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THE LIFE CYCLES OF MODERN ARTISTS

David W. Galenson

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### **ABSTRACT**

There have been two very different life cycles for great modern artists: some have made their major contributions early in their careers, while others have produced their best work later in their lives. These patterns have been associated with different artistic goals and working methods: artists who peak late are motivated by aesthetic considerations and work by trial and error, whereas artists who peak early are motivated by conceptual concerns and plan their work in advance. This paper shows that Jackson Pollock, Mark Rothko, and the other leading Abstract Expressionists, who were experimental innovators, produced their best work considerably later in their careers than did Jasper Johns, Andy Warhol, and the other leading conceptual innovators of the generation that followed them. These results not only yield a new understanding of the life cycles of creative individuals, but also provide new insights into the value of works of art.

David W. Galenson  
Department of Economics  
University of Chicago  
1126 East 59th Street  
Chicago, IL 60637  
and NBER  
sogrodow@midway.uchicago.edu

One day in New York City in 1964, Andy Warhol took an aspiring actress named Holly Solomon to 42<sup>nd</sup> Street. Once there Warhol tested a number of photo booths until he found one with high contrast. He then left Solomon in the booth with \$25 in quarters. Two hours later, hot and bored, Solomon emerged from the booth with a shoebox full of pictures. She later gave the box to Warhol, who selected one of the photographs and gave it to an assistant. The assistant made silkscreens from the picture, and pressed a variety of brightly-colored inks through these stencils to reproduce the photograph on nine separate canvases, each 27" x 27". Completed in 1966, the nine panels constituted the portrait Solomon had commissioned from Warhol. Thirty-five years later, on the evening of Tuesday, November 13, 2001, *Holly* was auctioned at Christie's in New York for a price of \$2.1 million.

It has long been recognized that artists hold a distinctive place in our economic life and that, as historian Meyer Schapiro (1968) observed, the works they produce are "perhaps the most costly man-made objects in the world." Yet the current value of *Portrait of Holly Solomon* cannot immediately be understood in light of some past explanations of this fact. So for example when James McNeill Whistler (1922) was asked in 1873 whether he really charged the substantial sum of 200 guineas for a painting that he had made in just two days, he replied "No, I ask it for the knowledge of a lifetime." In 1964, however, Andy Warhol was a relative novice in fine art, having given up a career as a commercial illustrator just a few years earlier. Vincent van Gogh (1958) believed that "art is something which, although produced by human hands, is not created by these hands alone, but something which wells up from a deeper source in our souls," and his paintings are prized for the visual record they provide of Vincent's secular search for salvation as he explored new conceptual forms of emotional expression. Yet Andy Warhol's

photographic images in Day-Glo colors do not appear to offer comparable views of a spiritual quest. The artist Maurice Denis (1910) saw in Cézanne's late work "evidence of labor, [in which] one catches sight of the artist in his struggle for style and his passion for nature." But the labor in *Holly* was likely that of Gerard Malanga, Warhol's assistant, and his execution of the work was specifically designed to hide traces of the human hand; as Warhol explained, "the reason I'm painting this way is that I want to be a machine," (Madoff, 1997). The price of *Holly* might simply reflect Thorstein Veblen's (1994) belief that "conspicuous consumption of valuable goods is a means of respectability," though it is not entirely obvious why respect would be accorded to a collector who pays \$2.1 million for the work of someone Harold Rosenberg (1985), one of the most distinguished of American critics, did not even consider to be an artist, but rather dismissed contemptuously as "a manufacturer of art substitutes."

Robert Hughes (1990), a prominent art critic, has declared that "the price of a work of art is an index of pure, irrational desire." Yet systematic understanding of the value of fine art is perhaps less difficult than this would imply. For recent research has revealed that the value of works of fine art is directly related to their importance in the history of art. And gauging art historical importance may be in turn considerably less complicated than art historians might care to believe. Scholars of art often portray art history as a mysterious and labyrinthine subject, full of idiosyncrasies and dark corners. Thus Robert Storr, a curator at New York's Museum of Modern Art, recently claimed that artistic success "is completely unquantifiable," (Duff, 1998). But in fact importance in art is not as nebulous or amorphous as Storr and his fellow guardians of the secret would suggest.

