Categories as Lenses: Category Status and the Reaction to Ambiguous Signals of Organizational Deviance

October 2010

Amanda J. Sharkey
Department of Sociology
Stanford University
Main Quad - 450 Serra Mall
Building 120, Room 160
Stanford, CA 94305
sharkey@stanford.edu
650-388-0615

Word Count: 14, 749

Abstract

Every organization derives its identity in part from membership in a socially defined category, such as "hospital," "bank," or "university." In this paper, I propose that organizational categories differ in status. That is, people hold widely shared and legitimated beliefs about which categories of organizations are more or less worthy of esteem. While previous work has shown that categories act as sieves, which market participants use to determine which offers to evaluate, I argue that category membership also acts as a lens, through which market participants perceive value. The status of an organizational category creates a context of meaning that influences how other information about the organization is interpreted, thereby impacting assessments of relative worth. I develop a measure of category status and test for how category status impacts the market reaction to an ambiguous signal of organizational deviance: an earnings restatement. Results support the idea that category status impacts the perception and evaluation of organizational actions.

Keywords: status, categories, valuation, deviance

Revelations of suspected malfeasance by an organization often prompt investors, regulators, employees and clients to reassess their view of the offending entity. They must determine what, if anything, the disclosure portends about the firm and its future prospects. However, because news of wrongdoing tends to be ambiguous, uncertain, or incomplete, it is often difficult for market actors to decide upon the appropriate response based on the revealed facts alone.

This situation exemplifies a more general and much-studied dilemma market actors regularly face: interpreting information and assessing value under conditions of uncertainty. When worth is difficult to discern, contextual cues and signals shape to a great extent how market actors perceive and evaluate organizational actions. Prominent among the cues used in assessing value under uncertainty is the target's social identity and, in particular, its social status (Podolny 1994; Podolny, Stuart and Hannan 1996; Stuart, Hoang and Hybels 1999; Jensen 2003).

In economic and organizational sociology, the predominant conceptualization of status in markets is Podolny's (1993; 2005) statement: status is a signal of quality. Because status indicates underlying but unobservable quality, actions of ambiguous value tend to be viewed more favorably when high-status actors perform them (Merton 1968; Benjamin and Podolny 1999). This conceptualization of status and its function in market settings resonates when comparing organizations that have similar goals, strategies and outputs. If audiences define quality standards such that they are equally pertinent to a set of organizations, a meaningful status hierarchy can emerge on this basis.

This theoretical orientation toward status, as well as methodological considerations, has prompted researchers to focus their empirical efforts on studying

status processes within particular domains, such as investment banking (Podolny 1993), winemaking (Benjamin and Podolny 1999) or accounting (Han 1994). However, by delimiting the bounds of research on status processes among organizations to one domain at a time, less attention has been paid to the meaning and role of status when valuation involves the comparison of organizations that are perceived to be incommensurable in terms of quality. The idea that status is both a consequence and driver of perceived quality has less purchase when considering how organizations with dramatically different goals and outputs might rank relative to one another in terms of social standing. For example, how can a hospital and a tobacco manufacturer be ranked in terms of status if they cannot be compared in terms of quality?

This example highlights a gap in our understanding of organizational status and its influence on the interpretation and evaluation of ambiguously valued actions. What might form the basis for organizational status in settings where quality standards are incommensurable? If an organization's status stems from something other than perceived quality, how and why would it matter in evaluating a given organizational action?

A possible answer to these questions can be obtained by considering that every organization derives part of its social identity from membership in a category, or socially legitimated grouping of perceived similar organizations (Zuckerman 1999; Hannan, Polos and Carroll 2007). In this paper, I propose that categories of organizations differ in status, and that this, in turn, affects the social standing of individual organizations belonging to those categories. This idea builds upon recent work in economic and organizational sociology showing that audiences often try to place organizations into categories as a first step in evaluating them (Zuckerman 1999; Phillips and Zuckerman 2001). This stream of

work has thus far treated systems of classification as creating horizontal distinctions, resulting in categories of organizations and products that are separate but equally esteemed. Yet, research on social categorization in non-economic contexts demonstrates that the creation of categorical boundaries often marks the first step toward establishing some groups of actors as worthy of greater social standing than others (e.g., on race: Omi and Winant 1996; on gender: Hartmann 1976; on class: Bourdieu 1984, Lareau 2003). Few distinctions become prominent enough to shape collective identities while remaining value-neutral (Lamont and Molnar 2002). Thus, the fact that categories and classification systems represent a salient and consequential aspect of organizational life suggests that categories of organizations, such as biotechnology firms, airlines and tobacco producers, may differ in terms of status.

This paper has three main components. First, I articulate a theoretical rationale for why and how status differences among categories of organizations might play out in market evaluations. I propose that if people hold widely shared and legitimated beliefs about which types of organizations and products are more or less worthy of esteem, mere identification of an organization as a member of a given category evokes category-level status beliefs, which then transfer to the individual organization. Under conditions of uncertainty, actors use their schemas for categories to fill in the information they lack about specific members of the category. Because category-level schemas tend to be more favorable for organizations in high-status categories, the actions of members of high-status categories, in turn, tend to be evaluated more positively. As a result, membership in a high-status category increases the likelihood that an organization's actions will be viewed positively. Secondly, I present empirical evidence of a status hierarchy among

organizations, focusing on the perceptions of the business community - an audience segment that is particularly familiar with markets. Third, I demonstrate how category status impacts the evaluation of organizational actions in a setting that fits the scope conditions of the theory. In particular, I focus on the market reaction to announcements of earnings restatements by American public companies between 1997 and 2005.

Earnings restatements occur when companies revise their previously released financial information. They serve as a potential indicator of two latent organizational characteristics: either negligence, representing a lack of competence on the part of the firm, or moral/legal deviance, representing a lack of virtue. It is difficult to discern whether a restatement represents negligence or moral deviance by scrutinizing the objective facts of the situation alone, because firms often fail to reveal complete information on the restatement at the time it is announced and because they may have incentives to make the restatement look less serious or damaging than it is. Some have suggested that uncertainty about the meaning of a restatement was particularly high immediately following the passage of Sarbanes-Oxley (SOX) financial reform legislation, which has caused the number of firms restating to increase dramatically (Paulson 2007).

This setting is well suited for testing my theory in two regards. First, reacting to a restatement involves interpreting information that is inherently ambiguous and often incomplete. Second, because investors can buy and sell without regard to categorical boundaries, the standard by which audiences judge restatements is not within-category, but rather is relative to the actions of other firms and to legal rules applying to all organizations. Because value is clearly being assessed across categories and under circumstances of uncertainty, category status should be influential.

Analyses indicate that restatements as a signal of organizational incompetence or deviance garner a less negative reaction from market participants when the organization belongs to a high-status category. Moreover, the effect of category status is heightened in the 2002-2003 timeframe immediately following the passage of Sarbanes-Oxley, a period in which there was greater uncertainty about how to interpret restatements. The finding that high-status actors are penalized less for deviant behaviors than their lower-status peers is consistent in some regards with the small body of previous work on the relationship between organizational status and non-conformity to role expectations (i.e., Phillips and Zuckerman 2001), although it contradicts the recently developed but thus-far untested theory regarding the role of organizational status in the reaction to violations of moral norms (Phillips, Turco and Zuckerman 2010). Perhaps more importantly, however, the idea that category-level status impacts organization-level outcomes indicates that the current conceptualization of organizational status could be improved by incorporating the notion that social standing stems in part from category membership, an identity characteristic that influences perceptions and evaluations regardless of organizational performance. Put differently, organizational status is not only about what an organization *does*, but also, fundamentally, what the organization *is*. Secondly, this finding suggests that category membership matters for the evaluation of organizational actions in a fundamentally different way than previously theorized. Whereas prior work has demonstrated the important role of categories and systems of classification as screening devices for determining *which* offers to consider (Zuckerman 1999), this study shows that categories also act as lenses in that they color *how* market participants perceive value.

STATUS AND CATEGORICAL IDENTITY

An actor's social status denotes the level of honor, esteem or respect he is afforded relative to some peer group (Weber 1946; Goode 1978). Gould (2002, p. 1147) emphasizes the positional nature of status, noting, "what sociologists mean by the term 'status' …is… the prestige accorded to individuals because of the abstract positions they occupy rather than because of their immediately observable behavior." Despite sociologists' widespread agreement on the basic definition of status, researchers in different branches of sociology have taken varied approaches to conceptualizing the sources and consequences of an actor's social standing.

Among economic and organizational sociologists, status is thought to stem from two sources: an actor's past performance and his exchange partners (Podolny 1993; Podolny and Phillips 1996). Although researchers in this vein have taken care to note that status and quality are only "loosely coupled," theory largely emphasizes the ways in which the two are linked, with status serving as a signal for quality. The positive association between status and quality has two foundations. First, status enables actors of higher social standing to develop higher-quality products at a lower cost (Benjamin and Podolny 1999), and second, status helps actors of higher social standing garner greater rewards for a product of the same quality (Podolny 1993; Benjamin and Podolny 1999).

