Forms of Understanding and the Future of Educational Research

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My address this afternoon is partly the story of a personal odyssey and partly a confessional. It has three parts. The odyssey, the first part, relates to the journey I have taken to try to understand the development of mind and the forms through which its contents are made public. How my ideas about these matters evolved is a story I want to tell. The confessional, the second part, refers to the dilemmas, uncertainties, and conundrums that the ideas that I embrace have caused me. This presidential address is more about quandaries than certitudes. I intend to display my quandaries. My hope is that at least some of what puzzles me will intrigue you. Indeed, I hope it intrigues you enough to want to join me. Finally, in the third part, I want to say what I think the ideas I have explored might mean for the future of educational research, both how it is pursued and how it is presented.

As some of you know, when I was in my 20s, I was a teacher of art and, before that, a painter. I moved from painting to teaching because I discovered that the children with whom I worked, economically disenfranchised African Americans living on Chicago's West Side, became more important to me than the crafting of images; for some reason I came to believe then, as I believe now, that the process of image-making could help children discover a part of themselves that mostly resides beneath their consciousness. Art was a way of displaying to the children and adolescents with whom I worked dimensions of themselves that I desperately wanted them to discover.

It was my interest in children and my need to clarify my vague convictions about the educational potential of art that led me to the University of Chicago and to an initiation into the social sciences, which were at that time the style of intellectual life that defined doctoral study. The Department of Education at Chicago, while steeped in the social sciences, was also intellectually open, and I was given enough slack not only to sustain, but to pursue, my interest in the arts. While no one on the faculty worked in arts education or knew much about it, my intellectual mentors—John Goodlad, Phil Jackson, Joseph Schwab, Ben Bloom, and Bruno Bettelheim—provided support and encouragement. Later I found additional support in the work of Ernst Cassirer, Susanne Langer, Rudolf Arnheim, Michael Polanyi, John Dewey, and Nelson Goodman.

My encounter with the social sciences at Chicago and my long-standing engagement in art, both as a painter and a teacher of art, forced me to confront the tension between my desire to understand and cultivate what is individual and distinctive and my wish to grasp what is patterned and regular. My effort to resolve this tension and my interest in the cognitive character of the arts have been a career-long journey. This journey has been guided by a variety of beliefs.

First among these is the belief that experience is the bedrock upon which meaning is constructed and that experience in significant degree depends on our ability to get in touch with the qualitative world we inhabit. This qualitative world is immediate before it is mediated, presentational before it is representational, sensuous before it is symbolic. This "getting in touch," which is crucial for any artist, I did not regard then nor do I today as a noncognitive, affective event that simply supplies the mind with something to think about. Getting in touch is itself an act of discrimination, a fine-grained, sensitively nuanced selective process in which the mind is fully engaged. I believed then, as I believe now, that the eye is a part of the mind.

Consciousness of the qualitative world as a source of potential experience and the human sensory system as a means through which those potentialities are explored require no sharp distinction between cognition and perception: On the contrary, I came to believe that perception is a cognitive event and that construal, not discovery, is critical. Put another way, I came to believe that humans do not simply have experience; they have a hand in its creation, and the quality of their creation depends upon the ways they employ their minds.

A second idea that has guided my journey is the belief that the use of mind is the most potent means of its development. What we think about matters. What we try to do with what we think about matters. And so it follows, what schools allow children to think about shapes, in ways perhaps more significant than we realize, the kind of minds they come to own. As the English sociologist Basil Bernstein suggests, the curriculum is a mind-altering device (1971). We might extend his observation and say, "Education itself is a mind-making process."

