed additional light on the single/married theme and bring into question whether being single is an advantage for women with career goals in higher education. In our department, 80% of the men are married, there being a higher percentage of single men at lower professional ranks. In contrast 75% of the women are single and evenly distributed across all ranks. What is interesting is that over half of the single women are primary caretakers of children. At the end of the day, they go home to another world of work where most have little support. At the end of the day, 80% of the men go to homes where they share responsibility and finances with wives. The temporal and economic inequity of this situation should be fairly clear in terms of the extra demands placed on single mothers.

For parents, whether single or not, the choice is never, as Lortie simplistically concluded, between family and career. Except for those who can abdicate their responsbility, as men often do, we have no choice but to care for and nurture our children–to help them in their suffering and need, to provide for their spiritual and emotional welfare, to assist in their movement toward Being. Likewise, there is no choice for fully human persons between elaborating and suppressing their potential. Each of us has visions of participation in this human venture. Each of us anticipates the unknown with awe, feels the satisfaction of accomplishment and curiosity satisfied. It is not the choice between family and career that we face, but the conflict that is created when both cry out to us for fulfillment--when it is not humanly possible to satisfy our innermost need for self-determination

and our heartfelt responsibility to others. For single parents, who in our society are primarily women and responsible for the "maintenance of socio-emotional arrangements that sustain every day primary group life," this inner tension is more extreme. [11]

For women, single or married, there is a gnawing inside from forces that prevent them from standing in solidarity with other women, even in the face of overwhelming evidence that women in all areas of human enterprise are losing ground in relation to men. Faced with owning their own strength in self-directedness (and often aloneness) they abdicate their inner powers to men and, in a cycle that is condemned to replication, they continually go back to the father for a definition of who they are at work and at home. The "domestic enclosure" of women has made men the "wardens," and burdened them with this guardianship. Nonetheless, "this enclosure has succeeded where it has failed with sheep and beggars." [12] We women have been parties to this apartheid, for the only way we can maintain our professional and personal relations with men is to keep our own strength in check.

A still deeper psychological need prevents women from joining together with other women. As Dinnerstein points out, certain forms of antagonism "rampant in men, and largely shared by women as well," turn both sexes against women.

> These antagonisms include fury at the sheer existance of her autonomous subjectivity; loathing of her fleshly mortality; a deeply ingrained conviction that she is intellectually and spiritually defective; fear that she is untrustworthy and malevolent. At the same time they include an assumption that she exists as a natural resource as an asset to be owned and harnessed, harvested, and mined with no fellow-feeling for her depletion and no responsibility for her conservation or replenishment. Finally, they include a sense of primitive outrage at meeting her in any position of worldly authority. [13]

Thus,for deeply psychological as well as pragmatic reasons, women often join with men, rather than with women. But it is not a complete and equitable union and is counterpro-

ductive for women as they become an appendage and easy prey to exploitation to men's work.

To repeat, the lives of men and women outside my door, after morning coffee, flow in very different directions. Men of power follow a ritualistic round of exchanges reflecting a dominance hierarchy as some are the visitors and others the visited. Political allegiances are formed and decisions informally reached in casual discussions concerning family and world affairs. Women, on the other hand, get down to the primary work of the department. Whether because of their need for affiliation or extra money they spend an inordinate amount of time, compared with the time spent by men on the same activities, on program development workshops, conferences, student resources, and advisement. Such activities place them in a state of constant busyness. The frenzy builds as the day progresses, and if they have not been called home to stem a crisis, they leave at the end of the day, exhausted and ravaged. Inside the tension is fed by guilt: another day has passed without any significant contribution to the community of scholars. Their own scholarly ideas sit festering like abscesses at the back of their minds. Some go home to children who, because of their mother's sexual handicap and blind obedience to hegemonic pressures, will continue to live in a man's world.

The Phone is Ringing

> Chaos is a convenient hiding place for fugitives...from truth.[14]

When the department chairman asked if I would fill the secondary division chair that had been vacated, I accepted without hesitation. It mattered little to me that I was the only one who was willing and probably the last to be asked. I was passionately curious about man's world of work and thought it would become accessible to me through administration.

I understood full well that the faculty's approval of my appointment meant: they had merely sanctioned my acting

as a head until they could elect a legitimate person into the position. Before long I found that in my naive drive toward self-determination I had inherited the equivalent of several full-time positions.

In a forced reorganization of the college, the positions of director and counselors in the Student Information and Advising Office (SIAO) had been eliminated. So in addition to my previous commitments to my graduate students, environmental education classes, the implementation of the middle school program, and my present administrative duties, I found myself in charge of admissions, student teaching placement, certification procedures, and advisement of secondary teacher certification students. Furthermore, the dean's administrative officer, a woman who replaced an assistant dean (but without the title or authority of that position) was in charge of reorganizing the SIAO. She and I met, time after time, with a changing configuration of secretaries to set out policies and procedures that somehow had never been written or had been lost in the reorganization. In addition, she set up a paper track that I was to follow, that began in her office, preventing me from going directly to the secretaries in the SIAO with the many student-related tasks that needed to be done. And my work, personal and administrative, had to wait its turn in the basket on the head secretary's desk.

At home, in an extended family arrangement, I shared the mothering of my two grandchildren with my single daughter who, sleep-deprived and overworked, was told day after day in her medical school experience that she was not only the "second sex" but the wrong sex. My other children, off on their own quests, stopped by to share with me their journeys toward adulthood. And my mother, aging and widowed, was in and out of the hospital and my home as her health began to fail. At the center of this circle of family, I became the matriarch they came to in crisis and pain–and sometimes joy.

In the meantime, my phone kept ringing. It was ringing when I unlocked my door in the morning, and I could hear it ringing long after I locked the door and walked away in

the evening. At the end of the line I consistently found students asking questions I could not answer or making demands I could not meet--or faculty from departments across campus in cool, distant voices asking for logical explanations to the illogical inconsistencies in our program and scheduling.

Somehow amidst this ringing confusion, policies and procedures began to take form. They were written down, tested, and revised each quarter. Although inconsistencies still appeared in the schedule, the problems became clearer. The secondary and middle school teacher certification programs were laid out and eventually printed in attractive and comprehensible brochures. And a cohort system, which had been tested successfully in the middle school program, was adopted by the secondary faculty for implementation the following year. Although the new structure brought protests from departments across campus, the cohort organization, which grouped faculty and students together continuously through a three-quarter certification program of studies, was a positive step in bringing continuity and identity to a program that was disgracefully inconsistent, incompetently managed, and on the whole needlessly complex–a monster that rose each night to haunt my sleep.

But the phone kept ringing, and students began hinting that I was too busy for them. Every week or so I would seek out the chairman or dean and ask for help. They seemed concerned but confused as to what I wanted them to do. Underneath their calm exterior, I denoted controlled impatience with the complaining woman on her weekly tirade.

At one point, they called a meeting with the dean's administrative officer to go over my complaints. At the end, she informed them that the major problem was my poor rapport with the secretaries. I sat tearfully in silence with no voice to defend myself and a sense of the futility in doing so. Neither the problem nor the solution rested with us, secretaries included, all powerless women pitted against each other in a struggle to wring some semblance of respectability and prestige from work that fed the insatiable appetite of a patriarchal system that degraded us and left us dependent. It was possible to satisfy some false sense of power

by gaining control of a bureaucratic system by becoming "keeper of the keys" to its complexity. But in so doing we became just another *"feminus domestica,"* commuting between home and supermarket, pusher of buttons that signify nothing other than our bondage.[15] The only difference was that here we had offices rather than kitchens. So once again I sat in silence, refusing to defend myself, looking hard at this woman's view of me, feeling my interior tremble under the violent onslaught.