Investigating the value of fine art has unexpected benefits. In searching for the sources of

artistic success, we learn novel facts about the life cycles of great painters. And perhaps even more surprisingly, we gain new insights into the nature of human creativity in general.

### Importance in Art

As in academic disciplines, the primary source of genuine importance in art is innovation. Important artists are innovators whose work changes the practices of their successors. Important works of art embody important innovations; the most important works of art are those which introduce these innovations.

Although this analysis is valid for the entire history of art, in the modern era an even greater premium has been placed on the production of striking innovations. This has often resulted in exaggerated claims for new work. In view of this, it should be stressed that the artistic importance at issue here is that of the long run: the true innovators are those whose work eventually hangs on the walls of major museums and becomes the subject of study by later generations of artists and scholars of art. Short-run success, in the form of critical acclaim or lucrative sales of an active artist's work, often does not translate into long-run success. Thus famous cautionary tales from the modern era include not only those of painters neglected in their own time, like van Gogh and Gauguin, whose work became greatly celebrated and highly valued after their deaths, but also those of their contemporaries William Adolphe Bouguereau and Ernest Meissonier, whose paintings attracted both extravagant praise from critics and high prices from collectors during their own lifetimes, but whose reputations and prices declined sharply thereafter.

### Experimental and Conceptual Innovators

Recent research has revealed that there have been two very different types of innovation

in the history of modern art. What distinguishes them is not their importance, for instances of both rank among the major innovations of modern art. What distinguishes them is rather the method by which they are produced. One of these types can be called aesthetically motivated experimentation, the other conceptual execution.

Artists who have made experimental innovations have been driven by aesthetic considerations: their art has sought to present visual perceptions. Their goals are generally imprecise, so they proceed tentatively and incrementally. These artists repeat themselves, painting the same subject many times - often painting over a single work many times - while gradually changing its treatment in an experimental process of trial and error. Each work leads to the next, so experimental painters rarely make preparatory sketches or detailed plans for a painting. Their innovations emerge gradually: they are not declared in any single work, but instead appear piecemeal in a large body of work. Experimental artists typically build their skills and understanding over the course of their careers. Yet their progress often fails to bring them great satisfaction, for the imprecision of their goals rarely allows them to feel they have succeeded. This imprecision in fact often makes it difficult for them to decide even when particular paintings are finished.

In contrast, modern artists who have produced conceptual innovations have been motivated by criteria that are other than visual: their art has been intended to express ideas. Their goals for a particular work can usually be stated precisely before its production, either as a desired outcome or a specified process for the work's production. Conceptual artists consequently often make detailed preparatory sketches or plans for their paintings. Their work is often systematic, with all major decisions made before they begin to paint: this may be either

because they begin with a precise mental image of the finished work, or because they have formulated a set of rules that they follow without deviation. In either case, they often describe the execution of a painting as perfunctory. Conceptual innovations typically appear suddenly, as a new idea produces a result quite different not only from other artists' work but also from the artist's own previous work. The precision of their goals often allows conceptual artists to be satisfied that their paintings are finished, and have achieved a specific purpose.

The critical difference between experimental and conceptual artists appears to involve when in the production of their work they make decisions. For purposes of this distinction, the process of making a painting can be divided into two stages. One is that of working - putting paint on a canvas, or sheet of paper. The other, of planning, occurs prior to this, and consists of all the artist's preparations before beginning to apply the paint.