What differentiates an actor's status from the more economic concept of reputation, defined as expectations of current behavior based on demonstrated past performance, is the "pattern of relations and affiliations in which the actor does and does not choose to engage" (Podolny 2005, p. 13). In fact, an actor's exchange partners are posited to be the primary force that could decouple status from quality; people may hold actors in higher esteem merely because they are associated with high-status others, rather

than because they put forth high-quality performances (Podolny 1993; 2005). Yet, for this mechanism to create a significant disjuncture between status and quality, we must presume that actors choose their exchange partners largely on some basis other than status or quality. Research on reputation, status and partner choice casts doubt on this assumption, showing that quality perceptions embodied in a firm's reputation strongly influence the choice of affiliates (Dollinger, Golden and Saxton 1997; Stuart et al. 1999; Gluckler and Armbruster 2003) and that fear of status loss constrains high-status actors from associating with low-status (and likely, low-quality) actors (Elias and Scotson 1994), particularly where actors are accountable to others (Jensen 2006) or where uncertainty about quality is great (Podolny 2001). Thus, high-status actors should tend to have both demonstrated past high-quality performances and to associate with high-status alters. It is unclear, then, where the major decoupling of status from quality occurs. Rather, one might conclude from this line of work that differences between one's social status and the esteem one merits on the basis of actual quality or performance would seem to derive from errors in perception more than anything else.

In contrast, students of stratification outside economic and organizational sociology approach the study of social status from a somewhat different vantage point, focusing more on how one's social identity, or categorization as a member of a particular group, determines one's social standing. This perspective forms the foundation for much work on status among groups defined by gender, racial, ethnic or occupational boundaries. Regardless of the categorical basis upon which group membership is defined, markers of group membership evoke culturally shared beliefs about which types of people are more worthy of respect and honor, and beliefs at the group level then impact

individual-level outcomes (e.g., Ridgeway 1991; Bobo 2002; Brubaker, Loveman and Stamatov 2004; Duncan 1961). To be sure, work in this tradition has shown how hierarchies based upon status characteristics translate into differences in perceived competence, or performance, and the attending rewards (e.g., Ridgeway 1991; Correll, Benard and Paik 2007). However, greater emphasis tends to be placed on the fact that these differences are unearned, because they were based on identity characteristics that initially had nothing to do with performance.

These two bodies of work have added to our understanding of status processes in important ways. However, the fact that economic sociologists have developed their conceptualization of status largely in isolation from the work of stratification scholars and social psychologists is unfortunate for two reasons. First, at times, the conceptualization of status as a signal of quality has been reduced to mean that status is *only* a signal for quality, which weakens what is uniquely sociological about it. Although it is valuable to understand that status tends to go hand-in-hand with quality, the more status is merely a stand-in for quality, the more it resembles economic notions of reputation and the less is gained by employing the term "status." Second, and more pertinently for this paper, the fact that status is seen as so closely aligned with quality helps us understand the meaning of status within particular domains, where quality standards are clear, but it leaves unasked the question of whether and how status differences emerge when actors cannot be compared on the basis of quality (e.g., a tobacco manufacturer versus a biotechnology firm). Understanding the sources and consequences of status differences in cases like this one is important, because they may impact how the organization's actions are perceived and evaluated.

I address this gap by proposing that an organization's social status stems in part from the categorical component of its social identity, much as a person's status derives in part from social identity characteristics such as race, gender or occupation. I take as my starting point an idea that forms the foundation for much recent work in economic and organizational sociology: the notion that each organization derives its identity in part from membership in socially defined categories (Zuckerman 1999; Zuckerman and Kim 2003; Hsu and Hannan 2005; Hannan et al. 2007). For example, an organization may belong to the "bank," "school" or "semi-conductor manufacturer" categories. Categories and systems of classification are "lumping and splitting" devices; they simultaneously define some objects or entities as similar to one another while also establishing them as distinct from others (Zerubavel 1996). External audiences, such as critics, consumers, regulators and investors, use categories and systems of classification to make sense of and evaluate offers in economic settings (Zuckerman 1999; Phillips and Zuckerman 2001). As a result, category membership is highly consequential, influencing measures of success in a wide variety of domains, such as the stock market (Zuckerman 1999), feature films (Hsu 2006), French cuisine (Rao, Monin and Durand 2005) and online auctions (Hsu, Hannan and Kocak 2009).

Work in this vein has thus far focused on specifying several dimensions upon which categories of organizations differ (e.g., Pontikes 2008; Kovacs and Hannan 2010), however, social status has not been one of the category-level characteristics explicitly considered. Despite the absence of a theoretical apparatus to understand status at the category level, existing empirical work hints at the possibility differences in status among categories. For example, Rao, Monin and Durand (2003) show that highly-reputed chefs

were more likely than other chefs to abandon traditional cooking methods and incorporate techniques that evolved into the well-regarded gastronomic style known as nouvelle cuisine. Although status was not the focus of their paper, this finding suggests the possibility that nouvelle cuisine became a higher status category than traditional French cooking. Likewise, Carroll and Swaminathan (2001) show that mass brewers were penalized when they tried to enter the micro-brew space, because they were perceived as having inauthentic identities. The establishment and maintenance of boundaries in such a manner also suggests that the micro-brew category was becoming higher in social standing than mass brewing. In sum, these studies allude to the idea that categories of organizations or producers may differ in terms of social standing, although the focus thus far has largely been on status distinctions among sub-categories within a particular domain. I build upon, formalize and extend the intuition that category-level status differences exist by focusing on disparities in social standing among a broad set of widely disparate categories of organizations.

CATEGORIES AS STATUS-VALUED

Categories are semantic objects that individuals use to make sense of the world (Turner 1985; Tajfel and Turner 1986); each category consists of a label and associated schema, or set of features and feature values relevant to defining category members. Hannan et al. (2007) note that when consensus emerges around the meaning or schema for a category and the set of actors to whom the category label applies, the category then becomes taken-for-granted in the sense that external audiences or evaluators default to the presumption that category members conform to the schema. Thus, the identification of an object as a member of a particular category activates the schema associated with

that category, creating expectations about the attributes and behaviors that will likely be found in any category member (Fiske, Neuberg, Beattie, and Milberg 1987).

Naturally, a person may value a member of one category over a member of another category because the attributes and behaviors associated with that category are more appealing to that particular person than the attributes and behaviors associated with the other category are. However, status beliefs are less about an individual's personal beliefs than they are about "what 'most people' do or would think about the status worthiness or competence of one categorical group compared to another" (Ridgeway and Correll 2006, p.433). Chwe (2001) similarly emphasizes the importance of widely shared knowledge and understandings, noting that elements of culture foster such understandings and thereby help alleviate coordination problems in markets. Thus, to argue that categories of organizations differ in status is to propose that people hold widely shared evaluative beliefs about the social esteem or worthiness of different groups of organizations. If such beliefs are embedded in category labels, then organizational categories and the status beliefs they are associated with form part of the cultural undergirding of markets.

What dimensions underlie beliefs about a category's social worth, and thereby, its status? As noted earlier, it seems unlikely that that a single quality-like dimension exists and forms the basis for a status hierarchy among organizational categories. However, for categories of organizations to differ in terms of status, there must be some dimension on which they can be compared, thereby facilitating a relative ranking. Therefore, any theory of category status must suggest dimensions that transcend different types of organizations and that might be associated with different levels of esteem.

I focus on two possible non-quality dimensions – complexity and virtue – as well as two dimensions that might relate to quality across categories – investment performance and perceived pay. These four dimensions are not intended to be exhaustive, but rather represent an initial attempt at identifying some determinants of category-level status. The dimension of complexity was chosen in part based on Zhou's (2005) work on the role of legitimacy and the logic of social appropriateness in generating prestige. He argues that prestige derives from a group's ability to make legitimate claims to social honor and notes that perceived legitimacy in modern society tends to "rest on nature and reason, which are seen as providing objective bases" (Zhou 2005, p. 95). Complexity should broadly denote the notions of abstract knowledge and science that Zhou shows are associated with greater prestige among occupations.

The dimension of virtue was chosen to represent the social honor that should be associated with doing good. That this dimension should relate to social status is evidenced by various highly publicized rankings of companies on the basis of their corporate social responsibility initiatives, as well as more general beliefs about whether the kind of products and services a given category of organization provides serve some higher altruistic purpose.

In addition to these two dimensions, I also include investment performance and perceived pay. These were chosen for two reasons. First, in a society that espouses meritocratic values, dimensions such as investment performance and pay are likely seen as legitimate bases for social honor and esteem; categories of organizations that perform well on these dimensions will be seen as deserving of respect. This idea finds support in experimental work showing that the random allocation of differential rewards can, in and

of itself, create status and influence hierarchies (Cook 1975; Harrod 1980; Ridgeway 1991; Stewart and Moore 1992). This occurs because people tend to infer levels of ability from the distribution of rewards, making the ensuing status hierarchy appear legitimate. In a different vein, research at the firm level also shows that corporate reputation is positively correlated with various measures of financial performance (Fombrun and Shanley 1990).

