

The Price of Hierarchy:
Consecration and the Formation of Economic Value
in the Market for Modern Art¹

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Abstract

This article outlines a theory of consecration and uses it to solve a puzzle in the sociology of cultural markets. The puzzle is that, while art world insiders believe that art market intermediaries are instrumental in shaping the value of artists, scholars have never been able to show how they do so. I argue that in fields characterized by high instability in the criteria defining worth or quality, a field's institutions can act on the value of people or things by consecrating their field – that is, by suggesting, through the enactment of crisp and legible hierarchies of worth among its members, that this field is undergirded by a reliable hierarchy of worthiness. This means that consecration enhances the status of things, not by signaling that they are individually worthy, but by suggesting that they sit atop reliable hierarchies. Using the largest database ever collected on the art market in Paris at a time when the city was the center of the global art world, I then demonstrate that, in the heyday of modernism, market intermediaries shaped the value of artists by consecrating the profoundly anomic field of modern art through their decisions of representation.

Keywords

Consecration, status, social hierarchies, valuation, markets, art fields

Introduction

A paradox awaits the sociologist venturing into the study of art markets. Markets for novel goods – such as new art – are usually seen as privileged settings for the powerful influence of market intermediaries on the success of things. And in fact art world insiders typically regard intermediaries – the galleries and dealers in charge of promoting artists – as the makers or breakers of artists' careers. Oddly enough, however, economic sociologists have repeatedly failed to observe any effect of the work of art market intermediaries on the value of the artists they distribute: the reputation of dealers, for example, does not seem to bear any noticeable impact on the prices of their artists; nor do their advertising efforts, their experience in business, or their commitment to more highbrow forms of artistic production (Rengers and Velthuis 2002; Velthuis 2005; Beckert and Rössel 2013). How are we to reconcile these findings with insiders' belief in the almightiness of art market intermediaries?

This article argues that in fields characterized by high instability in the criteria defining worth, merit, or quality – as is often the case of art fields (Bourdieu 2017) – a field’s institutions can enhance the value of people or things by asserting the existence in their field of a reliable hierarchy of worthiness. They do not do so by imposing a substantive definition of worth or quality – these definitions are in flux anyway – but instead by enacting crisp and legible hierarchies among the individuals in their field. This, I argue, enhances the status of those at the top of these fields’ hierarchies, not by signaling that they are individually worthy, but by suggesting that they occupy the top of reliable worth hierarchies. In the analysis to follow I leverage this insight to solve the paradox I outlined in opening this article: I show that market intermediaries do indeed shape the value of artists in the art field, yet that only an understanding of what they do to this field’s hierarchies can explain how they do so, and why previous accounts have failed to observe their influence.

As I discuss at greater length in the theoretical section below, the enactment of bright, unambiguous hierarchies of worth among the members of a field is what social theorists have long described as operations of consecration (Durkheim [1912] 1965; Bourdieu 1991; see also Accominotti 2019). By explaining how these operations create status for those who go through them, this article therefore advances a theory of consecration. This theory complements accounts that have probed the causes of consecration – that is, the individual attributes and contextual circumstances that make certain members of a field more likely to be granted status by their field’s institutions (e.g. Allen and Lincoln 2004; Allen and Parsons 2006; Cattani, Ferriani and Allison 2014; Childress, Rawlings and Moeran 2017; Schmutz 2005; Schmutz and Faupel 2010). In contrast to these accounts, a theory of consecration delineates the specific mechanism whereby status accrues to individuals when they go through operations of consecration.

The consecration of a field by its institutions, I argue, is essentially how they assert, without defining what worth is or means, that a field is undergirded by a reliable hierarchy of worthiness. This implies that consecration is particularly suited to creating status in fields where hierarchy is in doubt, whether because it is challenged by egalitarian principles or

because the criteria for sorting individuals into a bona fide hierarchy are disputed and in flux, as happens in anomic fields.

This article focuses on one such anomic field. Using the largest database ever assembled on the art market in Paris in the heyday of modern painting – a time when the city was the center of the global art world – it shows that art market actors created value for artists by consecrating the unstable field of modernism. The unique data sources I leverage include a comprehensive record of all representations of artists by dealers in Paris in the 1920s; fine-grained administrative and business data on these dealers' operations; as well as information on the critical acclaim and market value of artists at a time when their careers were first being built. While the database embraces all artists regardless of success, it features the major figures of French modern art (through not necessarily French men or women themselves), from Henri Matisse to Pablo Picasso and Amedeo Modigliani – artists who to this day are perceived as having laid the ferment of modernism, and whose continued fame can often be traced to the period studied here.

By studying consecration as the enactment of crisp hierarchies of worth among the members of a field, this article makes two contributions. First, it puts the idea of hierarchy back at center stage in the study of how, in a variety of social fields, social status matters for individual outcomes. Sociologists have long shown that in most realms of human endeavor, differences in rewards emerge, not from individuals' abilities and hard work alone, but also from the positions they occupy in broader status hierarchies perceived to signal their quality (e.g. Espeland and Sauder 2016; Goode 1978; Merton 1968; Podolny 2001; Ridgeway 2014). Status in this view is understood as the respect and esteem one acquires through the endorsements and deference of others in one's field. It therefore makes sense that status – whether deserved or not – should work as a driver of one's success: the more respected a person, a product, or an organization, the more likely they are to be seen as worthwhile by outside observers with no direct knowledge of their true merits.

Against this backdrop, the present article stresses the value of studying the characteristics of status hierarchies themselves – and not just the position individuals occupy within them – when explaining how status shapes individuals' outcomes. Here I build on the growing body

of work highlighting the payoffs of looking at status hierarchies in and of themselves – their structures, their variations – as well as at the individuals who constitute them (for a review, see Sauder, Lynn and Podolny 2012). Gould (2003) for example finds that status hierarchies in which status distinctions are less rigid are more likely to produce conflict among their members. Likewise, Sauder (2006) shows that the formalization of the status system of American legal education – through the adoption of law school rankings – increased the number of distinctions actors deem relevant between top and bottom law schools. The present article makes further inroads into this territory. By documenting how market actors helped to reify the perceived hierarchy of worthiness in the field of modernism, it emphasizes the greater or lesser crispness of status hierarchies as one of their meaningful characteristics.

This greater or lesser crispness of status hierarchies matters – and this is the article’s second contribution – because it shapes the destinies of individuals populating these hierarchies. Specifically, I demonstrate in the case of modern art that the clarity of hierarchies increases the degree of inequality between the individuals at the top and at the bottom of these hierarchies. By dissipating the ambiguity with which observers experience quality in a field, it makes them see people or achievements at the top and bottom of this field as of truly different worth. As a consequence, it also polarizes the rewards and success between them: if talent is a thing indeed, if artists at the top have it while others do not, then it makes sense that our attention should go to their art alone. But if talent comes and goes, if all artists share a measure of it depending on how we look, we may want to know a little bit about everyone’s work.

I proceed by first outlining the paradox of artists’ valuation in greater detail. As background I describe the key features of the market for modern art in early twentieth-century Paris. I then spell out a theory of consecration by analyzing salient examples of it from a variety of empirical domains. To demonstrate the merit of this theory, the article finally circles back to the initial paradox: after introducing my data sources, I show that in the heyday of French modern art, market intermediaries shaped the value of artists by consecrating the field of modernism.

The Market for Modern Art and the Paradox of Artists' Valuation

The Paradox

From the late nineteenth century to the Great Depression, Paris was the dominant force in the global art world. In quick succession it produced some of the most important breakthroughs in modernism's history, from impressionism to fauvism, cubism, and surrealism. Yet Paris in that time was not just a hotbed of artistic creativity. Perhaps as important, it was also the core of the worldwide market for the work of modern artists. Like no other city it attracted a dense crowd of talents. And like never before were the careers of these artists systematically processed by a rapidly growing population of commercial galleries (Cottingham 1998; Fitzgerald 1996; Gee 1981; Ring 1931; Sgourev 2013; White and White [1965] 1993). In fact, by the early decades of the twentieth century, everyone in Paris regarded the market as the chief terrain where the value of modern artists was being built.

The period, on one hand, was one of distrust in the ability of academic institutions to successfully sanction the quality of living artists: the growingly dysfunctional academic system and its yearly selective Salon, slowly glutted with an oversupply of young talents, had ceased to play this role over the second half of the nineteenth century (Jensen 1994; Mainardi 1993; White and White [1965] 1993). Other, independent salons mostly served to launch the careers of younger painters (Gee 1981). And with few exceptions, museums were not given much credit when it came to identifying talented modern artists (Charensol [1925] 1996). Against this background, an active set of commercial dealers gradually took over from other institutions as brokers between artists and collectors – so that by the 1920s critics, dealers, and artists themselves regarded commercial galleries as the ultimate arbiters of artists' value (Green 1987; Mainardi 1993, p. 129). This view was perhaps best articulated by art critic Georges Turpin in his 1929 essay, *Artistic Strategy*:

“Back in the day an artist could make a living by working independently and finding collectors to sell to directly. But these times are long gone. Today an artist's career is entirely in the hands of her dealers. Famous dealers make the renown and value of artists. They can make collectors see gold where there is only the most common

metal. Dealers have become kingmakers” (Turpin 1929, p. 50-51, this author’s translation).