For the conceptual artist, the important decisions for a work of art occur in the planning stage, when the artist either mentally envisages the completed work or specifies a set of procedures that will produce the finished work. The working stage is devoted simply to executing the plan - either producing the preconceived image or carrying out the prescribed procedures. For the experimental artist, the planning of a painting is of little importance. The important decisions for the painting are made in the working stage, as the artist proceeds on the basis of visual inspection of the developing image, evaluating whether what he sees on the canvas corresponds with his view of a model, and making adjustments accordingly.

### Age and Artistic Innovation

Although the scholarly literature of art history is replete with judgments of when in their careers individual painters have made their most important contributions, historians' attempts to

generalize about artists' life cycles have been desultory and uninspired. Yet recognizing the difference between experimental and conceptual innovations now provides the basis for a systematic understanding of the relationship between age and artistic innovation. The long periods of trial and error often required for important experimental innovations mean that they rarely occur early in an artist's career. Conceptual innovations, which are made more quickly, can occur at any age. Radical conceptual innovations are in fact most often made early in artists' careers, by painters who have not yet become accustomed to existing conventions and methods and are consequently more likely to be able to perceive more extreme deviations from these accepted practices.

This analysis therefore suggests that important conceptual innovators should generally produce their most important work earlier in their careers than experimental innovators. Earlier in this paper, I argued that the value of fine art depends on its importance. Combining this understanding of the source of value of fine art with the analysis presented here of the life cycles of innovators leads to the prediction that conceptual innovators should produce their most valuable work earlier in their careers than their experimental counterparts. There is abundant evidence with which this prediction can be tested.

#### From Abstract Expressionism to Pop Art

The artists considered in this study will be those who emerged as the major painters in the New York art world after World War II. It has become a commonplace of art history that "after the Second World War, the art world witnessed the birth and development of an American avant-garde, which in the space of a few years succeeded in shifting the cultural center of the West from Paris to New York," (Guilbaut, 1963). For two generations, New York became the



preeminent source of major innovations in modern art. Interestingly, the first of these generations was dominated by experimental innovators, and the second by conceptual innovators.

This study will examine the careers of the leading painters from each of these two generations; they are listed in Table 1.<sup>1</sup> The five artists of the first generation are the most celebrated members of the Abstract Expressionists. This was a group united not by a style but by their dissatisfaction with existing methods of painting and their desire to draw on the subconscious to create paintings that would communicate a wide range of emotions. All the members of the group were experimental in their approach.

The absence of preconceived outcomes was a celebrated feature of Abstract Expressionism. Jackson Pollock's signature drip method of applying paint, with the inevitable spattering and puddling that could not be completely controlled by the artist, became the most familiar symbol of this lack of preconception, reinforced by his often-quoted statement, "When I am *in* my painting, I'm not aware of what I'm doing," (Karmel, 1998). Mark Rothko (1947) wrote that

I think of my pictures as dramas... Neither the action nor the actors can be anticipated, or described in advance. They begin as an unknown adventure in an unknown space... Ideas and plans that existed in the mind at the start were simply the doorway through which one left the world in which they occur.

Barnett Newman expressed the same idea less dramatically: "I am an intuitive painter...I have never worked from sketches, never planned a painting, never 'thought out' a painting before," (Bois, 1990). Arshile Gorky's widow explained that the artist's aesthetic intention for a work was hard to define, since he himself "did not always know what he intended and was as surprised

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<sup>1</sup>On the selection of these artists, see Galenson (2002).

as a stranger at what the drawing became ... It seemed to suggest itself to him constantly,” (Spender, 1999).

