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How Can Chinese Children Draw So Well?

ELLEN WINNER

Chinese children do not draw childish drawings. Young children in China make drawings that seem to challenge theories of the developmental course of drawing skill (e.g., Gardner, 1980; Kellogg, 1969; Winner, 1982). Instead of the large, messy, semi-expressionist paintings seen in American preschools and elementary schools, in which children reveal their own invented ways of representing, one sees in China small, neat paintings in which children display their precocious ability to master adult ways of representing the world.

Chinese children learn to paint in two styles that at first glance appear very different—"Western-style" watercolors and traditional Chinese ink paintings. Western-style paintings are typically colorful scenes in which the entire space is filled with small figures engaged in a dazzling variety of activities—walking, sitting, jumping, shown from the back and looking up, running with one leg going back and in foreshortening, holding umbrellas, etc. (figs. 1 and 2). These postures (never seen in drawings by such young children in the West) are no mean feat to depict, and it is quite breathtaking to encounter such a repertoire in children even as young as six. The figures depicted are almost always children, and they all look the same—a round head, two big black dots for eyes, and a smiling mouth. The brush is used with great skill: the figures are outlined in black, and the colors are bright. For some colors the brush is applied directly from the paint jar, while for others the paint is thinned with water to create a translucent effect.

The Chinese ink paintings are in the suggestive style of traditional Chinese art. Often they consist of a single figure well positioned

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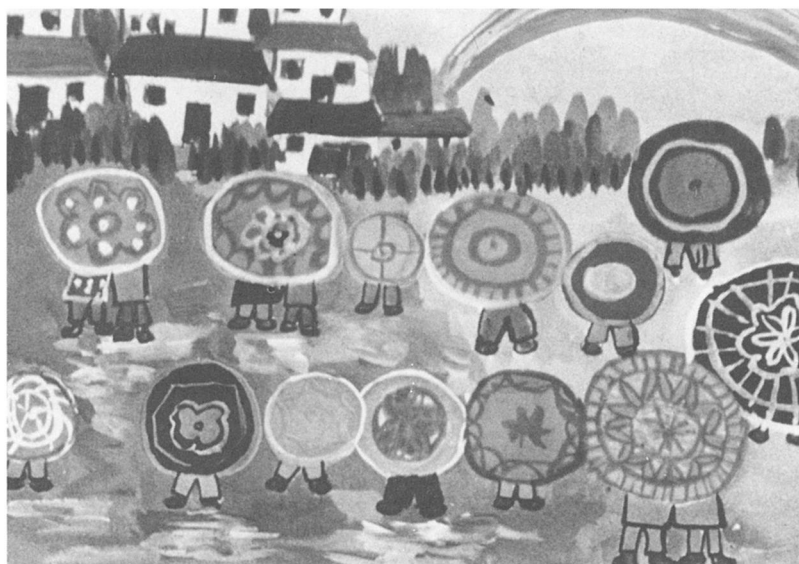


Fig. 1. Children holding umbrellas: Prize-winning Western-style painting by a nine-year-old.

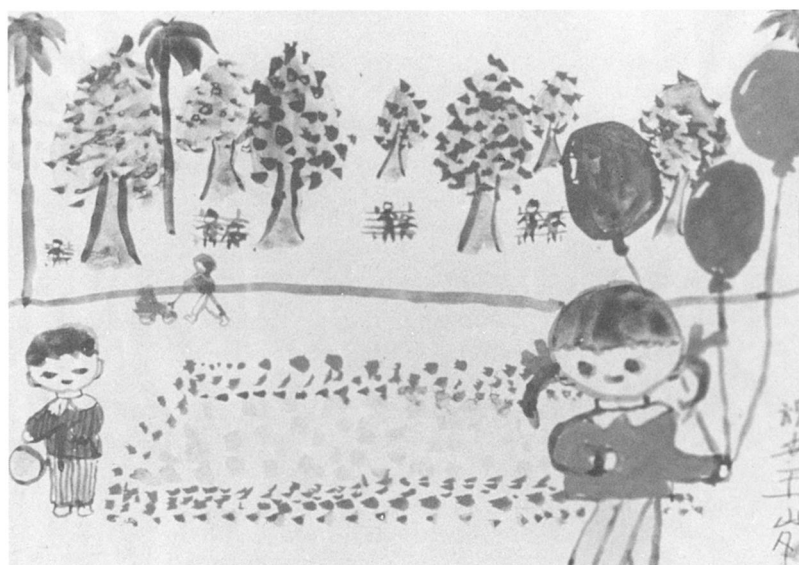


Fig. 2. Six-year-old's Western-style painting showing perspective.

