

Art as an Occasion of Intelligence

Few of us turn out to be lifelong makers of art, but we are constantly faced with aesthetic decisions as consumers of design.



Looking intelligently at a work of art means learning to see the surprises in the work and to puzzle over why the artist put them there.

To celebrate his high school graduation, Miguel visits New York City. Long interested in art, he includes the Museum of Modern Art among the sights to see. He ends up facing Picasso's *Night Fishing at Antibes*, an important and intriguing cubist work. Recalling his art courses, standing in front of the painting, what does Miguel do?

What does Miguel do to connect with, tap into, make sense of, get something out of, this work of art? Notice how odd the question is! It would be more natural to ask, "What does Miguel see?" or perhaps "How does Miguel like the work?" Queries like those are more in keeping with the sense many people have that seeing art is just a matter of looking at it with an informed eye. In contrast, the emphasis on *do* reveals a fundamentally different viewpoint about what Miguel needs in order to see art well.

One way to describe that viewpoint is to say: art is an occasion of intelligence. "Look and see" is not enough. Appreciating a work of art demands intelligent application of perceptual and cognitive resources. Miguel and all students need to look actively, systematically, probingly. They need to marshal knowledge and experience, to ponder the puzzles a work presents. They need to make connections between the work and other works, the cultural context, the historical context. Of course, no one has to do all of this with every work; indeed, the majority of works may not be worth the effort. But students who do this repeatedly will gain access to the aesthetic and cultural values in works of art.

This "active," in contrast to "passive," view of looking at art is widely favored by concerned educators. Unfortunately, pressures and priorities in most schools lead to the neglect of art, so students find little opportunity to develop skills of intelligent looking at art. Doubly unfortunately, even given plenty of school time and resources, intelligent looking is not a likely consequence because at least three counterforces get in the way: (1) students' naive concepts, (2) schooling's neglect of intelligent behavior in general, and

(3) counterproductive disciplinary traditions.

Three Dilemmas of Education

These three counterforces deserve a few words of explanation, because each helps to define the deep problem faced by educators concerned with art—and indeed with any other subject matter.

Students' naive concepts. Much of the current ferment in math and science education reflects extensive research on students' "misconceptions": profoundly mistaken beliefs about particular concepts in science and math and about the general enterprise of scientific and mathematical thinking. For example, even after students receive extensive instruction in physics and develop considerable ability in handling conventional textbook problems, they often reveal surprisingly naive understandings of force and motion. In fact, under the veneer of their textbook problem-solving skills, their concepts seem little different from those of students before formal instruction in physics (e.g., Clement 1982, 1983; McCloskey 1983). For another example, students' tacit posture toward mathematical problem solving often is "either you see it or you don't" (Schoenfeld 1985).

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It is perhaps not surprising, then, that students' approaches to art also suffer from their naive conceptions and behaviors. For instance, youngsters and novice viewers in general are likely to focus on the principal content and story of a work ("I like horses; look at that race!"). One might think that youngsters are unable to detect more subtle features of art, but research shows that, if circumstances direct their attention, they can see much more than they usually notice spontaneously (e.g., Gardner 1970; Machotka 1966; Wilson 1970, 1972, 1974; Winner 1982, Chapter 4).

For another example, many older students and indeed adults adopt a posture that talk about art is a waste of time; it is the raw experience of the work that counts, and such experience has an authenticity that cannot be captured in words—indeed, that words may destroy. In the famous phrase of Wordsworth, "We murder to dissect." Students do not recognize that the aim of discourse about art is not to recreate the experience of works through words—indeed an impossibility—but to direct, deepen, and intensify experience of the work by reflections mediated through language (compare Perkins 1977).

