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David W. Galenson: Old Masters and Young Geniuses

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CHAPTER ONE

theory

EXPERIMENTAL AND CONCEPTUAL INNOVATORS

Does creation reside in the idea or in the action?

Alan Bowness, 1972¹

There have been two very different types of artist in the modern era. These two types are distinguished not by their importance, for both are prominently represented among the greatest artists of the era. They are distinguished instead by the methods by which they arrive at their major contributions. In each case their method results from a specific conception of artistic goals, and each method is associated with specific practices in creating art. I call one of these methods aesthetically motivated experimentation, and the other conceptual execution.

Artists who have produced experimental innovations have been motivated by aesthetic criteria: they have aimed at presenting visual perceptions. Their goals are imprecise, so their procedure is tentative and incremental. The imprecision of their goals means that these artists rarely feel they have succeeded, and their careers are consequently often dominated by the pursuit of a single objective. These artists repeat themselves, painting the same subject many times, and gradually changing its treatment in an experimental process of trial and error. Each work leads to the next, and none is generally privileged over others, so experimental painters rarely make specific preparatory sketches or plans for a painting. They consider the production of a painting as a process of searching, in which they aim to discover the image in the course of making it; they typically believe that learning is a more important goal than making finished paintings. Experimental artists build their skills gradually over the course of their careers, improving their work slowly over long periods. These artists are perfectionists and are typically plagued by frustration at their inability to achieve their goals.

In contrast, artists who have made conceptual innovations have been motivated by the desire to communicate specific ideas or emotions. Their goals for a particular work can usually be stated precisely, before its production, either as a desired image or as a desired process for the work's

execution. Conceptual artists consequently often make detailed preparatory sketches or plans for their paintings. Their execution of their paintings is often systematic, since they may think of it as primarily making a preconceived image, and often simply a process of transferring an image they have already created from one surface to another. Conceptual innovations appear suddenly, as a new idea immediately produces a result quite different not only from other artists' work, but also from the artist's own previous work. Because it is the idea that is the contribution, conceptual innovations can usually be implemented immediately and completely, and therefore are often embodied in individual breakthrough works that become recognized as the first statement of the innovation.

The precision of their goals allows conceptual artists to be satisfied that they have produced one or more works that achieve a particular purpose. Unlike experimental artists, whose inability to achieve their vague goals can tie them to a single problem for a whole career, the conceptual artist's ability to consider a problem solved can free him to pursue new goals. The careers of some important conceptual artists have consequently been marked by a series of innovations, each very different from the others. Thus whereas over time an experimental artist typically produces many paintings that are closely related to each other, the career of the conceptual innovator is often distinguished by discontinuity.

ARCHETYPES

I seek in painting.
*Paul Cézanne*²

I don't seek; I find.
*Pablo Picasso*³

Two of the greatest modern artists epitomize the two types of innovator.

In September 1906, just a month before his death, sixty-seven-year-old Paul Cézanne wrote to a younger friend, the painter Émile Bernard:

Now it seems to me that I see better and that I think more correctly about the direction of my studies. Will I ever attain the end for which I have striven so much and so long? I hope so, but as long as it is not attained a vague state of uneasiness persists which will not disappear until I have reached port, that is until I have realized something which develops better than in the past, and can thereby prove the theories—which in themselves are always easy; it is giving proof of what one thinks that raises serious obstacles. So I continue to study.

But I have just re-read your letter and I see that I always answer off the mark. Be good enough to forgive me; it is, as I told you, this constant preoccupation with the aim I want to reach, which is the cause of it.

I am always studying after nature, and it seems to me that I make slow progress. I should have liked you near me, for solitude always weighs me down a bit. But I am old, ill, and I have sworn to myself to die painting. . . .

If I have the pleasure of being with you one day, we shall be better able to discuss all this in person. You must forgive me for continually coming back to the same thing; but I believe in the logical development of everything we see and feel through the study of nature and turn my attention to technical questions later; for technical questions are for us only the simple means of making the public feel what we feel ourselves and of making ourselves understood. The great masters whom we admire must have done just that.⁴

This passage expresses nearly all the characteristics of the experimental innovator: the visual objectives, the view of his enterprise as research, the need for accumulation of knowledge, with the requirement that technique must emerge only from careful study, the distrust of theoretical propositions as facile and unsubstantiated, the incremental nature and slow pace of his progress, the total absorption in the pursuit of an ambitious, vague, and elusive goal, the frustration with his perceived lack of success in achieving that goal of “realization,” and the fear that he would not live long enough to attain it. The irony of Cézanne’s frustrations and fears at the end of his life stems from the fact that it was his most recent work, the paintings of his last few years, that would come to be considered his greatest contribution and would directly influence every important artistic development of the next generation.