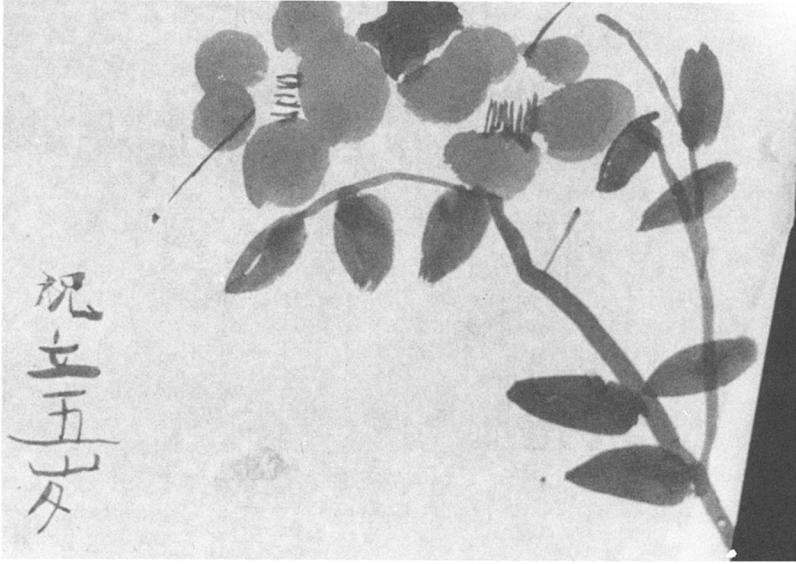


Fig. 3. Traditional Chinese flower painting by six-year-old.

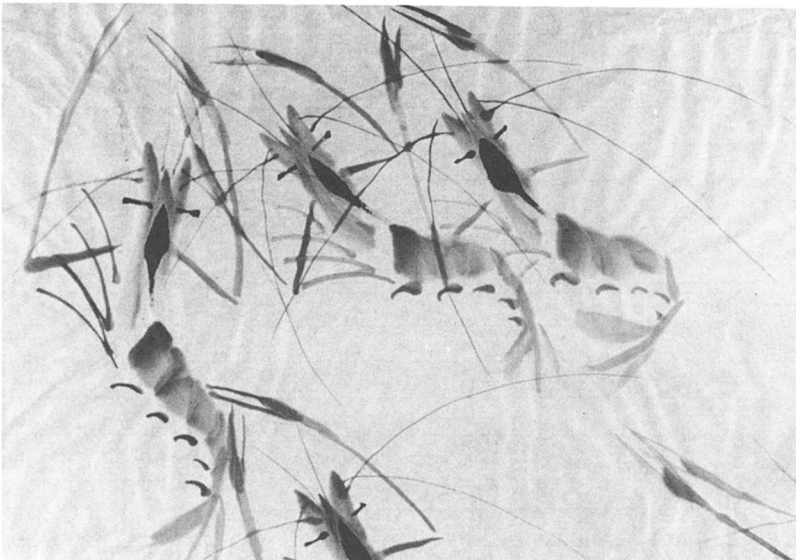


Fig. 4. Traditional Chinese shrimp painting by eight-year-old.

amidst a sea of blank space. They depict traditional Chinese subjects—shrimp, goldfish, monkeys, roosters, chickens, bamboo, a branch with a flower—all painted in a way that (at least to my relatively untutored eye) is nearly indistinguishable from these same subjects painted by the ancient masters (figs. 3 and 4).

Such adultlike paintings can be seen in endless supply in any good urban school in China. It is not just the gifted children who draw in this way. While the artistically talented children excel and while it is *their* pictures that are selected for international exhibitions, the paintings of the average children are also very skilled relative to those of Western children.

In the spring of 1987, I spent two months in China observing Chinese art classes. Two questions guided my observations. I wanted to understand the teaching methods used to inculcate the high level of drawing skill displayed by even ordinary children. And second, I wanted to understand the relationship between skill training and creativity. Was technical skill taught at the expense of creativity, imagination, innovation? Or did the acquisition of skills and schemas allow children to be creative by freeing them from the *struggle* of trying to make things “look right”?

Teaching the Child Who Is in Control

Within a week of my arrival, I realized that I could only hope to answer these questions by looking at Chinese art education within the context of Chinese childrearing. Chinese children behave very differently from American children, not only in art class, but in most other situations as well. In China, toddlers and babies are very quiet. I saw three- and four-year-olds eating quietly and neatly with their parents at restaurants and sitting motionless at an adult concert. And I saw little children riding on the handlebars of a parent's bicycle, a practice that could never be carried out if the children did not sit absolutely still. I came to suspect that Chinese children learn to draw with such skill at least in part because of their willingness to *comply* and their ability to *concentrate*. These two proclivities are developed in children by methods of childrearing very different from those used in the West.

According to my informants, the childrearing practices that create quiet, well-behaved children have remained relatively unaltered over the years. Molding the child to be passive begins at birth. Although the practice is dying out among the educated, most babies are still bound so that they cannot move for the first one to three

months of life. Even after the binding is taken off, babies are held constantly. And they are bundled up with so many layers of clothing (to protect against catching cold) that they can hardly move.

Toilet training by conditioning begins almost at birth. In this, as in so many ways, the child is molded as quickly as possible into an adult. The procedure is quite simple. The parent holds the baby over a potty and whistles. This procedure is repeated every twenty minutes until the baby urinates. Eventually the child comes to associate the whistle with urination, and the whistle is enough to elicit urination. By one year or earlier, children are completely toilet trained.

Adults often tease children, and I came to see this as a way of showing the child who is in control. An American woman living in Beijing with her husband and one-year-old baby daughter told me how Chinese parents routinely hold spoons teasingly just out of reach of the baby. The baby tries to grab the spoon, but the adult never lets the baby win. Finally, frustrated, the baby stops reaching. Then, when reaching behavior has been properly "extinguished," the parent teaches the child how to hold a spoon. The message is clear: Do it when *we* think you are ready. And do it *our* way. As I learned, the same message is conveyed in the art room.

