

# Transparency in an Opaque Market: Auction Prices as Anchors and Guideposts

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03-22-2011 Version

## **Abstract**

What effects will increasing market data have, if that information is inherently incomplete? The high end fine art market provides an excellent case study for this question. The emergence of art price services has greatly facilitated access to auction price data, and have been heralded as increasing transparency and accountability in the art market. However, the auction sales they present comprise only about half the market, whereas some 60% of transactions are private gallery sales and other undisclosed exchanges. Drawing from inductive ethnographic research, this paper presents an alternative mechanism to an explanation of transparency as traditionally understood. Rather than shining a ray of light into an opaque market, these services created shared expectations of ‘fair prices,’ as galleries were pressured to set prices to confirm with visible auction data. Thus, in contrast to the common pronouncement of increased transparency, with auction price data as simply a market indicator, this article theorizes auction prices as a causal factor, acting as anchors and guideposts that frame price expectations. This finding also contributes to organization theory, suggesting one way we could reconcile the currently oppositional theories from behavioral economics and the social studies of finance, positing a two-part sociotechnical and cognitive model to understand the impacts of visible auction prices.

## **Keywords**

Market transparency, art investment, art prices, auctions, galleries, incomplete information

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Using the case of the fine art market, this paper addresses key questions faced in both retail and investment markets: how are decisions made in the face of incomplete data and what impacts will an increase in market information have on prices and market processes? This is the situation faced in the high end fine art market, where art price services have become new and important institutions in the market, disseminating previously hidden or difficult-to-find information about prices of artwork at auction (e.g. Guerra forthcoming; Velthuis and Coslor 2011). Underlying this development is both a quest for numbers from within the art market itself, which has historically been highly opaque and difficult for outsiders to access, combined with a growing outside interest in establishing artwork as a financial investment category, where transparency and accountability are demanded by investors. Although the use of art as an investment is opposed by some in the art world (citation withheld), in the last few years, art investment has become acceptable to financial managers (Willette interview),<sup>1</sup> and is listed in investment industry publications including the CapGemini World Wealth Report (CapGemini and Merrill-Lynch 2010), where it is categorized as a type of “passion investment.” In other words, the art market is a well developed retail market, but still an early stage investment market, in no small part because the issue of how to evaluate art prices and potential returns has continued to be a problem for potential investors.

The growth of art price services can be seen as a reaction against the traditionally opaque market, where even today high end galleries do not publically reveal prices publicly, or they may reveal only partial information. For example, in his book *The \$12 Million Stuffed Shark: The Curious Economics of the Contemporary Art Market*, author Don Thompson (2008: 2-4)

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<sup>1</sup> Phone interview with Randall Willette, CEO of Fine Art Wealth Management, an art advisory firm in London. January 2009.

discussed his inability to find out the exact sales price of a Damien Hirst sculpture, *The Physical Impossibility of Death in the Mind of Someone Living*, which was sold to hedge fund manager Steve Cohen by the Gagosian gallery. Despite several years of research for the book, Thompson was only able to gain a ballpark figure for the actual sales price. So it is understandable that these new data providers and price services have become a welcome source of information in the murky art market. Companies like artnet, ArtPrice and Art Market Research, as well as art market advisors and consultants, help to shed light into this market with online services and rapid information provision. Although art price information in books has been available since the early 1900s, and art appraisers provide detailed information for a fee, online price providers are able to provide finer-grained, rapidly updated information, and high-quality images. It is not too much of a stretch to consider artnet and ArtPrice the Bloomberg and Reuters of the art market, providing aggregated price data from auction sales in various forms, along with other types of news and information, while Art Market Research (AMR) provides art market information directly through the Bloomberg terminals used by traders in its ARTQART and other indexes.

But while market transparency has been improved by these services, which make the record of past sales at auction available for a relatively affordable fee, together with genre-specific and overall market indexes, the resulting transparency is only a partial development. Transparency is defined as the ability to know market prices, supply and demand, and other features of a trade good (Law and Smullen 2008). This is particularly important in investment markets, where the expectation is to have a continually updated market price and the ability to see a list of buy and sell offers in order to make rapid, high-quality trades. But unlike stock markets, where market supply, bid-ask spreads and sometimes counterparties are made public, auction prices only comprise about half of the art market, in terms of sales volume. The other

half of the market takes the form of private sales by dealers, individuals and sometimes auction houses, where actual sales prices are often—as illustrated in the previous example—closely guarded secrets.<sup>2</sup> As I will discuss, for this and other reasons, private sales are not necessarily well represented by auction data, making the available numbers into an imperfect indicator of the overall direction of the market. Although this creates a sometimes vexing situation for market participants, it also provides an excellent case to study the impacts of improved market transparency, but continuing incomplete information.<sup>3</sup>

Through inductive ethnographic research on the high end art market from 2007 to 2009, I found that auction prices help to factor into gallery pricing methods. This was unsurprising because art is priced on the basis of comparables (Levin 2007; Robertson 2005), with methods similar to those used in the real estate market, or those used for valuing unique Level 2 and Level 3 assets. This created price coordination between galleries and auctions, but what was interesting was that the mechanism that emerged was not simply that of socio-technical agency, where the technology of price provision alone changed the market, an explanation drawn from actor-network theory (Callon, Law and Rip 1986; Latour 1988; Law and Hassard 1999), which is also seen in some work on the social studies of finance, as well as on the art market (e.g. Guerra forthcoming; Herrero 2010).

Perhaps because fine art is hard to value, and art pricing is always more of an art than a science, my research instead revealed a two-stage model, combining the industry and

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<sup>2</sup> For clarity, I limit my discussion to the secondary market, where sales are conducted by galleries, dealers, auction houses and other intermediaries. The primary market encompasses all first-time sales, and these are made almost exclusively by art galleries (see Velthuis 2005).