Another broad and troublesome misconception is the tacit "look and see" philosophy many people adopt: to see what a work of art has to offer, just look at it, and it will disclose its important images and meanings. Admittedly, most things we care about in the world admirably suit a "look and see" philosophy. Looking is a sufficient condition to see the rake one might trip over or the ball bounding out from a neighbor's yard as one drives along. However, the dilemma with art (and many other matters academic and cultural) is that much of what it has to offer is not salient but rather subtle, oblique, even sly. Unfortunately, "look and see" viewers inevitably expect a work of art to deliver right away, and, if it does not, dismiss it as bad art, never considering that the cause might be their own shallow looking. Thus we find a widespread pattern of indifference and sometimes

even disdain in student and public attitudes toward many genres of art. Also, the "look and see" philosophy carries part of the responsibility for art's treatment as a second-class citizen in education. After all, since one just looks and sees, what is there to learn about or think about?

Schooling's neglect of intelligent behavior. While it is hardly news that conventional schooling does little to develop students' thinking abilities, what to do about the problem is less evident. However, for some time and particularly in the last decade, educators, philosophers, and psychologists have been studying and experimenting with approaches to enhancing students' thinking abilities. We now know a great deal about how to meet that challenge, as recent syntheses and collections demonstrate (Baron and Sternberg 1986, Chipman et al. 1985, Nickerson et al. 1985, Segal et al. 1985).

To mention a few key elements, it is important to foster in students a strategic approach to the subject matters, either by teaching them strategies or by provoking them to develop their own. A term broader than "strategy" is also useful, since people can guide their own thinking with many struc-

tures that are not strategy-like, for instance, concepts and cognitive styles. I have suggested "thinking frames" as a general term for structures that guide thinking (Perkins 1986c, d). Explicitness is another key element: whether the thinking frames are devised by students or provided by the teacher, it is important that they be articulated in language or images (Pressley et al. 1985, Schoenfeld 1979).

Teachers also need to foster metacognitive awareness in students of their thinking frames and other mental

resources. Additionally, students often do not transfer what they learn in one course to other courses and other situations where it would be useful: we need to teach for transfer and indeed know something about how to teach for transfer (Perkins and Salomon 1987). Moreover, to foster higher-order thinking, we need to restructure the kinds of discussions we have with students and the kinds of activities we ask them to undertake. This can be done in a systematic and an orderly way (compare Perkins 1986a, b).



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Young viewers can easily learn to examine subtle details of color, brushwork, or line in a small area of a painting and then to compare the localized element to the overall work.

Counterproductive disciplinary traditions. A third counterforce in the quest for better education is disciplinary traditions that do not serve students well. For instance, art education in the U.S. has a tradition of committing school time mostly to studio instruction. In recent years, art educators have recognized this problem. To be sure, studio work is important, too; but without the culture of art, studio art is a paradox: the art of past and present provides a guide to technique and a context to creatively extend, or

even rebel against. Moreover, most students will not be lifelong makers of art; but virtually all will encounter works of art from time to time and will constantly encounter aesthetic objects—cars, clothes, living rooms, and so on. Aesthetic appreciation accordingly emerges as a grievously neglected area of education.

Another disciplinary tradition carries different hazards: when art appreciation is taught, the sources of ideas typically are art history and art criticism. To be sure, both fields offer

numerous insights important for the novice viewer, but one must pick and choose. Some ideas from art history and art criticism serve mostly academic purposes, others may be too sophisticated for beginners, and so on. However, most crucial is the principle: *what is important in art history or art criticism is not the same question as what best develops novices' appreciation.* For example, the evolution of perspective drawing has enormous significance in the history of Western art. However, whether the concept of perspective is among the dozen most powerful ideas for novice viewers is a very different question.

The problem of disciplinary traditions is not peculiar to art instruction; it is commonplace across all the subject matters. For example, current practices in science education make much of the study of photosynthesis. To be sure, photosynthesis is a chemical reaction enormously important to life and very interesting to biologists and chemists. However, the esoteric details of the process do not lend themselves to deepening novices' understanding of biology, chemistry, or the nature of scientific inquiry because beginners lack a context in more basic



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chemistry. In general, curriculums throughout the subject matters are replete with topics taught because of their importance to the discipline, with little regard for whether these are the topics that best build students' understanding of the discipline.