That market intermediaries are key in shaping the value of the things they broker for is not just the view of a 1920s critic. It is also among the tenets of a sociology of economic valuation: when quality in a market is uncertain, or when it lacks definition altogether – as is typically the case with unique and novel art – intermediaries can play a crucial role in signaling or defining it, thereby shaping the prices consumers are willing to pay for products (DiMaggio and Louch 1998; Karpik 2010; Lamont 2012; Moeran and Pedersen 2011; Podolny 1993).

There is, however, a paradox with that vision: it runs against a series of empirical studies that have failed to observe any influence of art market intermediaries on the value of the artists they distribute. In a book on the market for contemporary art in New York and Amsterdam, Velthuis (2005; see also Rengers and Velthuis 2002) thus uses a unique quantitative dataset to examine the role of galleries in constructing the economic value of artists; yet he finds that once the attributes of these artists – such as their age or critical recognition – are accounted for, neither the reputation of dealers, nor their promotional efforts, carry much weight for the prices of their protégés. This result stands in contrast to Velthuis’ own qualitative account of how galleries understand their role in the art market – that is, as maximizers of their artists’ value. This mismatch notwithstanding, Velthuis concludes that “the many insignificant effects of gallery characteristics [on art prices] suggest that galleries are not able to add economic value themselves” (p. 110). In a subsequent study of the contemporary art market in Germany, Beckert and Rössel (2013) similarly measure the influence of galleries’ characteristics – particularly of their reputation – on the prices of their artists, both in galleries and at auction. They too, however, are unable to detect any such influence. If anything, they note, gallery reputation has a small yet *negative* impact on the value of artists (p. 189). These findings do not merely depart from the predictions of economic sociology. They also confront us with a paradox: that the attributes of art market intermediaries do not seem to bear on the worth of artists is at odds with the very understanding art market actors have of the world they inhabit.

In the analysis to follow, I argue that inconsistencies between insiders' perceptions, theoretical predictions, and prior empirical findings cannot be understood unless we recognize that previous approaches have conceived of intermediaries as shaping the value of things through two chief processes – which I refer to as credentialing and qualification. In contrast to these approaches, I argue that, in early twentieth-century Paris, galleries enhanced the value of artists through a third mechanism: they consecrated the field of modernism. Hence, I show that market intermediaries did shape the value of artists in the market for modern art – as everyone thought – yet that only an adequate account of consecration can explain how they did so and why previous attempts have failed to observe their influence.

Credentialing, Qualification, and the Valuation of Artists

How do market intermediaries influence the value of the things they distribute? This question points to the processes whereby third parties alter our perception of the worth of things – or in other words their status – while leaving their intrinsic qualities unchanged. We usually think of these processes in two main ways: as processes of credentialing, on the one hand, and as processes of qualification, on the other. By credentialing, I refer to the fact that third parties can enhance the value of things or individuals by signaling their underlying and often unobservable quality (Spence 1974). The endorsement of a bond by a reputed or high-status bank, for example, increases the bond's value because it reassures potential customers as to its actual quality (Podolny 1993). Likewise, the endorsement of an artist by a reputed or high-status gallery should enhance this artist's prices by signaling her individual worthwhileness (Bonus and Ronte 1997).

An implicit assumption of credentialing processes is that they take place in a context of agreement over what constitutes quality. Qualification processes, in contrast, occur when third parties (intermediaries among them) shape the status of things by setting the criteria for what counts as quality (Beckert and Aspers 2011; Beckert and Musselin 2013; Boltanski and Thévenot 2006; Stark 2009). This is what happens when influential actors in a field define “authenticity” or “character” as worthwhile properties of objects or individuals (Peterson 1997; Karabel 2005), or more generally in any attempt to impose substantive criteria for what is “good science,” “good art,” or a “good candidate” (Guetzkow, Lamont and Mallard 2004; Lamont 2010; Lamont, Beljean and Clair 2014).

Processes of credentialing and qualification take center stage in many accounts of how value is constructed in art worlds (Anand and Jones 2008; Becker 1982; Beljean, Chong and Lamont 2015; Berthoin Antal, Hutter and Stark 2015; Bourdieu 1993, 2017; English 2005; Karpik 2010; Lamont 1987; Menger 2014; Mulkey and Chaplin 1982; Salganik, Dodd and Watts 2006; Smith 1988). They figure prominently in past, unsuccessful attempts at identifying how market intermediaries shape the value of artists: Beckert and Rössel (2013) focus on the credentialing side of things when they measure how intermediaries' reputation influences the prices of artists. Velthuis does the same, while also looking at intermediaries' qualification work through a measure of the number of artists intermediaries represent: the lower that number, the more likely each artist is to benefit from a dealer's efforts to shape the standards for the reception of her work (Velthuis 2005, p. 109).

Hence, prior approaches have looked at how art market intermediaries shaped the value of artists by signaling their individual quality, on the one hand, and by defining artistic quality, on the other. To solve the paradox of artists' valuation, the remainder of this article instead focuses on one third mechanism: it shows that in early twentieth-century Paris, intermediaries shaped the value of artists by consecrating the field of modernism.

A Theory of Consecration

We tend to think of consecration as something happening to individuals or individual things: we say that someone or something has been consecrated when they have been declared a saint, inducted into a hall of fame, or awarded a prestigious award. One of the main claims of this article is that we would benefit from looking at consecration as a field-level phenomenon – that is, as the enactment, by a field's institutions, of crisp and legible hierarchies of worth among the members of a field (Accominotti 2019). By developing this insight, this section advances a theory of consecration that makes possible to study its occurrence, conditions, and consequences in a variety of social settings. The pull of the demonstration comes from reflecting on *how* consecration generates status for those who go through it. The analysis therefore departs from prior approaches that have probed the *causes* of consecration – that is, the individual characteristics and contextual factors that make

certain candidates more likely to be picked by consecrating institutions.² In contrast, the present account provides a theory of consecration by highlighting the mechanism whereby status accrues to individuals when they go through operations of consecration.

Consecration Does Not Enhance the Status of Things by Revealing their Individual Quality

I make two chief claims to ground this theory. The first is that consecration, as a distinct process of status production, does not work by revealing the individual quality of those who go through it. The recognition of previously unknown or uncertain quality is not how it increases the status of people or things. To be clear, I am not claiming that selections to prestigious prizes or inductions into halls of fame do not enhance the status of the selected by signaling their quality. My point instead is that this is not how these operations *consecrate*.

To substantiate this first claim, consider major prizes awarded in the field of science – such as the Nobel Prize in physics or the Fields Medal in mathematics. The conferral of such prizes we typically regard as instances of consecration. Yet these prizes rarely distinguish work whose quality had previously been missed. In fact, sociologist of science Harriet Zuckerman observes that “major awards may once have . . . legitimated scientific paradigms, but the practice of conferring awards on scientists whose contributions have already passed muster means that many prizes no longer have this result since the work they honor has long since been accepted” (1992, p. 228).³ Hence, the consecration associated with the distribution of a major prize cannot be said to act through the disclosure of hitherto unrecognized merit. This is actually what demarcates consecration from credentialing, which is all about the signaling of unknown quality.

² Sociology and organizational science have a long tradition of probing the personal attributes and institutional forces that may help or impede individuals’ elevation into their field’s canon: see for example Allen and Lincoln 2004; Allen and Parsons 2006; Cattani, Ferriani and Allison 2014; Childress, Rawlings and Moeran 2017; Dowd et al. 2002; Lamont 1987; Phillips 2013; Rossman, Esparza and Bonacich 2010; Santana-Acuña 2014; Schmutz 2005; Schmutz and Faupel 2010; Van Rees 1983.

³ In the United States, for example, Nobel Prize winners in the physical and natural sciences tend to have been previously admitted to the National Academy of Science (Zuckerman 1977, p. 196-200).

This first claim illuminates Robert Merton's classic example of the "forty-first chair" at the French Academy (1968, p. 56): at any point in time, only a cohort of forty scholars can be selected as members of the French Academy and therefore elevated to the status of so-called immortals; as Merton famously observed, this fixed membership results in many "occupants of the forty-first chair" – individuals whose quality is equivalent to that of the selected, but who failed to make it in.