<sup>3</sup> My term ‘partial transparency’ is a deliberate choice here instead of information asymmetry, because my model does not assume that the counterparty necessarily knows more about the market properties of the artwork, although this may sometimes be the case. Alternatively, this could be called incomplete information.

technological changes represented by the growth of auction price services with the more subtle factors of mental models and social coordination. In other words, it was not the case that visible numbers simply ‘created’ the transparency that was promised, as in the classic economic explanation of transparency. Nor was it the case that online provision of prices magically enabled coordination between galleries and auction houses. Instead, I found shared expectations about prices, which were shaped by auction hammer prices. This substantiates the theories of earlier researchers like Frey and Pommerehne (1989: 397), who had posited that auction prices were a ‘guidepost’ for collectors and art dealers (see also Velthuis 2004; 2005: 91).<sup>4</sup> This finding is important because in addition to confirming that increasing market information does have material impacts on markets (e.g. Beunza, Hardie and MacKenzie 2006), it helps to flesh out the specific mechanisms that enable market coordination: in this case, how visible prices allowed by market technology changes combine with market actor expectations, an integration that can occur either through deliberate calculation or unconscious bias. It provides one way to integrate seemingly incompatible cognitive and sociotechnical theories into a coherent model.

### **Market Transparency**

Market transparency is a fundamental concept in financial market research, and the typical neoclassical economic expectation is one of full market information. Transparent markets are systems with “prompt availability of accurate price and volume information which gives participants comfort that the market is fair” (Gastineau 1992: 238). Transparency as a concept in financial reporting implies easily understood figures and terms, with “full, clear, and timely

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<sup>4</sup> While Velthuis’ concern was with the meaning of prices (2004: 371), drawing upon the Austrian tradition, my question of interest is the specific mechanisms by which prices might gain this meaning, or in the actor-network tradition, how they might gain agency.

disclosure of relevant information” (Credo Reference 2006). A transparent market is presumed to give ‘prompt and accurate’ information about prices, market supply, fees and other aspects, showing that the market is fair. It will show information about the ‘depth’ (Credo Reference 2006) of the market and provide essential details about quality and other product features (Law and Smullen 2008). In addition, for securities markets there is also the goal of avoiding malfeasance, such that “price transparency means access to information concerning the depth of the market that would enable detection of fraud or manipulation” (Credo Reference 2006). Transparency is also theorized to decrease market costs and increase liquidity, due to decreased information asymmetry, enforcement of rules against excessive mark-ups (in exchange markets), and by allowing dealer risk sharing that could decrease trading costs (summarized in Bessembinder and Maxwell 2008: 225). Pagano and Röell (1996) found that a shift from dealer to auction markets was found to decrease trading costs for uninformed buyers, explained by decreased information asymmetry.

These explanations describe the ideal situation of full market transparency, but as we know, real markets contain many cases of incomplete information. Moreover, when it comes to real markets, aside from the highly standardized exchange-traded commodity and equity markets, the concept of market depth and timely disclosure can be quite ambiguous. For example, is there a difference between overall market transparency and the particular characteristics of an individual item? This distinction is usually viewed as transparency vs. information asymmetry, but it becomes less relevant in the art market, where goods are very heterogeneous, and may have few close comparables. In this sense, they more closely resemble

the difficult to value Level 2 and Level 3 assets.<sup>5</sup> Moreover, in some markets, transparency may be opposed. One reason is that it may be seen as ceding a strategic trading advantage, for example, a concern seen in the hedge fund industry (Goltz and Schröder 2010: 20), and one motivation for those who participate in the so-called ‘dark pools,’ exchanges that reveal little pre-trade information (see also Pitluck 2008). Transparency may also have perverse price incentives, as seen in Madhavan et al.’s (2005) finding that increased transparency can decrease market liquidity or increase price volatility.

Nonetheless, the many desirable attributes of market transparency mean that it has often motivated changes in market structure in favor of increasing information. For example, transparency goals provide a theoretical justification for the shift from historical cost accounting to mark-to-market accounting regulations (Bleck and Liu 2007), with the assumption that more information decreases the chance and severity of market crashes. Market transparency goals are seen in the design of market trading systems, with the ideal of electronic exchanges offering “unbiased, complete, and accurate market information” (Granados, Gupta and Kauffman 2006). Transparency is also put forward as desirable in sunshine efforts that seek to reduce corruption (Etzioni 2010), corporate transparency measures to give shareholders an accurate picture of a firm, or with the goal of establishing reliable and legitimate prices.

Thus, market transparency is an important concept in understanding markets, and one that has motivated market changes and designs, meaning that it would be a good idea to investigate the concept to further an understanding of market processes, especially when some researchers, such as Etzioni (2010) question its utility. But while transparency is an important underlying

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<sup>5</sup> In this sense, they more closely resemble the difficult to value Level 2 and Level 3 assets, where it is complicated to assess with a mark to market methodology.

assumption for efficient markets, the mechanisms at work with partial transparency or incomplete information remain undertheorized. From the examples above, it is clearly related to questions of market efficiency, as well as market design and technologies. But how do these two factors fit together in a real life situation? The complicated example of what transparency means in the high end art market provides a good case with which to interrogate this question.