The critic Roger Fry recognized the incremental and persistent nature of Cézanne’s approach: “For him as I understand his work, the ultimate synthesis of a design was never revealed in a flash; rather he approached it with infinite precautions, stalking it, as it were, now from one point of view, now from another. . . . For him the synthesis was an asymptote toward which he was for ever approaching without ever quite reaching it; it was a reality, incapable of complete realization.”⁵ The historian Alan Bowness stressed Cézanne’s inductive visual approach and avoidance of preconception: “His procedure is always empirical, not dogmatic—Cézanne is not following a set of rules, but trying, with every new picture, to record his sensations before nature.”⁶ Émile Bernard spent a month in Aix in 1904 and recalled that Cézanne spent the whole month working on a single still life: “The colors and shapes in this painting changed al-

most every day, and each day when I arrived at his studio, it could have been taken from the easel and considered a finished work of art.” Bernard reported that Cézanne “never placed one stroke of paint without thinking about it carefully,” and concluded that his method of working was “a meditation with a brush in his hand.”⁷ Art scholars have often been puzzled by Cézanne’s casual disregard for his own paintings, but his lack of concern appears understandable as a consequence of his experimental method. Thus the critic Clive Bell explained that Cézanne’s real goal was not making paintings, but making progress toward his goal: “The whole of his later life was a climbing towards an ideal. For him every picture was a means, a step, a stick, a hold, a stepping-stone—something he was ready to discard as soon as it had served his purpose. He had no use for his own pictures. To him they were experiments. He tossed them into bushes, or left them in the open fields.”⁸

As Cézanne grew older, his paintings could increasingly be understood as visual representations of the uncertainty of perception, for the more he worked, the more acutely he became aware of the difficulty and complexity of his chosen task. Thus in 1904 he wrote to Bernard: “I progress very slowly, for nature reveals herself to me in very complex ways; and the progress needed is endless. One must look at the model and feel very exactly; and also express oneself distinctly and with force. . . . The real and immense study to be undertaken is the manifold picture of nature.”⁹ Cézanne’s comments suggest that his uncertainty had a number of sources. He told his friend Joachim Gasquet: “Everything we look at disperses and vanishes, doesn’t it? Nature is always the same, and yet its appearance is always changing. It is our business as artists to convey the thrill of nature’s permanence along with the elements and the appearance of all its changes.”¹⁰ The critic David Sylvester explained that because they alternate between looking at the model and at the canvas, painters do not actually copy what they see: “In fact, one never copies anything but the vision that remains of it at each moment. . . . Working from life is working from memory: the artist can only put down what remains in his head after looking.” For a painter as committed as Cézanne to visual accuracy, this gap between perception and execution becomes a source of anxiety and despair: “The model can go on standing still for ever, but the work will nonetheless be the product of an accumulation of memories none of which is quite the same as any other.”¹¹ Cézanne worked to develop techniques that would represent this process of sequential representation. Thus Meyer Schapiro noted that in his later work “we see the object in the painting as formed by strokes, each of which corresponds to a distinct perception and operation. . . . The form is in constant making.”¹²

Another major source of uncertainty involved contours. A celebrated statement of Cézanne's is that "There is no line; . . . there are only contrasts."¹³ As he explained in a letter of 1905 to Bernard,

the sensations of color, which give the light, are for me the reason for the abstractions which do not allow me to cover my canvas entirely nor to pursue the delimitation of the objects where their points of contact are fine and delicate; from which it results that my image or picture is incomplete. On the other hand the planes fall one on top of the other, from whence neo-impressionism emerged, which circumscribes the contours with a black line, a fault which must be fought at all costs.¹⁴