This belief in the constructive character of mind, the critically important role of the senses in its formation, and the contribution of the imagination in defining the limits mind can reach are all consistent with my experience as a painter and as a teacher of art. First, the ability to paint well clearly requires students to de-center their perception, that is, they have to learn how to see relationships among qualities, not just discreet elements. Learning to paint...
means learning to see how forms fit together, how colors influence each other, how balance and coherence can be achieved. Second, unlike many other school tasks, imagination and individuality are critical to successful production in art. As a teacher of art, I wanted to help students create images that displayed their own personal signature. Individuality of outcome, not conformity to a predetermined common standard, was what I was after. Neither norm-referenced nor criterion-referenced evaluation was an appropriate model for either the aims that mattered or the means through which their realization could be determined. The tasks I pursued in my classroom were both guided by and reinforced by beliefs that only later became more consciously articulated.

One of those beliefs, the third in this journey, has to do with matters of representation. As sensibility is refined, our ability to construct meaning within a domain increases. The refinement of sensibility is no small accomplishment. Hearing, Gilbert Ryle reminds us in The Concept of Mind (1949), is an achievement, not simply a task. To hear the music, to see the landscape, to feel the qualities in a bolt of cloth, are not automatic consequences of maturation. Learning how to experience such qualities means learning how to use your mind. But these achievements, as important as they are, are achievements of impression, not expression. Surely there is more. That something more resides in matters of representation.

Representation, as I use the term, is not the mental representation discussed in cognitive science (Shepard, 1982, 1990) but, rather, the process of transforming the contents of consciousness into a public form so that they can be stabilized, inspected, edited, and shared with others. Representation is what confers a publicly social dimension to cognition. Since forms of representation differ, the kinds of experiences they make possible also differ. Different kinds of experience lead to different meanings, which, in turn, make different forms of understanding possible.

This argument, with greater elaboration than I am able to provide here, was the essential line in my John Dewey lecture in 1978 (Eisner, 1982). This lecture was elaborated and published in book form in Cognition and Curriculum in 1982. Howard Gardner’s Frames of Mind, published in 1983, shares a common interest with Cognition and Curriculum, yet they differ in significant ways. Gardner is concerned with describing the multiple ways in which people can be smart. He discusses the ways in which different cultures assign different priorities to different kinds of problem solving. He also explores the developmental history of each type of intelligence. I regard his work as among the most influential that have appeared in the field of education in the last decade. My work focuses on matters of meaning, the kinds of meanings that can be made not only through different forms of representation but also through what I refer to as different modes of treatment. Different forms of representation can themselves be treated in different ways—both form and mode matter. I will illustrate this point shortly.

How do these ideas about meaning and forms of representation pertain to schools and to what we teach? What relevance do they have for educational practice? As I see it, the curriculum we use in schools defines the opportunities students will have to learn how to think within the media that schools provide. Learning to modulate visual images and learning to logically use language require different forms of thinking. Different forms of thinking lead to different kinds of meaning. By defining the forms of representation that matter within the curriculum, the school significantly influences the kinds of meanings that students can learn to secure and represent.

That meaning is shaped by the form in which it appears is, in many ways, obvious. Humans invented maps to do what narrative could not do as well. The rites and rituals employed in churches and temples, in mosques and in other holy places, are replete with forms of representation that give moment to the occasion. We treat forms in particular ways in order to create the particular meanings we wish to display or experience.

Let’s take a look at the way a poem, Tennyson’s “Ulysses” (1870, p. 58), shapes our experience when we hear it read, when we listen to its lines spoken in the context of a political speech, and when we experience it in conjunction with an array of visual images.

“Ulysses” was written by Tennyson over a hundred years ago. It’s a poem about a pirate-king who went on an incredible 10-year journey to liberate a Greek queen by the name of Helen who was held captive in the city of Troy. It was Ulysses who devised the trick of using a wooden horse—a Trojan horse—to bring Greek warriors into Troy who then opened the gates of the city to the Greek army. [At this point, I showed a 7-minute video to illustrate points in ways I could not do through text alone.]

The “Ulysses” we find in Ted Kennedy’s speech is a Ulysses intended to celebrate his brother’s memory and to inspire his disappointed supporters to carry on in the face of his departure as a presidential candidate. Through language, Tennyson provides the image that allows Kennedy to say, paradoxically, what words cannot say.