### **The Material Pieces of Markets: Instruments, Models and Devices**

In conjunction with bigger questions about market transparency, the role of the new art price providers and visible price data is also of interest due to the growing work in accounting, as well as in the sociology of finance, which uses theories from economic sociology and science studies to examine the tools, processes and outcomes of financial markets, often with qualitative methods. This draws upon the longer history of research in science and technology studies (STS) on topics such as quantification (e.g. Porter 1995), turning these methods to the study of financial markets. This includes recent interest in the role of financial models (e.g. MacKenzie 2004; MacKenzie and Millo 2003), and other work linking the emerging sociology of finance (Knorr Cetina and Preda 2004; 2011), with case studies on diverse topics such as credit scoring (Poon 2009) and life insurance securitization, the so-called ‘death markets’ (Quinn 2008). In a related line of work, the focus on numbers, quantification and calculation is also found in accounting, with research on models, mediating instruments (Miller and O’Leary 2007) and role of numbers in auditing (Power 1999). Research on valuation is also being done in economic sociology proper, for example Fourcade’s (2009) work on contingent valuation.

Although not all researchers come from this line of thinking, a majority draw from either science studies or actor-network theory (Callon et al. 1986; Latour 1988; Law and Hassard 1999). Although I will not go into an extensive etymology of the field here, actor-network theory



(ANT) is a framework for understanding sociotechnical processes (reviewed in Crawford 2005), although not the only framework. One useful theory that comes out of this line of work is the idea of a market device, a non-human object in the market that does something, and can have a form of agency, or capability to act (see e.g. Callon and Law 2005; Callon, Millo and Muniesa 2007). Technology improvements can here become a ‘generator’ of sociotechnical agency (Preda 2006). Another related area of research is on the performativity of economic models (Callon 1998b), where the use of financial models like the Black-Scholes-Merton options pricing model creates greater market conformity to the model over time (described in MacKenzie and Millo 2003), which could be seen as a type of cognitive explanation, although the authors do not typically frame it in this way. Instead, the performativity effect is theorized as arising from the specific economic assumptions embedded in these quantitative and other models. This set of sociotechnical theories would generally view the growth of art price providers as a technological change story, focused on technological improvements, methods of calculation and valuation models, or in other words, the interaction of people and technology as mutually constitutive agents, which links back to the use of actor-network theory as an attempt to bypass the question of agency vs. structure (Crawford 2005: 1).<sup>6</sup>

### **Cognitive and Decision Science Theories for Market Coordination**

An alternative view of financial market behavior comes from the line of work that uses cognitive models, and there is a large line of work in behavioral economics. Again, I will not review the entire field in detail. Instead I will start in with the contrasting theory of price signals, where

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<sup>6</sup> Naturally, social network analysis is another method of dealing with the agency-structure dilemma (see Granovetter 1985), but I have focused only on the actor-network explanation for clarity here.

prices communicate a level of quality (Stiglitz 1987), and price changes send quality signals (Spence 1974), as reviewed by Velthuis (2004: 372-3).<sup>7</sup> Allowing for these price signals, I suggest that we must also include an understanding of cognitive biases, in particular anchoring and reference effects.

Cognitive biases are often cited in behavioral finance and economics, but they originally came from research in social psychology and cognitive and decision science, and it should be noted that the fields do not entirely overlap, and there are different interpretations in the different lines of research. In contrast to the prior theories of deliberate calculation—or the more clean interpretation of price signals—this work shows that people use time-saving heuristics, particularly when making judgments under uncertainty, with resulting representativeness, availability and anchoring errors (Tversky and Kahneman 1974: 1131). This suggests that we make certain unconscious errors in patterned ways, quite the opposite of the more deliberate method of calculation that is assumed by the actor-network theorists, where flawed models or ‘fat finger’ errors are responsible for mistakes. Before diving into a review, I should also point out that cognitive biases are the outcome of useful decision patterns; even Tversky and Kahneman noted that heuristics could be “highly economical and usually effective,” even if they did lead to “systematic and predictable errors” (1974: 1131). So perhaps instead—to paraphrase Margolis (1996: 49)—we should say this is the study of how habits of mind govern intuition and decision making.

Of particular interest in financial markets are anchoring effects, which typically come into play with numerical referents, as is the case with the visible markers of comparables shown

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<sup>7</sup> This follows the excellent review by Velthuis (2004: 372-3) in his discussion of the interpretation of prices vis-à-vis Austrian economics.

in the auction prices provided by art price services. When such reference figures are available, there can be “adjustment from an anchor... usually employed in numerical prediction when a relevant value is available” (Tversky and Kahneman 1974: 1131). In other words, once the numbers are out in the world and visible, they become reference points, and people will expect future prices to conform to these numbers, often unconsciously. This can be a particular issue when making decisions under uncertainty, or with time constraints, when there will be the pressure to satisfice, rather than optimize – to find the good enough alternative given time constraints and information costs (see Simon 1959).<sup>8</sup>

One of the key differences of the cognitive and decision science view is the way that market coordination is achieved. Rather than seeing market devices or infrastructure as the key coordinators of behavior, shared assumptions take this role, which leads us to the social psychology and sociological work on group coordination. Foss and Lorenzen’s (2009) work on cognitive coordination in organizations arising from regular patterns of behavior and ‘shared cognitive categories’ is particularly relevant here, and the authors rightly identify the lack of economics research on coordination, as opposed to the strong emphasis on coordination in and within organizations in economic and organizational sociology. Their work is especially relevant because the comparables approach used to value art helps to establish expectations in the same way as the ‘precedents’ used by agents to overcome coordination problems, “precedents that may

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<sup>8</sup> Other related cognitive biases include framing and expectation effects. While expectation effects are fairly self-explanatory, framing effects occur when the same information about a decision is presented in different ways, such that decision preferences change. For example, individuals might change their preference order among different choices that are objectively equal, when these choices are worded as a positive or negative risk (e.g. “chance of living” or “chance of dying”). This risk framing was elaborated by Tversky and Kahneman (1981) but the literature has grown extensively since that time. (See Levin et al. (1998) for a longer review).

eventually become institutionalized, and through the associated analogical reasoning” (2009: 1203).<sup>9</sup>