It was at that point that I became intrigued with the idea of the central office, protected from assailants by an outer office and guarded by the head secretary. The previous chair of secondary and present director of graduate studies occupied the office, but in the past the various heads had either drawn or decided among themselves about occupancy. At the same time I saw the strategic arrangement of the office answering my many needs, I began dwelling on why, when I became chair, there had been no discussion about the office. I decided I had been discriminated against and determined to ask for access to the office and, in the least, a drawing for it. To my request, the occupant declared that if he had to move, he would resign as head of graduate studies. In support of him, the department chairman explained patiently that the central office was no different than any other office. Here at the university we acknowledged squatter's rights. A person moved into another office only if it were vacated.

One day during one of my frequent visits with Mary, I noticed that she picked up the phone, dialed a number, and then replaced the receiver. As we talked, I realized that she had done something that stopped the phone from ringing. When I asked her about it, she explained Ma Bell's "dial-away" system. Back in my office, the phone ringing unanswered, the reality of my plight descended like a landslide, obliterating me in the rubble. True, I was making progress with the paperwork, but I was losing ground personally and professionally. I was buried in chaos, and in my inefficiency I did not even know how to stop the phone from ringing.

In addition, I was not participating in any of the major issues of the department. Long after they had been discussed, they appeared in my box as dittoed memos marked "F.Y.I." The only decision of any consequence I had made during the year was one that I should not have made unilaterally: because of building conflicts between faculty in the middle school program that I felt were irreconcilable and affecting students adversely, I had reassigned one of the faculty to another role. As a result, I had inherited her teaching assignment and in the eyes of my colleagues, had made a decision that rightfully should have involved them.

Outwardly, my major conflicts were with women. I could see the look of "I told you so" in the benign smiles of the men. But underneath the surface of petty womanly conflicts was the demon, the "crystalline authority" of partiarchal structures that kept us subservient and guilt-ridden, and in our suppressed anger turned us against each other. I felt the oppression of "shadow work" that was truly more discriminatory than overt bias.[16]

The episode with Mary and the phone had illuminated the problem. Clearly, I could not ask others for help until I had formulated solutions for myself. But none appeared to me. I had capitulated to the needs of others and, like a good *feminus domestica,* had taken over the dirty work of the division. I began seeing my "death wish" in the "shadow work" that grew like a cancerous tumor, depleting my vitality and sensibilities. I was always running to catch up. It was the end of the year. It was also the end of trying. I laid a clean sheet of paper over the unfinished work on my desk and wrote my resignation.

Someone is Knocking

> Through knowing others we form ourselves and perceive the world....In every intense and intimate relationship there is the peril that the self of the weaker may be submerged in that of the stronger, but if it is not, if both persons maintain their authenticity, act and are acted upon, then both have evolved.[17]

Amidst all of the telephone calls, someone had been knocking at my door. The door–decorated with "I Like it Wild" posters of puffins and mountains and wolves conceived in arrogance, born of the Neanderthal Age of biology and philosophy when it was supposed that nature exists for the convenience of man –is in itself a selective screen, bidding some to enter, others to go elsewhere. It is a clear statement of my fundamental belief that the Earth is a sacred dwelling place for all creatures. Unlike many of my feminist friends, I came to feminism via an egalitarian ecological view [18] when it became evident to me that one of the creatures deserving full citizenship on this planet is woman. I have been an ally to grass-roots movements that seek preservation of the Earth's resources and counter the insatiable appetites of materialistic exploiters. I also cuss and wear boots. Knowing this, some take their questions elsewhere. But an interesting array of students stop by to talk. Lately most of them have been women.

They open the door and stand before me intrepid in their determination to appropriate me in their struggle toward Being. In the first moments of our encounter, I can sense whether there are threads that will bind us into the future.

I avoid some and send them elsewhere. What in the past drew me toward them now warns me to beware. They see in me the answers they cannot face in themselves. What they want is what they are; they are looking for much more than I can give. I am their surrogate mother, a "radiant goddess," who in the end, tarnished and dirty, will be annihilated. I am the mother they hate and the self they hate.

As I abdicate involvement, I narrow the range of my own possibilities. The fear comes from deep sources I have not yet uncovered.

> We make the animals bigger with our fears. We make our loves smaller, we shrink by our vision, and enlarge and shrink according to the whims of our interchangeable vision, not according to an immutable law of growth.[19]

I tell myself I am a teacher, not a therapist. Given a choice, I prefer not to work with those who cannot face

their hostility: the hatred of their mother and the competition they feel with their sisters. I want reciprocity, not dependency. I am not a commodity to be used. I haven't the time.

But for some, I find the time. In their openness and searching, the radiance of their persona shines through the most of self-doubt and ambivalence. Like puffins and wolves, they are wild in their awareness,[20] and they come to me for taming. I sense a common ground where we can face together the dualities within and between us. They see in me the person they would become and the one they dread becoming; I see in them the youth I cling to but would never return to. The vision of death and life is clear in our eyes. Therein lies a promise of unfolding--of mutual metamorphosis.

Metamorphosis is an awesome spectacle that draws us to it in morbid fascination. By the pond once, I watched dragonfly nymphs, dung-colored, clinging to reeds, split slowly down the back. For a brief moment I could see a colorless, quiescent mass within the cracked shell. Opened to the light, the liquid mass began emerging, slowly taking shape, a transparent, vulnerable form. A tint of color began appearing, eyes darkened, wings unfurled, pumped full of air by the pulsating creature. Before my eyes, the murky-colored nymph transformed itself into a luminous-winged creature bedazzled in a flight of burnt orange that flew off to fulfill its destiny finding mates and eating fellow creatures. And one spring evening, working in the unusual quietness of my office, I heard a faint scratching. Thinking it might be a mouse that visited occasionally, I finally traced the noise to the top of my file cabinet where an ominous head with two fuzzy antennae peered at me over the edge of a cup. Trembling, I carried the cup outside and placed the enormous moth, that had emerged from a forgotten cocoon given to me by a colleague a few weeks before, on a tree to complete its emergence. Back in my office I tried to rationalize the fear that this glorious event aroused in me. It was as if I had been witness to an act that should have remained private and hidden. There is something terrifying and deeply disturbing about watching a creature transcend its

own Self. It highlights that critical moment, the point of emergence, when the creature detaches from its former self, when any number of things can go wrong.

So it is with graduate students who in their nascence come primed for growth, gobbling up new ideas and course work with insatiable appetites, feeding new beginnings,--then quiescence as a new form coalesces. And finally the point of emergence when so many things can go wrong, and often do. But metamorphosis is unidirectional. Although thwarted or crippled, unable to fly, emerge they must. There is never any going back.

Like their faculty counterparts, some women students begin sensing the reality of the real world beyond my door. In the same manner, they are drawn to the men. And the will-to-be in these women, like a powerful pheremone, draws men faculty to them. In these students are spirit and reinforcement of masculinity, promise of youth and escape from death, energy and the ability to complete studies. I watch the seduction proceed--a drug, mutually administered, a superficial illusion masking the wondrous simplicity of blunt humanness. At the point of detachment, there must be freedom for the creature to choose her own way. The way may lead to another or to a detached and superficial relationship to me. But with some, it is a journey shared until we both emerge, strong-winged, to take up our separate flights.

The summer after my resignation, I accompanied my mother to the Italian Alps, home of her parents and of my father. There in green alpine meadows sprinkled with lavendar crocuses, I found my original home: polenta and veal stew cooked in copper kettles over open fire; cheese, rye bread, crisp salad, wine and apples served on red-checked table cloths under tufted branched larch. Grasses, laced with flowers raked in fragrant heaps over concentric scythe marks, hauled to the barn. Gusto, image of my father, proclaimed his patriarchy in song and act from dawn to late night. Beautiful women, felt their spirit and strength in "vernacular work"[21] more liberated than I shall ever be. All of this confirmed what I had sensed all along. I was a minority

in more ways than one. Not only was I a woman, but, at the core, I was an Italian peasant woman.

One evening as we sat in our room, I could feel my mother staring at me. " What is it?" I asked. Her reply was honest and forthright, "You always were a timid little girl."