Thus, Chinese children are discouraged from "natural" attempts at independence; and, as they are held all of the time, dependency needs are immediately met. The result—the quiet, well-controlled children seen everywhere: in buses, on bicycles, in concerts, in restaurants, and in the classroom.

Discipline in the Kindergarten

The early and successful inculcation of compliance, carried out by the family, is continued by the kindergarten teacher. Even three-year-olds can sit still, pay attention, and focus on a task for up to thirty minutes at a time. Never once did I see children refuse to do a task, ask to go to the bathroom in the middle of a lesson, or announce that they were "done" before the bell rang.

Classes are very "teacher centered." All eyes are on the teacher at all times. This contrasts strikingly with the American classroom, where students often work together and teach themselves, calling on the teacher only when they need help. The Chinese teacher often asks questions, but the questions are not what we think of as questions. The questions asked are always ones for which the children know the answers, and the teacher knows that the answers are

known. "What song did we learn last time?" "What kind of animal is this?" (as the teacher holds up a picture of a rabbit). "What kinds of animals live in the forest?" "What is the title of this song?"

Children either raise their hands to answer these questions or, in response to some subtle cue from the teacher, they chant out the answers in unison. Answering questions in Chinese schools is a performance, much like a ritualized dance. The concept (advocated only in the best Western schools) of posing questions that puzzle, perturb, or elicit many kinds of answers, even wrong ones, seems to be lacking. Children are set up to succeed; they are not prodded into thinking, questioning, or wondering. The same philosophy permeates the art room: children are not challenged to think visually and to solve visual problems; instead, they are given solutions in forms that are easy to master, and they are expected to master them. For instance, children are not ever expected to figure out by themselves how to draw something new; instead, they are shown how to draw images step by step, line by line.

It is not surprising, then, that the children themselves never ask questions. There is little need to ask a question when one is presented with clear material with no puzzles. Teachers explain everything and leave nothing for the child to ask about. I heard only one question in two months of classroom observations. A primary school child raised her hand after the art teacher had explained the drawing instructions to ask, "Are we allowed to add a tree?" (The answer was "Yes.") The same kind of reluctance to ask questions has often been noted by Americans observing or teaching Chinese students at the university level.

Paradoxically, the Chinese instill a competitive spirit in their students along with compliance and passivity. Beginning in preschool, children receive evaluations. I often saw posters on the classroom wall listing each student's name, with red flowers stamped after some names. Children could get a stamp in various categories, including obedience, care for property, and attendance. The fact that the evaluations were posted publicly makes for considerable competition. Children even compete to get red stamps for cooperation! This emphasis on competition, which has its roots in the ancient imperial exam system where ranking was all important, is to be found in art classes as well as in academic subjects and classroom behavior. In one kindergarten, I saw children's work displayed in a hall exhibit with a poster on which was written the question, "Who draws the best?"

Here, then, is the context in which art education takes place: placid, controllable, unquestioning children expecting to be led step

by step; the desire to meet the teacher's expectations so that one can receive a high evaluation or even win an art competition; quiet, ordered, teacher-centered classrooms; and parents who want their only child to excel in any classroom subject, including the visual arts.

A Look behind the Scenes

The Chinese educational system is governed by a uniform curriculum and national textbooks which all teachers, even art teachers, must use. (Recently, I have learned that there are efforts underway to allow teachers the choice of several possible textbooks and curricula.) Textbooks in art contain the lessons deemed appropriate for each age. Thus, when I describe a particular class, the observations can be generalized to other classes (at least in urban schools) all over China. Indeed, we often saw the same lesson repeated almost verbatim in two different cities.

There is also a uniformity in teaching methods across the various forms of visual arts. In effect the medium makes no difference. The age-old method for teaching calligraphy provides the standard; teaching methods in the various art forms are slight modifications of the techniques used to teach calligraphy.

Learning the Painstaking Art of Calligraphy

Calligraphy training begins in first grade for forty minutes a week. Children learn how to sit, how to hold the brush for the different kinds of strokes, how to prepare the ink, and how to mix the ink with water to achieve precisely the right quality of tone required for the different brush strokes. The goal is to master the tradition, not to go beyond it. Students are not expected to discover how to use the brush to create various effects, but rather to learn what the masters have already discovered.

In a fourth grade calligraphy class, I watched children prepare their ink by rubbing an ink stone into a small well at their desks. Each child had a textbook containing rows of Chinese characters. The characters were written on top of grids, which made it easy to see the underlying structural skeleton of the characters. Under each character was drawn the same character, but this time only with thin lines. Students first traced over the fully formed characters in the top row, and then filled out the lines in the lower characters so that the brush strokes were of the appropriate thickness and tone.

The teacher began the class by drawing a character, using white chalk on the blackboard. Next, she held up a large version of the

same character, painted in black ink on white rice paper. This character was also on the page open in each child's text. The teacher asked the children about the composition of the character. Some characters have a "top-bottom" structure, while others have a left-right structure. The character with which the lesson began was a top-bottom one in which the ratio of top to bottom was one to three. Children were questioned about the ratio and were asked to name characters with the same kind of structure. This was excellent training in seeing composition, but was not apparently viewed as an aesthetic task. Rather, it was seen as the first step in teaching the child how to paint a new character. The teacher went on to hold up various characters and to ask for their names and a description of their ratios.