### **Research Methods and Context**

The art market is an excellent case to join together this work on the mental factors for market coordination with the impacts of market technology, given that it is both a case of making decisions under uncertainty as well as a place where auction prices and price provision systems have created a new set of price-finding technologies. The findings that I present here are one emergent theme from a larger research project on the growth of art as a new type of financial investment category, with three years of ethnographic research (2007-2009), including five months of fieldwork in London and eight months in New York, 33 interviews, participant observation at 29 events such as the Frieze Art Fair, and review of art world publications. Interviews included members of both the art world (e.g. artists and gallerists) as well as those involved in art investment and finance. I also examined 24 Master’s of Art Business Dissertations at the Sotheby’s Institute of Art, London, which included a total of 14 full interviews and 30 partial interviews that I was able to reanalyze. This was particularly helpful for my research here, because some of the dissertations, such as that of Loring Randolph, now director of the Casey Kaplan gallery in New York, included quotes based on survey results, while others had a smaller sample but included full interviews.<sup>10</sup> This research was conducted in New York and London, which have historically been cities of both culture and finance. London,

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<sup>9</sup> Although Foss and Lorenzen’s work is based on game theory and cognitive models, there is also a continuing interest in cognition in cultural sociology, with questions about, for example, the links between categorization and cognition (Espeland 2002).

<sup>10</sup> I have been granted permission by Ms. Randolph to make more extensive use of her work, for which I am very grateful.

New York and Tokyo are key centers for the global financial markets (Leyshon and Thrift 1997; Sassen 2001), while London and New York are also hubs of the global auction trade (Watson 1992).

My methodology was primarily ethnography, which may be more familiar for some readers as an inductive case study (Eisenhardt 1989), although not all ethnography is inductive. Inductive research such as this is an excellent way to generate topics in areas where hypotheses are not yet known, to generate substantive theory, or as a preparation for deductive hypothesis testing. A key attribute of the inductive method is that interviews and cases are “over sampled” on the variable of interest, to increase variation and discover emergent themes, grounded in the actual data. Ethnography is also an excellent way to conduct research with high-prestige subjects, who can be difficult to access (see Odendahl and Shaw 2002). Drawing from grounded theory methods (Glaser and Strauss 1967), my ethnographic technique was based on Marcus’ (1995) multi-sited ethnography, where I “followed the object” of art as an investment, using a common methodological strategy from science and technology studies research. Semi-structured interviews were either formal, recorded meetings or informal conversations recorded in field notes, and interviewees were selected through first convenience samples at high end art fairs, and then through theoretical sampling to further my questions of interest. Interviews and field notes were coded for themes and content, using an iterative technique (e.g. Richards 2005), and working toward saturation and theory emergence (Eisenhardt 1989; Eisenhardt and Graebner 2007; Glaser and Strauss 1965; 1967).<sup>11</sup> Thus, my theory of the role of prices as anchors and

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<sup>11</sup> Coding was done initially using Nvivo, the qualitative content analysis software, but I later switched to Microsoft OneNote, which provided a lighter interface with which to search and examine data.

guideposts presented here was based on an emergent theory based on the actual data, rather than a deductive finding.

### **Auction Price Data and the Quest for Transparency**

The interest in objective numbers was certainly not limited to art investors. There are many art market participants who need to have more information, such as appraisers, insurance companies, and collectors. But the explicit demand for outside numbers seems to have followed the interest in art as a financial investment, where transparency and accountability were not just helpful, but required. For example, when the British Rail Pension Fund invested in art and antiques in the 1970s, statistician Jeremy Eckstein was brought in to provide hard numbers about the investment. "...I suspect there was a certain amount of frustration on behalf of the British Rail people, who were getting soft answers for hard questions, and effectively British Rail said to Sotheby's, 'we would like you to recruit somebody on your payroll.'" Paid by Sotheby's to look at the numbers, Eckstein became one of the early members of a practical—as opposed to academic—effort to quantitatively study the art market.<sup>12</sup>

While Eckstein was able to advise the British Rail Pension Fund with expert appraisals from inside one of the world's top auction houses, very few people have had this privileged level of access. To satisfy the demand for numbers about the art market from collectors, experts and the growing class of art investor, a different type of information provider found a market. Although art price information in books has been available since the early 1900s (e.g. Bénézit (e.g. Bénézit 1911), and art appraisers will provide detailed information for a fee, the subscription-based art price services such as artnet, ArtPrice and Art Market research have

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<sup>12</sup> Personal interview with Jeremy Eckstein, art market consultant, London, January 2009.

grown to provide a range of art market information and news coverage. Interestingly, Art Market Research also provided price index information directly through the Bloomberg terminal interface, one of the news and trading platforms used by traders and analysts in London and New York.<sup>13</sup> Their services include art price indices, discrete price information through auction price databases (King interview), reports on market trends (e.g. ArtPrice 2008), and art related news coverage.

The growth in art price information was seen as a key benefit for my interviewees, both those interested in investment activities and others. As Randall Willette, CEO of Fine Art Wealth Management, an art advisory firm in London pointed out, the issue of market transparency had been a key problem for professional investors, but the growth in data was promising.

...I think transparency has been one of the biggest problems with the art market historically, which has been one of the reasons why there hasn't been- you know it hasn't been a very efficient market... So I think with greater transparency, with greater research, obviously more public reporting of auction sales data, all of that, I think, has helped to create a more transparent market.<sup>14</sup>

This growth in data was helpful because now buyers would be more informed about prices. This was especially useful for potential investors.