I had determined, during the trip, to do nothing to spoil this journey that had been delayed several times because of her ill health. My actions accentuated a pattern I had followed since childhood: I did nothing to bring down her wrath. I had become an expert, as most "good girls" have, at conforming, covering up, and avoiding conflict. The seductive social controls of high expectations and praise had fed my guilt and thwarted my self-determinism.

That night, for the first time, I was able to see myself through my mother's eyes. At the same time I was able to see her as a separate and free entity. She did not appreciate condescension anymore than I. My inauthenticity diminished her experience of life and magnified my "timid little girl" image. The seeds of a new assertion were planted.

In the future, I was determined to be more honest with my associates, especially the older women like my mother whose wrath I avoided like the plague. I would try to find gentle and honest words for the feelings I kept locked in tears and silence. Rather than unconditional and uncritical support, I would give others the feedback they deserved and needed to expand their own possibilities and become subjects of their own lives. Above all, I would try to be forthright with my colleagues. When in doubt about their intentions or meanings, I would ask them, "What is it?" I would strive to understand their intents rather than projecting upon them my own interpretations.

Opening the Door

> When man imposes his will on woman, she knows how to give him the pleasure of assuming his power is greater and his will becomes her pleasure; but when a woman accomplishes this, the man never gives her a feeling of any pleasure, only guilt for having spoken first and reversed the roles.[22]

Stressed and overworked the previous year, I merely survived with no energy for creativity or insight. The repose of the summer was healing, however, and possibilities began fermenting. When upon my return in the fall I was asked to continue as chair, I was prepared with a list of conditions. Among them was shared responsibility by faculty for the many chores that had to be done around the house. I also included access to the central office for its symbolism alone, for I knew full well the outcome: with those particular smiles of disbelief at the triviality of the request, the men with well-formulated rational explanations would maintain the status quo.

After a few weeks of negotiation and reconsideration, I assumed the chair of the division--in my old office. With released teaching time, several faculty took responsibilities for student teaching placement and admissions. A secretary agreed to take my correspondence and typing. A capable person became the student advisor. Things were falling into place.

In my haste to get started, I forgot to call Ma Bell about the telephone. It continued to ring, but this time I had answers for questions and counters for complaints that poured in as we began implementing the secondary cohorts.

Not surprisingly, many of the complaints came from my own faculty who for the first time were experiencing the burden of a family of students they had to see through the entire program to certification. The field-based program, advisement, and added commitment weighed heavily on professors who in previous years had been involved in a program that could best be described as "drop-in."

Midway through the year at a retreat planned to discuss and evaluate the progress of the cohorts, I stifled a suggestion to disband them. A state of constant flux had characterized our division in the past, an escape from long-term commitment, a striving for perpetual youth--an illusion created by the chaos and dynamics of change. We needed to experience stability for a period and feel the powerful and deep connections of a system in stasis.

The cohorts provided a "small is beautiful" organizational framework that I viewed as Ideal for an academic

community. In an atmosphere of shared responsibility (the administrators upstairs called it a decentralized system), a spirit of collaboration prevailed. At base were the assumptions that no one should do for others what they could do for themselves, and the expectation that all persons are competent and trustworthy. We agreed upon basic policies and procedures that could be understood and followed by all, as well as minimal course outcomes for evaluation. Faculty shared their curriculum plans and agreements with schools for student placement to insure coordination at the primary level. Beyond that they were free to adapt their programs to their own expertises, philosophies, and ideologies.

As the year progressed, a positive spirit grew in students and professors. With reduced bureaucratic structures, the participants were freed for effective person-to-person interaction. In a sense, the cohorts created "convivial" social control that minimized dissent.

In my impulse toward egalitarianism, I did not want to punish faculty for taking onto themselves the "shadow work" of the department. Graduate assistants were assigned, and cohort involvement was alternated with graduate work and other enterprises more valued by the academic community. On the one hand, I wanted an environment for professing and pursuing studies in a spirit of academic freedom; on the other hand, I felt a deep responsibility for a rigorous, field-based program that would be a model for teacher education. Above all, I wanted to establish a covenant between us. Our lives, though cloaked in academic disguise, were lived in common and we needed to share understandingly the pathos and joy, success and failure, love and separation that came to each of us. We were all answering the question of death.

As the year progressed, I began sensing more personal power. I became less willing to abandon my ideas to the views of others, less unconditional about my acceptance of others' ideas, and more trusting in my own vision and intuition. Faculty meetings that had in the past terrified me, became a challenge–a place to restructure the hierarchy of dominance, and to work out benignly the violence that we

inflict upon each other. With a new sense of direction, I developed a selective vision.

I became a better listener. When men came to my office, I tried to hear them out. Their "rational" explanations had bewildered me, as my circular thinking had been confusing to them. Many times in the past I found myself blindfolded on an oriental express. Given clues to the destination, I would misinterpret or be intentionally misled (I was never sure of which), and disembark at the wrong place. My error would be pointed out and I would board once again. Finally I would arrive at the predetermined destination not knowing why I was there nor what I was to do. What is linear, precise, and logical to one is total bufuddlement to another. What is intuitive, universal, and holistic to one is misleading and devious to another. Our language reveals the different worlds opened up by our unique cognitions and mediates those differences. The merging of the two worlds became my challenge. I began opening the door to that possibility.

The assertion triggered feelings of guilt and carried me back to previous experiences when I had "overstepped my bounds": in my high school teaching days whenever I went to the principal or superintendent "for permission" to implement an innovative curriculum plan, I was always cautioned to "be careful" not "to push" my ideas, as other teachers would resent my doing what, in fact, everyone would like to do. I eventually came to understand that it was not "other teachers" who resented me, but the male administrators themselves who were threatened by my ideas. Several years before, here at the University, I was called into the office of the chair one evening after work. For over an hour, he and an assistant dean, both of whom left our midst long ago, verbally assaulted me for "violating administrative protocol." (I had called the central office to check on procedures for faculty appointments and then informed them of my findings.) Despite the force of their combined interrogation and attack, I refused to back down and maintained that I had the right to check on any university policy affecting me or a colleague. Shaken, that night I walked from the office with full realization that the vehemence and

hatred directed against me came from a deep source that had little to do with administrative protocol.

As the possibility of chairing the department became clearer to me, I explored my intent with a few trusted colleagues. The women were unconditionally supportive. But as I listened to the men, I once more felt the impact of blunt, honest feedback: the primary question was whether or not the faculty would trust me. I had quit once and that would raise doubts with them. My demeanor suggested an emotional and unpredictable nature that bred mistrust....

Shame and gult rushed through me; the little girl wanted to run and hide. Anger and resentment welled up; the woman wanted to fight back. Why was trust the issue with the male candidates? Why was I being judged by different criteria? Or was I really untrustworthy?

It was the end of another year. I welcomed the prospect of summer off and the distancing it would provide. I began writing this paper, and word by word, meaning filled the void, transcending both word and experience, bringing me to a new realm of understanding.[23]

Epilogue

> I can hardly believe that this tiny death,
> over whose head we look every day we wake,
> is still such a threat to us and so much trouble.[24]

It is the beginning of a new academic year. Outside my window darkness and light are interwoven in familiar patterns. Snow dusts the mountain tops in anticipation of winter. Birds, following the sun, stop by. The season is passing. And I am assured that because the Earth is dynamic and fluid (not stable and firm as I originally asserted), this season will be like no other.

Life is a spiral staircase we climb in search of a clear view from the tower top. Once there we find ourselves surrounded by mirrors reflecting images of us, alone. In a blink of the eye, we are at the bottom climbing the same stairs. One day, painfully aware that we are repeating the process over and over, the climb becomes especially difficult. At the very moment we cry out in the despair of

awareness, the stairs take on a different hue. A sense of hope builds. We reach the last steps and race to the top. Our reflection fades into vistas extending in all directions: planets orbitting, fallow and cultivated fields, soft meadows, impregnable canyons, knife-sharp peaks, and in the tumultuous shifting sands and crashing waves, faces beckoning. And then the horizons blend. A lightness lifts our heavy hearts: a new dimension penetrates. And we know that although there will be others, we will never climb this staircase again.