Cézanne struggled with the fact that the contour of an object is not a line, but rather the edge of a surface that is foreshortened because it is seen by the viewer at a sharp angle: "The contour [of an apple] is the ideal limit toward which the sides of the apple recede in depth."¹⁵ To represent this edge by a single outline not only sacrifices an illusion of depth, but violates the artist's knowledge of the existence of the foreshortened surface. Roger Fry observed that "the contours of objects became almost an obsession to Cézanne." Cézanne's treatment of objects reflected his anxiety over the problem: "He almost always repeats the contour with several parallel strokes as though to avoid any one too definite and arresting statement, to suggest that at this point there is a sequence of more and more foreshortened planes. . . . The contour is continually being lost and then recovered again."¹⁶ Examined close up, the many small hatched strokes that serve to define objects in Cézanne's late paintings create a sense of change: "It is as if there is no independent, closed, pre-existing object, given once and for all to the painter's eye for representation, but only a multiplicity of successively probed sensations."¹⁷ The painting becomes a representation not of something seen, but rather of the process of seeing, and of Cézanne's recognition of the inevitable incompleteness of that representation. Thus Meyer Schapiro declared that Cézanne was "able to make his sensing, probing, doubting, finding activity a visible part of the painting."¹⁸

In 1923 Pablo Picasso gave a rare interview to a friend, the artist and critic Marius de Zayas, in which he emphasized that art should communicate discoveries rather than serving as a record of the artist's development:

I can hardly understand the importance given to the word *research* in connection with modern painting. In my opinion to search means nothing in painting. To find, is the thing. . . .

When I paint my object is to show what I have found, not what I am looking for. . . .

The several manners I have used in my art must not be considered as an evolution or as steps toward an unknown ideal of painting. . . .

I have never made trials or experiments. Whenever I had something to say, I have said it in the manner in which I have felt it ought to be said. Different motives inevitably require different methods of expression.¹⁹

Picasso's rejection of the description of his art as an evolution has been confirmed by generations of critics and scholars. As early as 1920, with Picasso not yet forty years old, Clive Bell described his career as "a series of discoveries, each of which he has rapidly developed," and commented on the abruptness and frequency of his stylistic changes, a theme that would later be echoed by dozens of biographers.²⁰ Thus decades later the critic John Berger wrote of Picasso's "sudden inexplicable transformations" and observed that "in the life work of no other artist is each group of works so independent of those which have just gone before, or so irrelevant to those which are to follow."²¹ Historian Pierre Cabanne made this point by comparing Picasso with Cézanne: "There was not one Picasso, but ten, twenty, always different, unpredictably changing, and in this he was the opposite of a Cézanne, whose work . . . followed that logical, reasonable course to fruition."²²

Picasso often planned his paintings carefully in advance. During the winter of 1906–7, he filled a series of sketchbooks with preparatory studies for *Les Femmes d'Alger*, the large painting that would become his most famous single work.²³ Historian William Rubin estimated that Picasso made more than four hundred studies for the *Femmes*, "a quantity of preparatory work . . . without parallel, for a single picture, in the entire history of art."²⁴ The painting was a brutal departure from the lyrical works of the rose period that immediately preceded it, and its arrival jolted Paris's advanced art world. Henri Matisse angrily denounced the painting as an attempt to ridicule the modern movement, and even Georges Braque, who would later realize that he and Picasso "were both headed in the same general direction," initially reacted to the painting by comparing Picasso to a fairground fire-eater who drank kerosene to spit flames.²⁵ The importance of the *Femmes* stems from its announcement of the beginning of the Cubist revolution, which Picasso and Braque would develop in the next few years. As historian John Golding has observed, Cubism was a radical conceptual innovation, based not on vision but on thought: "Even in the initial stages of the movement, when the painters still relied to a large extent on visual models, their paintings are not so much records of the sensory appearance of their subjects, as expressions in pictorial terms of their idea or knowledge of them. 'I paint objects as I think them, not as I see them,' Picasso said."²⁶

Picasso's certainty about his art contrasted sharply with Cézanne's doubt. Thus in 1946, when he was sixty-five, Picasso told his companion Françoise Gilot that his work was so often interrupted by visitors that he frequently did not push his works "to their ultimate end," but he knew that he could do this when he wished: "In some of my paintings I can say with certainty that the effort has been brought to its full weight and conclusion."²⁷ He explained to a biographer that his certainty came from the clarity of his conception: " 'The key to everything that happens is here,' he said one day, pointing to his forehead. 'Before it comes out of the pen or brush, the key is to have it at one's fingertips, entirely, without losing any of it.' "²⁸