Seeing the Art in the Arts

What can educators concerned with the arts do to parry this triple threat of students' naive concepts, schooling's neglect of intelligent behavior, and counterproductive disciplinary traditions? Of course there are many approaches that might be taken. It may be useful to illustrate with an approach developed by my colleagues and me several years ago, a small curriculum design and teaching experiment we called "Invisible Art."

What a curious title—"Invisible Art"—as though a work of art were not there to be seen. Yet this is the very point of the title. As noted earlier, for the novice viewer the artistic elements of art often are just as invisible as if the painting were covered by a drape. While the sky, trees, and fields in a van Gogh painting may writhe with a pythonic energy of brushwork, the novice viewer is likely to register only content: sky, trees, fields, and that's that. Or the novice may admire Vermeer's *The Love Letter* for its photographic realism or its plot without contemplating how the Dutch interior and the psychological moment of reading the letter interact.

Under the banner of Invisible Art, we outlined a brief experimental course in art appreciation for students in the latter half of elementary school and middle school. The course design reflected the three counterforces just discussed. First, conscious of students' misconceptions about art, we sought to direct their attention to aspects of art that they neglect. Second, aware of the need for an intelligent strategic approach to art, we provided students with thinking frames to guide their looking, dialogue, and analysis. And, third, conscious that the ideas most prominent in art history and art criticism would not necessarily provide the best bridge into art for novice

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viewers, we carefully constructed a set of thinking frames for thinking about art that we felt might be especially effective. Deliberately small, the set included just four frames.

Frame 1: The notion of "aesthetic effects" and four in particular. We encouraged students to view works of art by looking for "aesthetic effects." These are features of works of art that (we judged) "carry the punch" of a work, but that many novice viewers overlook. They are not so much technical characteristics as dimensions of engagement with works. In our course, we emphasized four aesthetic effects: surprise, motion (including stillness), mood, and personality. Many works of art, for example, aim to surprise the viewer in obvious or in subtle ways. The works of Magritte incorporate blatant efforts to startle the viewer by mixing a slick realistic style with some bizarre element, like a burning tuba. Accessible though the surprise is, by focusing on it, contemplating it, and puzzling over what makes it surprising, one can intensify the sense of surprise. But the real game is more subtle surprise. For example, in Degas' *Woman with Chrysanthemums*, the woman sits jammed over to the right side of the painting rather than centrally located as in most

portraits. How curious! What is going on here? What might this signify? By looking for such subtle surprises, one becomes much more likely to find them.

Frame 2: The contrast between "real" and "suggested" effects. The themes of motion, mood, and personality lead to both real and suggested effects. For example, a scene of a horse race or a polo game depicts real motion—the horses are shown running. While viewers readily pick up real motion, they often miss the "suggested motion" conveyed by static scenes. Van Gogh's sunflowers, for example, are still lifes, but energized with a writhing pattern of brushstrokes. Moreover, nonfigurative works of art, which do not represent anything literally, often convey a strong sense of dynamics—for example, Mondrian's *Broadway Boogie Woogie* or Calder's stables—that often in their expression belie their names. The same story holds for mood and personality—images of humans and animals often depict *real* moods or personalities: anger, sadness, courage, and so on. But landscapes, still lifes, nonfigurative paintings, and other sorts of art project mood or personality even though the work shows nothing that could literally have mood or personality.

Frame 3: The contrast between "local" and "global" features. Characteristics like surprise, motion, mood, and personality can occur locally—what happens in the lower right-hand corner—or they can pervade an entire work. Novice viewers often miss the extremes because the eye tends toward the mid-range. Yet only by looking for what the work is like overall (for instance, a pervasive quality of brushstroke that lends a motive or static quality) or by looking for subtle details (for example, how the artist controls where various characters are looking in a family portrait) is one likely to catch the full spectrum from local to global features and thus fathom what the work offers.