Outside my window is the "conjunction of contrarities," a poem of "paradox, ambiguity, irony, and tension" that helps me circumvent the "formal-logical law of contradiction" of life within these walls: the abstractions of administration and statistics, the Apples and CPT's the paper protocols, the academic constraints to which we surrender. We stack up publications, gather information to us, hoard ideas, compete for funds, exploit the talents, resources, and sex of others. We set it all out in a vita, our accounting ledger for this academic capital, an accumulation of wastes we are destined to wallow and, perhaps, suffocate in. How much of this is human necessity? How much is an escape from our inevitable destiny, a death we must face alone?[25]

Sitting here in the celibacy of this cell, I have felt the fraility of our lives, the primal drives that draw us into relationships that thrive and shrivel, remembering the great responsibility that weighs on women to create or destroy other lives--and for men, the great burden, denial of relationships or intent that persists as they walk away. Perhaps over all of us,

> there is a great motherhood, as common longing...even in man there is motherhood; his procreating is also a kind of giving birth, and giving birth it is when he creates out of inmost feelings. And perhaps the sexes are more related than we think, and the great renewal of the world will perhaps consist of this, that man and maid, freed of all false feelings and reluctance will seek each other not as opposites but as brother and sister, as neighbors, and will come together as human beings, in order simply, seriously and patiently to hear in common the difficult sex that has been laid upon us. [26]

This "difficult sex that has been laid upon us" cannot be privately concealed. Our primary values are replicated each day; the personal cannot be separated from the professional.

Unlike animals in their first encounters that explicate their innate curiosity, sexual attractions, "territorial imperatives," and dominance hierarchies, we are more subtle in our relationships to others in work and flesh. But there is no denying the "carnal contingency."[27] Aren't our interactions at base what animals get down to with sniffs and snarls? And what about the "affairs" of department and state? Brown asserts that "what the child knows consciously and the adult unconsciously is that we are nothing but body." In denying our body's total responsiveness, he says, we have reduced ourselves to perverse genital extensions, symbols of power and of "life over death." We create all sorts of time-defying monuments to our perversity. [28] But as Howard Hughes so poignantly showed by his "inauthentic being-in-the - world,"[29] no amount of capital can protect us from the truth. Death will have the last word.

Today in the meeting, my colleague, looking past me in his search for a new department chair, once more erased me, face and all. Like my little Indian friend on the steps of that school on the Navajo Nation, I wanted to tap him on the shoulder and ask, "What about me?" [30] But standing before his "cloudy forehead," I felt no anger, only sadness and pity for his short-sightedness. Perhaps that was arrogance. If it was, "then I will stay arrogant for the sake of my prayer that is so sincere and solitary." [31]

It takes great courage to face our own "concealment" and to share our dark side. Even so, we can never be totally visible, either to ourselves or others. Our hope should be not so much to achieve total visibility and understanding as to diminish misunderstandings that lead us down wrong paths and pit us against each other.

Dinnerstein asserts that shared primary care of children must be a first step in redefining gender roles so that the hatred directed toward the first loved, the mother, is shared by both women and men. Poets Rilke and Bly agree that we must nurture our bisexual and androgenous selves. Brown suggests that we cannot construct new theories of sex from

our disordered lives, but must reestablish our ties with nature in a new pure animism based on "an erotic sense of reality" that makes our ties to the earth and each other sacred [32] and replaces the anthropomorphism that positions us above other creatures.

The seasons are too short. But, out of the litter of summer's bloom will sprout new forms. The door of my office is open and departmental life seeps in. Perhaps I'll move my desk so that the two horizons can blend and I can meet both worlds full force as I would the tree falling toward me in the forest, with full awareness, awakeness, and responsiveness. [33]

Administration, the rational abstraction, is a neurosis I'll continue to deal with. The class schedule that ruled my life has been relegated to a machine. To my colleagues I have given shared responsibility, and the "shadow work" I inherited and with these gifts the guilt that is a part of every gift given.

If I am to establish a new covenant between us, I must first emancipate myself from repression and tyranny, both from within and without. I am filled with passionate desire and fierce patience, anxious to get on with it but able to wait. The work of further reconceptualization lies before me. But for one brief moment I stand on the tower top looking out at a realm of possibilities.

* * *

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Practicalizing Piaget: A Response to My Critics

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> I feel. . .there may be much of practical use in Piaget's work. But I think that we need to examine his claims and particularly the terms in which they are cast very carefully to find out just how they might be applied in practice. (Noddings, p. 91)

Before explaining my title, and the quote chosen, let me thank Paul Cobb, Seymour Itzkoff, Hugh Munby, Nel Noddings, and James Wood for their responses to my article, "Curriculum and Change," *Journal of Curriculum Theorizing* (5:2) Their lively, penetrating, and provocative analyses raise important curriculum issues; they have caused me to think deeper about, and in particular instances, to rethink some of the points I made. Hopefully my own response will show that thinking and my debt to those who spurred it.

I agree with Noddings that there is (may be) much which is practical in Piaget's work, but that generating such practicality requires a close examination of claims and terms. Such an examination, which Itzkoff seems to feel I have not done but which I wish to assure him I have done, immediately makes one cognizant of the biological framework underlying all of Piaget's thinking. In *Biology and Knowledge*, his *magnum opus*, he states that his "guiding hypothesis" is the "simple," even "banal" one that "life is essentially autoregulation" (p. 26). This notion of autoregulation is Piaget's *tertium quid* between nature and nurture, between the internal and the external. It is his notion of equilibration, of assimilation interacting with accommodation. It is that which he calls phenocopy; and it forms the basis for virtually all his remarks about growth, development, change.

As such, it is the essence of Piaget. In its simplest form it means that change is not the result of external, environmental pressure, nor of internal, maturational development; rather, "it is a system of real interactions" between the external and the internal. It is this notion of a dialectical "system of interactions" which takes Piaget well beyond simple external/internal oppositions.

Piaget spent the last dozen or so years of his life working on this concept. It forms the key element in such works as *The Development of Thought: Equilibration of Cognitive Structures* (1977) and *Adaptation and Intelligence: Organic Selection and Phenocopy*(1980). Here he joins mathematical systems with biological systems, and becomes controversial with his sense of teleonomy, or inner directed purposeful behavior. This view I have labeled organicist, putting Piaget in with a small but growing minority of theoretical biologists. However, whether one wishes to accept the organicist position or not, one does need to understand it, if anything practical is to be derived from Piaget's work. Thus, while agreeing with Noddings that Piaget's claims and terms must be examined carefully, I would like to add that such an examination must be carried out within an organicist context. If one rejects the basic claims of organicism - as Phillips, on whom Noddings draws, does - and as Itzkoff does - then no practical applications will be found in Piaget's writings.

Accepting an organicist position - that living organisms are qualitatively different from non-living matter, that living organisms must be looked at systemically not linearly, that changes in organisms are internally directed, and that a belief in autoregulation is the framework encompassing change (p. 22) [1] - is not easy for us brought up in an Anglo-empiricist -reductionist tradition. As the Dialectics of Biology Group says in its manifesto, printed in *Against Biological Determinatism:*

> Such is the hegemonic power of the reductionist tradition. . .that even the new generation of critics of Western science's epistemology find it difficult to recover, or rediscover, the power of dialectical method. (p. 2)

And:

> Ranged against reductionism appear to be mainly the forces of a reactionary and incoherent idealism, sometimes scientized into a 'general systems theory' but predominantly searching for pre (or para-) scientific transcendence *(Ibid.)*

Here then is a theory which, since Newton, has been raised to a tradition, to an ideology brooking no rivals. Attempts to offer alternatives, or even complementary approaches, have been labelled reactionary, idealistic, scientistic, transcendent, and mystic (to draw on Itzkoff's description, p. 76). There is a sense in which Piaget, and other organicists, have aspects of all these elements and yet the intent with Bertalanffy, Waddington, Weiss, and Piaget is to recover the power of the dialectic as a way to view change and development, as a viable method of research.