In an essay written in 1985, Meyer Schapiro puzzled over the fact that in the early 1920s Picasso had been able to work simultaneously in two very different styles: "In the morning he made Cubist paintings; in the afternoon he made Neoclassical paintings." For Schapiro, Picasso's lack of commitment to one style at a time did no less than call into question the integrity of his enterprise: "There exists in his practice a radical change with respect to the very concept of working, of production. Working involves, at least within our tradition, the commitment to a necessary way of working. If you can work in any other way you please, then no one way has a necessity; there is an element of caprice or arbitrariness of choice."²⁹ The German artist Oskar Schlemmer had also commented in 1921 on both Picasso's extraordinary ability to change styles and his lack of commitment, as he wrote to a friend that after reading a new book that surveyed Picasso's career, "I was amazed at the versatility of the man. An actor, the comic genius among artists? For everything is there: he could easily assume the role of any artist of the past or of any modern painter."³⁰ Interestingly, however, also in 1921 the artist and critic Amedée Ozenfant had explained Picasso's unusual practice: "Can . . . people not understand that Cubism and figurative painting are two different languages, and that a painter is free to choose either of them as he may judge it better suited to what he has to say?" Ozenfant recognized that Picasso's alternation of styles was simply a consequence of the conceptual nature of his art: "When he paints a picture, he knows what he wants to say and what kind of picture will in fact say it; his forms and colors are judiciously chosen to achieve the desired end, and he uses them like the words of a vocabulary."³¹ Picasso's ability to choose styles to fit his ideas could not have differed more from Cézanne's lifelong quest to create a style that would allow him to achieve a single goal. Picasso's alternation of styles, like his many rapid changes of style over the course of his career, reflected the origin of his art in ideas that could be formulated and expressed quickly, whereas Cézanne's steadfast commitment to a single style, that could only

evolve gradually over time, was a product of the visual nature of his art, and the impossibility of fully achieving his elusive goal.

PLANNING, WORKING, AND STOPPING

For any given artist, what does his work signify? A passion? A pleasure? A means, or an end? For some, it dominates life; for others, it is a part of it. According to their natures, some will pass easily from one work to another, tear up or sell, and go on to something quite different; others, on the contrary, become obsessed, involved in endless revision, cannot give up the game, turn their backs on their gains and losses: like gamblers, they keep doubling the stakes of patience and determination.

*Paul Valéry, 1936*³²

The distinction between experimental and conceptual artists can be sharpened by considering their procedures in making paintings. For this purpose, we can divide the process into three stages: planning—all the artist does before beginning a particular painting; working—all the artist does while in the process of putting paint on the canvas; and stopping—the decision to cease working.³³

For experimental artists, planning a painting is unimportant. The subject selected might be simply a convenient object of study, and frequently the artist returns to work on a motif he has used in the past. Some experimental painters begin without a specific subject in mind, preferring instead to let the subject emerge as they work. Experimental painters rarely make elaborate preparatory sketches. Their most important decisions are made during the working stage. The artist typically alternates between applying paint and examining the emerging image; at each point, how he develops the image depends on his reaction to what he sees. Lacking a clear goal for the work, the artist is looking for things he finds interesting or attractive. If he finds them, he may continue working; if he does not, he may scrape off the image or paint over it. The decision to stop is also based on inspection and judgment of the work: the painter stops when he cannot see how to continue the work. Sometimes this is because he likes the painting and considers it finished, but often he remains dissatisfied, yet can not see how to improve the work. In either case, experimental painters are inclined to consider the decision to stop as provisional, and often return to work on paintings they earlier abandoned or considered finished, even after long intervals.

For the conceptual artist, planning is the most important stage. Before he begins working, the conceptual artist wants to have a clear vision either of the completed work or of the process that will produce it. Conceptual artists consequently often make detailed preparatory sketches or other plans for a painting. With the difficult decisions already made in the planning stage, working and stopping are straightforward. The artist executes the plan and stops when he has completed it.