We exploit different forms of representation to construct meanings that might otherwise elude us. The most prominent modern example of this function is found in the uses of the computer. The development of software and other forms of computer technology, such as computer-aided design, has expanded our capacity to display in graphic form what cannot be displayed in text or number. By virtue of the synchronic characteristic of visual displays, we are able to comprehend, store, retrieve, and act upon information in ways that visualization facilitates. An image gives us information at once. A narrative provides it over time. Synchronicity and diachronicity have their respective virtues. For example, spreadsheets display visual patterns that words or numbers alone cannot as easily reveal. Ross Perot taught us the powerful lesson that even the simplest visual charts can make plain what political language often obscures. Pie charts, histograms, and other diagrammatic material contribute to our understanding of the relationships we seek to grasp. Outliers are obscured in means and variances. Scattergrams make them visible. The limits of our comprehension, it seems, exceed the limits of our language. Or, as Nelson Goodman (1978) has suggested, there are as many worlds as there are ways to describe them.

Well what’s the gist of the argument thus far and what are the problems that perplex me about it? First, the argument. Put as succinctly as I can, it goes like this.

Humans are sentient creatures who live in a qualitative world. The sensory system that humans possess provides the means through which the qualities of that world are experienced. Over time, through development, maturation,
and acculturation, the human’s ability to experience the qualitative environment increases: Experience is linked to the process of increased sensory differentiation.

Out of experience, concepts are formed. Concepts are imaginative distillations of the essential features of the experienced world. They can be manipulated and modified and they can be used to generate possibilities that, though never encountered directly in the environment itself—infinity and dragons, quarks and goblins, for example—can have pragmatic and aesthetic value. Our conceptual life, shaped by imagination and the qualities of the world experienced, gives rise to the intentions that direct our activities. Intentions are rooted in the imagination. Intentions depend upon our ability to recognize what is, and yet to imagine what might be.

Experience, however, is private. For experience to become public, we must find some means to represent it. Culture makes available to the developing human an array of forms of representation through which the transformation of consciousness into its public equivalent is created. Schools are culture’s agencies for selectively developing competencies in the use of these forms. Once public, the content of consciousness is stabilized, and once stabilized, it can be edited, revised, and shared. But representation is not a one-way street. Since experience can never be displayed in the form in which it initially appeared, the act of representation is also an act of invention: The act of representation provides its own unpredictable options, options that can only emerge in the course of action (Collingwood, 1958).

The meaning that representation carries is both constrained and made possible by the form of representation we employ. Not everything can be “said” with anything. Poetic meaning requires poetic forms of thought and poetically treated form. Visual art requires forms of thought that address the import of visual imagery. How we think is influenced by what we think about and how we choose or are expected to represent its content. By selectively emphasizing some forms of representation over others, schools shape children’s thinking skills and in the process privilege some students and handicap others by virtue of the congruence between their aptitudes and the opportunities to use them in school. In this sense, the school is profoundly political.

As tidy as this conception of the sources of meaning, understanding, and representation appears to me, I am vexed by uncertainties and dilemmas I would like to share with you. Some of these uncertainties are theoretical, some practical. Let’s start with the theoretical. Consider the meaning of meaning. We all use the term. It’s central to my conception of the aims of education. But just what meaning means is not altogether clear. Is it the Peircian (Peirce, 1960) triadic relationship between a sign, an interpretant, and a referent, or can meaning be secured in the direct unsymbolized qualitative encounter? What is the role of context in the construction of meaning? And what about language? Does language require referents to be meaningful?