Now while one should not accept a position merely because the originators of that position have good intentions, neither should the baby be thrown out with the bath water. Here the baby is a broad-based view of biology as a methodological alternative to the reductionist and mechanist view which has dominated Western science and philosophy for the past two to three hundred years. This view is well labelled by Gould as one of "physics envy" (p. 55). It has, and is, strong in the natural sciences, but has become a paradigm in the social sciences, even though its difficulties in both areas are obvious. The task I see, then, for curriculum theorists is to draw on that "broad biological perspective" Piaget drew upon, wherein lies, as Itzkoff notes, "a rich spectrum of possibilities for learning, curriculum building, and education in general" (p. 80). As Bronowski points out in his *Common Sense of Science* (Ch. V) it has always been the biologists who were cautious about the implications of a Newtonian, cause and effect, mechanistic, world-view. It is the biologists who have been questioning this view; it is they who have been offering alternatives. The Alpbach Conference (1968) and the Bressanone Conference (1980) are but two modern examples of this trend. We, the curricularists, need to look at this trend both critically and sympath-

etically. I believe it is the area wherein new alternatives will be found.

With the foregoing as an introduction I would like to review, briefly, the "four separate but interrelated points" which formed my paper, and then deal with the comments of each critic. My first point originated with a growing awareness I've acquired over the past years that it is possible, even advantageous, to organize the western intellectual tradition's concept of change (and order) into three broad epochs: a classical or Aristotlean view, a classical scientific or Newtonian view, and a modern scientific or Heisbergian view. Each of these views carries with it not only a different perspective on change - cyclical, progressive but deterministic, indeterminate but balanced - but also a different perspective on curriculum and teaching - apprenticeship, didactic, dialectic.

My second point was an outgrowth of the first. After looking at a Newtonian world-view -- lawful, externally ordered, mechanist, determinist, reductionist, built around a direct and simple cause and effect relationship - I became shockingly aware that this view, that of classical physics, outmoded by quantum physics, was indeed the model, nay the paradigm, for twentieth century school curricula. Gould expresses this nicely when he says, in talking of the "physics envy" the social sciences have had: "They have strived to practice their science according to their clouded vision of physics" (p. 55). Nowhere was this brought home stronger to me than in Skinner's quote (p. 15) about our need to assume behavior as being "lawful and determined," with the further assumption that once "specifiable conditions ...have been discovered"we can determine an individual's actions. Laplace could not have stated the Newtonian view better. Not only does such a statement ignore all that perceptual, depth, and Gestalt psychology have taught us about ways humans organize their concepts and percepts, but it also ignores virgually all of twentieth century physics from Einstein on.

In criticizing the theoretical foundations of behaviorism - whether it be Spearman's "G," Thorndike's Law of Cause and Effect, or Skinner's Contingencies of Reinforcement -

I was careful to say that reductionism in science and behaviorism in curriculum theory have had their place and have made their contributions. Again to quote the Dialectics of Biology Group:

> Reductionism as a research programme is fundamental to scientific method. Where it fails is in its attempt to function as a total explanation of the physical, biological and social universe, when it becomes an ideology, an epistemology that claims ontological status...(p. 2)

All the same could be said of behaviorism in education. The curriculum theorists' job then is not to negate behaviorism, but to understand its limitations, as well as its strengths, and to devise or develop a framework for curriculum building which complements that which behaviorism has given us, and offers alternatives to overcome behaviorism's weaknesses. Such an approach is not either-or, but is interactive, dialectical, transformative.

In the foregoing I am reminded of the macroscopic-microscopic relationship which exists in physics. On the one hand it is quite possible to view the shift from classical to quantum physics as a paradigm shift from one world-view and research methodology to another. On the other hand it is quite possible to say that the views and methodologies of classical and quantum physics complement one another. In the ordinary world the laws of classical physics still hold. In the microscopic world of atoms (or the macro-macroscopic world of interstellar space) these laws do not hold. No one view can be a "total explanation. . .that claims ontogogical status"; rather there must be a variety of approaches and explanations. Behaviorism must be seen as one of a number of approaches. It is these other approaches we in curriculum theory must now build. I am suggesting that we look to biology in general, organismic biology in particular, and specifically that we "practicalize" Piaget (the gerundive form here is intentional).

My third point was to gain an understanding of Piaget's biological perspective. *Biology and Knowledge* is his *magnum opus*, and in his first chapter he states that auto-

regulation, as the term is used in biology, is his alternative to the old nature-nurture controversy, and is the foundation for all his remarks about growth, development, learning. The importance of a biological perspective became even more important in Piaget's later years when such works as *Behavior and Evolution* (1978) and *Adaptation and Intelligence: Organic Selection and Phenocopy* (1980) began to appear in America. The fine Gruber and Voneche book, *The Essential Piaget* (1977), made it plain that biology was also a part of his early writings. He took his Ph.D. in biology (really zoology) which in his own words "is a field I never left."

Yet, important as biology was to Piaget, few educational or psychological commentators paid attention to it. The volumes of writing on Piaget in the 1960's and 1970's essentially ignored such. In fact, not until the 1980's did the *Harvard Educational Review* and *Educational Theory* (still the only journals I know paying attention to Piaget's biological perspective) develop articles on this aspect of him. This was approximately a dozen years after he wrote *Biology and Knowledge*. In Furth's second edition to *Piaget and Knowledge* (1981) his "Forward" virtually states "See I was right! Biology is important for Piaget."

Now there are good reasons (but not valid justification) for educators and psychologists having neglected Piaget's biological perspective. It is difficult reading, but more importantly, when one does the reading one finds oneself in that strange world of organismic biology. This world is strange because it is anti-Darwinian, anti-reductionist, anti-natural selection, anti-cause and effect, and as a result of all these "anti's" becomes, somewhat at least, anti-empiricist. Itzkoff is quite right in saying that this view "dangles on the edge of mysticism" (p. 76), and Piaget's own comments about identifying God with biological processes (p. 7) supports Itzkoff's contention. However, I disagree with Itzkoff that the organicist framework should be disregarded. It is Piaget, it is his foundation albeit a strange one for us brought up in the Anglo-empiricist tradition.

About the organicist position itself I have mixed feelings. I appreciate very much that organicism, holism, vitalism all have varying degrees of "mystical" elements in them; that

there is in these a certain "searching for pre- (or para-) scientific transcendence." To the degree that this is so I reject these positions, or those parts of them that search beyond the founds of science. However, as I've been stating, I do not wish to accept scientific methodology in a narrow, reductionist, mechanistic sense. I believe modern science has opened itself up broadly enough to consider, in a serious vein, those five assumptions Nagel lists (p. 22) as being the underlying basis of organicism. These are: 1) that living organisms are qualitatively different from non-living matter; 2) that in looking at living organisms it is systemic organization which should be stressed; 3) that all change is internally directed; 4) that autoregulation is the framework within which change should be studied and assessed; 5) that mature change is different from developing change. I believe that theorists in both the natural and social sciences should be willing to examine these assumptions in a sympathetic manner. I have drawn upon Bronowski and Nagel as two individuals, respected in the scientific community, who would support such a move. I have also argued that is is the biologists, and in particular the embryologists, who in looking at developing organisms have found the greatest difficulty with a mechanistic and reductionist methodology. Lewontin sums this up in two fine sentences:

> No field of investigation has produced more crises of faith in Cartesian reductionism than the study of embryonic development. Over and over again the great embryologists of the last century have begun as mechanists and have ended searching for the immortal hand that framed the symmetries they studied. (p. 35)

Here is Piaget, not searching for the immortal hand (although this too could be argued), but strongly believing that through autoregulation, symmetries and order in nature are constructed. This is also why Piaget draws so heavily upon the embryologist Waddington.