The history of modern art contains a series of important artists who considered the essence of art to be in the planning stage, rendering the execution of the work perfunctory. Prominent examples come readily to mind. When visitors to his studio praised his great painting of the island of the Grande Jatte, Georges Seurat remarked to a friend, "They see poetry in what I have done. No, I apply my method and that is all there is to it."³⁴ In 1885 Paul Gauguin advised his friend Émile Schuffenecker, "Above all, don't sweat over a painting; a great sentiment can be rendered immediately."³⁵ In 1888 Vincent van Gogh wrote to his brother, "I am in the midst of a complicated calculation which results in a quick succession of canvases quickly executed but calculated long *beforehand*."³⁶ Marcel Duchamp explained that his artistic goal was "to get away from the physical aspect of painting."³⁷ Charles Sheeler recalled that in 1929 he began "a period that followed for a good many years of planning a picture very completely before starting to work on the final canvas, having a blueprint of it and knowing just exactly what it was going to be."³⁸ Ad Reinhardt wrote in 1953 that a technical rule for painting should be that "everything, where to begin and where to end, should be worked out in the mind beforehand."³⁹ Andy Warhol declared in 1963 that "the reason I'm painting this way is that I want to be a machine."⁴⁰ A few years later Sol LeWitt stated that in his art "all of the planning and decisions are made beforehand and the execution is a perfunctory affair."⁴¹ Chuck Close explained that creating his images of faces from photographs is done methodically: "I have a system for how the head is going to fit into the rectangle. The head is going to be so big, it is going to come so close to the top edge, and it is going to be centered left to right."⁴² Robert Smithson told an interviewer in 1969, "An object to me is the product of a thought."⁴³ Robert Mangold wrote in 1988, "I want to approach the final painting with a clear idea of what must happen."⁴⁴ Gerhard Richter wrote that when he painted, he "simply copied the photographs in paint and aimed for the greatest possible likeness to photography"; a consequence of this procedure was that "conscious thinking is eliminated."⁴⁵ Audrey Flack recalled the moment when she arrived at her practice of painting over projections of color slides: "It was late at night and I suddenly had the idea of projecting an image onto the canvas. . . . I owned no projector but was so excited by the idea that I called a friend who immediately re-

sponded to the urgency of my request. . . . This was the beginning. It opened up a new way of seeing and working.”⁴⁶ Ed Ruscha was equally pleased to find his method: “It was an enormous freedom to be premeditated about my art. . . . I was more interested in the end result than I was in the means to an end.”⁴⁷ Bridget Riley recently explained, “My goal was to make the image perfect, not mechanical . . . but perfect in the sense of being exactly as I intended it.”⁴⁸

Just as readily, we can find important modern artists who believed that the principal source of their achievement lay in events that occurred during the process of painting. Frustrated by the changing weather that slowed his progress on his paintings of Rouen Cathedral in 1893, Claude Monet wrote to his wife that “the essential thing is to avoid the urge to do it all too quickly, try, try again, and get it right.”⁴⁹ Auguste Renoir explained that his paintings took time to develop: “At the start I see my subject in a sort of haze. I know perfectly well that what I shall see in it later is there all the time, but it only becomes apparent after a while.”⁵⁰ Wassily Kandinsky wrote, “Every form I ever used constituted itself ‘of its own accord,’ ” with a form frequently “constituting itself actually in the course of work, often to my own surprise.”⁵¹ In 1909 Paul Klee wrote in his diary that “in order to be successful, it is necessary never to work toward a conception of the picture completely thought out in advance. Instead, one must give oneself completely to the developing portion of the area to be painted.”⁵² When a young artist visited the New York studio of the aging Piet Mondrian and asked him whether he was not losing good pictures by continually revising the same canvases, Mondrian replied, “I don’t want pictures, I just want to find things out.”⁵³ Joan Miró told an interviewer in 1948, “Forms take reality for me as I work. In other words, rather than setting out to paint something, I begin painting and as I paint the picture begins to assert itself, or suggest itself under my brush.”⁵⁴ Alberto Giacometti told a critic, “I don’t know if I work in order to do something or in order to know why I can’t do what I want to do.”⁵⁵ Mark Rothko declared, “I think of my paintings as dramas. . . . Neither the action nor the actors can be anticipated.”⁵⁶ Jackson Pollock explained in 1947, “I have no fears about making changes, destroying the image, etc., because the painting has a life of its own. I try to let it come through.”⁵⁷ Hans Hofmann told an interviewer, “At the time of making a picture, I want not to know what I’m doing; a picture should be made with feelings, not with knowing.”⁵⁸ William Bazotes wrote, “What happens on the canvas is unpredictable and surprising to me.”⁵⁹ Robert Motherwell recorded his realization “that each brush stroke is a decision.”⁶⁰ Howard Hodgkin told a critic, “My pictures really finish themselves.”⁶¹ Balthus wrote that “a painting’s different stages betray the painter’s endless trial and error as he tries to arrive at what he feels is the definitive, final, completed