The Abstract Expressionists developed their art by a process of trial and error. In 1945 Rothko wrote to Newman that his recent work had been exhilarating but difficult: “Unfortunately one can’t think these things out with finality, but must endure a series of stumblings toward a clearer issue,” (Breslin, 1993). This description equally applied to the production of individual paintings. Thus Elaine de Kooning (1994) recalled that her husband repeatedly painted over his canvases: “So many absolutely terrific paintings simply vanished because he changed them and painted them away.” As they worked, the artists changed their paintings in response to what they saw on the canvas. An assistant who worked for Rothko in the 1950s remembered how he “would sit and look for long periods, sometimes for hours, sometimes for days, considering the next color, considering expanding an area.” The importance of these periods of study was such that a biographer observed that “since the late 1940s Rothko, building up his canvases with thin glazes of quickly applied paint, had spent more time considering his evolving works than he had in the physical act of producing them.” Like his friends, Rothko believed that progress came slowly, in small increments. He made his trademark image of stacked rectangles the basis for hundreds of paintings over the course of two decades, declaring that “If a thing is worth doing once, it is worth doing over and over again - exploring it, probing it,” (Breslin, 1993).

The Abstract Expressionists wanted to create new visual representations of their emotions and states of mind. Rothko declared his aim of “finding a pictorial equivalent for man’s new knowledge and consciousness of his more complex inner self,” (Breslin, 1993). Pollock told an interviewer that “the unconscious is a very important side of modern art... [T]he modern artist, it

seems to me, is working and expressing an inner world,” (Karmel, 1998). Their aspirations for their work were considerable. Newman (1990) argued that his work’s rejection of aesthetic systems made it an “assertion of freedom;” when challenged to explain what one of his paintings could mean to the world, he replied that if properly understood “it would mean the end of all state capitalism and totalitarianism.”

Their combination of enormously ambitious but extremely vague goals left the Abstract Expressionists continually uncertain not only whether their paintings were successful, but even whether individual works were complete. In characteristically direct terms, Newman (1990) stated “I think the idea of a ‘finished’ picture is a fiction.” De Kooning recalled that he considered his series of paintings of *Women* - now generally considered his most important achievement - a failure, but that hadn’t fazed him:

In the end I failed. But it didn’t bother me ... I didn’t work on it with the idea of perfection, but to see how far one could go - but not with the idea of really doing it, (Hess, 1968).

Pollock’s widow, Lee Krasner, recalled that during the early 1950s, even after he had been recognized as a leader of the Abstract Expressionists, one day “in front of a very good painting ... he asked me, ‘Is this a painting?’ Not is this a good painting, or a bad one, but a *painting!* The degree of doubt was unbelievable at times” (Karmel, 1998).

The Abstract Expressionists came to dominate American art during the 1950s, and many younger artists directly followed their lead. Yet some aspiring artists found the art and attitudes of the Abstract Expressionists oppressive. Reacting against what they considered the exaggerated emotional and philosophical claims of Abstract Expressionism, these younger artists created a variety of new forms of art. Although these new approaches did not belong to any

single movement and differed greatly in appearance, they did have in common a desire to replace the complexity of Abstract Expressionist gestures and symbols with simpler images and ideas. In the process, during the late 1950s and '60s, they succeeded in replacing the experimental methods of the Abstract Expressionists with a conceptual approach.

These younger artists planned their work carefully in advance. Frank Stella explained that “the painting never changes once I’ve started to work on it. I work things out beforehand in the sketches,” (Jones, 1996). Although the signature cartoon images of Roy Lichtenstein, a leader of Pop Art, were very different from Stella’s geometric patterns, in 1969 Lichtenstein told a critic that the central concern of his work was similar to Stella’s: “I think that’s what’s interesting people these days: that, before you start painting the painting, you know exactly what it’s going to look like,” (Sylvester, 1997).

These artists wanted the images in their work to be straightforward. Stella emphasized that “all I want anyone to get out of my paintings ... is the fact that you can see the whole idea without any confusion,” (Battcock, 1968). Jasper Johns (1996) explained that he chose to paint flags, targets, maps, and numbers because “they seemed to me preformed, conventional, depersonalized, factual, exterior elements.” In some cases, the artists produced the images mechanically. Andy Warhol used silk screens because “hand painting would take much too long and anyway that’s not the age we’re living in. Mechanical means are today,” (Jones, 1996). Others mimicked mechanical production. Lichtenstein explained that “I want my painting to look as if it had been programmed. I want to hide the record of my hand,” (Madoff, 1997). He stressed the contrast with his predecessors: “Abstract Expressionism was very human looking. My work is the opposite,” (Gruen, 1991).