My fourth point, of course, was that once Piaget and his tradition are understood, what can be done with his

writings that is of practical value in a curriculum sense? That is what the primary grades mathematics (or arithmetic) project was all about. That is also the very nature of Noddings' criticism. Let me now turn to the individual points each critic made.

Noddings

I am both indebted to, and frustrated by the comments she makes. I am first of all indebted to her for the quote (p. 41) about the purpose of a curriculum being the transformation of cognitive structure(s) not just the mastery of a task. This has been a meaningful quote for me as I work with young children, and as I work with those who eventually will teach young children. I am further indebted for her elaboration of the quote (p. 85) where she emphasizes, rightly, the need to place their transformation of structure(s) within a practical context of specific performances. If I may borrow a phrase from Piaget, "behavior is the motor of evolution." It is action - the playing with, the constructing, the manipulating, the observing, the reflecting (p. 87) which produces change, development, evolution in cognitive structure(s). The behaviors or performances must be in specific contexts within this context-specific framework - be it adding numbers or parcing sentences - the emphasis must be on moving beyond the task at hand to the broader perspective of developing an individual's thinking powers. This transformation occurs, Noddings points out, by having said individual reflect on the "moves and strategies" he or she uses in particular performance situtions. For myself I always like to use tests for this purpose - often before they are "corrected" but after they are handed in - to assess not just the amount of material learned but the "Moves," "strategies," and "ways of organization" used. Finally, I am indebted to Noddings for raising the questions about structure and children's development that she does.

My frustration comes from what I perceive to be an ambiguity about Piaget and what he has to say an ambiguity which at times spills over into comments about my interpretations and curriculum actions. One or two examples

illustrate this point. Noddings begins, and ends, her critique with insistence that we develop "clear, pedagogically useful definitions of cognitive structure" (p. 102). This implies, of course, that Piaget has not done so, and some of Noddings' statements say as much. However, in the middle of her essay (p. 92) Noddings distinguishes between mathematical structures and cognitive structure(s), and in so doing gives a good definition of cognitive structure(s) as a system (of transformations, and transformational rules) wherein the subject manipulates contextual elements. She goes on to say that the set of rules or transformations must include those which are heuristically valuable (as opposed to those which are formally correct). This she presents as an alternative approach to Piaget. But in reality she has defined, beautifully, the heart of Piaget's "genetic epistemology"; namely, that we cannot look upon knowledge in a purely formal fashion, devoid of life's blood, but must see it (and define it) in terms of activities that are personal and heuristic. Hence, Piaget uses the word genetic as an adjective to modify epistemology.

Noddings recognizes this Piagetian thrust of her own "alternative to Piaget," when she asserts in the next paragraph, that to include "contextual or psychological elements in the conceptualization of cognitive structure" should not produce "objections within a Piagetian interactionist framework." Indeed, defining knowledge - its use and its development - in personal, contextual ways is not only non-objectionable to Piaget, it *is* Piaget. Certainly, it is the vein to tap when seeking practical, pedagogic applications of his writings.

Noddings then goes on to "argue strongly for a definition of cognitive structure(s) that builds solidly and thoroughly on an interactionist (or better, transactionist) foundation" (p. 93). Not only is there nothing I would disagree with here, I might even use the statement as a future quote. For it was just this sort of thinking which caused me to write "Curriculum and Change" in the first place. Noddings does however, make a point I clearly did slight: the one already mentioned of looking at and defining cognitive structure(s) and their transsormations in terms of context-dependent situations. I did not do this enough, and will now try to remedy the situation via a reply to Cobb.

Cobb

As Noddings points out, it is possible to read Piaget in purely maturational terms - believing in inevitable development via natural, internal forces. Here the teacher need do no more than wait for this glorious development, a la many Progressives, or at most point out an error that natural forces will correct. In this stereotype, autoregulation becomes a *deus ex machina*, paradoxically a force that while internal actually lies outside one's own actions and behaviors. Combine this with a bland and generalized view of structures or stages and you get a pedagogy which advocates waiting rather than acting, and an epistemology which has no sense of criterion or definition. This is certainly not Piaget's interactionist/transactionist view where behavioral activity is the motor of development and progress; nor is it my view, even considering some of the quotes Noddings took from me. There is no sense of inevitability in Piaget's organismic view of telenomy, nor in Waddington's view of canalization. There is, though, the assertion that in developing organisms (not mature ones), in children (not adults), a sense of direction is present: toward a mature autoregulatory state. This sense of direction, obviously, can be thwarted by any number of social forces - one of which, unfortunately, is the school. A too-rigid sense of correcting mistakes can indeed negate this autoregulatory and self-correcting tendency. But as Cobb and Noddings together point out, this tendency is developed through an individual's own "constructive activity" in a social setting, dealing with concrete particulars; and in this development the dialectical powers of autoregulation emerge. Yes, the teacher must pay attention to mistakes-as-mistakes, but the teacher must also pay attention to the heuristic powers in the mistake process - and I would argue that virtually all mistake processes do contain within them heuristic powers. The finding and developing of these powers can be done, as Noddings asserts, only when one looks carefully, critically, and reflectively at individual, particular situations.

This emphasis on an individual's own constructive and reflective activity is the heart of Cobb's message. As he says (p. 69):

> The key for the radical constructivist teacher is to encourage the child to reflect on his or her own activity. The teacher attempts to help the child step back and interact with his own activity rather than with the structures of the discipline as the teacher 'sees' them.

Here Cobb presents the radical constructivist position of the "Georgia school of Piagetian thought." While I do have disagreements with this school, finding its constructivism too radical, I appreciate that my own structural emphasis needs a stronger constructivist thrust. Indeed, this interpretation is consistent not only with Piaget, but also, as Cobb points out, illuminates the fact that my work with children emphasized the structures of mathematics more than the children's own constructions. I fear he is more right than I'd like him to be, and indeed, since reading his critique I've focused more on children's operations than I did. Again Cobb is right: the plethora of structures (or personal constructs) children come up with is amazing. As Noddings, in agreement with Cobb, has pointed out, children's constructions go well beyond anything the most imaginative teacher could imagine.

The pedagogic point here is that if one is transforming structures it is absolutely necessary to understand the structures (or ways of operation) being used. For this, reflective action on what was done is essential. With college students this is a relatively simple, and rewarding, task. With children it is, as Piaget points out, almost impossible. To borrow Chomsky's phrase,the teacher must be "devious and clever"; for children rarely give up the secrets of the processes they use. More precisely, children do not connect reflective activity on a past action with the past action itself - they see these as two, isolated actions - and hence fabricate a whole new way of doing the activity in question. This new way is often ingeneous, but of little help in assessing the original procedure. This brings us back to Noddings' insistence on careful observation in context-situations. . . . .

However, lest I adopt the constructivist position too strongly, let me assert that the use of a discipline's structures is beneficial in providing contrast and organization for the students' own reflection. I believe in the power of contrast as a key pedagogic tool in helping the individual transform

his or her own constructions. Contrast is key to helping the individual go "beyond the information given." This phrase, of course, brings to mind Bruner and the curriculum reform movement of the 1960's. This in turn brings me to Itzkoff's critique of my curricular recommendations.

Itzkoff

Like Cobb, Itzkoff does a fine job of summarizing my historical reconstruction of Western intellectual thought. More than merely summarizing, Itzkoff has pointed to some key issues in 19th and 20th century thought that need further explanation and elaboration, especially by anyone interested in placing Piaget within the intellectual milieu of these two centuries. Especially provocative are such issues as looking at curriculum from a biological perspective, assessing both the similarities and the differences between the biological and the physical sciences, comparing Piaget's formal, logico-mathematical thought with the "g" factor of modern psychometrics, and finally digging deeper into Piaget's oppostion to randomness and the Mandelian-Darwinian Model. All these issues need further exploration; I am indebted to Itzkoff for raising them.