An alternative rationale for including investment performance and pay, however, is that these dimensions are the best category-level proxies for quality, which forms the basis of status at the organizational level. Thus, including investment performance and perceived pay as potential components of status at the category level not only allows us to study whether such dimensions are valued by society and whether people infer status on their basis, but also enables us to determine whether complexity and virtue have effects net of what could be interpreted as "quality" at the category level.

CATEGORY STATUS AND VALUATION

If categories of organizations differ in status, then it is possible that categories and systems of classification may play an additional and fundamentally different role in the process of valuation than previously theorized. Current work in economic sociology builds upon research in marketing and consumer behavior by conceiving of valuation as a two-stage process, with categories powerfully shaping outcomes in the first stage (Zuckerman 1999; Phillips and Zuckerman 2001; Phillips et al. 2010). In the first stage of valuation, evaluators winnow the universe of possible candidates into a set of commensurable entities, often using category membership as a crude, initial criterion upon which to exclude offerings that appear to be irrelevant, uninterpretable or

illegitimate. Category membership is generally employed, not because evaluators value it per se, but rather because category affiliation tends to represent the presence or absence of capabilities or characteristics that may be more difficult to observe directly.

In the second stage of evaluation, individuals then inspect the remaining candidates or offers in greater detail and choose the most appealing one. As an example of the entire process, a movie producer looking to hire an actor for a comedy film might conduct a cursory review of several actors' resumes and screen out those whom she does not identify with the category of comedic actors, based on their pattern of work experience in different genres (Zuckerman, Kim, Ukanwa and Von Rittman 2003). Then, the producer would conduct a more detailed evaluation, including auditions and screen tests, only for the smaller set of actors whom have been identified as comedic.

The prevailing model of valuation draws attention to how categories act as sieves; evaluators use them to sift through offers, keeping the relevant ones for further examination and discarding the others. Highlighting this function of categories has added to our understanding of markets in important ways. Yet, this view may understate the extent to which actors' categorical identity characteristics influence valuation. I suggest that, in addition to functioning as sieves, categories may also serve as lenses through which people discern value. That is, under conditions of uncertainty, categories may create a social context of meaning that influences how people interpret ambiguous information or fill in incomplete information. In doing so, category membership may make the same organizational action appear to be more or less valuable.

This may occur, because, as noted earlier, when categories are widely legitimated, categorical codes, or rules of membership, acquire a default status; audience members

take for granted that category members adhere to such codes, unless there is explicit evidence to the contrary (Hannan et al. 2007). This means that when information about a particular entity is unknown, incomplete or ambiguous, audience members will use default codes and schemas associated with a category to fill in blank spots in their knowledge about the particular category member under consideration (Hogg 2006). Because such circumstances are rather common in social life, this role of category membership is likely to play out in a wide range of settings.

This view suggests one class of situations in which people might be motivated to take into account category status when determining the value of an offering: settings where the evaluator has a personal orientation toward assessing worth (i.e., his valuation of the offer is largely determined on the basis of personal taste, and individual consumption is the goal). In this case, category status helps mitigate the challenges an individual faces gauging value under uncertainty. If a person cannot observe all the relevant attributes of the product or organization, he may use category status as to make inferences about the product or organization. For example, if a person is considering a job offer with a firm in the tobacco industry and an offer in the health care industry and is concerned about how he will be treated as an employee, he might use the status of the industries to infer whether he will be treated fairly and honestly. Naturally, such inferences of personally desirable attributes on the basis of a category's status would influence assessments of worth such that organizations or products from high-status categories might be valued more than those from low-status categories, all else equal.

Secondly, and perhaps more pervasively, a person might be motivated to take into account beliefs about how others more generally evaluate a category, even when he has

specific knowledge that contradicts what might be inferred on the basis of a category's status. This would occur when a product or organization's worth to a given individual is determined not only by the satisfaction he personally derives from it but also from the value others attach to it. This situation is similar to settings involving positive network externalities; the more other people use or value an object, the more that object becomes valuable to a given person (Katz and Shapiro 1985). In those situations, value to a focal actor is determined in part by others' perceptions of value. For example, in securities markets, an individual might decide not to buy the stock of a firm in a low-status category, even if he himself believes the firm has strong performance prospects. This would occur because he believes few others will value firms in this category enough to buy the stock and, as a result, he concludes that the prospects of the price rising are dim. Here, the value of the product to the focal individual is indirectly determined by the status beliefs of other individuals, regardless of whether he himself shares those beliefs.

Overall, then, status beliefs at the category level should translate into social and material advantage for some and disadvantage for others in settings involving valuation in markets. In general, because the schemas associated with high-status categories will tend to be more positive than those associated with low-status categories, members of high-status categories will tend to be viewed more favorably than might be merited. This may mean that members of high-status categories are chosen over members of other categories more often than might be warranted, are held to different standards than members of other categories, and are given the benefit of the doubt more than others.

SCOPE CONDITIONS

There are a number of scope conditions that define when category status should be operative. First, because I note that category status is about what "most people" think, category status should only matter where there is widespread consensus about the value of a category, thereby giving teeth to the idea and creating an incentive for people to incorporate it into their valuation decisions. Second, category status should matter only where there is some degree of uncertainty or ambiguity. In the absence of this, it seems natural that people would make decisions based on more readily available information.

EMPIRICAL APPLICATION: THE RESPONSE TO ORGANIZATIONAL DEVIANCE

Research Setting

I test for the effects of category status on valuation decisions by analyzing the market reaction to announcements of earnings restatements by U.S. public companies between January 1, 1997 and September 30, 2005. The Securities and Exchange Commission (SEC) requires that publicly traded companies periodically report financial information about themselves. If a company's financial reports are later discovered to be inaccurate, incomplete or misleading, the firm is required by law to acknowledge and correct the false information. Doing so is known as issuing an earnings restatement. Earnings restatements can come about because the company or its auditor discovered incorrect information, or because the SEC did. In any case, the company must formally disclose the restatement by filing the appropriate forms with the SEC. Investors learn about earnings restatements through press releases issued by the firm itself, media coverage of the restatement, or SEC filings, which are publicly available.

Earnings restatements fit Becker's (1963) definition of deviance as "publicly labeled wrongdoing." Although issuing a restatement is not per se evidence of something

illegal, the fact that a firm needs to restate its earnings indicates that something has gone awry. Restatements exist on a continuum of wrongdoing that ranges from mere accidental misapplication of generally accepted accounting rules (GAAP) through so-called "aggressive accounting practices," which push the boundaries of GAAP, to outright fraud, which is punishable by law. Thus, a restatement can be thought of as an ambiguous indicator of underlying negligence or moral deviance.

The market tends to frown upon restatements, as evidenced by the fact that firms typically experience abnormally negative returns in the days immediately following a restatement announcement (Palmrose, Richardson and Scholz 2004; Agrawal and Chadha 2005; Srinivasan 2005). Restatements tend to be followed by an increase in executive turnover (Arthaud-Day, Certo, Dalton and Dalton 2006; Desai, Hogan and Wilkins 2006; Hennes, Miller and Leone 2008) as well as shareholder lawsuits (Palmrose and Scholz 2004), providing additional indications that restatements are viewed unfavorably.

Although the abnormal negative market returns surrounding restatement announcements may indicate either that the market devalues restating firms or that it "punishes" them, the treatment of restatements by the press and by lawmakers in general suggests it is at least partly the latter. In particular, media coverage of the restatements in general has tended toward moral outrage (see, e.g., Stoller 2002), especially after several high-profile accounting scandals (e.g., Enron, World-Com) resulted in restatements in the early 2000s. Partly as a result of concerns that the growing frequency and magnitude of restatements were diminishing investor confidence, Congress in July 2002 passed a set of wide-ranging corporate governance and financial reporting reforms known as the Sarbanes-Oxley Act (SOX). SOX did not explicitly redefine the set of circumstances

under which a firm must restate. However, the new law appears to have indirectly altered the threshold for restating by instituting several other reforms, such as greater oversight of auditors, requirements that CEOs and CFOs personally certify financial reports as true and fair, and the forfeiture of CEO/CFO bonuses for profits during periods in which earnings were later restated (GAO 2006).

Perhaps ironically, in the wake of SOX, the number of restatement announcements has increased substantially. Moreover, investors appear to react less negatively to the average restatement in the post-SOX period than they did prior to the passage of financial reporting reforms (GAO 2006; Scholz 2008). These trends have prompted some to suggest that restatements in the period immediately following the passage of SOX had a more uncertain meaning than before, causing greater confusion among investors. Former Treasury Secretary Henry Paulson, for example, authored a 2007 op-ed for the *Financial Times* in which he speculated:

> "Restatements pose significant costs on our capital markets. They have the potential to confuse investors and erode public confidence in financial reporting. Some of these restatements might not be material to investors, and others may simply reflect new accounting standards interpretations."