Well, obviously if you want to think of art as an investment, you need to know how much you should be paying for something. The [artnet] database has been instrumental in not only bringing price transparency to the market, but in helping people to compare works of art and what their prices have achieved, so that they know when they're looking at an item, and approximate range with which they should be thinking. If they're thinking of it very much as an investment, where they should be, where they should stop.<sup>15</sup>

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<sup>13</sup> Field notes, Bloomberg training session at the New York Public Library, 2008.

<sup>14</sup> Phone interview with Randall Willette, CEO of Fine Art Wealth Management, an art advisory firm in London. January 2009.

<sup>15</sup> Phone interview with Amy King, Vice President of the artnet Price Database. February 2009.

This information helped buyers to know if they were getting a good deal: now they would not necessarily be so reliant on the personal guarantee of the gallerist, which in effect externalized some of the information that was relevant in the transaction. The growing market transparency could be seen as a type of ‘epistemic practice’ (Knorr Cetina 1999) that was necessary for legitimacy with investment-minded buyers, because of the role that numerical evaluation played in the ‘culture of finance’ (Abolafia 1998).

### **How Representative Are Auction Prices?**

Despite the strong interest in better market information by art buyers of various types, the prices and trends provided by the growing number of art market data services were incomplete, because they relied mainly on auction prices, and auction sales only constitute about 40% of all art market sales, while 60% of sales are private sales are carried out by galleries, dealers and art consultants, as well as by auction houses selling by private treaty.<sup>16</sup> Prices for these types of private exchanges are neither reported, nor are they publically available (Baram 2005; Moulin 1987; Plattner 1996; 1998). While other gallerists and art world insiders might have learned about these sales and gained some information on the price, this information would be secondhand, unverifiable knowledge, and does not factor into the auction price data that is used by art price services to generate indices, estimates or produce a past sales history. Outsiders may not even be able to get closer than a ballpark estimate, even if they asked multiple sources. On top of hidden prices, there may also be variable dealer prices for different buyers, rather than a single fixed price. In research on the French art market, Moulin found a variety of prices

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<sup>16</sup> Interview with art fund representative, May 2007; This number was difficult to estimate, and past research provided conflicting accounts. McAndrew (2007: 51) found a ratio closer to 50/50, while Baram (2005) suggested that only 1/3 of sales were at auction.



circulating for the same work of contemporary art, such as one for a museum, another for collectors, and even a high figure to be “leaked to journalists for publicity purposes” (Moulin 1987).

While auction prices do act as indicators of the direction of price trends in the auction market, and are a good indicator of the kinds of prices a work can find at auction, past research and my own findings suggest these visible numbers should be interpreted carefully. Clearly, if gallery prices can be variable, with different prices given to different buyers, then there are intractable problems in using auction data to represent the gallery market. But even if we assume non-variable dealer prices, we do not know the directionality of the relationship between auction prices and private deals, as seen in prior research. Charles Smith (1989: 88) discussed a museum director who preferred to sell privately because it was the director’s experience that for items of known value, auctions may sometimes bring a higher price, but a private sale would usually bring a better price. More recently, Velthuis (2005) found in ethnographic research on art galleries in New York and Amsterdam that contemporary art galleries priced work lower than auction houses, while Hutter et al. (2007) found the opposite, using quantitative analysis with quoted dealer prices for “average size work.” The true relationship is difficult to test quantitatively because the private gallery prices mean that systematic gallery-side data are hard to gather and unlikely to be comprehensive. This makes it difficult to say whether there is a one-directional relationship, or perhaps that gallery prices have a time-lagged relationship to auction prices. There may also be variable differences, with auction prices leading or lagging gallery prices in unpredictable ways.

Representativeness questions are joined by the problem of selection bias. Major auction houses primarily accept well known works from the highest end of the market (Plattner 1996:

45), meaning that inferior works or ones the auctioneers know will not sell will have been filtered out, creating selection bias toward artworks that have held value over time (Frey and Pommerehne 1989: 406). This poses key problems for measuring the returns of art investment when people buy from galleries to eventually sell at auction, due to the lack of representative average prices.<sup>17</sup> In other words, if one is able to pick work that holds value, estimates of investment returns from auction prices are accurate, whereas if one picks an artwork that loses popularity, the investment could be minimal or negative.

My ethnographic research echoed these results, finding variability in whether auction or gallery prices were higher. Dealers also mentioned potential mechanisms for price splits, including volatility, structural changes, and buying formats. For example, a gallerist pointed out novelty as a factor in paying higher prices at auction.

...we carry [a contemporary British painter] and she comes up at auction. Our artists aren't going to be making a lot there though, I think she sells for about £8,000. The auction houses are selling "shopping at auction." It is the experience that people are paying for. They could buy the work from us for £5,000 (gallerist).<sup>18</sup>

Another gallerist pointed to the structural transition of auction houses into a retail sales venue, when they had formerly focused on wholesale trade to art dealers.

...this is a kind of difference to the market 30 years ago, to have collectors in the sales room. When my dad was in the business it was something like 80%, 90% of the business auction houses did was to trade to galleries. If you add 10 private collectors who've got fortunes, it changes the business (gallerist).<sup>19</sup>

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<sup>17</sup> A creative strategy of comparing auction information to a proxy for gallery prices is used by Hutter et al. (2007).

<sup>18</sup> Director of a London gallery specializing in Modern and Contemporary British artists (quoted in Randolph 2005). [R7]

<sup>19</sup> London gallerist, interviewed at the London Art Fair, 2009. [LAF2].

As the son of a gallerist, he contextualized price changes in terms of changing auction demographics, noting that when collectors entered the auction sales room, prices were pushed up and could also be volatile, as has been seen in prior research (e.g. Smith 1989).

### **Negotiating Incomplete Information in Practice: Comparables and Quality**

Although there were problems with auction data, it was clearly preferable to have some numbers rather than none. For this reason, art market insiders had a different concept of what might be needed for true market transparency. Amy King of artnet pointed out that neither gallery asking prices or auction prices should be considered as complete information about an artwork.