Frame 4: Symptoms, tricks, and reinforcers. While looking for aesthetic effects was the emphasis, at the same time we thought it important for students to understand more deeply the

mechanism of works of art: what do works include in order to achieve various effects? An awareness of three concepts helps in answering this question: symptoms, tricks, and reinforcers.

Symptoms are real-world characteristics the artist puts into a work so the audience will get the message. For example, to convey speeding horses, the artist shows their legs in a running position.

Tricks are artists' tactics that convey an impression but have no logical connection with it. For example, stripes on a jockey's outfit may strengthen a sense of motion while realistically having nothing to do with it. Racing stripes on cars are an everyday example of the same trick; they don't make the car go faster, but they make it look faster.

Reinforcers are tactics the artist uses in one part of a work to reinforce an effect in another. So, for example, the artist may highlight the importance of a figure by having other characters look at him or by painting a dark background. By seeking the symptoms, tricks, and reinforcers that create the aesthetic effects we have found, we gain insight into the ways works of art manipulate our perceptions.

Of course, the four thinking frames outlined here are quite simple. We can easily add other aesthetic effects to the short list of motion, surprise, mood, and personality. Straightforward though the frames are, however, they are remarkably rich. If systematically applied, they give entry into a variety of genres of art, generate insights into works of art, and expose many of the means artists adopt to achieve their effects.

Invisible Art in Action

To explore the impact of this approach, we taught the Invisible Art course for six weeks as part of a summer program for fourth- to eighth-graders at a local school system. The groups met for one and one-half hours every weekday, although most students missed several sessions because of competing family activities. Since our aim was to conduct research, not just teach, significant classroom time

went to pretests and post-tests gauging the students' responsiveness to works of art.

Our instruction consisted of straightforward attention to the categories outlined earlier. In various formats—group discussion, small-group work, simple games, and some studio work—the students learned to attend systematically to such features as the real and suggested motion in a work. They learned to focus on both global and local characteristics of works and to probe works for artists' tactics—symptoms, tricks, and reinforcers. We used a large collection of poster-size art reproductions, representing a diversity of periods and styles, including renaissance, impressionist, expressionist, cubist, and other twentieth-century styles.

The test results, scored blind and statistically analyzed, were generally very positive. However, one small experiment hardly makes a case for a new approach to art education. My main aim here is to illustrate potentials. What is the flavor of an approach like Invisible Art? How well might it speak to the three counterforces outlined earlier? How might it affect students?

To pursue such questions briefly, I offer two examples. The following "before" and "after" essays from two very different students show the students' transition from just looking at art to learning to treat works of art as "occasions of intelligence." Note how, contrary to the beliefs of generations of grammarians, these students manage to say insightful things about works of art despite their difficulties in grammar, spelling, and punctuation.

Basil had finished grade eight. His performance in the studio portion of the course and the skilled drawings he sometimes brought in to show the teacher revealed a flair for art. Basil wrote more during the essay-centered testing activities than any other student. Before the students learned about the aesthetic effect of "mood," Basil responded to Andrew Wyeth's *Christina's World* by jotting down the following perceptions (student spelling and punctuation are preserved in all examples):

"For the novice viewer the artistic elements of art often are just as invisible as if the painting were covered by a drape. While the sky, trees, and fields in a van Gogh painting may writhe with a pythonic energy of brushwork, the novice viewer is likely to register only content: sky, trees, fields, and that's that."

The mood of picture B is almost sad it looks as if the person is rest resting maybe thinking of what went on inside the house on the hill. She looks like maybe she was in an argument or fight inside the house and now shes resting thinking about it and looking up at the houses. The artist got the picture to look this way by making a person laying down with the house and barn far away also by making the person close to the edge of the paper.