Paulson's statement suggest that in an environment where so many firms are restating and where trust in auditors has eroded, it is more difficult for investors to discern which restatements are truly serious negative events.

In my analysis, I use the exogenous shock of SOX to proxy for the extent of uncertainty in the meaning of an earnings restatement. The level of uncertainty is important because the problem faced by investors in dealing with a particular restatement is one of interpretation: what information does a restatement reveal about the underlying

viability and future prospects of a firm? Investors cannot rely on the objective facts of the situation to answer this question, simply because information provided by the firm may be incomplete, ambiguous, or unreliable. Given that actors often use organizational status to interpret and evaluate organizational actions in this type of setting, (Podolny 1994; Podolny, Stuart and Hannan 1996), category status should play a role in the market reaction to a restatement, particularly in the months immediately following the passage of SOX.

In addition to the theoretical reasons for focusing on this phenomenon, empirical aspects of the setting also make it attractive. First, the evidence of a public response indicative of a change in valuation is easily measurable via stock returns. Second, organizations exist within a clearly structured and socially meaningful category system: industries.

Theory and Hypotheses

I outlined earlier why category status might influence the perception and evaluation of an organization's actions. Here I develop more fully the theory for *how* category status should impact the reaction to organizational deviance. Typically, when social status is considered in evaluating actions perceived as having positive worth, status enhances the perceived worth of the action (Merton 1968; Podolny 1993; Benjamin and Podolny 1999). Yet, do high-status actors similarly benefit, in terms of enjoying more leeway to deviate, when they take actions that normally garner social disapproval?

Previous work on how a person's status influences the reaction to deviant behavior by that person suggests mixed predictions for the case of category status and organizational deviance. On the one hand, status may buffer actors from negative

repercussions, perhaps because the trust placed in high-status actors makes people less likely to believe accusations of deviance or because status acts as a lens through which any deviant act is viewed less negatively (Hollander 1958; Alvarez 1968; Ungar 1981). On the other hand, high-status actors may be disproportionately punished for their transgressions, because their actions represent a violation of not only norms but also status expectations or because their actions are viewed as a more significant threat to societal institutions (Adut 2005).

As Giordano (1983) notes, part of the difficulty in answering the question of how status impacts the response to deviance is that being punished for a deviant behavior involves a chain of events. First, the deviant act must be discovered. Then, accusations of deviance must be brought to light and given credence. Finally, the deviant act must be interpreted negatively, and punishment must be meted out. The effects of status may differ at each stage. For example, deviance by high-status actors may be more likely to be discovered, but it may be punished to a lesser extent, conditional on discovery. Overall, empirical work in this area has produced divergent findings, and theoretical development has lagged in resolving the conflicting evidence.

In organizational and economic sociology, the most prominent work on this topic (i.e., Phillips and Zuckerman 2001; Phillips et al. 2010) has focused largely on the relationship between status and role conformity among organizations or actors of a given type (i.e., all investment banking analysts, all Silicon Valley law firms). Phillips and Zuckerman (2001) documented an inverted u-shaped relationship between status and role conformity, and explained it with reference to status-based variation in the need of market actors to establish themselves as legitimate "players" or participants in a

particular field. According to the theory of middle-status conformity, low-status actors are viewed as outsiders regardless of what they do, while high-status actors enjoy security in membership by virtue of their status alone. Only middle-status actors face pressure to conform.

Subsequent work has focused on differentiating categories of norms to explain why high-status actors can get away with deviating from some types of norms but are more strongly sanctioned for violating others. Phillips et al. (2010) propose that norms fall into two categories – practice norms, for which compliance provides information about an actor's quality or performance, and service norms, for which compliance speaks to an actor's commitment to serving a given audience. They show that high-status actors can violate practice norms with impunity but are disproportionately punished for violating service norms.

I focus on a type of behavior that differs from previously studied acts of organizational deviance in two important ways Whereas the theory of middle-status conformity has thus far been tested using self-confirmed acts of role non-conformity, I focus on acts that suggest – but, importantly, do not confirm - the possibility that an organization has intentionally violated moral/legal norms. In the case of an ambiguous indicator of deviance rather than confirmed deviance, do high-status actors still benefit? Moreover, do high-status actors enjoy greater impunity when the violation involves moral or competence standards rather than the flouting of role-based expectations?

I argue that actors from high-status categories should be advantaged in the case studied here. Given that restatements as indicators of organizational difficulty contain considerable ambiguity, there is likely to be some doubt about how diagnostic or

meaningful they are. Under such circumstances, evaluators will likely fall back on category-based schemas to interpret any signal of organizational deviance. Because schemas for high-status categories generally are more positive than those for low-status categories, the use of category-based standards should advantage actors from high-status categories. This occurs for two reasons. First, in general, when worth is unclear, ambiguity tends to be resolved in favor of the higher-status actor (Podolny 1993; Podolny 1994). Second, status confers an aura of trustworthiness, and accusations against high-status actors may be less likely to be believed for this reason (Goode 1978, p. 252, 300). In general, a greater burden of proof must be met in order for a negative signal such as a restatement to be seen as truly indicative of serious or pervasive underlying problems. In the absence of more concrete and specific information, firms from high-status categories should be advantaged.

Thus, I predict:

> **HYPOTHESIS 1**. – *The higher the status of the category to which an organization belongs, the less the organization will be devalued for an earnings restatement.*

However, an audience member's willingness to rely on category-level defaults and status expectations should vary along two dimensions. First, previous work has shown that the effects of status are amplified under conditions of greater uncertainty. Such conditions existed immediately following the passage of Sarbanes-Oxley. During this period, executives attempted to comply with the new law, and a wave of restatements followed. The sheer volume of restatements caused some to speculate that only a relatively small share of all restatements during this timeframe represented real financial

reporting problems in firms; public officials speculated that many restatements were likely less serious and motivated to a greater extent by executives' skittishness in the wake of the new law. Thus, I predict:

HYPOTHESIS 2. – *The effect of category status will be amplified in the period immediately following the passage of Sarbanes-Oxley financial reform legislation.*

Finally, the effect of category status may vary by the type of deviant behavior suspected. When there are indications that the deviant act indicates moral transgressions rather than negligence, audience members may be less amenable to relying on category-level schemas and defaults. Thereby, category status should be less beneficial to members of high-status industries when there are indications that the restatement is due to fraud.

To understand this prediction, bear in mind that the question investors face in interpreting a restatement is partly about whether an organization will repeat the action that resulted in the restatement. If an action appears to be due to negligence rather than purposefully flouting the law to advance one's own self-interest, it seems likely that an evaluator would conclude that organizations from high-status categories are less likely to repeat their mistakes than those from low-status categories. However, once there are signs that the restatement indicates moral deviance, it seems that specific information about that organization's transgression would override category-based defaults, making category status less relevant for interpretation.

Thus, I predict:

HYPOTHESIS 3. – *The effect of category status will be weaker for restatements perceived to be fraudulent than for those perceived to be errors.*

DATA AND METHODS

Measuring Category Status

Category status is a novel concept for which a measure has not previously been developed. Thus, I needed to create and validate such a measure. After reviewing the manner in which status is gauged in several different sub-fields of sociology, I chose to measure the status of organizational categories via a survey mirroring those that have been used extensively to measure prestige differences among occupations (e.g., Duncan 1961; Nakao and Treas 1994). In the survey, a sample of individuals who are familiar with and active in the business world were directly asked about their perceptions of how highly regarded different categories (i.e., industries) of organizations are. They also answered questions about their perceptions of virtue, complexity, investor performance and pay. Individual-level responses were then aggregated to identify status beliefs that are more or less shared at the cultural level.

Surveys are, of course, prone to bias in terms of respondents voicing only socially acceptable opinions. However, there are two reasons not to be concerned about this issue. First, because respondents were asked about their ratings of industries rather than some of the more sensitive societal hierarchies (e.g., race, gender), they should be more likely to voice their true opinions. Second, if any social desirability bias does exist, it actually works in favor of my measure, as such second- and third-order socially shared beliefs about industries are precisely what I seek to tap.

Measuring category status via a survey is somewhat unusual for organizational research, where measures of status are typically generated through the observation of context-specific deference behaviors (e.g., patent citations, placement on investment

tombstones). Deference-based measures of status are theoretically grounded in the work of Shils (1968) and have their advantages. Yet, they require a setting where deference can be meaningfully observed across a wide range of actors. Although I contend that status beliefs exist across industries, it is not clear that there is a single context where status beliefs about all industries relative to one another would manifest themselves in the form of deference. Aside from this, deference-based measures of status can also potentially be problematic in that the practice of deference may stem not only from status but also performance, power, and dependency. A survey mitigates this concern by measuring only perceptions, free from such functional drivers of respondents' answers.