The teacher then demonstrated the procedure for making a character by painting on the blackboard with a thick brush dipped in white paint. As she drew each line, she told the class how to hold the brush, demonstrating how to use more force at the ends of lines. She also demonstrated how *not* to make a line—by applying uniform pressure and achieving a line uniform in thickness. She showed how to start each line slowly, with force, and then to pick up speed and use less pressure. She then pointed to the different strokes she had made. Each stroke had a name, and the children chanted out in unison the name of each stroke.

The children were then ready to begin tracing the same characters in their texts. All of the students sat up straight and waited for the teacher to tell them to begin. They went to work on signal and worked slowly and painstakingly, in total silence. They spent an average of two or three minutes tracing each character. The work was handed in at the end of class, to be returned later with a numerical grade. Corrections would be made by the teacher in red ink.

These children had been practicing calligraphy in this method since the first grade. According to the teacher, children do not rebel against this and do not question why they must learn this ancient technique, which is no longer in daily use (but of course remains as an art form). No child seemed bored or irritated by the exacting nature of the task. In fact, as in all of the classes I observed, the students seemed engaged and showed an impressive level of concentration.

I was struck by the extent to which painting (and even sculpture and handicrafts) was taught like calligraphy class: models are provided by the teacher and the text book. These models are painstakingly copied by the students, and it is clear to everybody that

there are right and wrong ways to draw—just as there are correct and incorrect ways to hold the calligraphy brush and mix the ink. The notions of art as process, as visual problem solving, or as innovation are conspicuously absent.

Practicing the Traditional Schemas of Chinese Painting

In the elite kindergartens and primary schools, children are taught traditional methods of Chinese ink-and-brush painting. In a fifth grade painting class, fifty students sat quietly at small desks lined up in rows. On each desk was a long sheet of paper (about two-and-a-half feet long, one foot wide). The sheet covered the desk, and the rest of the sheet was rolled up under the desk. Space limitations rendered it impossible for children to see the whole sheet all at once.

The teacher began the class by lecturing to the students on the kind of painting style that they would learn that day. He described the style as very simple and suggestive, consisting of a few well-chosen lines. He demonstrated it by painting a fish with a few swift lines on a sheet of paper tacked on the board. He then hung up a famous painting of chickens by a great master done in this style. He pointed out the large amount of blank space, the lack of realism, the attempt to suggest rather than to depict in detail. The assignment for the day was to paint chickens in this style and then to add one or two bunches of grapes to the picture—a traditional motif in Chinese painting.

The teacher then took down the master's painting and demonstrated step by step how to draw chickens and grapes in this style. He took out two brushes and demonstrated how to dip them in water and wipe the water off onto special paper. He made a very black mark and asked what color it was. Students chanted out, in unison, "very dark." He then painted the chickens, stroke by stroke, asking the students to count the number of strokes that formed each part. He pointed out that he was using the soft brush. Then he took the other brush and told the class that this one was for making watery light lines rather than the dark ones.

After he had painted two chickens in the style he had introduced, the teacher drew on the board chalk sketches of chickens engaged in various activities—fighting, eating, and running. The students were told that they could draw any of these.

Then the teacher moved on to demonstrate the strokes for painting grapes. Here he introduced yet another technique: the tip of the finger is used to make a small round shape. Students were told that they should make some grapes darker than others. When asked the

reason for this, students immediately said that this was in order to make some look nearer (the dark ones) and some farther away (the light ones). Clearly they had been taught this rule. This is in essence atmospheric perspective, except that the differences in distance between the grapes are tiny. When one looks at a bunch of grapes, the near grapes do not really appear darker; whereas when one looks at a vista of mountains, the ones in the distance really do appear lighter. Thus, the students were learning a color perspective that is not true to life but is rather a code, one used in traditional Chinese painting.

The students were then instructed to make a painting of chickens and grapes in the demonstrated style. The students were expected to use the models provided by the teacher at the front of the class and also the models in their textbooks, which were identical to the ones the teacher had demonstrated. The textbook makes things easy for the teacher as well as the student, and if necessary the teacher can be but one schema (or formula) ahead of the student. The students worked with great concentration for the half hour that remained after the fifteen minutes of lecture-demonstration.

Although the similarities between teaching calligraphy and Chinese painting are evident, children are allowed more leeway in painting than in calligraphy. In the class just described, students were allowed to draw any of the chickens the teacher had sketched in chalk, but only one of these had also been shown in Chinese brush style. Thus they were expected to do a bit more than direct copying. Moreover, they were not told how many chickens to make, nor what positions to put them in. Students are expected to master a rich array of schemas but are then allowed to arrange these elements somewhat as they wish. For example, one child tried to connect the chickens and grapes by painting the chickens standing under the grapes, some of which were falling down into the chickens' open beaks. The teacher praised this work for its originality. However, no child altered the basic chicken or grape schema. This would have been viewed as incorrect rather than original.

Chinese painting is taught in kindergarten as well as in elementary school. I was struck by how brilliantly a class of six-year-olds had mastered paintings of shrimp, crabs, and fish. I wondered whether they had only learned how to apply this style in painting the figures they had been taught or whether they had actually mastered a style of painting that would generalize to new subjects.