There are two different ways one can look at this phenomenon, however. The first, which Merton stresses, focuses on its consequences for the careers of individuals: two scholars whose merit is the same will enjoy very different outcomes depending on the side of the divide they land upon. Another way of seeing this, though, is to observe that by sticking to the rule of fixed numbers, the Academy commits to being an imprecise judge of individual quality. If it were to seriously try and sanction quality, its membership would fluctuate over time: it would grow in periods of greater creativity, and shrink in times of fewer accomplishments. The Academy, though, seems prepared to do away with this accuracy of judgment. The same is actually true of any body or agency awarding a fixed number of honors every year: by looking for a set total of winners, they effectively choose to be poor assessors of quality. That we tend to view precisely these institutions as granting status through consecration is further indication that, as a distinct process of status production, consecration is not about the recognition of individual quality.

Consecration as a Field-Level Phenomenon: Producing Faith in Hierarchy

While my first claim offered a negative characterization of consecration, the second one fleshes out its positive content. Consecration, it argues, is a field-level phenomenon: the objects it acts upon are fields, not the elements that occupy them. Specifically, I argue that to consecrate a field means to suggest, without decreeing what worth is or means, that this field is undergirded by a reliable hierarchy of worthiness.

To substantiate this second claim, I turn to another striking example. On May 21, 1981, shortly after his election as president of the French Republic, François Mitterrand walked up rue Soufflot in Paris amid a crowd of cheering supporters. His destination was the Pantheon, a former church where the remains of the nation's great have been regularly transferred since

the Revolution. In the ceremony's choreography, however, the crowd had to stop short of the Pantheon, while Mitterrand alone joined the empty building to meditate on the tombs of France's past heroes – "a solitary man entering the abode of the great," as historian Mona Ozouf eloquently puts it (1998, p. 325).

It has been debated whether or not the ceremony was a political mistake: it set up expectations for Mitterrand's tenure as president that proved difficult to live up to. In the sort run, though, the whole thing was a masterful sequence of political communication. For the figure of Mitterrand it was a key moment of secular anointment – literally a moment of consecration, which formed a counterpart to the democratic election itself and clearly enhanced Mitterrand's status in the eyes of the French public. This effect, however, was not achieved through the revelation of previously unknown qualities of the president. Mitterrand was not inducted into the Pantheon – no authoritative body had found him worthy of such an honor. His short presence in the realm of the great was evidently staged by his public relations staff, and not the outcome of a vetting procedure that would have revealed his true value.

Instead, the power of the ceremony rested entirely on the way it asserted or reasserted the existence of an unambiguous hierarchy of greatness in the French population. In the initial moments, the crowd filled the street and seemed bound to engulf the Pantheon's building – in a festive but unruly gathering that had a democratic character to it. Out of this confusion and equality, however, the ceremony soon produced order and hierarchy: supporters stopped short of the Pantheon; a gap was introduced – and carefully enforced by a chain of Mitterrand staffers – between them and the building, suggesting that the population (present and past) could be divided into the great and others, and that the difference between the two was indisputable. In other words, the field – that is, the French population – was now consecrated. And only then did Mitterrand travel to the realm of the great, reminding the audience that, as president, he belonged near the top of a hierarchy whose clarity had just been reaffirmed.

The purpose of staging an indisputable hierarchy between the worthy and others was inscribed in the very architecture of the Pantheon when it was selected by the revolutionaries

of 1791 as a place for the celebration of France's great figures. The building that was to turn into a machine to consecrate was redesigned so as to divide the city's physical space into two unambiguously disjoint regions. Quatremère de Quincy, the Pantheon's architect, thus used the language of light to instill a sense of essential difference between the building's interior and outside space:

Could one imagine the great men of France in the lighting afforded by Sainte-Geneviève's thirty-nine windows, Soufflot's reactionary homage to the cathedrals? The existing sidelighting was inadequate, almost domestic in character . . . The existing light was also variable, and meditation upon immortality required constancy . . . The steadiness and mystery of the lighting achieved by walling up the existing windows and equipping the cupola with skylights of frosted glass are today the principal sign of Quatremère's influence on the Pantheon's design (Ozouf 1998, p. 336-337).

As Mitterrand's public relations staff understood, the Pantheon's building works by splitting physical space into unquestionably different regions. Its status-conferring character rests on its ability to suggest an unambiguous divide between its inside and outside, between the worthy and others, between greatness and its absence. That asserting the clarity and reliability of this divide lies at the core of its efficacy is further evidenced in the themes of exclusion, pollution, and purge that resurface throughout its history. On November 25, 1793, for example, the revolutionaries staged the expulsion of Mirabeau, whose reputation had become tarnished, at the very minute when the remains of Marat were transferred into the Pantheon: there would be no mixing allowed, no overlap between greatness and its absence, lest greatness itself might not seem such a thing after all.

The 1981 ceremony likewise made a spectacle of affirming the existence of a hierarchy of greatness in the French population. It did not do so, it should be noted, by articulating a definition of what greatness was or meant, nor by suggesting how one might have measured it. Rather, it asserted that greatness was a thing by enacting clear-cut hierarchical patterns between individuals, thereby reminding observers that different people indeed belonged to different leagues: the mass of Mitterrand's supporters, on the one hand, the society of the

great, on the other, removed from each other by a strip of empty, seemingly untraversable land.

This detour through the Pantheon gives us a unique glimpse into the machinery of consecration. It first stresses the type of backgrounds consecration happens against. A common feature of the 1981 ceremony and of the building's initial dedication was that they took place against backdrops exalting equality. The French Revolution had toppled an aristocratic society in the name of republican equality. Likewise, the 1981 election of the country's first socialist president came with the promise of leveling old hierarchies – a promise partially enacted in the noisy, democratic gathering around Mitterrand on his way up the rue Soufflot. Consecration, that is, happens when the legitimacy of hierarchy is in doubt, whether because the idea of hierarchy is challenged by egalitarian principles, or because the criteria for sorting individuals into a bona fide hierarchy are disputed and in flux, as happens in anomic fields. Either way, the legitimacy of sorting – of the very idea of sorting – is not obvious.

Against this backdrop of potential equality – and this is the second insight from our detour to the Pantheon – consecration works by asserting or reasserting the existence of a tangible hierarchy of worth among things. This is the distinctive operation that it performs: it says, not that some things are worthy, but that it is possible to distinguish things that are worthier than others. Put another way, the qualm it works to dissipate is not our uncertainty about the quality of specific things, but the skepticism we may experience toward the existence of true quality differences between things. Consecration is essentially an antidote to relativism: it does not produce beliefs in the value of things; it creates faith in hierarchy.

Finally, this is not achieved through the articulation of what worthiness or quality mean – in contrast to what happens in qualification processes. The Pantheon, as we have seen, does not come with a *definition* of greatness. Instead, consecrating institutions inspire belief in hierarchy by enacting clear-cut versions of it – by vacuuming up any disorder or ambiguity from the sortings that they create. They force crispness and clarity in the way the elements of a social system rank relative to one another – a move reminiscent of the clean, unflinching separation of the sacred and the profane by religious institutions, which Durkheim ([1912]

1965) already placed at the root of religious belief. This concrete, almost physical display of clarity is how consecration shakes off our skepticism of hierarchy: if things can indeed be ranked legibly and unambiguously, as it works to demonstrate, then it makes sense to believe in the meaningfulness of ranking. The remainder of this article shows that consecration thus conceived was how market intermediaries created value for artists in the heyday of French modernism.

Consecrating the Field of Modernism

Anomie and Hierarchy

Between the 1870s and the 1920s, Paris was the primary stage upon which the dynamics of modernism unfolded. Following the demise of the academic system in the late nineteenth century, the French art field was shaken by repeated waves of aesthetic disruption, from impressionism to fauvism, cubism, and surrealism. Each of these movements was a new uprising striving to overthrow the standards put in place by earlier ones, in what looked like an endless streak of aesthetic revolutions. The true novelty of modernism, compared to prior aesthetic regimes, was this constant state of disruptiveness: inherent to this new regime were relentless change in the criteria for what constituted valuable art, the systematic subversion of previously established standards of worth, and never-ending struggles over the definition of artistic quality. As one analyst vividly puts it, modernism was “the institutionalization of anomie” (Bourdieu 1993, p. 238).

Amid this climate of ceaseless upheaval, art market actors – dealers and galleries who for their survival needed patrons and collectors to believe in the value of modern art – strived to bring a sense of order and reliability to a seemingly chaotic field. Through their representation decisions in particular, they worked to create a legible hierarchy between modern artists.