Sample

The intent of the survey was to measure perceptions of industry status among individuals who are familiar with and participate in markets, rather than among the population in general. I focused on this narrower population because I suspected that its members' beliefs about industry status were more influential than those of the public at large. Yet, the beliefs of this group may differ from those of another audience. The questions of how much consensus on industry status exists across different populations and whose status beliefs impact organizational outcomes the most were beyond the scope of this project, although they are important topics for future research.

The population I surveyed consisted of MBA students from the Classes of 2010 and 2011 at the Stanford Graduate School of Business. Given the career backgrounds and future plans of this population, the status beliefs of this group should represent the perceptions of people across a range of business areas and should correspond to the beliefs of people who are influential in markets more generally. Although this group may

be considered "elite" in some regards, this is helpful in that such groups tend to be particularly aware of status distinctions. This group was also chosen in part because it was more feasible to obtain an adequate response rate among its members than among, for example, the broader population of all investment professionals. The survey was distributed to all current students, and approximately 192 students, or 25% of the student body, responded. Respondents were similar to the overall population of the business school on most observable dimensions. (See Methodological Appendix Part A for more details about the survey.)

Industry Categories

For this analysis, I defined the relevant category system as that of industry classification. Although organizations could potentially be classified on many characteristics (e.g., size, geographic location, industry), I chose industry affiliation because this seems to be a prominent and widely used dimension upon which organizations are classified by organizations themselves and by relevant external audiences. Producers often highlight industry membership in their name (e.g., American Airlines) and describe themselves in press releases by designating an industry (e.g., "a provider of software services") (Pontikes 2008). Elements of the organizational environment, such as securities analysts (Zuckerman 1999), trade associations and the media (Fombrun 1996), are also structured in ways that reinforce industry divisions as a taken-for-granted part of market culture. Whether differences between industries are initially "real" or not, the attention paid to industry as a primary axis of categorization by both organizations and their external audiences only serves to reinforce the industry

classification system as meaningful and central. (For more details of the industry classification scheme used for the survey, see Methodological Appendix A.)

Status Measure

To complete the survey, respondents were first asked "how prestigious, respected, or esteemed" they thought organizations in different industries were. The survey was designed to emphasize the group ranking aspect of status in that respondents were asked to answer by dragging 61 randomly ordered business industries to one of five boxes with labels ranging from "very low prestige" to "very high prestige." Throughout the process, respondents could easily see which industries they had grouped as similar in status and how those industries compared to others they had rated. Respondents could choose "don't know" if they were unsure about an industry's status, although this response was given rarely in practice. The fact that "don't know" was chosen infrequently gives some indication that the categories selected were meaningful and familiar to respondents.

Although respondents did not directly compare industries in terms of status, they did so implicitly by grouping them into 5 prestige buckets. Using these implicit comparisons, I transformed the survey responses into a 61x61 relational matrix (**R**), where each cell r_{ij} represents the proportion of times industry i is rated as more prestigious than industry j among all respondents who rated both industries. I then calculated industry status using Bonacich's centrality-based status measure (Bonacich 1987). This measure incorporates the idea that it matters not only how often an industry outranks others but also which other industries it outranks. Outranking a more prestigious industry is given more weight than outranking a less prestigious industry.

In addition, I calculated status in three other ways. First, I calculated the mean percent of respondents rating an industry *i* higher than industry *j*. Second, I recoded the status groups from one to five and took the mean. Finally, I calculated the percent ranking the industry as high or very high status. The industry status ordering did not vary considerably across the measures; the bi-variate correlations among the four measures was greater than 0.95. Because there are theoretical and methodological reasons for preferring the Bonacich measure, I use this in subsequent analyses.

I also measured the degree of consensus on the status rating for a given industry by calculating the Herfindahl-Hirschman Index for status rankings of each industry. The measure is calculated as the squared proportion of respondents in each rating bucket, summed across all possible rating buckets and converted to a percent. In a case such as this, where there are five rating buckets, the measure could theoretically range from a minimum of 20%, indicating that respondent ratings were distributed perfectly equally across the five rating buckets, to a maximum of 100%, indicating that all the respondents rated the industry as being in the same prestige bucket.

Table 1 presents Bonacich status by industry, as well as the level of consensus on the status, with industries ranked from highest status to lowest. Overall, the status ordering that emerged from respondents' self-reported ratings shows clearly that categories of organizations vary in terms of status; the top-ranking industry was cited as "high status" or "very high status" 94 times as often as the lowest-ranking industry. In addition, the emergent ranking has face validity; industries that one might suspect to be high-status (e.g., biotechnology, banking, computer software) are indeed at the top of the

rankings while industries that one might suspect to be low-status (e.g., tobacco, construction, waste management) fall toward the bottom of the rankings.

[Table 1 about here]

While the survey results demonstrate variation across industries in terms of status level, they also show a reasonable degree of consensus on industry status scores across respondents. Consensus, measured by HHI scores, ranged from a low of 23% for the gaming industry to a high of 44% for the biotechnology industry. To put this in perspective, consider that the HHI score for an industry would be 50% if all respondents were to categorize it as belonging to two of the five categories. It is difficult to know precisely how much consensus on status is necessary in order for actors to take it into account in making evaluative judgments. However, the levels of consensus found here would seem to suggest that, in many cases, it cannot be ignored. At the same time, variation in consensus across industries does suggest that status may be a more powerful motive in some contexts than in others.

Validation

Although the emergent status ranking seems to have face validity, it was important to more formally validate this measure, given that that no one to my knowledge has previously attempted to measure category status across such a wide range of industries. I did so by assessing the measure's construct validity; I correlated industry status with other concepts that I had reason to expect were related. In addition to providing their status perceptions, each survey respondent was asked to rate approximately 20 industries on the basis of perceived investor performance, pay, complexity and virtue. These four questions were presented in random order, as were the

industries being rated. As before, respondents could choose one of five ratings ranging from "very high complexity," for example, to "very low complexity." Respondents were asked to drag the industry into the appropriate box, so that respondents at the end would see all the industries they had grouped together as similar.

Figures 1-4 graphically depict the relationship between Bonacich status and mean perceptions of complexity, virtue, pay and investor performance, respectively. There are fairly strong positive correlations between status and each of the variables. Of the four, however, the relationship between status and virtue appears to be the weakest. Research on status among individuals suggests that people often associate status with competence and that they hold compensating beliefs about low-status individuals such that those individuals are seen as particularly "warm" or good (Fisk, Cuddy, Glick and Xu 2002). A similar process may be at work among organizations.

[Figure 1-4 about here]

Table 2 presents partial correlations between individual's rankings of status, virtue, pay, complexity and investor performance. As expected, status had a significant positive correlation with all the measures.

[Table 2 about here]

Earnings Restatements

Turning now to the empirical context in which I test for the effect of industry status on valuation, I describe the data on earnings restatements. The Government Accountability Office (GAO) has collected information on all restatements from Jan. 1997 to Sept. 2005 and made this data public (GAO 2006)[1]. The GAO identified

[1] The GAO also released a list of restatements from Oct. 2005-June 30, 2006. Unlike the earlier releases, however, the GAO did not collect detailed information on which party prompted the restatement or what

restatements by searching U.S. newspapers and wire services via Lexis-Nexis. Searches were programmed to look for "variations of 'restate' as well as the terms, 'adjust,' and 'amend,' and 'revise'—all within 50 words of 'financial statement' or 'earning'" (GAO 2006, p. 52). In total, the GAO sample includes 2,705 restatements.

This database includes restatements announced because of either errors (i.e., unintentional misapplication of Generally Accepted Accounting Principles (GAAP)) or so-called irregularities (i.e., fraud, intentional misapplication of GAAP). It does not include restatements of a more routine nature[2]. According to the GAO, these types of restatements were not included because they did not represent the revelation of information the market did not already know. Moreover, such restatements do not represent deviance in the sense I have used it theoretically here. Most research on restatements treats the issue similarly.

Dependent Variable

I measure the extent to which social audiences, such as investors in the U.S. equities market, devalue firms following earnings restatement announcements by calculating the cumulative abnormal return (CAR) for the firm's stock from the day before the announcement to the day after. The CAR is commonly used in the accounting and finance literature to assess the market impact of a particular event (see MacKinley 1997 for a review), and it is the main outcome examined in studies of the reaction to an earnings restatement (see, e.g., Palmrose, Richardson and Scholz 2004; Agrawal and

---

type of accounting issue the restatement pertained to. Because I want to control for these restatement-level variables, I do not use these restatements in my analysis.

[2] This includes restatements stemming from mergers and acquisitions, discontinued operations, stock splits, issuance of stock dividends or currency-related issues, changes in business segment definitions, changes due to transfers of management, changes made for presentation purposes, general accounting changes under generally accepted accounting principles (GAAP), and litigation settlements.