state.”⁶² Pierre Alechinsky explained, “I apply myself to seeking out images that I do not know. . . . Indeed, it would be sad to know in advance that which is to come, for the simple reason that it deprives one of the sense of discovery.”⁶³ Francis Bacon told an interviewer that “in my own work the best things just happen—images that I hadn’t anticipated.”⁶⁴ Pierre Soulages described the process of making a painting as “a kind of dialogue between what I think is being born on the canvas, and what I feel, and step by step, I advance and it transforms itself and develops.”⁶⁵ Richard Diebenkorn confessed, “I find that I can *never* conceive a painting idea, put it on canvas, and accept it, not that I haven’t often tried.”⁶⁶ Helen Frankenthaler recalled how she learned to compose her paintings: “When one made a move toward the canvas surface, there was a dialectic and the surface gave an answer back, and you gave it an answer back.”⁶⁷ Joan Mitchell facetiously placed her style within the context of 1960s art: “Pop art, op art, flop art, and slop art. I fall into the last two categories.”⁶⁸ Susan Rothenberg said of her paintings that “the results are a way of discovering what I know and what I don’t.”⁶⁹

The contrast between the two types of artist is as great if we consider differences in practice in the final stage of making a painting. Considering the two archetypal cases discussed here, Cézanne rarely considered his paintings finished. His friend and dealer Ambroise Vollard observed that “when Cézanne laid a canvas aside, it was almost always with the intention of taking it up again, in the hope of bringing it to perfection.”⁷⁰ One consequence of this was that Cézanne rarely signed his works: fewer than 10 percent of the paintings in John Rewald’s recent catalogue raisonné are signed.⁷¹ In contrast, Picasso always signed his works and often dated them not only with the customary year but also the month and day—and occasionally even the time of day—of their execution.⁷² He told Françoise Gilot, “I paint the way some people write their autobiography. The paintings, finished or not, are the pages of my journal, and as such they are valid. The future will choose the pages it prefers. It’s not up to me to make the choice.”⁷³

INNOVATION AND AGE: OLD MASTERS AND YOUNG GENIUSES

When a situation requires a new way of looking at things, the acquisition of new techniques, or even new vocabularies, the old seem stereotyped and rigid. . . . But when a situation requires a store of past knowledge then the old find their advantage over the young.

*Harvey Lehman, 1953*⁷⁴

Picasso was a rare prodigy. Cézanne was not a prodigy,
his art was a hard-earned skill that took a lot of time.

*David Hockney, 1997*⁷⁵

Recognizing the differences between the experimental and conceptual approaches provides the basis for systematic predictions concerning the relationship between age and artistic innovation. The long periods of trial and error often required for important experimental innovations means that they will tend to occur late in an artist's career. Because conceptual innovations are made more quickly, it might be thought that they should be equally likely to occur at any age. Yet the achievement of radical conceptual innovations depends on the ability to perceive and appreciate the value of extreme deviations from existing conventions and traditional methods, and this ability will tend to decline with experience, as habits of thought become more firmly established. The most important conceptual innovations should therefore tend to occur early in an artist's career. As noted earlier, some conceptual artists will make a series of unrelated contributions over the course of their careers, but this analysis predicts that the most important of these will generally be the earliest.

Cézanne did not even formulate the central problem of his career, of making Impressionism a more timeless and solid art, until he was in his midthirties. He then worked steadily at developing his solution to that problem—"searching for a technique"—for more than three decades and arrived at his most important contribution at the end of his life.⁷⁶ In contrast, Picasso conceived his most important idea while in his midtwenties, when he painted the *Demoiselles*, and he and Braque developed that idea into the several forms of Cubism, his most important contribution, within less than a decade. By 1914 Picasso had thus concluded "the most complete and radical artistic revolution since the Renaissance."⁷⁷ He was then just thirty-three, the same age at which Cézanne had traveled to Pontoise to learn from Pissarro the techniques of Impressionism, which became the starting point for the quest that would culminate in his greatest achievement more than thirty years later. Cézanne's slow production and elaboration of his creative ideas led to a very late peak in the quality of his work, whereas Picasso's rapid production and development of his new ideas led to a very early peak.

ARTISTS, SCHOLARS, AND ART SCHOLARS

I think an artist is seldom jealous of another man's
income. We are jealous of the quality of his work.