Galleries typically represented a portfolio of ten to twenty artists. Agreements between galleries and artists were rarely exclusive, however, so that artists could be simultaneously represented by several galleries (Fitzgerald 1996; Gee 1981). By representing artists, galleries

provided them with an accolade which observers could interpret as a signal of these artists' individual quality: representations thus worked as acts of credentialing, the power of which depended on a gallery's status and reputation. Yet dealers also knew that their representation choices could act on the field as a whole: by delineating a clearer or fuzzier hierarchy between artists, they could suggest more or less forcefully that the field was undergirded by a reliable hierarchy of quality. As a consequence, dealers monitored their peers' representation decisions closely – an aspect that surfaces regularly in their memoirs and testimonies (e.g. Blot 1934, p. 94; Granoff 1949, p. 13; Loeb 1946, p. 26-27; Ring 1931; Vollard 1936, p. 65; Weill 1933, p. 302). And while they often let their artists be represented by other galleries, they were cautious that this would not jeopardize the clarity of the field's hierarchy.

As an example, in 1909 prestigious dealers Gaston and Josse Bernheim Jeune decided to take on artist Henri Matisse. When they did so, they insisted that Matisse should cut ties with a lower-status gallery – Berthe Weill – which was also representing artists Bernheim Jeune did not wish to represent, such as Charles Camoin (figure 1). Yet they did not require Matisse to cut ties with a third dealer, Georges Bernheim, which was also representing artists that Bernheim Jeune themselves already represented – Auguste Renoir, for example.⁴ There are two ways one can understand this behavior: on one hand, Bernheim Jeune sought to dissociate their artists from the ones represented by a low-status gallery. Yet they also worked to maintain a legible relational hierarchy in the field. By forming a cycle between the three galleries, a cross-representation with Berthe Weill would have ruined the ability of ties between galleries to suggest a hierarchy among them (figure 2). By making Matisse break with Berthe Weill instead, Bernheim Jeune upheld a clear hierarchy between the artists of the three galleries (figure 3).

Figures 1 to 3 around here

⁴ Archives Henri Matisse, Issy-les-Moulineaux, Bernheim Jeune Correspondence, items 090705a, 171018a, 200823a, and 201020b.

Enacting Hierarchy in the Market for Modern Art

Generalizing on the case above, I now show that in early twentieth-century Paris, art market intermediaries collectively consecrated the field of modernism through their representation decisions. By reconstructing the overall network of affiliation ties defined by the sharing of artists between galleries, I find that they created a legible relational hierarchy between artists that spanned the entire field.

The data I draw upon record the representation of artists by all galleries active in Paris in season 1928-29, when the French market for modern art was at its apex, and when it produced the most abundant documentation about dealers and their artists. A gallery is considered an active dealer of modern art if it exhibited at least one living artist over the course of that season. There were 120 such galleries. Two sources make possible to reconstruct the portfolios of artists who were permanently represented by these galleries: *La Semaine à Paris*, published weekly over the period, and Fage (1930, p. 132-151).⁵ These two sources yield a total of 665 painters represented permanently by at least one of the 120 dealers – an average of about 16 artists per gallery.

I also collected socioeconomic data both on galleries – opening date, form of business operation, capital, documented participation as expert in modern art sales held at Hôtel Drouot (Paris main auction house), documented purchases of modern artists at Drouot, publishing activity, and geographic location – and on artists – demographics, stylistic affiliation, and prices at Drouot in 1928-29.⁶ These data help to interpret the network findings below.

I first ask whether there was a clear structure to the network of affiliation ties defined by the

⁵ The two generally agreed on the artists featured by various galleries. When this was not the case, artists mentioned by a single source were added to the list of artists a gallery represented. I was able to check the preserved business books of four of the 120 galleries, confirming that the two sources reported the names of artists who were indeed distributed on a regular basis by the galleries they referenced.

⁶ Business data on galleries come from the *Registre du Commerce de la Seine*, Archives de Paris, série D33U3. Information on sales and prices at Drouot were collected from Lang (1918-1929) and Gee (1981). Artist demographics and stylistic information are found in Bénézit (2010).

sharing of artists between the 120 galleries. I then assess whether this structure displayed the features of a relational hierarchy. To identify whether there was an overall structure to the network of ties between galleries, I fit a blockmodel to the cross-representations of artists between them. This approach looks at each gallery in light of its relations to every other – a perspective well-suited to identifying hierarchy in a field. It tells us whether there was indeed structure to these relations, and it describes this structure – if there was any – by grouping together galleries with similar profiles of ties to every other (so-called structurally equivalent galleries) and summarizing the relations between these groups in an image matrix. To tell whether this structure delineated a relational hierarchy, I here interpret this image matrix.

The blockmodeling procedure identifies a clear structure in the overall network of affiliation ties between galleries (see appendix A). Table 1 displays the image matrix associated with this structure. It reports the average number of artists shared by two galleries in the structure’s six equivalence positions. It thus shows that two galleries in position 1 shared on average 1.6 artists, while galleries in position 1 typically shared 0.1 artist with galleries in position 5. Table 2 reports the means of gallery-related attributes in the various positions, including the handful of galleries that were not directly included in the blockmodeling analysis because they did not share any (position 7) or enough (position 8) artists with other galleries.

Tables 1 and 2 around here

Two aspects of the image matrix are worth noting. The first, highlighted in dark grey in table 1, is the centrality of position 6 galleries, who shared a large number of artists with galleries in all other positions. This centrality arose from the large number of artists these galleries represented: 33.4 on average, versus 13.1 in the galleries of all other positions.⁷ Their opening date, geographic location, or the characteristics of the artists they represented did not distinguish position 6 dealers from others. One feature told them apart, however: they were active buyers at Paris auction house – Hôtel Drouot. Of the forty-five dealers who

⁷ All differences in means reported in this section are statistically significant at the $p < .05$ level.

purchased modern artwork at Drouot in the 1920s, thirteen (29%) belonged to position 6, even though this position accounts for only 15% of the dealers' population. In all likelihood, position 6 dealers did not so much *represent* the artists they allegedly featured on a permanent basis: rather, they had access to their work through the auction house or second-hand purchases. Their market role therefore departed from that of other dealers, concerned with the promotion of a small number of carefully selected artists from whom they purchased directly (Moulin 1987).

Position 6 aside, the structure of the affiliation network between galleries displayed all the features of a relational hierarchy – emphasized in light grey in table 1. Position 1 dealers occupied one end of that hierarchy. They shared artists with other galleries in their position and with galleries in position 2, yet not with galleries in positions 3 to 5. Dealers in position 2, in turn, shared artists with other dealers in their position and with dealers in positions 1, 3 and 4, but not with galleries in position 5. Galleries in 3 and 4, finally, were the only ones to share artists with dealers in 5, the other end of the hierarchy. Because position 1 dealers tended to be more established – table 2 shows that they had generally been in business longer, that they had more capital, and that the artists they represented were older and more valuable than those in the galleries of other positions – it would have been safe to regard this position as the hierarchy's top end. Conversely, the small capital and young age of position 5 galleries, together with the low value of their artists, pointed to them as the hierarchy's bottom.⁸ Regardless of attributes, though, the existence of a consistent hierarchy among dealers, and therefore among the artists they represented, could be read purely from ties between them. Despite ongoing chaos in the definition of artistic quality, galleries collectively enacted a legible hierarchy of artists that spanned the entire field of modernism.

The Price of Hierarchy

This hierarchy was not lost on contemporary observers. In a 1931 article, Berlin-based dealer

⁸ While dealers in positions 7 and 8 do not appear in table 1 (see appendix A), a look at their characteristics and at those of the artists they represented suggests that they formed an even lower step, entirely disconnected from the upper echelons in the hierarchical structure.

Grete Ring marveled at the ability of the French art market to produce successful artist after successful artist (Ring 1931). Why was it, she asked, that top French artists, even when their work was underwhelming, had such high market value, when even exciting artists from Germany, Belgium or the Netherlands only sold for ridiculous prices? “The usual answer, she went on, is that Paris, as the center of the international art world, is the only breeding ground for truly good art” (p. 179-180). Ring’s explanation was different, however. She traced the success of French modern artists, or at least of the prominent ones, to the well-stratified organization of the Paris art market. The sorting of artists into clearly delineated leagues associated with specific dealers, she argued, created a sense of order and security about the value of French modern art: “What makes the success of modern art possible in France is not the quality of its artists, nor is it the towering personalities of individual dealers”; rather, it is the existence of “a true hierarchy of dealers, one that is recognized by all stakeholders in the field” (p. 182). The value of those standing at the top of this hierarchy looked safer to collectors precisely because it felt like the top of a well-organized hierarchy.