Chada 2005; Srinivasan 2005; Scholz 2008). The CAR is calculated as the actual returns for a firm during a given period minus expected returns, where expected returns are calculated based on the overall performance of the market as well as the extent to which the firm's returns were correlated with the market in the past. Put another way, it represents the percent gain or loss an investor would have experienced by holding the firm's stock for a given period, after netting out the return predicted for the stock based on market performance during the event period. Specifically, I calculate the CAR for firm i over the period (t_{-1}, t_1) as:

$$CAR_{t_{-1},t_1} = \sum_{t=-1}^{t=1} a_{it}$$

where a_{it} is the abnormal return for firm i on day t and is computed as:

$$a_{it} = r_{it} - E(r_{it})$$

In the previous equation, r_{it} is the actual return for firm i on day t and $E(r_{it})$ is the expected return for firm i on day t had the event not occurred. $E(r_{it})$ is predicted by estimating the following linear regression model:

$$E(r_{it}) = \alpha_{it} + \beta_i r_{mt} + \varepsilon_{it}$$

where E(r_{it}) is the return for firm i on day t and r_{mt} is the overall market return, as measured by the Center for Research in Security Prices (CRSP) value-weighted index. α_{it} is a constant and β_{it} is a parameter representing the linear relationship between overall market returns and the return on a particular stock. This is estimated using data from closing prices from a minimum of 120 trading days and up to 240 days prior to the event window. The results from this regression are then used to predict $E(r_{it})$ for the day in question. Overall, a positive CAR indicates that a firm performed better than what was

predicted based on past performance, and a negative CAR indicates that a firm did worse than predicted.

Previous work has shown that most of the market reaction to an earnings restatement occurs on the day of and immediately following the announcement (Palmrose, Richardson and Scholz 2004). However, many event studies also include returns for the day prior to the announcement to account for the fact that news of the announcement might leak out early. I measure the CAR from the day before the announcement through the day after it, although results are substantively the same using only data from the day of and immediately following the event. Although studying the longer-term reaction to a restatement would be interesting, I do not do so because lengthening the observation window increases the possibility of confounding events.

Control Variables

Negligence/Lack of Competence vs. Fraud/Lack of Virtue. Financial restatements can stem from a lack of competence or a lack of virtue. To gauge this, I used data from Hennes, Leone and Miller (2008), who analyzed all restatement announcements and subsequently filings between 1997-2006 and classified each restatement as an error (i.e., unintentional misapplication of GAAP) or an irregularity (i.e., intentional misreporting or fraud). Under their coding scheme, a restatement was classified as an irregularity if the announcement by the firm mentioned the words "fraud" or "irregularity," if the Department of Justice or SEC conducted an investigation within four years of the announcement, or if there were any related investigations (e.g., the firm's Audit Committee hired a forensic accountant). In my analysis, irregularities correspond to a lack of virtue, and errors correspond to a lack of competence.

Initiator of Restatement. In announcing an earnings restatement, companies often publicly note the party that initiated the restatement. In my sample, approximately 75% of companies identify the source. I include three binary variables indicating whether the restatement was initiated by the company, its auditor or the SEC. (Unattributed and other restatements are the reference category.) Previous work has found a negative association between CAR and restatements initiated by the company's auditor or by the company itself, while results on the effects of SEC initiation have been mixed (Palmrose et al. 2004).

Type of Restatement. Restatements may pertain to a wide range of accounting issues, such as revenue recognition, cost/expense, an acquisition, a securities issues, reclassification or an issue with related parties. I include two binary variables indicating, respectively, whether the restatement involved revenue recognition or whether it involved cost/expense issues. Previous studies have shown that these two types of restatements tend to be associated with a more negative market reaction, as they involve more fundamental issues that may affect the firm's future prospects (Anderson and Yohn 2002; Palmrose et al. 2004; Scholz 2008).

Company Size. The market reaction to bad news tends to be more pronounced for smaller firms. Therefore, consistent with previous research (Dechow et al. 1996; Desai, Hogan and Wilkins 2006; Scholz 2008), I control for company size by including log assets for the year prior to the restatement.

Volatility. The reaction to an earnings restatement may be exacerbated for firms whose past performance is more volatile. I control for this by including a widely used volatility

measure, the standard deviation of a stock's returns. I calculate this over the 120 trading days prior to the event window.

Uncertainty Period. As discussed earlier, the period following the July 2002 passage of SOX financial reform legislation was marked by heightened uncertainty about the meaning of a restatement. I measured this as the period from August 1, 2002 to Dec. 31, 2003.

Sample

I test my hypotheses by linking restatements to stock market data, as well as category-level status measures. Although the GAO identified 2,705 restatements during the 1997-2005 period, many of them were "over the counter" stocks, which means that they are traded infrequently and therefore do not have reliable data on returns. Because these restatements lack data on the key dependent variable in my analysis, I exclude them. As a result, my findings are most generalizable to firms that are larger than average, although I have no substantive reason to believe that the effects of category status on the reaction to deviance would be any different for smaller firms. I also exclude 75 restatements for companies that were missing data on industry affiliation and 16 firms missing information on assets. The final analyzable sample includes 1,753 companies. Several other researchers in the finance and accounting literature have used the GAO database to study restatements and have conducted analyses with similar-sized final samples. Table 3 presents descriptive statistics for the variables used in the analysis, and Table 4 reports correlations.

[Table 3 & Table 4 about here]

RESULTS

Table 5 presents the results of linear regression models predicting the CAR as a function of restatement-level, firm-level and category-level attributes. All models include year fixed effects, which help control for any SEC mandates that might result in a large number of restatements from a particular industry in a given year. Models also include dummies for broad economic sectors.

[Table 5 about here]

Model 5a presents the effects of the control variables. As expected, restatements indicating fraud are viewed more negatively than errors, and consistent with past research in the accounting literature, the effect of fraud is attenuated for the period after SOX. Many of the control variables in this analysis are insignificant. In models not reported here, I estimated the effects of these variables separately for the pre- and post-SOX periods and found that control variables operated as expected (i.e., they were significant and in the predicted direction) prior to SOX but were non-significant in the latter period.

Turning now to the effect of category-level attributes, model 5b incorporates the measure of category status. Model 5c includes controls plus the effects of category-specific expectations of virtue, complexity, pay and investor performance. Model 5d includes all of these. In model 5b, category status is positive and significant, supporting Hypothesis 1. This suggests that organizations from higher-status categories are given the benefit of the doubt and, accordingly, are devalued less for ambiguous signals of deviance, such as restatements. Model 5d shows that the effect of category status is magnified, however, after category-specific attributes, such as perceived virtue, complexity, pay and investor performance are controlled. This is in part because these category-specific attributes have important effects in their own right and because their

effects are not uniformly in the same direction as that of category status. For example, firms from categories that are perceived to be higher-paying are penalized more for restatements, perhaps representing a popular backlash against "fat cats." The effect of perceived virtue is also negative, although significant only at the 0.10 level. This negative effect of perceived virtue may represent a penalty for the violation of expectations of moral goodness by those who were seen as most favorable in this regard. In contrast, belonging to an industry that is perceived as more complex seems to allow a firm to restate with greater impunity.

Model 5e introduces an interaction term for the effect of status during a period of high uncertainty, in this case, the period immediately following the July 2002 passage of SOX through December 2003. As predicted, the effect of category status during this period is amplified. This is consistent with past research on the heightened effects of status under conditions of greater uncertainty (Podolny 1994; Podolny 2001). In models not reported here, I tested whether the amplified effect of status persisted throughout the entire post-SOX period. This was not the case. The fact that the magnified effect of status does not endure beyond 2003 suggests that investors eventually "learned" how to make sense of restatements in the post-Sarbanes-Oxley period.

In models 5f and 5g, I test hypothesis 3, which posited that the effects of category status would be weaker for restatements perceived to be due to a lack of virtue than for those perceived to stem from negligence. Results do not seem to support this hypothesis, as the interaction of status with the fraud variable does not attain statistical significance in either model. This indicates that organizations from higher-status categories enjoyed

similar benefits regardless of whether the restatement was seen as stemming from a lack of virtue or a lack of competence.

Overall, these models support the idea that category status significantly influences how organizational actions are evaluated. The effect of category status is significant and positive across all the models, but it increases in magnitude once specific category-level expectations, such as virtue, pay, complexity and investor performance are controlled. In model 5d, for example, a one-standard deviation increase in industry status is associated with a 2.5% (0.53*4.8) increase in CAR.

Robustness Checks

I ran two additional sets of models to test the robustness of results reported above. First, I examined the effects of category status on the market reaction using the CAR calculated only on the day of and immediately following the restatement announcement. Second, I explored whether outliers were driving the observed effects of status by re-running the models after dropping observations that fell into either the lowest or highest 10% in terms of CAR. In both cases, results remained similar to those reported.

The findings reported here are open to the criticism that industry status actually proxies for some unobserved industry characteristic that relates to how a restatement should be interpreted. Although it would be impossible to exhaustively test every industry-level control variable that might drive the effect of industry status, there are two reasons to believe this concern should be mitigated. First, all models include controls for broad industry sectors. Second, the variation in the effect of status over time suggests that, if category status is actually capturing some unobserved industry-level characteristic, it must an industry-level attribute that can be characterized in one of the

two following very particular ways. It might be an industry-level trait that changed dramatically for most industries in the 2002-2003 timeframe and then changed back. Alternately, this effect could be accounted for by an industry attribute that did not change but is particularly relevant to restatements only during periods of ambiguity. These constraints greatly reduce the set of constructs that industry status might be capturing. Overall, the analysis of earnings restatements reported here supports the conclusion that status influences valuation in the real world.