What shall we do with signs whose referents cannot be identified? Shall we regard stories and poems simply as an array of images that language helps us grasp? Are there meanings that language makes possible that are independent of the referents to which the words refer? Are there ideas that are representable only through language? If so, are they also inconceivable without language? What about Einstein’s (Holton, 1982) reference to the muscular and iconic sources of his understanding, and Poincaré’s (Hadamard, 1945) allusions to visualization? Or how about Barbara McClintock’s (Keller, 1983) feeling for the organism? And what about poetic meaning? Don’t the meanings of poetry transcend the meaning of words? I worry about such matters because I want to understand the connection between experience and meaning and the contribution that different forms of representation make to each. It seems to me that such matters reside at the heart of any useful theory of education.

Appeals to rationality as an explanation of how meaning is secured are not much of an explanation. In any case, whatever rationality means, I do not want to restrict it to a particular medium of thought. If human rationality can be said to display itself whenever the selection, invention, and organization of elements to form a coherent whole occur, it seems clear that these processes occur in any medium. Why should rational processes be limited to propositional discourse or to number? But then again, why not? And so I return to uncertainty.

Interest in experience, meaning, and understanding ineluctably leads to concerns about knowledge, and so to matters of truth. What shall we do about truth? Should we, as is currently the fashion, give it up altogether—even as a regulative ideal? Frankly, I am reluctant to do so. Should we restrict it to the claims that propositional discourse can make? I think not. To restrict truth to what one can claim is to claim much too little for what we are able to know (Polanyi, 1966). As I said earlier, I believe that our discourse defines neither the scope of our rationality nor the varieties of our understanding. But how do we deal with forms of representation whose referents are at best ambiguous? And if we hold as an ideal for truth matters that aspire to the precision of mathematics, don’t we wind up with a conception of truth that is limited by what mathematical forms can reveal? Should we, for example, regard the arts as irrelevant to matters of truth? Aren’t they, really, simply sources of pleasure and delight, sensory meals for qualitative gourmets?

I believe there is much too much practical wisdom that tells us that the images created by literature, poetry, the visual arts, dance, and music give us insights that inform us in the special ways that only artistically rendered forms make possible. One example of these ways is found in literature. In the following painful passage Elie Wiesel (1969) recounts his experiences in a Nazi death camp:

Never shall I forget that night, the first night in camp, which has turned my life into one long night, seven times cursed and seven times sealed. Never shall I forget that smoke. Never shall I forget the little faces of the children, whose bodies I saw turned into wreaths of smoke beneath a silent blue sky.

Never shall I forget those flames which consumed my faith forever.

Never shall I forget that nocturnal silence which deprived me, for all eternity, of the desire to live. Never shall I forget those moments which murdered my God and my soul and turned my dreams to dust. Never shall I forget these things, even if I am condemned to live as long as God Himself. Never. (p. 44)

One way to understand what Elie Wiesel has achieved through the literary treatment of language is to see it...
A work of art presents feeling for our contemplation, making it visible or audible or in some way perceivable through a symbol, not inferable from a symptom. Artistic form is congruent with the dynamic forms of our direct sensuous, mental, and emotional life; works of art are projections of "felt life," as Henry James called it, into spacial, temporal, and poetic structures. They are images of feeling, that formulate it for cognition. What is artistically good is whatever articulates and presents feeling to our understanding. (p. 25)

Although intuitively I find Langer’s conceptions compelling, I also know that the arts can be used to persuade people to embrace faulty beliefs, beliefs that mislead. Propaganda and advertising are two such examples. Shall we then restrict our conception of truth only to what science can provide? Again, I think not, even though I cannot demonstrate with the kind of assurance I would like the justification for the views that I hold. But what kind of justification do I seek? Perhaps that is the problem.

Some philosophers, such as Richard Rorty (1979), have put truth on the shelf and have replaced it with what he calls "edification." Making the conversation more interesting, Rorty tells us, is what it's all about. As interested as I am in interesting conversation, it, too, is not enough. How do we avoid the verificationist’s constipation of conceptual categories on the one hand and the radical relativist’s free-for-all, anything-goes, no-holds-barred nihilism on the other? Or are these really untenable alternatives that nobody really believes? Maybe so. But just what is a better basis? And so I continue to struggle.