“About 40% of our galleries list prices, those are asking prices. So asking prices are available. [For art investment] ...galleries publishing their sale prices are one of the things that are most necessary for the further transparency, but [so is] an understanding of what the value of a work of art truly is. By having only the auction prices, you have a partial picture, but it certainly isn't the entire picture in terms of value.”<sup>20</sup>

Art market insiders realized that auction prices were not comprehensive, and had to be interpreted in conjunction with other factors, echoing the findings of previous research (e.g. Velthuis 2004). Auction prices provided one type of data point, with potential comparables,<sup>21</sup> but valuation depends upon a number of interrelated factors, including the external evaluation of the artist's significance, movements in the artist's career, and demand factors such as the shifting tastes of buyers (e.g. Robertson 2005).

The goal of art price services is to give buyers better context and information about the market, particularly newcomers. As an interviewee pointed out, this was essential information

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<sup>20</sup> Phone interview with Amy King, Vice President of the artnet Price Database. February 2009.

<sup>21</sup> Personal interview with Washington D.C. gallerist, who was also an appraiser, 2009.

for judging value, whether one was an investor or a collector, but price data was not complete information.

*What types of research do you do?*

[We're looking at] prices, how quickly some emerging artists have reached the market. Is this sustainable? Is the artist being shown? What is their track record? We're looking at how tastes are formed by marketplaces and there is a danger of thinking that quality equals price. We're deciphering or decoding a market that is pretty non-transparent. How do artists end up where? It's an insider's market, but more people are coming in, and we want to give people the right information. We want this to be a complementary tool to [one's] taste and liking the piece, rather than just personal opinion and that of the dealer. There are changes due to new buyers. Knowing value requires both the financial and the aesthetic (art price service representative).<sup>22</sup>

Providing more sophisticated market context was one of the goals of the art price services, to give people a 'tool' that would help them to make decisions, outside of simply their own taste and the estimates of the galleries themselves. Although not complete, access to realized auction prices was seen as important because this generated greater trust in the art market by buyers.

... Ever since auctions have been putting their sales data online, the market has become more transparent. However, it is not that simple. Even if you had everything available at everyone's finger tips there is always going to be the specific qualities of a given work; condition, provenance and so on. You have to learn about the market and be involved in it to understand why a work is worth what it is worth. Transparency on the whole is a very good thing. It decreases the level of distrust in the market. I think the only people that are going to suffer are the 'unscrupulous,' so to speak, who have been trying to over price things. The art market is like any other market except people need to understand art's intrinsic values and that can be difficult (gallerist).<sup>23</sup>

Market transparency was not a simple problem, because auction prices alone did not provide full information in the views of this gallerist, but the prices did help to provide the benefit of greater trust by clients.

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<sup>22</sup> Interview with art price service representative, London, May 2007. [LP1].

<sup>23</sup> Director of a London contemporary art gallery, quoted in Randolph (2005) [R1].

## Material Effects of Auction Prices on Gallery Practices

A key finding that emerged from my data was that these visible numbers did not simply shed light on the market, but also changed gallery practices, through the mechanism of buyer expectations. As seen in other markets, the previously acceptable middleman role was eliminated with increased price information and the shift of auctions into a retail sales venue.

Yes, there is this element of transparency so I would agree that mark ups are more difficult. In the contemporary art market now, the more accessible it is the more clients we get. I think it is worth losing the mark up for widening the client base.<sup>24</sup>

This first gallerist saw disadvantages to this change, but also benefits in terms of increased numbers of customers, a sentiment echoed by the comments of another gallerist.

If you are going to operate within the system, you have to trust it. Art advisors make things a lot more complicated because they want this cut or a client's discount, etc... However, I feel that their presence and market transparency is good because it is demonstrating that people want to be intelligently participating in the market.<sup>25</sup>

Despite the two previous comments, this positive feeling about visible price data was not universally agreed upon.

Absolutely, it is a huge problem. I have these people that come in and say that they have been on artnet and I won't pay more than x for any picture because that is what they sell for at Sotheby's or something. It is very tough, this kind of transparency. I think the way the art market is moving in certain areas which are investment fund related are dangerous.<sup>26</sup>

Visible auction prices were a double-edged sword, constraining gallerists, but also increasing buyer trust in the market. Gallerists were forced to react to these visible numbers, which shaped

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<sup>24</sup> Director of a London photography gallery, quoted in Randolph (2005) [R3].

<sup>25</sup> Director of a London gallery specializing in Modern British painting and sculpture, quoted in Randolph (2005) [R5].

<sup>26</sup> Director of a London gallery specializing in Modern British painting and sculpture, quoted in Randolph (2005) [R4].

buyer expectations in ways similar to a bluebook value for cars (see Downey 2008).<sup>27</sup> Seen from the perspective of the gallerists, auction prices became a type of “guidepost” for collectors and art dealers (Frey and Pommerehne 1989: 397), and created anchoring effects (Tversky and Kahneman 1974) around certain price levels.

Visible prices changed the expectations of art buyers, making it difficult for gallerists to deviate significantly in asking prices without a good explanation, a considerable shift from the past, when art buyers were highly reliant on trusted art dealers,<sup>28</sup> and solved the problem of information asymmetry with strong ties, like actors in a ‘bazaar economy’ (Geertz 1978), although this is still often the case. As price anchors, these numbers coordinated buyers and sellers around difficult to value objects, in a similar way to the coordinating role of pricing models in the options market (Millo and MacKenzie 2009). In other words, this created a type of cognitive coordination (Foss and Lorenzen 2009) in the art market, centered around these visible prices.