I here build on Ring’s intuition to explore whether modern art dealers created value for artists by positioning them at the top of a legible hierarchy: in replicating prior attempts to observe the impact of dealers on the prices of artists, I therefore make room for dealers’ consecration work as a predictor of artists’ value.

Data

To measure the value of artists, I use the prices of their work at Paris auction house (Hôtel Drouot) over the season 1928-29. While auction prices can depart from the prices charged by galleries for similar work (Hutter et al. 2007; Velthuis 2005), they are a better indicator of what I am after here, namely the demand for an artist’s work. The auction house had become a barometer of such demand in late 1920s Paris (Level 1959, p.71-72; Moulin 1987, p. 18).⁹ I here model the auction prices of 1,196 paintings by 173 unique artists who had at least one work sold at auction and were represented by at least one gallery in Paris in 1928-29. Prices are taken from Lang (1918-1929), a series of yearbooks recording all art sales at

⁹ Observers routinely described Hôtel Drouot as “the stock exchange of modern art” (e.g. Turpin 1929, p. 107).

Drouot in the 1920s. I focus on the prices of paintings only, ignoring other artistic media: paintings formed the overwhelming bulk of modern artworks sold at auction in the 1920s; they are also the medium for which Lang most systematically reports size, a crucial piece of information when it comes to modeling prices.

In theory, predictors of prices are observed at three levels: as characteristics of galleries, of artists, and of artworks. Prices of individual artworks are nested within the higher-level units formed by artists. Because artists could be represented by several dealers, on the other hand, they do not nest clearly within galleries. As a consequence, I here pass gallery-related predictors onto the artists galleries represented. When an artist was represented by more than one gallery, gallery-related predictors are measured as the average of the values they took in the galleries that featured this artist.

Galleries' Credentialing Power and Qualification Work

In line with prior research, I first look at the effect of galleries' credentialing power – that is, of their ability to signal their artists' individual quality – on the value of their artists. I use two measures of credentialing power: galleries' reputation, on the one hand, and their market status, on the other. Several characteristics could capture a dealer's reputation. Longevity in business was one, as too many ill-advised representation decisions could lead to the quick demise of a gallery. Whether a dealer acted as expert at auction sales is another: it suggested that one trusted their ability to discern artistic quality. To test whether these were correlated, I conducted a principal component analysis of the characteristics of all modern art galleries active in Paris in 1928-29. Figure 4 displays the first factor map from this analysis.¹⁰ Dealers' longevity in business and the frequency of their appointments as auction experts were highly associated. They were the chief contributors to the analysis' first factor, which we can regard as capturing galleries' reputation (that a dealer's capital and listing in the *Bottin mondain*

¹⁰ The characteristics I looked at were galleries' opening date (*opening*); the number of artists they represented (*nbpainters*); whether they were incorporated (*inc*); and if they were, their economic *capital* in 1928-29; the frequency of a gallery's manager's appointments as expert at auction sales that year (*nbexpert*); whether a gallery published a journal, or monographs, on its artists (*edit*); and finally whether a dealer was listed in the 1928 or 1929 issues of the *Bottin mondain*, a catalogue of the Paris elite.

positively correlated with this first factor further confirms this interpretation). In the analysis to follow, I use a gallery's score on this first factor as a measure of their reputation.

Figure 4 around here

A second way of operationalizing a gallery's credentialing power consists in looking at their market status, i.e. at the perceived popularity of their representation decisions with their peers (e.g. Benjamin and Podolny 1999; Podolny 2001). Following Benjamin and Podolny (1999), I here measure the market status of a gallery as their power centrality in the network of cross-representations of artists (Bonacich 1987). This power centrality captures the perceived quality of a gallery's artists, as signaled by the willingness of its peers to also represent them.

I also follow prior studies in measuring dealers' qualification work – that is, their efforts to increase the value of their artists by shaping the standards for the reception of their work. I use galleries' publication of a journal, or of monographs on their artists, as an indicator of their qualification work. Significantly, such publication was negatively correlated with the number of artists a gallery represented (see figure 4): this is consistent with Velthuis' (2005) observation that galleries seeking to promote their artists through qualification work generally focus on a smaller portfolio of protégés.

Measuring the Effect of Galleries' Consecration of the Field

To measure whether galleries shaped the value of artists by consecrating the field of modernism, I look at the position artists occupied in the relational order enacted by galleries (and uncovered in table 1 above). This order, because it was consistent and because it spanned the entire field of modernism, had the potential to suggest that the field was underpinned by a reliable hierarchy of worthiness. For an artist, there should have been a benefit to occupying a higher position in that order, to the extent that it looked like a higher position in a reliable hierarchy. In the analysis to follow, how much an artist benefited from

the consecration of the field is measured by a score reflecting the average position of her galleries in the relational order. The specific market role of position 6 dealers made them poor candidates to participate in the field's consecration. Therefore, the representation of an artist by these dealers does not enter the calculation of the consecration score.

Artists' and Artworks' Characteristics

I adjust my estimates of the effects of gallery-related characteristics for a series of artist attributes. I expect the prices of artists to have gone up with their age – because age acted as a signal of quality (older artists who were still represented by a gallery had stood a tougher test of time) and because it captured the size of the audience an artist had been able to build over time (Bowness 1990) –, with the fact that they were no longer alive, because this placed a cap on their body of available work, and with the number of dealers representing them.¹¹ On the other hand, I expect the sale of many artworks by the same artist over an auction season to have had a depressing effect on their prices – a straightforward implication of the law of supply and demand. I also tested whether gender correlated with the value of artists, but could not find a statistically significant relation there. This does not mean that women did not face strong headwinds in the market for modern art: quite to the contrary, very few of them enjoyed gallery representation and regular auction sales in the 1920s, so that lack of a significant gender effect owes chiefly to a lack of observations.¹²

I further model how the prices of artists varied with art critics' judgment of their work. Here I rely on a unique resource: in the fall of 1925, art journal *L'Art vivant* surveyed a group sixty-four critics with a wide range of aesthetic inclinations, asking them to name the ten artists they considered most worthy of entering a projected museum of modern art (since no such

¹¹ For an artist, having more dealers increased the chances that they would show up to support one's prices at auction. It also increased the size of one's market, as different dealers often did not serve the same collectors. Being represented by too many galleries, on the other hand, could have depressed prices: price competition is usually not an option in the primary art market (Velthuis 2005), but it can resurface when dealers are unable to sell an artist's work because it is available from too many others. By bringing down prices on the primary market, it could have depressed auction prices too. I therefore expect an inverted U-shaped relationship between an artist's number of dealers and prices at auction.

¹² Of the 173 artists with gallery representation and auction sales in 1928-29, only 13 were women.

museum existed in Paris at the time). The outcome of the survey (reported in appendix B) was widely publicized, and it had the upside of correcting for the inevitable aesthetic prejudices of any individual critic.¹³ While *L'Art vivant's* survey took place in season 1925-26, I assume that its results would not have been greatly different three years later. I therefore use the number of votes each artist received in the survey as a measure of their critical recognition.

Finally, I expect the prices of artworks to correlate positively with their size (Rengers and Velthuis 2002; Sagot-Duvaouroux, Pflieger and Rouget 1992). The strength of this relationship should vary across artists, however, as size carries less weight for successful artists whose authorship itself makes for a larger share of their work's value. In the models below, the slope of the relationship between the size and price of artworks therefore varies with each artist.

Results

I fit two series of hierarchical models to the logged prices of artworks. The first series aims to replicate the analyses by Velthuis (2005; see also Rengers and Velthuis 2002) and Beckett and Rössel (2013) with the market for modern art as an empirical background. It follows these studies in not adjusting for artists' past prices as a predictor of their current value. While this makes for a more straightforward comparison with prior research, it leaves open the possibility that correlations between artists' prices and the characteristics of their galleries emerged from a sorting mechanism – for example, if reputed dealers systematically represented artists whose prices were higher to begin with. To rule out this mechanism, in a second series of models I include artists' prior auction prices as a predictor of their 1928-29 prices. Also in line with earlier work, the first series approaches the credentialing power of galleries through their reputation alone. The second series includes galleries' market status as an additional predictor modeling their credentialing power.

Table 3 features the series of models replicating earlier analyses. Model 1 is an empty model.

¹³ As Bourdieu (2013) stresses, because no agreed-upon standards of quality existed in the field of modernism, critics saw themselves as proponents of certain aesthetic movements rather than true judges of artists' value.

Models 2 to 4 include additional predictors associated respectively with artworks, artists, and galleries, which gradually improves these models' fit. Finally, in model 5 the slope of the predictor modeling artworks' size varies across artists. Model 4 – the most powerful of the first four – accounts for about 60% of the initial variance in the data (as captured in model 1). Unsurprisingly given the larger number of artist-related predictors included in the analysis, it fares better at explaining variance at the artist- (70% of variance explained) than at the artwork-level (26%).