I conducted an informal experiment to answer this question. I got the answer—by and large, they had not mastered a generative

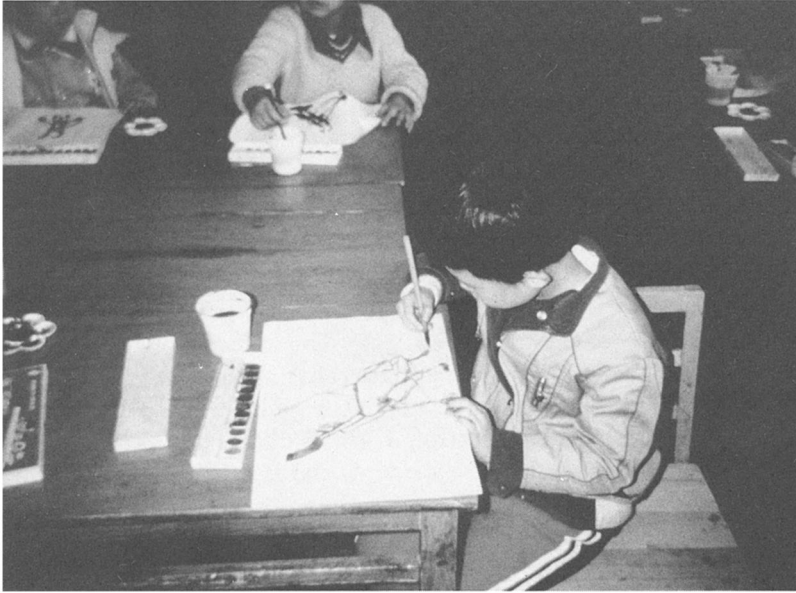


Fig. 5. Skilled brush painting of baby stroller by six-year-old.

style—and in the process discovered something else as well. I asked the children to draw our baby stroller—an object they had never seen before and hence an object for which they had not been taught a formulaic Chinese painting schema. I asked the children to paint this object in the style in which they had learned to paint shrimp and crabs.

The most interesting aspect of this little experiment was the reaction of teachers and administrators. They were horrified when they saw what I intended to ask the children to paint. They tried to talk me out of it, suggesting instead that I pick out a stuffed animal out of the toy room, something with which the children would be familiar. They insisted that this task was too difficult. Children would not know what the stroller was and hence would not be motivated to draw it. The teachers were concerned that children might fail. They were not used to giving children challenges to solve. Instead, the method used in China is to teach in incremental and imitative fashion, so that even the ordinary or slow child will succeed.

The teachers had underestimated what their children could do. The children studied the stroller carefully and made paintings that were detailed and realistic rather than in the impressionistic style of



Fig. 6. Figures holding umbrella: Adult-drawn image from children's newspaper.

Chinese painting (fig. 5). Thus, they did not generalize the traditional style to a new subject—the answer to my initial question. Most had not learned a generative style, but instead had mastered a set of rules for painting shrimp, another set for goldfish, yet another for crabs, and so forth.

Although this finding suggests a limitation to the kind of schema training going on, the drawings produced also revealed a dramatic payoff of the educational method. The children produced drawings far more skilled and realistic than their American peers would have created. Thus, the intensive practice in seeing, and in eye-hand coordination, that these children receive from copying pictures seems to generalize to drawing from life.

Accumulating Western Schemas

Western painting is defined as any kind of painting or drawing in which children use Western materials: pencils, craypas, markers, or watercolors on nonporous paper. In Chinese painting lessons, children learn to paint traditional schemas used by the ancient masters; in Western painting lessons, children learn to paint cartoonlike schemas borrowed from Western cartoons. These cartoon schemas are now seen in Chinese children's comics and newspapers (figs. 6 and 7) and also often decorate classroom walls. A comparison of figures 6 and 1 reveals the striking similarity between the adult and



Fig. 7. Children playing: Adult-drawn image from children's newspaper.

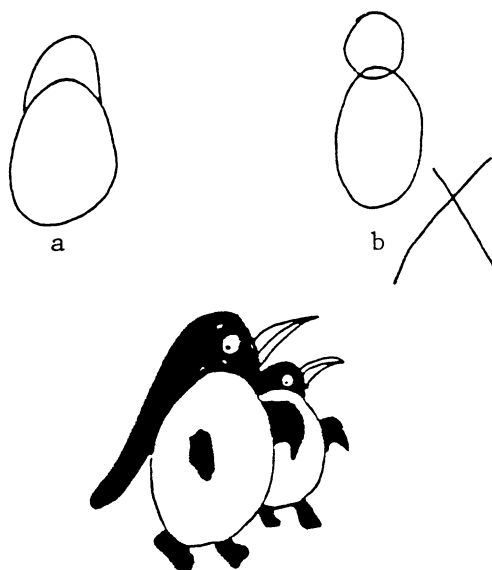


Fig. 8. (a) Correct penguin schema demonstrated by teacher; (b) incorrect penguin schema demonstrated by teacher; (bottom) teacher's completed penguin schema from which children were to copy.

child schemas for drawing figures with umbrellas; a comparison of figures 7 and 2 reveals the similarity between adult and child schemas for drawing children.