### **Paradoxical Effects of Partial Transparency**

This point about visible auction prices becoming reference or coordination points becomes stronger if we remember the potential volatility of auction prices, compared to the more sustainable dealer prices. Aside from price swings due to taste, the structure of auctions themselves can create volatility. This is because auction prices depend on who is in the room or on the phone for a given sale, so there could be times of undervaluation or overvaluation.

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<sup>27</sup> To be more precise, Downey (2008), uses the bluebook analogy as a joke to frame a discussion of aesthetic vs. financial value.

<sup>28</sup> Interview with art price service representative, London, 2007. [LP1].

There isn't any clear path to how the art market works. It's random, but what's available on any one day and who's looking to buy at exactly the same time really makes an impact. For example, you could try to sell the same exact piece on April 1 and have a collector in the [auction sales] room, and on June 1 it will only sell for 1/3 of that price. And this is because one guy got satisfied on April 1. You have different prices even if the quality is the same (gallerist).<sup>29</sup>

This comment helps to explain a key dilemma- gallerists and insiders saw 'value' as something that realized auction prices would float around. In other words, price was not necessarily the same as value.<sup>30</sup> But normal collectors and buyers might not understand this, and could interpret the low price caused by normal volatility as an indication of a problem with the value of the art (see also Velthuis 2003; 2004).

This lack of attention to the context in which high or low auction prices were achieved was also mentioned by other gallerists, who worried about volatile prices creating benchmarks that factored into buying or selling decisions. The following quote, collected the year before the onset of the financial crisis, was particularly telling.

Because many [wealthy individuals] have the financial power to buy whatever they want, many don't pay attention to previous price structures, they get into a buying frenzy, so the final price may not have any relevance to previous prices, values etc. There is no logic behind that besides people [who] were inspired by the price and activity pursued it. That kind of influence in the market, where you get these huge spikes, is very much to do with the new collectors coming in who don't care about the price. They have distorted because of their hunger to own and their competitiveness. They then set the new benchmark for the next buyer and in turn they have a major influence on the future price. Also because they are very fashion led, there will be a revival of an artist and they will all buy from that artist. You then get a very fashion led market, and prices go up enormously in a very short period of time, and it's very much led by this type of buyer.<sup>31</sup>

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<sup>29</sup> London gallerist, interviewed at the London Art Fair, 2009. [LAF2].

<sup>30</sup> Being familiar with market swings and volatility, our professional financial investors would also be familiar with this concept.

<sup>31</sup> Quoted in Baker (2007) [B4].

This gallerist pointed to the issue of swings in the ‘fashion-led’ market, and a key problem mentioned—which fits with the theory of price anchors quite well—is that these almost random market swings could lead to a set of benchmarks. In this way, sudden changes in taste, or even swings based on stochastic variation, could set new benchmarks that would become anchors or references for future prices.<sup>32</sup>

In the mind of dealers, buyers were prepared to overpay at auction, and thus could drive prices up too high.

I’m not against collectors going to auction or saying we’ll go back to the auction sales just being [for] dealers, but these things change the market, because a gallery has an idea of what they can get for it and a margin, but a private guy doesn’t have a limit. That can really distort the market for judging values for an artist’s worth (gallerist).<sup>33</sup>

This dealer explained some of the reasons for price volatility at auction with uninformed buyers, or emotional bidders (Smith 1989; 1993). He also pointed to the difficult issue of how to ‘judge value’ in the face of the overly high prices that could sometimes result from private collectors bidding at auction, which could permanently impact the evaluation of an artist, by changing the reference points.

Although this volatility made some gallerists concern about visible auction prices, the use of this data also indicated incompatible goals for investment purposes: some buyers wanted the art market to become more tame and predictable, and embraced the auction data as a window into the market, while other buyers understood the lack of transparency as an opportunity to profit. Although some financial investors needed art market data for transparency and

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<sup>32</sup> Although some researchers might call this latter process ‘performativity,’ because the benchmarks do not follow from a formal quantitative model, I believe the theory of price anchors and referents is a better fit. This more general theory can apply equally well to the reference effects of formal, model-based estimates, as well as to random, stochastic processes such as changing tastes and fads.

<sup>33</sup> London gallerist, interviewed at the London Art Fair, 2009. [LAF2].



accountability purposes, others used the opacity of the market to earn higher profits; according to Eckstein, “...everybody is saying that a well managed fund can outperform [the FTSE]...because of the lack of transparency – the lack of transparency creates opportunities.”<sup>34</sup>

Following strategies similar to the art market experts, who knew price data was not the only relevant factor, investors also searched for additional information, both about the artworks themselves and about market supply and demand. For example, an art investment fund worked with informal information in addition to auction price data, networking to form a “consensus of views” about the direction of the art market, and looked for private sales to buy art, in order to realize greater profits when selling the work.<sup>35</sup>

## **Discussion**

The entry of auction price services has created a new type of information source in the art market, one that has increased available information and made it more accessible by gathering disparate data from many different auction houses. This auction price information was eagerly adopted by many buyers and market participants, which was understandable because online price providers were able to provide finer-grained, rapidly updated information, and high-quality images. In addition, hard numbers were essential for the accountability and transparency needs of investors, helpful to gallerists and curators for appraisal purposes, essential to uninformed newcomers, and desired by collectors who wanted to buy intelligently. The mysteries of the opaque art market, coupled with high prices and the demands of rational financial investment, often required the use of these data for making reasoned decisions.

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<sup>34</sup> Personal interview with Jeremy Eckstein, art market consultant, London, January 2009. The FTSE is the Financial Times Stock Exchange trading index, a key indicator of the direction of the stock market.