After learning about "mood" and the other concepts such as local-global, and after having classroom experiences in looking at and talking about various works, Basil responded in writing to John Singer Sargent's *The Black Brook*, writing as follows:

The mood of this picture is peaceful. The woman looks as if shes in deep thought about something sad. What shows this is basily her face the expression. Her body language shows that she is thinking and is comfortable. The artist got the woman to look like this by not using only big dark lines and hardly any black. he just used a lot of light peaceful colors the background looks peaceful and helps even more to get the womans mood across. the flowers rocks and water all help to create a peaceful mood by light colors. The artist got the background to look this way by using light colors and not to much black. I thing all the colors look almost the same except for the womans face face it is more on the bright side also the flowers stand out. I think it looks as if her face is sad and she's looking down at the flowers as if they are comforting her.

So Basil had considerably more to say than in his initial essay, even though his later essay included some redundancy. Note how the instruction drew his attention to global and suggested aspects of mood, and to the artist's tactics, matters that before instruction he neglected.

Rosa, entering grade eight, responded as follows before participating in activities that focused on the aesthetic effect, "personality." She wrote about Vermeer's well-known *Head of a Girl*:

In picture B the girl is shy and scared also she seems to be like a old fashion girl with something on her head. Her character is a sweet girl who does nothing wrong.

The artist does this by making her eyes to big and they are looking right at you. Also she put a cloth on her head that looks like she is old fashion. She also put her body sideways and her face looking the other way also her mouth it looks like it is tell us something.



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As the essay shows, Rosa had shortfalls in her language skills; nonetheless, her comments were not insensitive. After participating in classroom activities organized around the personality theme and looking at pictures, Rosa wrote another essay in response to Dürer's famous *Self-Portrait*, in which he styles himself as an arrogant dandy.

In picture A he has a character of bragging about himself knowing he can draw good but telling everyone he knows he is and they don't have to tell. He painted himself very good he put his face up, a fancy nose, his eyebrows are up, his eyes are looking right at you, and his mouth is down. He also looks like he is sad. his hands in one way is saying Thank you and in another way is saying help me, and the background helps that because it is blue. I think he has a character of brilliant and he knows he should always put people down because when he needs help he won't get it.

Rosa's later essay was more elaborate and showed sensitivity. She articulated a number of the means Dürer used to get an effect and homed in accurately on the arrogance of the pose. Her rich response was particularly striking and gratifying in view of her very poor prose, which suggested much less ability than the content of her commentary.

From Course to Metacourse

How does one make a subject matter an occasion for intelligence? The ideas and examples discussed here offer one possible answer in the case of art appreciation. Plainly, similar approaches could be taken in other subject matters. For instance, as I emphasized earlier, education in science and math suffers from the same trio of counterforces that troubles art education. The same general tactics—addressing misconceptions, developing students' repertoire of thinking frames, and highlighting topics and ideas that provide the best bridge into a discipline, regardless of tradition—should serve in science, math, or any other subject matter. But what does one call the kind of instruction such an approach produces? Sometimes it helps to have a special name; I like to speak of a "metacourse."

One might call any instruction that deals with such matters during a course a "metacourse"—a course-within-a-course that focuses on the metacognitive and metaconceptual elements of a discipline that usually are not made explicit. It's said in jest that every fat person has a thin person inside wanting to get out. Likewise, one might say more seriously that every course has a metacourse latent within it, wanting to get out. "For every course a metacourse"—under such a banner could come a badly needed renovation and renewal in subject-matter instruction. For, by the meager measure of most current practice, any subject matter can become a much deeper and broader occasion for intelligence than it now is. □

References

- Baron, J. B., and R. S. Sternberg, eds. *Teaching Thinking Skills: Theory and Practice*. New York: W. H. Freeman, 1986.
- Chipman, S. F., J. S. Segal, and R. Glaser, eds. *Thinking and Learning Skills, Vol. 2: Research and Open Questions*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1985.
- Clement, J. "Students' Preconceptions in Introductory Mechanics." *American Journal of Physics* 50 (1982): 66-71.