In talking about experience and its relationship to the forms of representation that we employ, I am not talking about poetry and pictures, literature and dance, mathematics and literal statement simply as alternative means for displaying what we know. I am talking about the forms of understanding, the unique forms of understanding that poetry and pictures, literature and dance, mathematics and literal language make possible.

What is it to say that we have a poetic form of understanding? Or one rooted in vision or in sound? Just what do we learn when we see Teddy Kennedy’s profile, hear his Bostonian accent, experience his sense of personal urgency, rise with him as his voice escalates in his moving acknowledgment of his lost candidacy? What do we grasp when we see a young Chinese student in Tiananmen Square engaged in a waltz, head on, with a Soviet tank? What vision of our nation emerges before us when in 1963 we hear Martin Luther King, in the shadow of the Lincoln Memorial, proclaim to the multitude, “I have a dream,” or when, 29 years later, we see Rodney King beaten by police in Los Angeles? “What happens to a dream deferred?” Langston Hughes (1958) asks:

Does it dry up
Like a raisin in the sun?
Or fester like a sore—
And then run?
Does it stink like rotten meat?
Or crust and sugar over—
Like a syrupy sweet?

Maybe it just sags
Like a heavy load.
Or does it explode? (p. 123)

If there are different ways to understand the world, and if there are different forms that make such understanding possible, then it would seem to follow that any comprehensive effort to understand the processes and outcomes of schooling would profit from a pluralistic rather than a monolithic approach to research. How can such a pluralism be advanced? What would it mean for the way we go about our work?

I hope that questions of these kinds will become an agenda for our research in the future. The battle that once ensued to secure a place for qualitative research in education has largely been won. Although there are still more than a few places where graduate students encounter resistance, the literature is too full and the practice too widespread to go back to older, tidier times. Now the question turns to just what it is that different forms of representation employed within the context of educational research might help us grasp. Are there varieties of human understanding? What is distinctive about them? Just what is poetic insight? What kind of imaginative rationality is made possible through literature? What does the persistent image engender? What sense of life does the fresh metaphor create? Now is the time to search for seas that take us beyond the comforts of old ports.

Let us suppose for the time being that the basic notions I have described have merit, that meaning is multiple, and that forms of representation provide the means through which meaning is made. Let us also suppose that diversified forms of meaning are related to different forms of understanding and that different forms of understanding have great virtue for knowing how to act in complex circumstances. Given these suppositions, what would the ideas I have been addressing mean for what we do in educational research in the coming few decades? This brings us to the third and final section of my remarks.

If the ideas that I have described were to take hold in the educational research community, we would see an expanding array of research methods being employed in the conduct and display of educational research. In many ways, this diversity has already begun to happen. We now have a growing interest in narrative and in storied approaches to experience. Jerome Bruner’s (1990) distinction between paradigmatic and narrative modes of knowing provides a conceptual basis for understanding the differences between scientific and narrativistic ways of dealing with the world.

But stories and narrative by no means exhaust the ways in which the processes of education in and out of schools can be studied or described. Film, video, the multiple displays made possible through computers, and even poetically crafted narrative are waiting in the wings. I believe that we won’t have long to wait before they are called to center stage. The exploration of new forms for the presentation of research that this Annual Meeting has made possible is a step in that direction.

The use of visual, narrative, and poetic forms will have consequences for determining who is competent to appraise what they have to say. When research methods are stable and canonized, the rules of the game are relatively clear. With new games, new rules. With new rules, competen-
cies that were appropriate for some forms of research may not necessarily be relevant for others. Furthermore, the ability to make sense of a form of research depends upon one's experience with that form and upon one's conception of what counts as research. These conceptions and abilities will also change. What we need to avoid is political polarization as a result of methodological differentiation. Polarization eventually leads to matters of power and control: There is not only a sociology of knowledge; there is also a sociology of method. I hope we can use the future to achieve complementarity rather than methodological hegemony.