Table 3 around here

Estimates of coefficients for artwork- and artist-related predictors are all in the expected direction and significant at the $p < .05$ level; their magnitude does not differ widely across models. A painting's size correlated positively with its price, although the relationship loosened for artists whose prices were higher – as evidenced by the negative correlation between the intercept and size coefficients in model 5. Older artists were also more expensive, as were those who were dead. Representation by a larger number of dealers was associated with higher prices in a non-linear way: the relationship, while positive, faded as the number of dealers representing an artist got larger. Finally, critical acclaim was positively correlated with prices: on average, each extra vote received by an artist in the survey of critics by art journal *L'Art vivant* brought a 13% increase in their prices at auction ($e^{0.12} = 1.13$).

Models 4 and 5 include three gallery-related predictors, capturing respectively the qualification, credentialing, and consecration work of galleries. They show that qualification was not decisively associated with higher prices: among the 173 artists in the analysis, one's work typically sold for 17% more at auction when one was represented by a gallery with an advertising organ ($e^{0.16} = 1.17$); this coefficient, however, is not statistically significant. In contrast, credentialing by reputed dealers was predictive of higher prices, as was the effect on artists of galleries' consecration of the field: when all other predictors are adjusted for, appearing one step higher in the crisp relational hierarchy enacted by galleries was associated with a 22% bump in an artist's prices ($e^{0.20} = 1.22$).

These findings depart from earlier research in two main respects: they suggest that the reputation of market intermediaries – the preferred measure of their credentialing power in prior studies – was positively associated with the value of their artists; and they show that the consecration of the field by intermediaries did shape artists' prices.

Models 4 and 5, however, do not rule out the possibility that galleries with a higher reputation merely picked, among otherwise similar artists, the ones whose prices had been higher to begin with. To better assess the influence of galleries' reputation on the value of their artists, I therefore fit a second series of models including the average price of an artist's paintings at auction in 1927-28 as an additional predictor of their 1928-29 prices. I thus estimate the impact, for artists with comparable attributes including prior market value, of being represented for one more year by galleries with certain characteristics, or of being picked by such galleries in that year. I focus on the sales of 796 artworks by 93 artists who had gallery representation in 1928-29 and whose painting was auctioned both in 1927-28 and in 1928-29. Additionally, I follow Podolny and colleagues by including the market status of galleries as an extra predictor capturing their credentialing power. The new series of models is displayed in table 4.¹⁴

Estimates in models 6 to 9 confirm that galleries' qualification work did not carry much weight for the prices of artists. Importantly, this is now true of galleries' reputation as well: although this finding needs to be interpreted cautiously, as it conflates cases of artists who were represented for one more year by a reputable dealer with cases of artists who were picked by a reputable dealer that year, it seems to align with earlier work showing that the reputation of art market intermediaries does not significantly improve the value of their artists. Models 8 and 9 further show that galleries did not influence their artists' prices by credentialing them through their market status. The effect of galleries' consecration work, by contrast, retains most of its magnitude and significance in models adjusting for past prices: the consecration of the field by market intermediaries was how they shaped the value of

¹⁴ All of the 93 artists were alive in 1929: I therefore dropped from all models the predictor associated with an artist's death.

artists in the heyday of French modernism.

Table 4 around here

Conclusion and Implications

Focusing on the seemingly inconsistent role of commercial galleries in shaping the value of artists in the market for modern art, this article has outlined a theory of consecration that accounts for its conceptual specificity while making it observable in a variety of social domains. The consecration of a field by its institutions, I have argued, is essentially how they assert, without defining what worth is or means, that a field is patterned by a reliable hierarchy of worthiness. From this it follows that consecration creates status for people or things, not by confirming that they are individually worthy, but by suggesting, through the enactment of crisp, unambiguous hierarchies among the members of a field, that they stand at the top of reliable worth hierarchies.

This definition has made it possible to solve the paradox of artists' valuation I outlined in opening this article: as I have shown – and as art world insiders rightly believed – dealers did shape the prices of artists in the golden age of modernism. Yet also in line with previous research, they did not do so by testifying to the individual quality of these artists' work, nor by setting substantive standards for evaluating these artists' quality. Instead, they influenced the value of artists by consecrating the anomic field of modernism, that is, by suggesting that the artists at its top occupied the top of a reliable quality hierarchy.

There are two broader implications to this article's argument. First, it shows how the characteristics of status hierarchies – and not just the positions individuals occupy within them – matter for the outcomes of those populating these hierarchies. In particular, I have highlighted the greater or lesser clarity of status hierarchies as one of their consequential characteristics when it comes to understanding the polarization of rewards between individuals at the top and at the bottom of these hierarchies. This in turn delineates a class of

questions that are relevant beyond the case I studied here: Are hierarchies in a field clear-cut or ambiguous, stable or in flux? When do a field's evaluative bodies work to suggest the existence in this field of a reliable hierarchy of quality? If multiple institutions compete to rate or rank individuals, for example, these institutions might return contradictory judgments which will tend to undermine our sense that their field is undergirded by a crisp hierarchy of worthiness (Brandtner 2017; Fine 1996; Sauder and Espeland 2006, 2016). The messiness of the picture emerging from their judgments will, in effect, deconsecrate the field. On the other hand, if there is only one ranking that matters, it will have the distinctive effect of consecrating the field by suggesting its units can be unambiguously ordered in terms of the others.

Second, by documenting how market actors helped to reify the perceived hierarchy of worthiness in the field of modernism, this article has shown how the characteristics of status hierarchies can be made or unmade by a field's market institutions. My account here echoes one of the key insights of recent economic sociology: that the judgment devices markets depend upon to operate smoothly have a tendency to congeal hierarchies of perceived quality between the things markets allocate (Fourcade 2016; Fourcade and Healy 2017). This is most striking in our data-rich era, where scoring and ranking techniques feed on vast amounts of information to sort individuals, products, or organizations into crisp hierarchies of worth, performance, or riskiness (e.g. Christin 2018; Lauer 2018; Sauder 2006). As the case in this article illustrates, however, market actors did not wait for the rise of data to try and reify quality hierarchies. This may be because the urge to reify has less to do with data than it has to do with markets themselves: in fields where the definition of worthiness is disputed or in flux – which to some extent is any field really – it is good business for market actors to cultivate a sense of order and stability in the value of the products they broker for (Kharchenkova and Velthuis 2017; Velthuis 2005).

Online Appendix A. Blockmodeling Procedure

To test whether there was a clear structure to the network of affiliation ties between the 120 galleries active in Paris in the late 1920s, this article uses a blockmodeling approach. It therefore looks at each gallery in light of the artists it shared with every other – a perspective well-suited to identifying a relational hierarchy among galleries (if there was any). I use a stochastic blockmodeling technique first introduced by Nowicki and Snijders (2001), because unlike other blockmodeling techniques it offers a measure of the clarity with which various blockmodels classify the nodes of an underlying set of relational data into their respective structural equivalence positions (for reviews, see Doreian, Batagelj and Ferligoj 2005; Hsieh and Magee 2008; Stanley et al. 2019). By examining the characteristics of the blockmodel with the greatest clarity – that is, with the greatest certainty that any pair of vertices are (or are not) structurally equivalent – one can thus ascertain whether the network of affiliation ties between galleries delineated a clear-cut, relational hierarchy.

Given a set of network data and a number of structural equivalence positions, Nowicki and Snijders’s simulation approach indicates the blockmodel best suited to the data by calculating two statistics for any possible sorting of vertices into positions and for any specification of the relations between the vertices of various positions. The *information* statistic, on the one hand, measures how much of the information in the data is restituted in a given blockmodel (that is, in a given sorting of vertices into positions and a given specification of relations between the vertices of these positions). The higher this statistic, the less the structural equivalence positions of two vertices tell us about the presence or absence of a tie between them in the underlying data. A better blockmodel therefore has a lower information statistic. The *clarity* statistic, on the other hand, measures our certainty that any two vertices belong to the same (or to different) positions in a given blockmodel. It thus indicates the propensity of a blockmodel to unequivocally summarize the relative position of vertices in an underlying network. The clarity statistic is 0 if, for any pair of vertices, we know with certainty that they are (or are not) structurally equivalent. It is 1 if any pair of vertices has a .5 probability of being formed of vertices belonging to the same position. Again, the smaller this statistic, the better the blockmodel. Finally, one can use the same statistics to identify, among “best” blockmodels with different numbers of structural equivalence positions, the one best suited

to the underlying network data.