Experimental Evidence

I complemented the analysis of earnings restatements by conducting two lab-based experiments that help isolate the mechanism at work and help eliminate any potential doubts about causality. (Full details of the experiments can be found in Methodological Appendix B, but I report them in an abbreviated fashion here.) The first study tested the basic premise that category status matters for how an organization is valued. In particular, I focused on how category status influences an organization's attractiveness as an affiliate. Because there is an established prior literature on this topic (e.g., Elias and Scotson 1994; Jensen 2006), I also viewed the outcome of this study as helping to validate my experimental set-up. Using a similar design, the second study tested whether the effects of deviance on valuation differed by category status.

There is no standard method for testing for the effects of status in the organizational world, so I created my own protocol. I designed a vignette study in which subjects were told that a fictitious university's contract with the corporate sponsor for its football stadium was expiring and that the university wanted to gauge the preferences of a college-age audience in order to help it decide whether to switch to a new partner. I chose

this story because previous work has shown that status influences the selection of affiliates, particularly public ones (e.g., Elias and Scotson 1994; Jensen 2006), and because I wanted a story that would keep college-age subjects engaged. Thus, if category status matters, it should be evident here.

Subjects were presented with brief descriptions of two organizations and asked to select one as the more attractive partner organization. The two descriptions contained generic information about the organization (e.g., location, age) that had been pre-tested to be equally favorable and equal in status. The crucial manipulation in this study was that of industry status. In each condition, the potential new partner was said to be from the computer software industry. However, I manipulated the status of the industry of the current partner. In one condition, subjects were told the current partner was a furniture manufacturer. Thus, the potential new partner represented a higher-status category than the current partner. In the other condition, subjects were told the current partner was an entertainment company. Thus, in that condition, the choice was between two organizations from categories that were equal in status. Consistent with expectations, results showed that subjects were significantly more likely to switch partners when there was an opportunity to affiliate with an organization from a higher-status industry.

The second study was a 2 x 2 factorial design in which category status (high vs. low) and type of deviance (lack of competence vs. lack of virtue) were manipulated between subjects. Subjects were told that a university had a partner relationship with another organization as its football stadium sponsor, but that the contract with that organization was up. They were told the university was considering switching to another partner, in part because the organization had issued an earnings restatement and received

some negative press coverage for it. As before, subjects read organizational descriptions that had been pre-tested for equality in terms of status and overall attractiveness and then were asked to make a recommendation as to which organization the university should choose.

Subjects in each condition read descriptions from two organizations in the same industry, but the industries (and hence their status) varied across conditions. Subjects in the high-status condition chose between two computer-software companies while subjects in the low-status condition chose between two paper/packaging companies. Additionally, they read a fictitious news story about the current partner's earnings restatement. The news story clearly identified the amount of the restatement and whether the restatement stemmed from fraud or negligence.

This experiment is well underway, although I do not yet have enough subjects to yield significant results. However, preliminary results provide suggestive support for Hypothesis 1; subjects chose to switch away from organizations in the higher-status category less than from organizations in the lower-status category, indicating that the penalty for organizational deviance is greater for organizations in low-status categories. Results do not seem to vary by whether the restatement was portrayed as stemming from fraud or incompetence, although, again these results should be interpreted cautiously due to the small subject pool and lack of statistical significance.

DISCUSSION AND CONCLUSION

This paper contributes to several different areas within economic sociology, but it is perhaps most directly pertinent to the literature on how status impacts the reaction to organizational deviance. Previous work in this area (i.e., Phillips and Zuckerman 2001;

Phillips et al. 2010) has found an inverted u-shape between status and conformity, such that high- and low-status actors are more likely to deviate compared to those of middling status. The scope of the theory of middle-status conformity is limited to deviant role behaviors that are publicly acknowledged and clear in their meaning. Yet, market participants are often compelled to react to cases where deviance is merely alleged and where the deviant act represents a moral transgression or a violation of competence norms rather than the flouting of role expectations. The study here explores the latter class of behaviors. Understanding this type of situation is important simply because of its prevalence (e.g., product recalls, charges of unfair labor practices, securities fraud).

My findings are consistent with Phillips and Zuckerman (2001) in that high-status actors are able to deviate with relatively greater impunity than their middle-status peers. However, I do not find that low-status actors enjoy room to deviate. (I tested the middle-status conformity hypothesis in models not reported here by including the square of category status, but it never came close to significance.) I suspect this has to do with the particular type of inferences audiences seek to make on the basis of conformity or deviance in different settings. Whereas Phillips and Zuckerman (2001) find that conformity is useful to external audiences because it helps them identify the true "players" or participants in a market, the question of "membership" is not always at issue. Market actors trying to determine the appropriate response to an earnings restatement, for example, are merely trying to discern what the restatement represents about the underlying nature of the firm. In this case, where information is lacking, category status results in positive inferences simply because high-status categories are associated with more favorable beliefs.

My findings also differ from the work of Phillips et al. (2010). In that paper, Phillips et al. (2010) propose that high-status actors will be punished disproportionately for violating moral norms, or more broadly, norms that signal commitment to an audience. They argue that this occurs because audiences are more vulnerable to transgressions from actors to whom they are more committed, namely, high-status actors. In the case of earnings restatements perceived to be fraudulent, I find that organizations from high-status categories are punished less than actors from low-status categories. This finding does not so much cast doubt on the mechanism suggested by Phillips et al. (2010), but rather, highlights its limits. Specifically, the theory likely only pertains to settings where audiences are truly more vulnerable to violations by high-status actors. In the setting at hand, vulnerability is not the key issue.

More fundamentally, this paper establishes that categories of organizations vary in status, that each organization derives its status in part from membership in socially defined categories, and that such category-based status variation is consequential for how organizational actions are perceived and evaluated. These findings carry important implications for the literature on organizational status, as well as research on the role of categories and systems of classification in the process of valuation.

Whereas previous work on status in markets has focused on the perceived quality of an actor's performance and on the actor's network of affiliates, this paper focuses on the categorical aspects of one's social identity. Results from this study demonstrate that status is not only about what an organization *does*, but also, fundamentally, about who or what an organization *is*. This suggests a way in which organizational status is at least partially akin to a rent, a positional advantage or disadvantage obtained independently of

performance (Sorensen 1996). Focusing on the aspect of status driven by categorical identity helps differentiate status from the related concept of reputation.

Additionally, my exploration of the perceptual correlates of category status among organizations – namely, complexity, virtue, pay, and investor performance – draws attention to aspects of status-based beliefs that are often overlooked. Although much attention has been paid to the relationship between status and quality (Podolny 1993; 2005), focusing on the other types of expectations that go hand-in-hand with status may generate new and interesting insights, particularly where the expectations created by more specific beliefs about attributes such as virtue and complexity conflict with expectations generated by beliefs about pay and investor performance.

Finally, this paper contributes to the growing body of research on the role of categories and systems of classification in the process of valuation. Thus far, this line of work has treated categories as potentially differing on a number of dimensions but has viewed all categories as equal in social standing. Yet, a cursory consideration of different industries (e.g., biotechnology versus waste management) suggests that categories differ in some general evaluative sense. This paper formalizes and confirms that intuition.

Conceptualizing categories as differing in social standing suggests that systems of classification influence the process of valuation in markets to a greater extent than was previously understood. Currently, economic sociologists represent valuation as a two-stage process in which evaluators use markers of categorical identity to screen out irrelevant or illegitimate offerings before conducting a more thorough assessment of the remaining offers (Zuckerman 1999; Phillips and Zuckerman 2001). In this model, members of *different* categories are never directly compared to one another. Instead,

offerings are scrutinized for fit with an evaluator's focal category, and all offers that conform are then evaluated against one another. This model helps us understand many real-world settings, yet it also overlooks some common situations in which relative worth is being assessed across categorical boundaries. I outline two such cases.

First, presumably there are many situations where offerings are multiply categorized. In this case, an evaluator may make an initial screen on one categorical basis but may be left comparing a set of remaining offers that differ in some important ways. For example, Zuckerman and Kim (2003) note that film critics tend to be organized around whether they review independent or mass films, rather than being segregated by genre. Thus, a critic of mass-market films would screen out independent films but would continue to review films across categorical boundaries – for example, mass-market films in the horror, comedy and drama genres. It seems unlikely that a film's membership in these different genres has no impact on its ratings; if a film is classified in a lower-status genre (perhaps horror), it seems likely that it will receive less favorable reviews.