Despite the superficial differences between them, Western painting is taught identically to Chinese painting: the teacher and the textbook provide the schemas; children are expected to master a wide variety of schemas and are allowed some flexibility in how they combine these elements into a finished work. At the heart of each lesson is the mastery of one or more schemas or formulae for drawing particular objects.

In a primary school drawing class, I watched first graders learn how to draw penguins. The class began with a color videotape of penguins in their natural habitat. Children were then asked to do a one-minute sketch of the penguin's environment (e.g., ice, snow, water, rocks) as background for their pictures. Then the "real" class began. "Today," the teacher said, "you will learn how to draw a penguin." She showed how to block out the oblong shape of the body. "First make two points on your paper showing how tall it should be, then two more for the width, then connect the four points with a line." Next she showed how to make the head, and

how *not* to make it. Figure 8a shows the correct way: here the head fuses into the body; figure 8b shows the wrong way: here the head is a circle stuck onto the body. Next to this incorrect sketch she drew a big X to remind children not to draw it in this way. Children were then told to locate the position of the eye. The teacher drew the eye, then the wing and feet. Next, she showed how to color in the black parts. The drawing at the bottom of figure 8 is the teacher's completed model. Children also had their textbooks open to the penguin lesson. The book provided a step-by-step method for drawing a penguin, identical to the one that the teacher had demonstrated.

The children then went to work. They drew on small paper, with pencils and thin markers. They copied the model that the teacher had provided, although the background was drawn from imagination. Even the background was constrained, however. One child drew flowers and grass and was chided by the teacher and told to erase them. "Use your head. There are no flowers at the South Pole." On the other hand, one child asked the teacher to show him how to make a penguin diving, and she told him to try it by himself and to use his imagination. Thus, children were given conflicting messages: although they were told to draw the penguin according to the model, they were also told to use their imagination; and although they were told to draw the background from their imagination, some children discovered that certain contents were proscribed.

As in the chicken-grape lesson, the teacher's schemas were taken right out of the children's textbooks. But children did not only draw from the models provided—they also brought their own. I noticed two children copying from scraps of paper on which were detailed, skilled pencil drawings of penguins that looked much like the ones in the texts. I asked one of these children what she was copying from, and she replied, with no embarrassment, that her father had drawn this to help her. This child had capitalized on the fact that she had been told ahead of time that the penguin lesson was coming up.

The images on the videotape were not mentioned once the tape had been turned off; hence, the tape remained disconnected from the rest of the lesson. The children copied only from the drawn models. Thus, children learn to draw from drawings rather than from life. The lessons are not tailored to teach children how to see the three-dimensional world; rather, they teach children two-dimensional formulae.

What the Arts Should Be For

Societies have viewed the value of the visual arts in at least four different ways. Art has been valued as an embodiment of beauty; as a conveyer of moral and political values; as a means of emotional expression; and, more rarely, as an enterprise involving the intellect in special ways. In China, one hears a great deal about the first two uses of art, but nothing about the latter two.

Beauty

The Chinese believe that beauty is central to the arts. The term “aesthetic education” translates as “beauty education.” As discussed by Gardner (this issue), artworks are esteemed if they are beautiful and looked down upon if they are not. There are rules for achieving beauty that govern subject matter, composition, color, use of brush, and so forth. The notion that an artist would want to paint squalor, use muddy or clashing colors, or create an unbalanced composition is incomprehensible. Art teachers and even artists found it difficult to understand that in the West art is valued if it offers a new vision, whether or not the painting produced is beautiful.

Morality

Along with the traditional emphasis on beauty there is a link between beauty and goodness. This link is an ancient one, although the link to specific political precepts is a socialist invention. The arts are seen explicitly as a means of moral education. It is believed that art education should function to inculcate “the morally correct idea of beauty.” Art is not to be enjoyed or produced for its own sake, but must have representational content that serves moral and political ends. Thus, it is not surprising that nonrepresentational art is shunned and that socialist realism prevails in adult, Western-style art.

Nonrepresentational art is not only avoided, it may also not even be recognized. I will cite one example of such failure of recognition which may well be due to teachers’ lack of exposure to abstract art. In a kindergarten collage class, children were given colored circles and asked to use them to make a picture of something from their daily lives. Most children made neat representational scenes. But two made what looked to me like abstract designs. I mentioned this to the teacher, but she felt that one picture was a flower and the other was a tablecloth. Of course a tablecloth can have a design on it, but the picture was seen as a representation of a tablecloth and not a mere abstract design.

Emotion

Western justifications of art as a form of self-expression were lacking. Westerners commonly believe that artists paint to express themselves and to work out their feelings. It is not unusual in the West to see children making drawings of things that have happened to them that have high affective content—a visit to the doctor, the death of a pet, and the like. I did not find art put to such uses in China. The artistic tradition is highly formalized, and it is difficult to think of a bird-and-flower painting as something that could have served to express the artist's personal conception of the world. Similarly for child art. I never saw pictures that had a personal voice. Instead, they were exceedingly stylized. When I asked children if they ever felt the desire to draw something that they had just seen on the street or that had just happened to them, they looked at me blankly and said no. What they draw are schemas that they have learned in school.

In the West it is often believed that drawings can inform about the artist's personality or at least his personal vision. I cannot imagine anyone even raising the question in China since the art produced, both by children and adult artists, is so highly stylized.