Itzkoff separates Piaget from Waddington (p. 77) more than Piaget does, and dismisses Waddington's theoretical views as "ancient and discredited" (p. 79). About Weiss, Itzkoff says nothing. I believe this to be a mistake on both counts. In *Behavior and Evolution* Piaget outlines his debt to each man, and shows how each is integral to his own thinking: about evolving organisms, about cognition. Of the two men I believe Piaget draws more on Weiss than on Waddington - or, at least, curriculum theorists will find more to draw upon in terms of Weiss' hierarchy of systems than in terms of Waddington's canalization, or pathways of thought. Waddington's great contribution to embryology, of course, was his studying of *drosophilia* as developing organisms, not as mature ones. In so doing he found that developing organisms have a sort of "teleonomic trajectory" (to use his term) toward maturity and adulthood. The organisms studied did not merely reflect their environment, as the behaviorists preached, but rather selected those environments. They selected the stimuli and manner in which they would respond. Thus their development was

canalized towards a certain end-goal. This canalization was not an all-powerful pre-determination, but rather a part of an open ended, interactive mix of factors. Pedagogically this means that children, as developing organisms, have a tendency toward the logico-mathematical, toward organizing their thoughts and the world in a coherent manner. As Noddings has pointed out this tendency is not all pervasive (much can and does go askew) but the tendency is there and classroom instruction should work with the tendency, not ignore it, or go against it.

Weiss is famous for his emphasis on systems and hierarchies of systems. Simply put, Weiss argues that an organism interacting with its environment (a stimulus) should be studied in a systemic manner. Pedagogically this means, as Ginsburg (1977) points out, mistakes in arithmetic should be looked upon not in isolation, but as part of a larger more coherent whole. Mistakes should be viewed as real attempts by the child to order his or her universe. Thus one looks behind the immediacy of the mistake itself to see the logical or semi-logical underlying pattern. Such a dialectical searching with the child is far more beneficial than the didactic manuever of quickly correcting the error. Further, Weiss argues that what appears as chaos at one level of systemic organization shows signs of order at the next. The human brain is a fine example of this. At the cellular level all is chaos: cells dying and being born by the millions. At the level of the brain as a whole, though, a magnificent sense of order is seen, so that the brain functions smoothly while cells are dying and being born. This hierarchial approach is obviously akin to Piaget's stage theory. But the important pedagogical point here is that a cognitive structure (elements, operations, rules, willful actions) can be transformed to a more organized structure through "reflective abstraction" (Noddings, Dewey, Piaget) by focusing on the systemic aspects of the structure and its elements. That is, as Dewey emphasized the need to reflect on one's actions, Piaget, drawing on Weiss, has emphasized that this reflection must essentially be the placing of elements and operations within a system and within a series of systems. Here Cobb is correct in asserting that the organization the teacher sees is not

necessarily the system the child is using, and Noddings is correct in saying that the system for arithmetical thinking must be mathematically sound. Hence there must be a dialectical relationship between the child's structures and those of the discipline being studied. This dialectical relationship must have a strong constructivist thrust; transformation will occur to the degree the individual is able to take particular elements and fashion them into a coherent, logical, and productive framework. This notion of system adds to reflection a quality Dewey did not see. It is Piaget's contribution, one he takes directly from his organicist framework. Itzkoff has too summarily dismissed organicism.

I would like to make some comments about Itzkoff's remarks on the "new math," Morris Kline, and the Oswego instructional arithmetic project, but will do this by commenting on Wood's article.

Wood

Like the others, Wood has done a fine job of summarizing my broad arguments about "the main currents of the (Western) philosophy of change" (p. 104). He has done this with some well crafted phrases such as "the schools' functions remain frozen within the nineteenth century's philosophy of change" (p. 105).

He then goes on to fault me for leaving something out, for "ignoring individual experience," and "the social dynamics of change" (pgs. 106 and 109). I am not about to buy such a criticism, having uttered the platitude that "development is very much dependent upon our experiences" (p. 53), and having made (personal) experience one of my five pedagogical principles. However, I am willing to plead guilty, as I've already done with both Noddings and Cobb, to the charge of not emphasizing this aspect enough.

It is quite possible to read Piaget in neo-Kantian terms where the categories (or structures) determine all, and where the teacher merely waits for this categorical emergence. Such a "traditional" view of Piaget pays no attention to Noddings' context-specific analysis, nor Cobb's constructivist approach. A superficial reading of Piaget will lend support to such a view, especially if one overemphasizes Piaget's

notion of structures-of-the-whole, or frequent comments on the development of structures controlling the development of learning - the latter being subservient to, and dependent on, the former. However, such a view negates the basic premise of Piaget's biological model; namely, that organisms adapt to their environment through the interactive process of assimilation - accommodation. The curriculum maker and curriculum worker must then so structure their activities that the student's construct (Cobb) in particular situations (Noddings) from personal and social experiences (Wood). Here lies movement toward Itzkoff's plea for alternative curricula. Herein also lies Piaget's insistence on an interactionist, dialectical approach to teaching. Unfortunately, as Goodlad's *A Study of Schooling* points out yet again, the didactic approach almost universally used in classrooms allows the student virtually no time for dialogue. It is this dialogue which becomes key, over time, to the transformation of structures.

It is also in this area where Wood has done some of his best work. As Wood points out, he is both a classroom practitioner and a curriculum theorist. We have worked together on some structural arithmetic projects. It is possible to see these projects, as Itzkoff has done, as reincarnations of the"new math," and hence to dismiss them on the grounds of past failure. Such an assessment, however, does a disservice to both the projects and their potential. Morris Kline, the author of *Why Johnny Can't Add*, wrote a fine article during the height of the controversy about the new math, emphasizing the need to differentiate between the logic of journalism and the psychology of intuitive development. In this article, "Logic vs. Pedagogy," Kline makes two points. The first has already been described by Cobb- "the leaders of the new mathematics movement, most of whom were mathematicians, 'saw' a formal system" (p. 69). The second point is that, as a discipline, mathematics is guided by intuition, not formalism.

> It is the contention of this paper that understanding is achieved intuitively and that logical presentation is at best a subordinate and supplementary aid. (p. 266).

The obvious pedagogical implication from this is that the first

approach to mathematics as a subject should be intuitive with proof entering later and slowly. "Moreover, the level of rigor must be suited to the level of the student's mathematical development" (p. 278). This is what Wood has done so well in our strucural arithmetic projects and what modern math did not do.

Wood operated out of the student's own structures, asking him or her to find patterns, or make patterns, on a one-hundred grid. For this, colors and/or numbers were used. Once a pattern had been created or discovered, Wood asked the authors to extend the pattern beyond the confines of the hundred grid. With numbers this sent the student into both three digit numeration and negatives. Once the pattern was extended Wood would ask the students, working in groups (not indivdually *a la* Erlwanger's Benny on whom Noddings draws), to transfer the patten to another medium - pegs on a peg-board, rods, cubes, paper and pencils, geoboards, etc. For those doing this successfully, Wood then asked the students to transform their original pattern by abstracting the underlying structural framework - i.e. a simple alteration pattern, or a progressive sequence. Such a process is indeed in keeping with Kline's recommendations: it is context-specific, it is creative, it is transformative - of mathematical structures, of personal structures.

Munby

This response is a good one to end on for it raises a number of issues already touched upon, and it brings us full circle to Noddings' request for a practicalizing of Piaget. Such a practicalizing I said must be done within an acceptance of the organicist framework Piaget uses. As Munby points out (p. 113) most American researchers and theorists dealing with Piaget have ignored his organicist background and thus have attempted "forcing an organicist worldview in(to) a mechanistic one." But this cannot be done with any degree of success, for "the two epistemologies that flow from these worldviews are immiscible." Presently, organicism and mechanism are not about to mesh or be compatible.