Table A1 reports the values of the information and clarity statistics for “best” blockmodels with different numbers of structural equivalence positions, under two specifications of the network of cross-representations between the 120 galleries. In the upper panel, a tie between galleries is defined as the sharing of at least one artist, and five isolated galleries are excluded from the analysis. In the lower panel, a tie between galleries is defined as the sharing of at least two artists; in this specification thirteen additional galleries are isolated and excluded from the analysis.¹⁵ Bolded rows signal the blockmodels that the combination of information and clarity statistics indicate as best fitting the underlying data. I interpret the absolute level of clarity, and the marginal gain in information obtained by adding extra positions to the blockmodel (blockmodels with more positions have lower information statistics by design). The very low clarity values suggest that the network of cross-representations exhibited a remarkably clear structure. A closer examination further reveals that the number and makeup of positions in the most relevant blockmodel is not highly sensitive to the specifications of ties between galleries.

The analyses in this article focus on the six-position blockmodel obtained when a cross-representation is defined as the sharing of two artists or more. Theoretically, this specification captures stronger ties between galleries, i.e. ties that third party observers were more likely to notice. This specification also yields the least equivocal blockmodel according to the clarity statistic.

Table A1 around here

¹⁵ Reported values for both statistics are averages of three values, obtained by running three Gibbs sequences for each partition of the network into n latent classes. Each Gibbs sequence consisted of 45,000 iterations. The three values were typically consistent, suggesting robust findings.

Online Appendix B. Outcome of the Survey by Art Journal *L'Art vivant*, 1925

Table B1 around here

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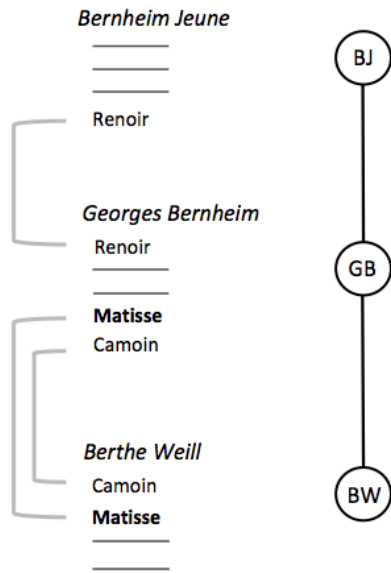


Figure 1. The Bernheim Jeune, Georges Bernheim, and Berthe Weill galleries prior to Matisse's move to Bernheim Jeune in 1909.

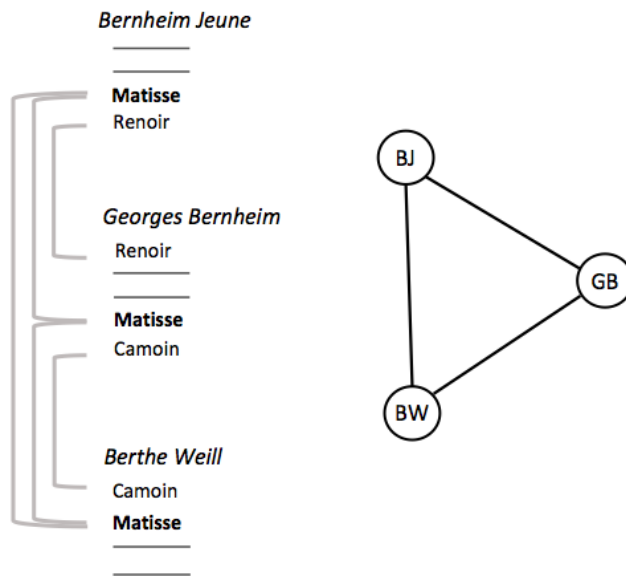


Figure 2. A cross-representation with Berthe Weill ruins the ability of ties between galleries to suggest the existence of a hierarchy among them.

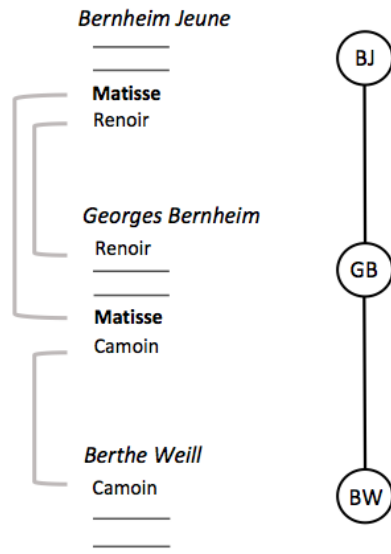


Figure 3. The sense of hierarchy is maintained if Matisse cuts ties with Berthe Weill.

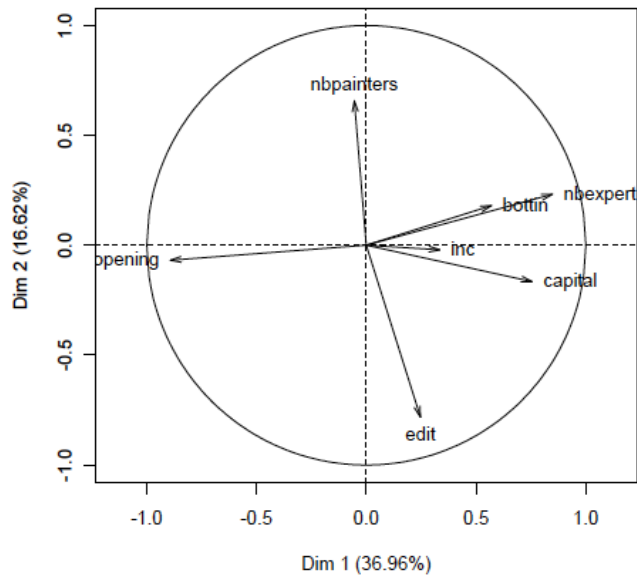


Figure 4. Principal component analysis of modern art galleries' attributes: first factor map.

Table 1. Average number of artists shared by two galleries in the various positions of the blockmodel. Light-shaded cells indicate the relational hierarchy. Dark-shaded cells indicate the strong ties of position 6 dealers with the dealers of every other position. Positions 7 and 8 are not shown (see appendix A).

	Position 1	Position 2	Position 3	Position 4	Position 5	Position 6
Position 1	1.6	-	-	-	-	-
Position 2	1.4	3.0	-	-	-	-
Position 3	0.1	2.0	3.3	-	-	-
Position 4	0.1	0.9	1.2	0.5	-	-
Position 5	0.1	0.2	0.4	0.3	0.2	-
Position 6	0.9	4.5	5.1	2.1	0.6	8.3

Table 2. Gallery characteristics by blockmodel position.

Position	Number of galleries	Average gallery opening date	Average capital and (number) of incorporated galleries	Average number of artists represented by a gallery	Average date of birth of artists represented by a gallery	Average percentage of a gallery's artists alive in 1929	Average price of a gallery's artists (francs for 100 cm ² of oil on canvas)
1	11	1897	1,070,000 (8)	10.6	1844	24.2	8,237
2	15	1919	344,000 (5)	20.9	1865	64.1	6,305
3	24	1921	813,800 (8)	18.5	1884	92.1	3,273
4	16	1922	63,300 (3)	12.5	1880	87.9	4,880
5	18	1918	210,300 (4)	8.9	1881	88.2	1,424
6	18	1923	325,000 (8)	33.4	1877	82.4	4,553
7	13	1926	290,000 (2)	6.1	1885	91.2	3,202
8	5	1927	200,000 (1)	5.8	1883	100	114
All	120	1920	543,600 (39)	16.2	1876	80.0	4,185

Table 3. Multilevel models predicting artists' auction prices in 1928-29.

Predictors	Model				
	1	2	3	4	5
<i>Artwork-related predictors</i>					
Size (log)	–	.59** (.03)	.60** (.03)	.60** (.03)	.62** (.05)
<i>Artist-related predictors</i>					
Years elapsed since date of birth	–	–	.03* (.01)	.02* (.01)	.02** (.01)
Dead	–	–	.57* (.25)	.54* (.24)	.56** (.24)
Number of works sold in 1928-29	–	–	-.017* (.008)	-.018* (.007)	-.019* (.007)
Number of galleries representing	–	–	.19** (.02)	.20** (.02)	.20** (.02)
Number of galleries representing (squared)	–	–	-.004** (.001)	-.004** (.001)	-.004** (.001)
Critical recognition	–	–	.13** (.02)	.12** (.02)	.12** (.02)
<i>Gallery-related predictors</i>					
Qualification by galleries	–	–	–	.16 (.38)	.17 (.38)
Credentialing by galleries (Reputation)	–	–	–	.07* (.03)	.07* (.03)
Consecration by galleries	–	–	–	.20** (.08)	.20** (.08)
Intercept	7.19** (.11)	2.47** (.28)	2.34** (.26)	2.34** (.26)	2.10** (.37)
Correlation Intercept / Slope of log(Size)	–	–	–	–	-.95
DIC	3,119	2,825	2,604	2,576	2,550
Mean deviance (-2 loglikelihood)	3,122	2,833	2,657	2,638	2,611
Total unexplained variance	2.41	2.34	1.03	0.96	6.08
Unexplained variance artworks	0.54	0.40	0.40	0.40	0.37
Unexplained variance artists	1.87	1.94	0.63	0.56	5.62
N Artworks	1,196	1,196	1,196	1,196	1,196
N Artists	173	173	173	173	173

** p <.01; * p <.05 (two-tailed tests); standard errors in parentheses.

Table 4. Multilevel models of artists' auction prices in 1928-29, including past prices as a predictor.