Clement, J. "A Conceptual Model Discussed by Galileo and Used Intuitively by Physics Students." In *Mental Models*, edited by D. Gentner and A. L. Stevens. Hillsdale, NJ: Lawrence Erlbaum Associates, 1983.

Gardner, H. "Children's Sensitivity to Painting Styles." *Child Development* 41 (1970): 813-821.

Machotka, P. "Aesthetic Criteria in Childhood: Justifications of Preference." *Child Development* 37 (1966): 877-885.

McCloskey, M. "Naive Theories of Motion." In *Mental Models*, edited by D. Gentner and A. L. Stevens. Hillsdale, NJ: Lawrence Erlbaum Associates, 1983.

Nickerson, R., D. N. Perkins, and E. Smith. *The Teaching of Thinking*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1985.

Perkins, D. N. "Talk About Art." *Journal of Aesthetic Education* 11, 2 (1977): 87-116.

Perkins, D. N. *Knowledge as Design*. Hillsdale, NJ: Lawrence Erlbaum Associates 1986a.

Perkins, D. N. "Knowledge as Design: Teaching Thinking Through Content." In *Teaching Thinking Skills: Theory and Practice*, edited by J. B. Baron and R. S. Sternberg, 62-85. New York: W. H. Freeman, 1986b.

Perkins, D. N. "Thinking Frames." *Educational Leadership* 43, 8 (1986c): 4-10.

Perkins, D. N. "Thinking Frames: An Integrative Perspective on Teaching Cognitive Skills." In *Teaching Thinking Skills: Theory and Practice*, edited by J. B. Baron and R. S. Sternberg. New York: W. H. Freeman, 1986d.

Perkins, D., and G. Salomon. "Transfer and Teaching Thinking." In *Thinking: The Second International Conference*, edited by D. N. Perkins, J. Lochhead, and J. Bishop. Hillsdale, NJ: Lawrence Erlbaum Associates, 1987.

Pressley, M., D. L. Forrest-Pressley, D. Elliott-Faust, and G. Miller. "Children's Use of Cognitive Strategies, How to Teach Strategies, and What To Do If They Can't Be Taught." In *Cognitive Learning and Memory in Children: Progress in Cognitive Development Research*, edited by M. Pressley and C. J. Brainerd. New York: Springer-Verlag, 1985.

Schoenfeld, A. H. "Explicit Heuristic Training as a Variable in Problem Solving Performance." *Journal for Research in Mathematics Education* 10, 3 (1979): 173-187.

Schoenfeld, A. H. "Measures of Problem-Solving Performance and of Problem-Solving Instruction." *Journal for*

Research in Mathematics Education 13, 1 (1982): 31-49.

Schoenfeld, A. H. *Mathematical Problem Solving*. New York: Academic Press, 1978.

Segal, J. W., S. F. Chipman, and R. Glaser, eds. *Thinking and Learning Skills, Vol. 1: Relating Instruction to Research*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1985.

Wilson, B. "The Relationships Among Art Teachers', Art Critics' and Historians', and Non-Art-Trained Individuals' Statements About *Guernica*." *Studies in Art Education* 12, 1 (1970): 31-39.

Wilson, B. "The Relationship Between Years of Art Training and the Use of Aesthetic Judgmental Criteria Among High School Students." *Studies in Art Education* 13, 2 (1972): 34-43.

Wilson, B. "One View of the Past and Future of Research in Aesthetic Education." *Journal of Aesthetic Education* 8, 3 (1974): 59-67.

Winner, E. *Invented Worlds: The Psychology of the Arts*. Cambridge, Mass.: Harvard University Press, 1982.

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