<sup>35</sup> Art fund representative, London, 2007. [LF1]

But whether the growth of these numbers created transparency is an open question. Based on my data, it is clearly the case that the art market is not a transparent market in the full sense of the term. There are key issues with the representativeness of these prices, the relationship between gallery and auction prices, and knowledge about the depth of the market. Moreover, if the gallerists continue to operate with private sales that will not be accessible to art price services, it is unlikely to become a fully transparent market. Although my interviewees suggested this could change, it is currently not the case today, and my other work suggests some of the benefits of keeping prices private (citation withheld). Thus, the claim that auction price services provide market transparency does not hold true, even though they do increase the level of available price information.

However, it is still important to question what role of visible auction prices take in this situation, and so my second goal has been to develop a substantive theory for what visible prices do in the market, and how they work, using a grounded, inductive case study. My finding was that auction price information does not create transparency in the classical economic sense. Instead, I found that the available auction price information helps to frame buyer and seller expectations, meaning that rather than simply shining a light into the opaque market, the revelation of auction price data *changes* the market. This is an interesting finding, although with the uncertain and subjective nature of quality in art, it is no surprise that the visible prices would have similar effects to rankings and measures in other arenas, where rankings and measures can create performativity (MacKenzie, Muniesa and Siu 2007), or “reactivity” (Espeland and Sauder 2007).

However, this is a contribution for organization theory, because in elaborating the specific mechanisms by which this reactivity to visible prices can occur, I have developed a more

nuanced two-part model. First of all, the emergent themes of my data showed that instead of shining a light into the market, the growing access to auction price data by the art price providers created a sort of pressure for gallerists. People who overpriced artwork could not operate with impunity, because they faced educated buyers. This indicates that visible prices and price-providing companies can have material impacts in the market. In other words, the underlying changes in price provision technologies improved information access, with corresponding changes in actor behavior. In this sense, I would agree that prices had materiality (Beunza et al. 2006) or sociotechnical agency (Preda 2006) especially when dealing with art buyers who had investment motives in mind, and so were more interested in hard numbers with which to estimate potential gains and losses.

However, I would not call this process ‘performativity’ (Callon 1998a) because for most art market participants, the appropriate mechanism to describe the ‘agency’ of prices was through social and cognitive theories of market coordination. Thus, the second part of my model is that visible prices become anchors and guideposts that can coordinate the market through expectation effects and shared understandings of price and value. Similar to the analogy-based reasoning described by Foss and Lorenzen (2009), artwork is appraised and priced based on the use of comparables: other, similar works of art that have sold at auction, with the visible information providing a stronger reference point than unverifiable stories from the other half of the market. This makes realized auction prices into a reference point, and price trends into a pathway that lets market participants construct a certain type of narrative in this opaque market – a key benefit because it is a market where an objective measure of ‘quality’ is impossible.

By providing reference points for buyer and seller expectations about realized prices, these numbers have a greater impact in valuation strategies for both gallerists and art buyers,

because the current market prices will be more strongly related to the available, visible auction price history. But paradoxically, gallerists could still face this conformity pressure even in the face of auction prices that were set due to random variations or bubbles. This was in part because the way that normal art collectors integrate this information is through a less scientized method of examining and interpreting these prices, although it should be noted that professional appraisers do not typically work with a formal quantitative model, even if they do draw from multiple data sources and interpret prices differently from lay collectors. This finding goes against the performativity effect of embedded assumptions in quantitative models, by suggesting that the impacts are much less fungible or discrete, although of course the theory can apply in the case of actual quantitative models created by some art buyers.

In other words, what looked like transparency was in fact conformity, and this occurred via the forces of market coordination, through an interaction of technological factors and the way visible prices shaped price expectations. Although this may not be the case in other markets, (a key limitation for grounded, inductive work such as this), at least in the art market, we can see a two-stage process that merges the technological change in the market with cognitive models for price coordination: visible price referents come about through market developments such as art price services, and then market participants integrate this new information into their mental models.

This finding is significant for organization theory for several reasons. One is that elaborating this two-part model helps to provide scope conditions for the growing line of work on the performativity of economic models, helping to foreground the human elements of actor-network theory: prices ‘do something’ but only because we have certain mental models and expectations. But in this respect, a combined sociotechnical and cognitive model is also helpful

in suggesting one way that we might fit together the currently oppositional lines of work on cognition in markets and actor-network theories. This broader description of the multi-valenced impacts of auction prices is useful in creating a more general overarching theory that can apply to a greater number of situations, in this case, both deliberate calculation and less systematic estimation, because the ‘incorporation’ of visible price data could be either via deliberate calculation, as in the ANT-informed models of calculation, or through unconscious reference effects, in agreement with the theory of cognitive biases.

To end this discussion, I would like to reiterate the weakness of this grounded, inductive methodology, which is that my theory is based on a very specific case, and so the generalizability of these findings to other situations is uncertain. I will leave it to the readers to decide how applicable my work will be to other cases. However, I can suggest a final, case-specific finding, because this theory of market coordination should also be helpful for quantitative research on the art market done by cultural economists. The concern with how well auction prices functioned as indicators of the overall art market has been a continual problem in cultural economics and other work on this market (e.g. Bates 1979; Frey and Pommerehne 1989; Hutter et al. 2007). But I would suggest that although the conceptual foundation of market transparency is not met, and auction prices are not necessarily good indicators, the anchoring effect of auction prices means that gallery prices often cannot diverge too much from these visible auction prices, on average. In other words, to theorize auction prices as coordinating overall market expectations allows

quantitative researchers to treat auction prices *as if* they were relatively good overall indicators, without worrying too much about the messy underlying processes for how this occurs.<sup>36</sup>

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<sup>36</sup> This obviously does not cure the issue of representativeness bias and selection effects over time, but might narrow the influence of volatility.

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