*Walter Sickert, 1910*⁷⁸

Invention in the arts and in thought is part of the invention of life, and . . . this invention is essentially a single process.

*Brewster Ghiselin, 1952*⁷⁹

Today it is again apparent that the artist is an artisan, that he belongs to a distinct human grouping as *homo faber*, whose calling is to evoke a perpetual renewal of form in matter, and that scientists and artists are more like one another as artisans than they are like anyone else.

*George Kubler, 1962*⁸⁰

Why do people think artists are special?

It's just another job.

*Andy Warhol, 1975*⁸¹

Few people depend as much as artists and intellectuals do for their self-image upon the image others, and particularly other writers and artists, have of them. "There are," writes Jean-Paul Sartre, "qualities that we acquire only through the judgments of others." This is especially so for the quality of a writer, artist, or scientist, which is so difficult to define because it exists only in, and through, co-optation, understood as the circular relations of reciprocal recognition among peers.

*Pierre Bourdieu, 1993*⁸²

The more I've read of mathematicians and physicists, the more engrossed I've become. They really seem like artists to me.

*David Hockney, 1988*⁸³

The next important step in this presentation is to consider how the theoretical predictions made here can be tested empirically. Before doing this, however, it is useful briefly to indicate how this analysis relates to some earlier treatments in art history.

Perhaps the most generally acclaimed recent examination of the context within which artists make paintings is Michael Baxandall's *Patterns of Intention*. To understand how objects come to be made, Baxandall begins the book with a description of the construction of a bridge in Scotland in the nineteenth century. A company formed by four railroads decided where they wished to have a bridge, then hired an engineer to design and

build it. Baxandall then uses this framework to consider the production of paintings, with the artist in the role of the engineer.

Curiously, Baxandall's first application of this framework is not, as might be expected, to a case in which a Renaissance prince or cardinal hired a painter to execute a commission, but rather to Picasso in 1910.⁸⁴ Since Picasso was not hired by Daniel-Henry Kahnweiler to paint his portrait, much less given a set of criteria for the work, Baxandall must begin by making a series of adjustments to his framework to apply it to this situation. My object here is not to argue with Baxandall's conclusions, nor is it to understand his motivation in proceeding in such a roundabout way. My point is simply that in approaching the issue of modern artists' motivations it would appear more pragmatic to begin with a model that is closer to the situation of the modern artist. And we do not have far to look for such a model, for there are strong parallels between the situation of the modern artist and that of the research scholar.

Like the scholar, the modern artist's goal is to innovate—to create new methods and results that change the work of other practitioners. Most often, this involves not only solving problems, but also formulating them. Most great modern art, like most great scholarship, is unlike the case of the bridge, in which someone hires an agent to solve a recognized problem. In most cases important scholarly and artistic innovations come from perceiving a previously unrecognized problem, or formulating a previously recognized problem in a novel way, before creating a solution to it. And since in both scholarship and art questions are usually more durable than answers, the principal contribution often lies more in the recognition and formulation of the problem than in the specific solution offered.

This parallel between artists and scholars is not novel, for it has been drawn by several art scholars. In a lecture first given in 1948 the historian Meyer Schapiro compared modern artists to scientists in their commitment to “endless invention and growth” in their respective disciplines.⁸⁵ And in his 1962 book, *The Shape of Time*, the historian George Kubler regretted our “inherited habit of separating art from science,” for he observed that “the value of any rapprochement between the history of art and the history of science is to display the common traits of invention, change, and obsolescence that the material works of artists and scientists both share in time.”⁸⁶ Yet these analyses of Schapiro and Kubler have been largely ignored by art historians, perhaps because they conflict with the romanticized view of the artist's enterprise that serves as the implicit foundation for much of art history.⁸⁷

It is unfortunate that the parallel between artists and scholars has not been more widely recognized, for it might have served as a corrective to some of the less compelling analyses of artists' motivations, by social

scientists as well as humanists. We understand, for example, that in the first instance nearly all important scholarship is produced for an audience of other scholars. Scholars may do this out of pure intellectual curiosity, but even if their goals are more self-serving, they recognize that influence within their discipline will often help them achieve fame and fortune. Great artists appear to be no different. They may work from a variety of motives, but their first goal is generally to influence their fellow artists. They understand that if they are successful in this, public acclaim and lucrative sales will generally follow.⁸⁸