Predictors	Model			
	6	7	8	9
<i>Artwork-related predictors</i>				
Size (log)	.60** (.04)	.64** (.05)	.60** (.04)	.64** (.05)
<i>Artist-related predictors</i>				
Years elapsed since date of birth	.014* (.0073)	.016 (.0074)	.0139 (.0075)	.0149* (.0075)
Number of works sold in 1928-29	-.006 (.006)	-.006 (.006)	-.006 (.006)	-.006 (.006)
Number of galleries representing	.09** (.02)	.09** (.02)	.10** (.03)	.10** (.03)
Number of galleries representing (squared)	-.0018** (.0006)	-.0018** (.0006)	-.0018** (.0006)	-.0018** (.0006)
Critical recognition	.046* (.018)	.044* (.019)	.047* (.019)	.044* (.019)
Average price per square cm in 1927-28	.58** (.08)	.60** (.08)	.57** (.08)	.59** (.08)
<i>Gallery-related predictors</i>				
Qualification by galleries	.02 (.32)	-.02 (.33)	.05 (.33)	-.01 (.33)
Credentialing by galleries (Reputation)	.055 (.033)	.047 (.034)	.049 (.035)	.040 (.036)
Consecration by galleries	.18* (.08)	.18* (.08)	.22* (.11)	.24* (.11)
Credentialing by galleries (Market status)	–	–	-.01 (.02)	-.01 (.02)
Intercept	1.06 (.55)	.73 (.63)	1.06 (.55)	.72 (.64)
Correlation Intercept / Slope of log(Size)	–	-.98	–	-.98
DIC	1,539	1,516	1,533	1,509
Mean deviance (-2 loglikelihood)	1,605	1,581	1,605	1,580
Total unexplained variance	0.61	5.96	0.61	6.12
Unexplained variance artworks	0.37	0.34	0.37	0.34
Unexplained variance artists	0.24	5.54	0.24	5.69
N Artworks	796	796	796	796
N Artists	93	93	93	93

** p <.01; * p <.05 (two-tailed tests); standard errors in parentheses.

Table A1. Information and clarity statistics for “best” blockmodels with different numbers of structural equivalence positions, under two specifications of ties between galleries

Tie definition	Number of positions in the blockmodel	Information	Clarity
Tie = 1 or more shared artists	2 positions	.465	.316
	3 positions	.420	.188
	4 positions	.390	.150
	5 positions	.367	.178
	6 positions	.347	.078
	7 positions	.334	.154
	8 positions	.320	.128
Tie = 2 or more shared artists	2 positions	.431	.090
	3 positions	.393	.145
	4 positions	.369	.125
	5 positions	.348	.078
	6 positions	.321	.058
	7 positions	.312	.060
	8 positions	.306	.073

Table B1. Outcome of the survey by art journal *L'Art Vivant*, 1925.

Artist	Sex	Born	Dead	Votes	Artist	Sex	Born	Dead	Votes
Matisse Henri	M	1869	1954	26	Lebasque Henri	M	1865	1937	2
Derain André	M	1880	1954	20	Luce Maximilien	M	1858	1941	2
Dunoyer de Segonzac	M	1884	1974	19	Mainssieux Lucien	M	1885	1958	2
Bonnard Pierre	M	1867	1947	18	Marchand Jean	M	1882	1941	2
Maillol Aristide	M	1861	1944	18	Metzinger Jean	M	1883	1956	2
Picasso Pablo	M	1881	1973	18	Naudin Bernard	M	1876	1946	2
Utrillo Maurice	M	1883	1955	15	Piot René	M	1869	1934	2
Braque Georges	M	1882	1963	14	Aman-Jean Edmond	M	1858	1936	1
Vlaminck Maurice	M	1876	1958	13	Asselin Maurice	M	1882	1947	1
Rouault Georges	M	1871	1958	12	Bissière Roger	M	1886	1964	1
Vuillard Edouard	M	1868	1940	11	Blanchard Maria*	F	1881	1932	1
Dufresne Charles*	M	1876	1938	9	Blanche Jacques-Emile	M	1861	1942	1
Denis Maurice	M	1870	1943	8	Bouche Georges	M	1874	1941	1
Friesz Othon	M	1879	1949	8	Boutet de Monvel	M	1884	1949	1
Marquet Albert	M	1875	1947	8	Caro-Delvaile Henri*	M	1876	1928	1
Dufy Raoul	M	1877	1953	7	Chavenon Roland	M	1895	1967	1
Moreau Luc-Albert	M	1882	1948	7	Chéret Jules*	M	1836	1932	1
Favory André	M	1888	1937	6	Clairin Pierre-Eugène	M	1897	1980	1
Laurencin Marie	F	1883	1956	6	Dauchez André	M	1870	1948	1
Léger Fernand	M	1881	1955	6	De Dardel Nils*	M	1888	1953	1
Van Dongen Kees	M	1877	1968	6	Déziré Henri	M	1878	1965	1
Signac Paul	M	1863	1935	5	Fautrier Jean	M	1898	1964	1
De Waroquier Henri	M	1881	1970	4	Fix-Masseau Pierre	M	1869	1937	1
Guérin Charles	M	1875	1939	4	Foujita Léonard	M	1886	1968	1
Laprade Pierre	M	1875	1931	4	Fournier Gabriel	M	1893	1963	1
Lhote André	M	1885	1962	4	Galanis Démétrius	M	1882	1966	1
Besnard Albert	M	1849	1934	3	Gleizes Albert	M	1881	1953	1
Boussingault Jean-Louis	M	1883	1943	3	Goerg Edouard	M	1893	1969	1
Flandrin Jules	M	1871	1947	3	Gris Juan	M	1887	1927	1
Forain Jean-Louis	M	1852	1931	3	Guénot Auguste	M	1882	1966	1
Le Fauconnier Henri	M	1881	1946	3	Herbin Auguste	M	1882	1960	1
Léopold-Lévy	M	1882	1966	3	Heuzé Edmond	M	1884	1967	1
Lurçat Jean	M	1892	1966	3	Huyot Albert	M	1872	1968	1
Marval Jacqueline	F	1866	1932	3	Kisling Moïse	M	1891	1953	1
Modigliani Amedeo	M	1884	1920	3	Kvapil Charles	M	1884	1957	1
Puy Jean	M	1876	1960	3	Lipchitz Jacques	M	1891	1973	1
Roussel Ker-Xavier	M	1867	1944	3	Lotiron Robert	M	1886	1966	1
Simon Lucien	M	1861	1945	3	Manguin Henri	M	1874	1949	1
Valadon Suzanne	F	1865	1938	3	Mare André	M	1885	1932	1
Vallotton Félix	M	1865	1925	3	Martin Henri	M	1860	1943	1
Alix Yves	M	1890	1969	2	Ménard René	M	1862	1930	1
Charlot Louis	M	1878	1951	2	Miró Joan	M	1893	1983	1
Charmy Emilie	F	1877	1974	2	Muter Mela	F	1876	1967	1
Cottet Charles	M	1863	1925	2	Ottmann Henri	M	1877	1927	1
Daragnès Jean-Gabriel	M	1886	1950	2	Pascin Jules	M	1885	1930	1
De la Fresnaye Roger	M	1885	1925	2	Péquin Charles	M	1879	1963	1
Desvallières Georges	M	1861	1950	2	Quizet Alphonse	M	1885	1955	1
Dufrénoy Georges	M	1870	1942	2	Sabbagh Georges-	M	1887	1951	1
Girieux Pierre	M	1876	1940	2	Schuffenecker Emile*	M	1851	1934	1
Gromaire Marcel	M	1892	1971	2	Simon-Lévy*	M	1886	1973	1
Hervieu Louise	F	1878	1954	2	Valmier Georges*	M	1885	1937	1
Laboureur Jean-Emile	M	1877	1943	2	Valtat Louis	M	1869	1952	1
Laurens Henri	M	1885	1954	2	Willette Adolphe*	M	1857	1926	1

An * indicates that the artist was not represented permanently in any of the galleries active in Paris in 1928-29.