Curriculum development as a form of educational research is also likely to be influenced by an expanding vision of the forms of understanding schools can foster. Film, video, narrative, dance, music, the visual arts, as well as more propositionally formulated descriptions of events all have the potential to reveal aspects of the world we want students to understand. Consider what it might mean for the teaching of history.

How we answer the question of whether history is the text historians write or the past historians write about is crucial to our own view of what history is and, therefore, to what is relevant for helping students understand it. If history is text, then text must continue to be central to the teaching of history: To understand history one has to understand text. But if history is the past about which historians write, then any form of representation that sheds light on the past is a relevant, indeed a useful, way to understand history. In this latter view, music, architecture, film, stories, and the like are not only relevant, they are distinctive; each sheds unique light upon the past. But this requires that we know how to make sense of them.

In a study of the ways in which different forms of representation foster the understanding of history, Marcy Singer (1991) found that the use of a wide array of diverse forms to teach history in the context of social studies had two very interesting consequences. First, high school students had a difficult time regarding anything other than text as a source of knowledge about the past. They regarded the textbook as sacrosanct. What it presented was factual truth.

The forms that Singer studied in her research on the teaching of four decades of the 20th century—the 1920s, 1930s, 1950s, and 1960s— included Charlie Chaplin's Modern Times, the film Rebel Without a Cause, the music of Scott Joplin, the songs of Pete Seeger, the music of the Beatles, the film The Autobiography of Malcolm X, Steinbeck's Grapes of Wrath, the Sacco-Vanzetti painting by Ben Shahn, television's Leave It to Beaver, Chuck Berry, and the paintings of Jackson Pollack. Yet students did not regard these sources as relevant for understanding history.

At the same time, the very ambiguity—or better yet the openness—of such forms made for the best discussions in class. In retrospect, this is not surprising. After all, what is there to discuss when students confront the certainties of the text? When it comes to forms of representation that invite interpretation, interpretation followed. In The Principles of Psychology published in 1890, William James asked for what he called the reinstatement of the vague to its proper place in our mental life (Gavin, 1986). James recognized then what Singer found about a century later: Ambiguity has a more significant cognitive contribution to make to students than the certain facticity of the text.

The use of a wider array of diverse forms in teaching begs for studies of their consequences. At the same time, the problem of determining consequences is notoriously difficult for several reasons. First, the manifestation of consequences requires giving students the opportunity to display what they have learned in forms of representation congenial to both the content of their learning and the nature of their aptitudes. In addition, to be successful in representing such content, students must be skilled in the medium they wish to use. If students do not possess the skills they need, say of producing a video or a film, of writing a poem or creating a visual narrative, the content they wish to represent is simply not likely to emerge. Representation requires the skills needed to treat a material so that it functions as a medium, something that mediates content.

Second, assuming students do possess such skills, the results of their work will differ. This array of differences will play havoc with traditional conceptions of criterion-referenced evaluation. When goals are prespecified, tasks for students are uniform, and the application of standards is procedurally objective, comparisons among student performances is possible. However, I must tell you, I am not sanguine about meaningfully calibrating to a common scale differences among students who use different forms to display what they have learned. I do not say this to dissuade anyone from pursuing it; it is a direction that should be explored. But I can see complexities emerging as I now see them emerging in the use of portfolios and other forms of authentic assessment. Premises about assessment—such as comparability of student performance—may have to change if practices are to change.

Another potential consequence for educational research relates to the education of doctoral students. As the relevance of different forms of representation for understanding schooling grows, schools of education will be pressed to develop programs that help students learn how to use them. Film, for example, will need to be regarded not only as a way of showing pictures but as a way of understanding some aspects of schooling, teaching, and learning that cannot be understood as well in any other way. Furthermore, the artistic features of film are not merely ornamental but essential to the display of particular messages. Thus, the refinement of both artistic and scientific sensibilities, as the theme of this Annual Meeting implies, is relevant for enlarging human understanding.