The careers of successful scholars and artists also have a common structure. At the graduate level, most important scholars have worked with a teacher who is himself an important contributor to the discipline. The same is true for artists. Few important modern painters have been self-taught, for at a formative stage of their careers most have studied, formally or informally, with successful older artists, who not only provided them with technical instruction and advice, but also inspired and encouraged them. Similarly, just as at an early stage of their careers most successful scholars have studied and worked closely with other promising scholars of their own generation, virtually all successful modern artists have initially developed their art in the company of other talented young artists. In some celebrated cases, including those of the Impressionists and the Cubists, these relationships involved collaborating to solve a problem of common interest, but even when the artists' goals differed considerably, these alliances provided moral support as well as challenges to the young artists involved. Thus, for example, Robert Rauschenberg recalled that at a time when he and Jasper Johns were developing their art with little understanding or encouragement from the art world at large, the support they gave each other gave them "permission to do what we wanted."⁸⁹ The complexity of these early collaborations is suggested by Gerhard Richter's comments on his relationship with two fellow art students, Sigmar Polke and Konrad Lueg, in the early 1960s. At the time, in 1964, he wrote: "Contact with like-minded painters—a group means a great deal to me: nothing comes in isolation. We have worked out our ideas largely by talking them through. Shutting myself away in the country, for instance, would do nothing for me. One depends on one's surroundings. And so the exchange with other artists—and especially the collaboration with Lueg and Polke—matters a lot to me: it is part of the input that I need." Nearly thirty years later, when an interviewer asked him about his earlier collaboration with Polke and Lueg, Richter stressed a different aspect of it: "There were rare and exceptional moments when we were doing a thing together and forming a kind of impromptu community; the rest of the time we were competing with each other."⁹⁰ All these early collaborations probably contain elements of both cooperation and com-

petition, and both are probably critical to the early development of ambitious artists. The importance of these collaborations is sometimes overlooked, for they usually dissolve as artists age and their interests diverge, but it is important to notice how often the contributions even of apparently isolated artists are in fact the product of working out solutions to problems that were formulated earlier in groups.

The distinction I have drawn between the two types of artistic innovator is equally not a new one, for the difference in artists' approaches has been noted by several art scholars. In his survey of the history of modern art Alan Bowness observed that the difference between what he called realist and symbolist artists "may depend on certain basic temperamental differences among artists—on, for example, the degree to which the painter or sculptor can envisage the finished work of art before he starts to make it."⁹¹ The critic David Sylvester made a similar observation in comparing two generations of American painters, as he noted that "some artists like to think that they are working in the dark, others that they are firmly in control"; whereas the Abstract Expressionists "subscribed to the idea that making art meant feeling one's way through unknown territory," the work of the leading artists of the 1960s was "carefully planned, tightly organized, precise in execution."⁹²

Although both Bowness and Sylvester clearly recognized the distinction I have described here, neither pursued it, and, most important, neither appears to have perceived its most startling implication—the difference in the creative life cycles of the two groups of innovators. I have found only one case in which an art scholar does appear to have identified essentially this difference in life cycles. Roger Fry devoted his inaugural lecture as professor of fine art at Cambridge University in 1933 to outlining a more systematic approach to the study of art. In the course of this attempt, Fry observed that an artist's experiences must inform his work, and that "the mere length of time that an artist has lived has then inevitably an influence on the work of art." Fry then continued:

When we look at the late works of Titian or Rembrandt we cannot help feeling the pressure of a massive and rich experience which leaks out, as it were, through the ostensible image presented to us, whatever it may be. There are artists, and perhaps Titian and Rembrandt are good examples, who seem to require a very long period of activity before this unconscious element finds its way completely through into the work of art. In other cases, particularly in artists whose gift lies in a lyrical direction, the exaltation and passion of youth transmits itself directly into everything they touch, and then sometimes, when this flame dies down, their work becomes relatively cold and uninspired.

After making this statement, Fry immediately acknowledged the casual nature of his comments, conceding apologetically, “I fear a great deal of this must appear to you to be rather wildly speculative and hazardous.”⁹³ Although it is not known whether Fry intended to pursue this particular observation, his death the following year prevented any effort on his part to document the hypothesis, and although many decades have passed since Fry spoke, no art historian has taken up the challenge to do this. Yet today, seventy years later, I believe that my research provides a firm evidentiary basis for Fry’s remarkable generalization.