These younger artists were at pains to emphasize that their paintings did not contain the emotional and psychological symbolism that the Abstract Expressionists had considered central to their art. Stella explained to an interviewer that

I always get into arguments with people who want to retain the old values in painting - the humanistic values they always find on the canvas. If you pin them down, they always end up asserting that there is something there besides the paint on the canvas. My painting is based on the fact that only what can be seen there *is* there (Battcock, 1968).

Similarly, when asked if he was anti-experimental, Roy Lichtenstein responded “I think so, and anti-contemplative, anti-nuance, anti-getting-away-from-the-tyranny-of-the-rectangle, anti-movement-and-light, anti-mystery, anti-paint-quality, anti-Zen, and anti all of those brilliant ideas of preceding movements which everyone understands so thoroughly” (Madoff, 1997).

These artists typically avoided making claims about the impact of their art on society. Johns (1996) told an interviewer, “I’m neither a teacher nor an author of manifestos. I don’t think along the same lines as the Abstract Expressionists, who took those sorts of things all too seriously.”

The clarity of these artists’ goals meant that problems could be definitively solved, and individual works clearly finished. Early in his career, Robert Rauschenberg formulated the idea of creating a work of art by erasing. He persuaded Willem de Kooning to give him a drawing for the purpose, and after a month of work Rauschenberg decided the result, which he framed and labeled “Erased de Kooning Drawing, Robert Rauschenberg, 1953,” was a success: “In the end it really worked... I felt it was a legitimate work of art.” Rauschenberg’s conclusion was definite: “The problem was solved, and I didn’t have to do it again” (Tomkins, 1980). Stella summarized

the difference in attitude between his cohort and the preceding one:

We believe that we can find the end, and that a painting can be finished. The Abstract Expressionists always felt the painting's being finished was very problematical. We'd more readily say that our paintings were finished and say, well, it's either a failure or it's not, instead of saying, well, maybe it's not really finished (Battcock, 1968).

Remarkably, a generation dominated by experimental artists was thus followed by one dominated by conceptual artists. This did not escape notice in the art world. The critic David Sylvester (1997), for example, wrote in 1969 that

Some artists like to think they are working in the dark, others that they are firmly in control. The preference seems almost ... a matter of generation ... Most of the artists whose styles were formed in the 1940s subscribed to the idea that making art meant feeling one's way through unknown territory... The typical art of the Sixties ... has an air of certainty and decision. The artist, like a good executive, makes up his mind what he will do and does it, or gets it done to his specifications.

Yet what has not received systematic attention from scholars of art is the consequences of this shift for artists' life cycles. This neglect can now be remedied.

### The Econometrics of Aesthetics

Just over 1,600 paintings and watercolors by the ten artists considered in this study were sold at auction during 1970-97. For each artist, the relationship between the auction value of his work and his age at the date of the work's execution was estimated by multiple regression analysis.<sup>2</sup> Each painter's implied age at peak value was then estimated. These results are presented in Table 2.

The econometric results clearly demonstrate that the experimental painters of the first

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<sup>2</sup>For detailed descriptions of the evidence and analysis, see Galenson (2001).

generation produced their most valuable work later in their careers than their conceptual successors. Thus the estimated ages at peak value of the Abstract Expressionists, which range from 38 to 54, are all greater than all of the peak ages of the painters of the next generation, which range from 24 to 35. The median age at peak value of the first generation, of 41, is ten years greater than the median of 31 of the second generation; the mean for the first generation, of 43, is 13 years greater than the second generation painters' mean of 30.