This is not to say that no future amalgamation between

mechanism and organicism is possible. As Munby says, the writings of Piaget, Waddington, Weiss need hardly be looked upon as "representing the last epistemological word, so to speak" (p. 117). As both Munby and I have stated, Lakatos' work on a Popperian model (1970) holds hope for a more sophisticated behaviorist model. Indeed, a new consensus, or *tertium quid*, could emerge. However, presently the two worldviews are incompatible; rather than recognizing this, American researchers and theorists have attempted fitting Piaget into a mechanistic framework. It cannot be done. To practicalize Piaget, his organicist framework must be recognized, understood, and (to a degree) accepted.

What then of teachers? How can they make Piaget practical in their classrooms? Teachers have not been trained in an organicist framework; nor do they work in schools where such is valued, desired, or even recognized. In fact, the hegemony of the mechanist tradition is so pervasive that all research, methodology, assessment, curriculum, and instruction tacitly accepts the behavioral model. The teacher-as-decision-maker is not something the American schools want. Munby asks if a teacher can have the range of autonomy permitting the transition from curriculum-user to curriculum-maker. (p. 119)

This question is one which interests all the critiquers and one which each asked in his or her own way. My answer will be on three levels: 1) the theoretical, 2) the individual, 3) the institutional. In regard to the theoretical, certainly no change *can* come as long as curriculum is mired in a 17th century scientific framework. Curriculum theory must develop alternative models. Piaget's organicism provides a base for such. However, as Munby points out (p. 114) the change from mechanism to organicism is not a simple change; it involves a change of attitude, of methodologies, of research techniques. It is, in short, a paradigm change. To aid in this shift at both the individual and the institutional level, we at Oswego have initiated two new projects. One is a revamping of our undergraduate teacher education program. This has now been accomplished, and our first graduates will be out on the job market in September of 1984. Needless to say the new program has a strong structural base, *a la*

Piaget and Bruner. The other project has been to form a consortium of area schools, not specifically to find a home for our graduates, but generally to work with the schools and the State Education Department in meeting the needs of a post-industrial society. So far this consortium has produced the Sheldon Institute for Able Children. It is a collaboration of college personnel, school personnel, children, parents, and the State Education Department. We hope in future years to expand the consortium's activities.

This beginning is, admittedly, a small one. But it is a beginning, and along lines we believe to be sound. The time is certainly right for curriculum change. So in an era of crisis and complaint, we are cautiously optimistic and hopeful.

* * *

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* * *

Bergamo.

October 31 -- November 3, 1984.

Write the editors for details.

LETTERS

Dear Bill,

I appreciate the work that you and others do in organizing the *JCT* conference. It provides a forum for sharing our work, and for dialogue. Perhaps when a community appears conflict free, somebody is being repressed. I don't mind heated debate.

As far as whether to return to general sessions, I support whatever you decide. Whether there are general sessions or not, there will be heated contestation in sessions. Tabachnick's notion of social reality as played out over time describes what I think happens at the conference. He writes:

> The qualities of *embeddedness* and *becoming* are two very different qualities. One suggests the stability of long and powerful runners interlacing with the extending tendrils of earlier, concurrent, and even anticipated combinations from among the infinite variety of interactions which are possible. 1

It seems to me that the conference becomes a "recurring event"-- the term I used in my *JCT* 83 paper. Recurring events are occasions or activities that occur again and again, and that evoke memories and conflicts from the past. Their power is felt, and indeed magnified, by persons not on the scene when the event or conflict first occurred. 2 Thus, our actions at the *JCT* conference each year are "embedded" in the past and yet the possibility of "becoming" draws me back to the conference.

I find that the sharing of sensitivities and struggles becomes a source of richness. For me, I need this sort of occasion. It is a vital counterpart to the administrivia that characterizes early November when I spend too much time placing next semester's student teachers.

Best wishes,
Jean Erdman
Carroll College

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LETTERS

Dear Editor:

Jim Macdonald had insights in pedagogy, curriculum, and hermeneutics that were in a league unto themselves, but I expect he was never accused of being a poetmaker. The first attribute of a poetmaker is a willingness to encourage the poet without being sentimental. The second attribute is to share the right side of the brain in a left-handed way. Finally the most important quality is that of being able to completely disown any responsibility to the poet.

No one in his right mind can deny that Jim was a dour Scot and at times a curmudgeon. But he had an infectious way of bringing out creativity and teamwork among the most prosaic students. My first class with Jim is a case in point. We had broken into groups to go about establishing our project. My group undertook to do a "charette" on building a new building in an unfriendly environment. Completely unaware of curriculum criticism or curriculum theorizing, I presumed this was kind of a "makesy-dosey" course. I quickly volunteered my expertise at making tapes and proceeded to write a funny little song about this enigmatic teacher of ours. We pulled off the tape rather well, my little song got applause from my fellow-students, and yet I knew that the little song was trite. I could swear that I saw Jim singing the song (about him) as we did the taping. "Good tape," he said, "but the song is a little trite." As my career in song writing went down the tubes (Jim never cracked a smile in the whole episode) I had the feeling that Jim had gotten a piece of me.

The next course I had from Jim was a colloquium in inquiry. We were using the five steps in inquiry and applying it to *Beneath The Wheel* by Herman Hesse. My background in theological literary criticism was unsurpressable. I had used the diagram of Λ (rise and fall) to represent the Greek story; and the diagram of \ (fall) to represent the Modern pathetic story; and the diagram of V to represent the Judeo-Christian story of redemption. Never mind that my typology remained a source of some debate between Jim and myself; the point was that I was trying to make my point and needed a visual mode to put it across. Jim allowed me to use his chalkboard. NOTE: Jim was a master at using the chalkboard. He took special delight in making it comply with the idea he was forming in his mind. At first I thought I was talking to myself, but then I realized he was doing parallel thinking. The unintended effect of this was to make me realize that however right and good my typology might be, I needed to submit it to the right brain, to begin to render some of my ideas in a poetic form. I began writing poems on my evening walks, using 3 x 5 cards. Hithertofore I had been an art-for-art's sake kind of poet, with attention to sound and less to sense. Now I had become a didactic jingler. Ah well.

In one of my last courses under Jim, we had gotten into his "transcendental" paper. Having had 20 years of work at hermeneutics and exposure to the abstractions of theology, I had no difficulty with the

piece. I suppose to call attention to myself, when I wrote my critique of the paper, I inserted a sonnet that summed up my feeling. Jim simply put down beside it, "if I were able to give grades for poetry, this one sure would deserve an 'A'." I was beside myself, not knowing whether to chide him about being cutesy-wootsey, or to upbraid him about dodging the issue of giving me a good grade for a good piece of work. I neither c h'd nor upbraided Jim. I realized there was some kind of question abc integrity at work here. Down through the years I have sent poems to jim, and I have not the foggiest idea as to whether or not he liked or even read them. One positive effect was that his disclaimer prevented me from expecting any points for my sonnets. To my knowledge, Jim never claimed any ownership of my creativity or of my creations. But they were like poems to your literalistic father. You always wanted the paternal blessing, but you never felt comfortable with his observations.

Like Willie Wonka, I have continued to put out poems, but Jim has studiously avoided looking at them. Tillich had done much the same some twenty years before. He said he would talk with us about our work but that he did not have time to get involved. I brought him some paintings I had done. He threw up his hands before his face like it was the holocaust. Jim, in a way, did the same. In a patronizing way, I knew he loved me and wanted to see me get off the ground, but he did not want to give me any cheap and easy encouragement. And so, even today I offer my humble opinion about life through my poems. Jim helped me to come clean about poetry, however. I gave him a number of poems while he was alive. He never said anything about them. I will never know, either.

Edward W. Milner
2327 Pembroke Avenue
Charlotte, North Carolina
March 9, 1984

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