Cognition

The view of the arts as cognitive, as activities that involve reflection, problem solving, and problem finding, was also absent. The concept of "visual thinking" (Arnheim, 1969) was difficult to explain to art teachers, possibly even to artists. This would probably be true in any culture in which art is highly formalized. If to be an artist is to master a craft, then there is no need for visual thinking because there are in effect no new problems to solve.

What Should Art Education Do?

In the West, influenced by the writings of Dewey (1933) and Piaget (1970), we value childhood as a special time that should not be rushed. Children are believed to have their own understanding of the world, and this understanding (although "wrong" by adult standards) has its own logic. Children, we believe, should be allowed to see the world in their own way. The aim of the educator is not to mold children in the image of the adult, but rather to pose challenging problems so that children will eventually discover for themselves more cognitively advanced ways of understanding.

In American art classes at their best, teachers do not give children

the answers, but rather let them try to solve problems for themselves (including visual ones). So, for example, in an art class for kindergarten children, the Western teacher never explains *how* to draw something and rarely even suggests *what* should be drawn. When I explained this to Chinese teachers, they worried that the classroom would be chaotic, that children would never “learn,” and that the teacher would have no role.

Chinese art education is more aptly described as art *training*. By this I mean that it is training in skill mastery rather than education in seeing and in solving visual problems. Two aspects about this training strike me as key: (1) the value placed on neatness and uniformity rather than on deviation and creativity; (2) the value placed on schema mastery rather than on training the eye to break away from schemas.

Neatness and Uniformity vs. Deviation and Creativity

Children are extremely neat in art class. The materials used are rarely messy ones. For the most part, children use ink or watercolors with thin brushes, pencil, craypas, and small pieces of paper. Children do not use easels, but work seated at their desks. The paintings that result are also very neat.

Given the teaching methods, it is not surprising to see a high degree of uniformity in the art produced. I often saw bulletin boards with children’s drawings tacked up, and all the drawings looked the same—even in kindergarten, where we are so used to seeing diversity. It was not unusual to see thirty pictures done by one class that were all variations on a chicken schema or a goldfish formula.

In line with the emphasis on uniformity, one finds a lack of alternatives from which children can choose. In the United States, children have an excessive amount of free choice. There are innumerable after-school activities from which to choose. And if children tire of one, they are likely to switch to another the next semester. Not so in China. We visited a primary school in which children choose in first grade which after-school activity they will pursue—a musical instrument, dance, singing, calligraphy, or a visual art form (Western painting, Chinese painting, or handicrafts). They will then stick to this choice throughout the six years of elementary school. There is essentially no way to change.

Such a policy would be difficult to implement in the West, where freedom of choice is so highly valued. And of course any choice made in the first grade is likely to be made by parents, not children. When I asked whether children ever tried to change, or wanted to change, I was told that this rarely if ever has happened. Moreover,

as is so often the case in China, the children in these extracurricular activities seemed thoroughly engaged and on their way to attaining high levels of skill within their often rather narrow areas of choice. Thus, they may spend six years mastering calligraphy or Chinese brush painting. In the United States, in contrast, children have so many alternatives from which to choose that they often fail to stick to anything long enough to gain mastery. My initial shock at such a forced marriage gave way to an appreciation of the advantages of this system.

Because of the emphasis on uniformity, there is little stress on creativity and deviation. In China, the act of painting is like performing a piece of music written by someone else. Contemporary artists often paint schemas invented centuries ago. Although artists may ultimately put their personal stamp on what they paint, this is analogous to putting one's own interpretation into a piece of music that one performs, rather than composing one's own piece.

For the Chinese, creativity seems to mean a slight departure, whereas in the West it means a sharp departure. The Chinese teacher's concept of a lesson in creative drawing is simply to allow children to draw from memory rather than from a model. What is never given is a task with visual challenges and no obvious solutions (e.g., draw a sad picture of a tree; draw a picture that looks heavy; make a collage with a surprising composition). Tasks are either rigidly structured or totally loose. But even the loose ones are graded on neatness and realism.

The teachers all insisted that they aim to teach not only basic skills (translate that as formula mastery) but also creativity and imagination. I asked the teacher of the penguin class what would count as creativity in the penguin task. She replied that if a child drew something not mentioned by the teacher or not included in the text, this would count as creative—for instance, if the child added an observation station, or a red flag, or showed the penguin in a different position. Recall the child in the Chinese painting class praised for creativity because he painted the chickens eating the falling grapes. Note that these are all representational deviations—new ways of combining old schemas—rather than stylistic ones such as alterations of the form of the schemas themselves.

Schemas: To Be Mastered or Overcome?

Art education in China aims to give the child mastery of a rich repertoire of representational schemas. Visual exploration and invention have little place in the curriculum.

Look back for a moment at figures 1, 2, 3, and 4—the intricate

Western-style watercolors and the simpler, impressionistic Chinese ink paintings. Different as they may seem on the surface, these two types of painting are in fact both constructed out of combinations of simple schemas that children have learned in incremental fashion in art class. To be sure, the schemas are possessed in abundance, and children are able to use them generatively. But the schemas themselves are passed down rather than created.