Table 2 thus shows that the conceptual artists considered here produced their highest-priced work at younger ages than did the experimental artists. Yet the objection might be made that these artists' most valuable work is not necessarily their most important work: perhaps auction prices tell us about the tastes of wealthy but unsophisticated collectors, but do not reflect the judgments of sophisticated art scholars. Whether they do can be tested.

Systematic scholarly evaluations of the relative quality of artists' work over the course of their careers are implicit in the composition of retrospective exhibitions. Museum curators who organize retrospectives reveal their judgments of the importance of an artist's work at different ages through their decisions on how many paintings to include from each phase of the artist's career.<sup>3</sup> For each of the artists considered here, Table 3 presents the distribution of paintings included in the most recent retrospective exhibition of the artist's work according to the artist's age at the date of their execution. There is generally a strong agreement between this evidence and that of Table 2. Thus for four artists - Gorky, Pollock, Warhol, and Johns - the estimated age at peak value falls within the five-year period of the artist's career most heavily represented in the relevant retrospective. For another three- de Kooning, Rauschenberg, and Stella - the age at

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<sup>3</sup>For additional discussion, see Galenson (2001).

peak value is within two years of the period most heavily represented. For Lichtenstein, the age at peak value is five years from the most heavily emphasized period, but it falls within the second most important period. Newman's age at peak value is also five years from one of the two most heavily emphasized periods, but falls within a period that is given only slightly less weight than those peak periods. Rothko's case is similar, for although his age at peak value is fully 11 years from his most heavily emphasized, final period, there is relatively little variance across a number of age periods in the composition of his retrospective. As with Newman, Rothko's retrospective reflects the consensus of art scholars that his experimental procedure resulted in a career that had an extended plateau rather than sharp peaks and valleys. The critical evaluation of these artists' careers thus agrees quite closely with the evaluation of the market in a majority of cases, and does not strongly disagree even in the cases for which the two differ.

The comparison of Tables 2 and 3 therefore suggests that art scholars and collectors generally agree on when these artists produced their best work. And this is hardly surprising, for the cost of the work of these artists is sufficiently great that collectors would be expected to consider their purchases carefully, and to be either well informed or well advised on the objects they buy. Thus Peter Schjeldahl (1990), now the art critic for the *New Yorker*, wrote in 1989 that "I must admit that the artistic judgment of current big bucks is better than the average among, say, critics," then added parenthetically: "Like the prospect of being hanged, shelling out millions may concentrate the mind wonderfully."

It might furthermore be noted that even apart from the comparison to Table 2, the evidence of Table 3 supports the prediction made above of the differing timing of the careers of experimental and conceptual innovators. Thus according to the retrospectives, four of the five



experimental painters' most important work was done after the age of 40, and three of these after 45, whereas four of the five conceptual artists' major work was done before the age of 35; remarkably, for three of the latter, the curators judge that their major contributions occurred while they were still in their twenties.

### Conclusion

Art scholars have occasionally touched on the distinction drawn here, between painters who preconceive the images in their works and those who allow these images to emerge in the process of painting. Yet only one scholar appears to have discussed the difference in artists' life cycles analyzed here. In his inaugural lecture as professor of fine art at Cambridge University in 1933, the English critic Roger Fry (1962) briefly contrasted two patterns:

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.

Yet Fry immediately conceded that "I fear a great deal of this must appear to you to be rather wildly speculative and hazardous," and his death just a year later prevented us from learning whether, and how, he would have developed this insight.

Art historians have failed to follow up Roger Fry's interest in the relationship between age and artistic achievement, for artists of any period. The present study has demonstrated the value of doing this. Analysis of the careers of modern artists deepens our understanding of how

and when major painters have arrived at their major achievements. Even more broadly, this analysis provides surprising new evidence about the life cycles of human creativity. For in this respect fine art may be a microcosm of intellectual activity in general, as innovators who work deductively make their breakthroughs in “the exaltation and passion of youth,” while those who work inductively make their greatest discoveries late in life, as a result of the accumulation of “a massive and rich experience.”