Another offshoot of this development deals with the features of acceptable dissertations. In the future they are likely to take on forms that only a few now possess. One of my doctoral students once asked me if Stanford's School of Education would accept a novel as a dissertation. At the time she raised this question, about a decade ago, I could only answer in the negative. Today, I am more optimistic, not because all of my Stanford colleagues share my convictions, but because the climate for exploring new forms of research is more generous today than it was then.

Given the ideas I have been developing, a number of questions emerge. Perhaps the most fundamental of these pertains to the notion that humans have the capacity to formulate different kinds of understanding and that these understandings are intimately related to the forms of representation they encounter or employ and the way in which those forms are treated. Discovering, however, how such forms of understanding are secured and the kinds of meanings they make possible is a core theoretical as well.
as practical problem. It’s one thing to speculate about the
validity of an idea. It’s another to demonstrate it empirical-
ly. What kind of empiricism would be required to identify
the different ways in which students come to understand
aspects of the world? Are there forms of assessment and
approaches to curriculum that would make it possible to
know, in advance, the probability that some forms of
understanding would be engendered if some forms of
representation were employed in the course of teaching and
learning? Just what is the relationship between student ap-
titude and the forms that they have access to? Does the fit
between the two facilitate comprehension as we would ex-
pect? And what does one do to give students not only the
opportunity but the skills to display their understanding?
Can we translate what is specific and unique to forms other
than those in which such understanding is revealed?

I must confess that I do not have answers to the ques-
tions I have just posed. I believe, however, that the ques-
tions I have posed are crucial for educational practice and
research that does justice to the development of human in-
tellectual capacities.

Another issue pertains to the ways in which the research
that is done on such matters can be displayed. We are, of
course, habituated to text and number. Our journals are,
if anything, encomiums to technical language. What would
an entirely new array of presentational forms for research
look like? What might we learn about a school or a
classroom, a teacher or a student, a form of teaching and
a style of learning, through an integration of film, text,
photo, and poem?

While envisioning such an integration of forms is difficult,
it is the exploration of such possibilities, first imaginatively
and then practically, that will enable us to invent an agen-
da for the future. In some ways, through MTV and other
such forms, our students are way ahead of us. Sound and
image, more than text and number, are the cornerstones
of their experience. What do such possibilities hold for a
group of scholars steeped in more conservative traditions?
In sum, I am asking us to do what we don’t know how to
do. I am asking us to recognize the limits of our comfort-
able past, but not to discard it. As I said, I am asking us
to bypass familiar ports and to explore the new seas that
we might sail. I think we have already made a wonderful
beginning on that journey.

It’s not only the conventional canon that’s being ques-
tioned; it’s deeper. It’s how we think about mind, the
enlargement of human understanding, and what counts as
meaningful. From the feminist critique of science by a San-
dra Harding (1991) to the reappearance of the Windelband-
ian distinction between the ideographic and the nomothetic,
(Von Wright, 1971) from the postmodern constructions of
a Paul Ricoeur (1981) and a Roland Barth (1985) to the
phenomenological perspectives of a Merleau-Ponty (1962)
and a Maxine Greene (1988), the times they are a-changing.
And we are also changing.

* * * * *

Virtually everything that I have said pertains to the
theoretical matters that continue to puzzle me and to their
practical relevance for the conduct of research, the careers
of researchers, and the preparation of those who will do
research. But I would be remiss if I left this podium leaving
the impression that the advancement of research, or the
careers of researchers, or the satisfactions that come from
the reduction of puzzlement constitute the major aim of the
common enterprise in which we are engaged. The major
aim, we must not forget, has to do with the African
American children with whom I worked on Chicago’s West
Side at the beginning of my career. It has to do with the
improvement of educational practice so that the lives of
those who teach and learn are themselves enhanced. Put
more succinctly, we do research to understand. We try to
understand in order to make our schools better places for
both the children and the adults who share their lives there.
That aim, from my perspective, needs to remain as frontlets
between our eyes. We should fix them as signposts upon
our gates. In the end, our work lives its ultimate life in the
lives that it enables others to lead. Although we are mak-
ing headway toward that end, there will continue to be dif-
ficulties and uncertainties, frustrations and obstacles. Work-
ing at the edge of incompetence takes courage. When the
doubts emerge and the safe road beckons, it might be well
to remember Tennyson’s lines. And so I close my comments
with them:

Tho’ much is taken, much abides; and tho’
We are not now that strength which in old days
Moved heaven and earth; that which we are, we are;
One equal temper of heroic hearts,
Made weak by time and fate, but strong in will
To strive, to seek, to find, and not to yield.

Notes

While I was preparing this address, I benefited from the good ad-
vice of several colleagues and friends. I am pleased to acknowledge
their contributions here: David Ecker, Howard Gardner, Lisa Gold-
stein, Alan Peshkin, Richard Snow, and Lesley Taylor.

1This tension is described as residing within the ideographic and the
nomothetic, that is, between efforts to understand the particular and
efforts to grasp the general. See von Wright’s (1971) Explanation and
Understanding for further discussion.

2The cognitive character of perception is given a special force in the
writings of Rudolf Arnheim and Ulric Neisser. See Arnheim’s (1969)
Visual Thinking and Neisser’s (1976) Cognition and Reality. For a
philosophical interpretation of the relationship between perception and
cognition, see Hanson’s (1971) Observation and Explanation: A Guide
to the Philosophy of Science.

3The concept of de-centering perception is embedded in the works
of Jean Piaget and Rudolf Arnheim. Arnheim calls the focus on par-
ticulars in the act of drawing “local solutions,” referring to the fact
that children are so focused or centered on the object they wish to
draw that they neglect its relationship to the context in which it appears.

4Both norm-referenced and criterion-referenced evaluation are
predicated on the need to compare. In norm-referenced evaluation,
the comparison is made between one student’s performance and the
performances of others within some relevant population. In criterion-
referenced evaluation, the comparison is made between the student’s
performance and a known criterion or model. Neither of these con-
ceptions is wholly adequate for evaluation in the arts since in artistic
activity a premium is placed upon surprise and the generation of
creative solutions that, by definition, are not predictable. Appropriate
assessment practice in the arts requires the use of what Robert Stake
calls responsive evaluation and what I have referred to as expressive
outcomes (see, e.g., Stake, 1975, and Eisner, 1969).

5In Cognition and Curriculum (Eisner, 1982), I identified three ways
in which forms of representation can be treated: through mimesis,
through expressiveness, and through convention. Mimesis provides
an imitation of the world to be represented, as, for example, in
onomatopoeia, in efforts at visual realism, and in program music. The
expressive treatment of form is found in works whose features evoke responses congruent with the deep structure of what they represent: for example, the images of Edward Munch, the overtures of Richard Wagner, and the poetry of e. e. cummings. Conventional forms, like the Red Cross or the American flag, reflect social agreements to use the form to refer to "specific" meanings. These meanings cannot, of course, be entirely specified. Nevertheless, there is usually enough congruence within a culture to enable its members to achieve comminuity of meaning.

In his book Art as Experience (1934), John Dewey makes the following point regarding the relationship of mode of thought to medium: ''Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand ing point regarding the relationship of mode of thought to medium: ''Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand

6In his book Art as Experience (1934), John Dewey makes the follow-

"Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand

7The fact that schools both withhold and provide opportunities for

"Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand

8One of the most significant shifts that is likely to occur in the educa-

"Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand

9Educational evaluation and measurement have been predicated on

"Those who are called artists have for their subject matter the qualities of things of direct experience; 'intellectual' inquiries deal with those qualities at one remove, through the medium of symbols that stand

References


AERA

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