In my view, the best kind of art education in the West is based on principles diametrically opposed to Chinese principles. The aim is to stimulate children to break away from formulae rather than to perfect these formulae. Although no art can break away fully from pictorial schemas (cf. Gombrich, 1960), American art education strives to teach the eye to see beyond schemas. The best art teachers have invented exercises in which formulae will not work. Examples include contour drawing, drawing the negative rather than the positive space, copying a picture upside down so that one does not know what one is copying and thus cannot use a schema, and drawing a scene viewed through a frame that allows only part of a picture to be seen. One need only look at a book about techniques of teaching drawing to find many more examples (cf. Edwards, 1979). What is prized in the West is the ability to see in a new, fresh way. If one paints according to old schemas, one has not seen in a new way, nor will one cause one's audience to see anew. Whether the art produced is pretty, or neat, or realistic is unimportant. If children's observational skills have been sharpened, if they have been made aware of design elements in their work, and if they are able to reflect about the visual decisions that they make, then Western art educators have achieved their goals.

This difference (schema mastery vs. novelty of vision) can be traced to the differences in the aesthetic traditions of East and West. Chinese artists were traditionally trained to master schemas. For example, in the seventeenth century *Mustard Seed Garden Manual of Painting*, stroke-by-stroke instructions are given for painting orchids, rocks, trees, people, etc., and rules of composition and color are explicitly stated (Sze, 1959). While this manual was criticized by some because it was seen as simply a set of instructions for beginners, the manual was very widely distributed and used (Sze, 1959). Moreover, this manual reflects the aesthetic ideals of the great Chinese painters.

Traditionally, students were supposed to master the art of their teacher and of the ancient masters. Only after the artist is advanced in age and experience might he be allowed to put his personal

stamp on the traditional subjects such as birds and flowers. The goal is to master a tradition, not to start a new one.

Design and Abstraction

Along with the representational goal of teaching the eye to see and the hand to draw "what is really there," American art education also seeks to sensitize children to aesthetic principles. These principles—design, color, texture, style, expression, etc.—have nothing to do with representation. To this end, American teachers offer exercises in design. For instance, students might be asked to make a picture composed of only ten squares, arranged in a surprising composition. Or students might be asked to make two paintings of the same subject, one in primary and one in secondary colors, and to then reflect about the expressive or compositional effects of these two different color choices.

One can understand the point of these types of design problems only if one has a sense of what abstract art is. Design exercises are ways of getting the student to think about the nonrepresentational components of art. Most Chinese art teachers and artists have had little exposure to abstract art and hence were puzzled by the exercises I described. Of course, the end product of these exercises might not look beautiful, but it is the process that matters (e.g., learning about design) and not only the product. For the Chinese, what is important is the product and the process of performing and executing it. For the Americans, what is important for the most part is not the product but the process of thinking, problem solving, or problem finding that goes into the product.

These different emphases need to be seen in the context of the different aesthetic traditions in China and the West. Chinese painting is highly stylized, and tradition is prized over radical novelty. Thus, if one wants to train children to paint in the traditional Chinese manner, an educational method that fosters the mastery of schemas is appropriate. Western art is much less stylized, and abstraction and novelty of vision are valued. Thus, an educational method that seeks to free children from schemas and sensitize them to design may be the more appropriate approach.

The Chinese insist that one must have skill before one can be creative. Yet preschoolers in the West belie this claim. They have little skill and, in my view, much creativity. Surely adult artists need both, and the appropriate time to get basic skills would seem to be in primary and high school. This is when children are ready and want to learn techniques and rules. But need there be a dichotomy?

One can teach technique with exercises that call for creativity. For example, one can teach perspective by supplying a problem (e.g., draw two figures, one near and one far away) and allowing the child to invent the solution by herself. In my view, the kind of skill teaching used in China makes creativity unlikely to occur because children are given solutions instead of being asked to invent them.

In sum, Chinese art education does not train children to look at aesthetic aspects such as composition, style, color, or texture. Never did I hear those principles of design discussed as a teacher critiqued a student's work or instructed the class in how to proceed. Western art educators believe that students should learn to see such aspects not only in art but also in the environment. In China, there is no use of the environment for aesthetic training. Children are not taught to look around them, to notice the colors, shapes, and compositions of the landscape. It is as if art is disconnected from everything else: art is an escape from poverty and disorder into order and beauty.

What the West Can Learn from the Chinese Example

I found much to admire in the Chinese art classroom, despite the fact that I was critical of the failure to teach children to solve visual problems in new ways. What impressed me the most was the high skill levels attained and the children's ability to concentrate and work until they had mastered a task. There is undoubtedly a benefit in learning to do something very well, no matter what it is that is learned. I have compared Chinese art education to Western art education *at its best*. Too often, however, Western art education is playtime with no inherent structure. Children are expected to be sloppy, and they are. Children are allowed to switch focus or give up on a task at whim. Should it surprise us, then, that Western adolescents are often alienated and bored, rather than engaged in some activity?

Western art educators might profit from the Chinese example without copying it. The Western classroom would benefit, I believe, from the reintroduction of discipline—but discipline of a different sort than the Chinese use. Instead of imitation and drill, discipline ought to consist of working with care and concentration, sticking to a task over an extended period of time until a work feels as good as it can, and reflecting upon the problems one is trying to solve. Children in the West might then gain something of the engagement and technical proficiency that are so impressive in Chinese children while retaining the ability to discover their own solutions.

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