### Coda

The question of why the *Portrait of Holly Solomon* would be valued at the substantial sum of \$2.1 million can be reconsidered in light of this investigation. Andy Warhol switched from commercial art to painting in 1960. Within the space of just two years, he then proceeded to make one of the most influential conceptual innovations in the history of modern American art. Critic John Coplans argued that this comprised two key components: “First, the actual as against the simulated use of an anonymous and mechanical technique, and second, the use of serial forms” (Madoff, 1997). Warhol’s use of these devices would later be considered a central influence on many artists, including Sigmar Polke, Gerhard Richter, and other German neoexpressionists, Julian Schnabel, David Salle, and the American neoexpressionists, and Peter Halley, Jeff Koons and other leading artists of the 1990s (Sandler, 1996). Warhol arrived at these practices during 1961 and 1962. Coplans’ analysis is thus neatly reflected in Table 2, for the age at peak value given there implies that Warhol’s most valuable works were those which first began to present his major contributions. So for example “Marilyn x 100,” made in 1962, brought \$3.4 million at auction in 1992. Yet Figure 1 shows that although Warhol’s age-price profile peaked in 1961, it declined only gradually during the following years, as he repeatedly

used his new techniques to chronicle the popular culture of the swinging sixties. Holly Solomon's portrait, with its silkscreened image repeated nine times, thus did not introduce Warhol's major innovation, but it did embody it not long after its creation. Although her session in a photo booth occurred several years too late to make Warhol's portrait of her as famous as his portrayals of Campbell's soup cans and Marilyn Monroe, it nonetheless occurred early enough to earn Holly Solomon's portrait a place as a minor masterpiece in the canon of modern art.

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Table 1: Painters Included in this Study

Artist	Country of birth	Year of birth	Year of death
First Generation			
Mark Rothko	Russia	1903	1970
Arshile Gorky	Armenia	1904	1948
Willem de Kooning	Holland	1904	1997
Barnett Newman	US	1905	1970
Jackson Pollock	US	1912	1956
Second Generation			
Roy Lichtenstein	US	1923	1997
Robert Rauschenberg	US	1925	
Andy Warhol	US	1928	1987
Jasper Johns	US	1930	
Frank Stella	US	1936	

Table 2: Estimated Ages at Peak Value

Artist	n	Peak age
Mark Rothko	117	54
Arshile Gorky	68	41
Willem de Kooning	217	43
Barnett Newman	19	40
Jackson Pollock	65	38
Roy Lichtenstein	163	35
Robert Rauschenberg	140	31
Andy Warhol	569	33
Jasper Johns	44	27
Frank Stella	207	24

Source: Galenson (2001).

Table 3: Distribution by Artist's Age of Paintings Included in Retrospective Exhibitions (mean paintings per year)

	20-4	25-9	30-4	35-9	40-4	45-9	50-4	55-9	60-4	65-9	70-4	75-9	80-4
Rothko	0	0	1.0	2.0	3.6	4.4	3.8	3.8	1.4	5.3			
Gorky	2.2	5.6	9.8	8.6	19.8								
de Kooning	0	0	0.2	0.6	2.2	3.4	2.8	1.2	1.2	1.2	2.0	1.2	0.8
Newman	0	0	0	0	4.6	5.0	0.8	3.2	4.0	5.0			
Pollock	0.6	7.2	10.2	16.0	3.0								
Lichtenstein	0	0.4	0	6.8	8.4	3.8	3.8	1.8	1.8	4.0			
Rauschenberg	0.6	14.6	8.6	14.4	4.6	7.8	5.2	5.6	4.4	6.8	4.4		
Warhol	0.4	9.8	26.0	18.8	1.8	3.6	6.4	11.2					
Johns	0.4	6.6	6.2	1.4	1.2	1.4	3.6	2.0	2.4	1.0			
Stella	1.8	3.4	2.4										

Source: Galenson (2001).



Figure 1: Estimated Age-Price Profile for Andy Warhol