Secondly, the current model of valuation brackets the process by which individuals decide they are in the market for an offering in a given category in the first place. To fully understand the role of categories in valuation, however, we need to learn more about how some categories come to be seen as appropriate and desirable in a given situation while others do not. This is especially important in situations where underlying functional differences between two candidates or offers are small relative to the divergence in social standing between the categories to which they belong. Status differences among categories help explain why some categories are more often chosen than others as the focal area in which valuation occurs. Taken together, these classes of

situations illustrate the types of settings where it matters deeply that categories act not only as sieves but also as evaluative lenses.

REFERENCES

Adut, Ari. 2005. "A Theory of Scandal: Victorians, Homosexuality, and the Fall of Oscar Wilde." *American Journal of Sociology* 111(1): 213-248.

Agrawal, Anup and Sahiba Chada. 2005. "Corporate Governance and Accounting Scandals." *Journal of Law and Economics* 48: 371-406.

Alvarez, Rodolfo. 1968. "Informal Reactions to Deviance in Simulated Work Organizations: A Laboratory Experiment." *American Sociological Review* 33(6): 895-912.

Anderson, Kirsten L. and Teri L. Yohn. 2002. "The Effect of 10-K Restatements on Firm Value, Information Asymmetries and Investors Reliance on Earnings." Working Paper. Georgetown University.

Arthaud-Day, Marne L. and S. Trevis Certo and Catherine M. Dalton and Dan R. Dalton. 2006. "A Changing of the Guard: Executive and Director Turnover Following Corporate Financial Restatements." *Academy of Management Journal* 49:119–1136.

Becker, Howard. 1963. *Outsiders: Studies in the Sociology of Deviance* New York: The Free Press.

Benjamin, Beth and Joel Podolny. 1999. "Status, Quality and Social Order in the California Wine Industry." *Administrative Science Quarterly* 44(3): 563-589.

Bobo, Lawrence. 2002. "Prejudice as Group Position: Microfoundations of a Sociological Approach to Racism and Race Relations." *Journal of Social Issues* 55(3): 445-472.

Bonacich, Phillip. 1987. "Power and Centrality: A Family of Measures." *American Journal of Sociology* 92(5): 1170-1182.

Bourdieu, Pierre. 1979. *Distinction: A Social Critique in the Judgment of Taste.* Translated R. Nice. 1984. Cambridge, MA: Harvard University Press.

Brubaker, Rogers and Mara Loveman and Peter Stamatov. 2004. "Ethnicity as Cognition." *Theory and Society* 33: 31-64.

Carroll, Glenn and Anand Swaminathan. 2000. "Why the Microbrewery Movement? Organizational Dynamics of Resource Partitioning in the U.S. Brewing Industry." *American Journal of Sociology* 106(3): 715-762.

Chwe, Michael Suk-Young. 2001. *Rational Ritual: Culture, Coordination and Common Knowledge*. Princeton, NJ: Princeton University Press.

Cook, Karen. 1975. “Expectations, Evaluations and Equity.” *American Sociological Review* 40: 372-388.

Correll, Shelley and Stephen Benard and In Paik. 2007. “Getting a Job: Is There a Motherhood Penalty.” *American Journal of Sociology* 112(5): 1297-1338.

Duncan, Otis Dudley. 1961. “A Socioeconomic Index for All Occupations.” Pp. 109-138 In *Occupations and Social Status*, edited by A.J. Reiss Jr. et al. New York: Free Press of Glencoe.

Dechow, Patricia M. and Richard G. Sloan and Amy P. Sweeney. 1996. “Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC.” *Contemporary Accounting Research* 13: 1-36.

Desai, Hemang and Chris Hogan and Michael S. Wilkins. 2006. “The Reputational Penalty for Aggressive Accounting: Earnings Restatements and Management Turnover.” *The Accounting Review* 81: 83-112.

Dollinger, Marc and Peggy Golden and Todd Saxton. 1997. “The Effect of Reputation on the Decision to Joint Venture.” *Strategic Management Journal* 18(2): 127-140.

Elias, Norbert and J.L. Scotson. 1994. *The Outsiders: A Sociological Inquiry into Community Problems.* London: Frank Cass.

Fisk, Susan T. and Amy J.C. Cuddy and Peter Glick and Jun Xu. 2002. “A Model of (Often Mixed) Stereotype Content: Competence and Warmth Respectively Follow from Perceived Status and Competition.” *Journal of Personality and Social Psychology* 82(6): 878-902.

Fisk, Susan and Steven Neuberg and Ann Beattie and Sandra Milberg. 1987. "Category-based and Attribute-based Reactions to Others: Some Informational Conditions of Stereotyping and Individuating Processes." *Journal of Experimental Social Psychology* 23:399-427.

Fombrun, Charles. 1996. *Reputation: Realizing Value from the Corporate Image.* Cambridge, MA: Harvard Business School Press.

Fombrun, Charles and Mark Shanley. 1990. “What’s in a Name?: Reputation Building and Corporate Strategy.” *Academy of Management Journal* 33(2):233-258.

Gluckler, Johannes and Thomas Armbruster. 2003. “Bridging Uncertainty in Management Consulting: The Mechanisms of Trust and Networked Reputation.” *Organization Studies* 24: 269-297.

Government Accountability Office. 2006. "Financial Restatements: Update of Public Company Trends, Market Impacts, and Regulatory Enforcement Activities." GAO Report-06-678. Washington, DC.

Giordano, Peggy. 1983. "Sanctioning the High-Status Deviant: An Attributional Analysis." *Social Psychology Quarterly* 46(4): 329-342.

Goode, William J. 1978. *The Celebration of Heroes: Prestige as a Control System.* Berkeley, CA: University of California Press.

Gould, Roger V. 2002. "The Origins of Status Hierarchies: A Formal Theory and Empirical Test." *American Journal of Sociology* 107(5): 1143-78.

Han, Shin-Kap. 1994. "Mimetic Isomorphism and its Effect on the Audit Services Market." *Social Forces* 73: 637-664.

Hannan, Michael T. and Laszlo Polos and Glenn Carroll. 2007. *Logics of Organization Theory: Audiences, Codes and Ecologies.* Princeton, NJ: Princeton University Press.

Hartmann, Heidi. 1976. "Capitalism, Patriarchy, and Job Segregation by Sex." *Signs* 1(3): 137-169.

Harrod, Wendy J. "Expectations from Unequal Rewards." *Social Psychology Quarterly* 43: 126-130.

Hennes, Karen M. and Andrew J. Leone and Brian P. Miller. 2008. "The Importance of Distinguishing Errors From Irregularities in Restatement Research: The Case of Restatements and CEO/CFO Turnover." *Accounting Review* 83(6): 1487- 1519.

Hogg, Michael A. 2006. "Social Identity Theory." Pp.111-136 in *Contemporary Social Psychological Theories,* ed. Peter Burke. Stanford, CA: Stanford University Press.

Hollander, Edwin P. 1958. "Conformity, Status and Idiosyncrasy Credit." *Psychological Review* 65: 117-27.

Hsu, Greta. 2006. "Jacks of All Trades and Masters of None: Audiences' Reactions to Genre Spanning in Feature Film Production." *Administrative Science Quarterly* 51: 420-450.

Hsu, Greta and Michael T. Hannan. 2005. "Identities, Genres and Organizational Forms." *Organization Science* 16(5): 474-490.

Hsu, Greta and Michael Hannan and Ozgecan Kocak. 2009. "Multiple Category Membership in Markets: An Integrative Theory and Two Empirical Tests." *American Sociological Review* 74: 150-169.

Jensen, Michael. 2003 "The Role of Network Resources in Market Entry: Commercial Banks' Entry Into Investment Banking, 1991–1997." *Administrative Science Quarterly* 48: 466–497.

Jensen, Michael. 2006. "Should We Stay or Should We Go?: Accountability, Status Anxiety and Client Defections." *Administrative Science Quarterly* 51: 97-128.

Katz, Michael and Carl Shapiro. 1985. "Network Externalities, Competition and Compatibility." *American Economic Review* 75(3): 424-440.

Lamont, Michele and Virag Molnar. 2002. "The Study of Boundaries in the Social Sciences." *Annual Review of Sociology* 28: 167-195.

Lareau, Annette. 2003. *Unequal Childhoods: Race, Class and Family Life.* Berkeley, CA: University of California Press

MacKinlay, A. Craig. 1997. "Event Studies in Economics and Finance." *Journal of Economic Literature* 35: 13–39.

Merton, Robert K. 1968. "The Matthew Effect in Science." *Science* 159: 56-63.

Nakao, Keiko and Judith Treas. 1994. "Updating Occupational Prestige and Socioeconomic Scores: How the New Measures Measure Up." *Sociological Methodology* 24: 1-72.

Omi, Michael and Howard Winant. 1996. "Racial Formation." Pp. 53-76 in *Racial Formation in the United States: From the 1960s to the 1990s.* 2nd edition. New York: Routledge.

Palmrose, Zoe-Vonna and Vernon Richardson and Susan Scholz. 2004. "Determinants of Market Reactions to Restatement Announcements." *Journal of Accounting and Economics* 37: 59-89.

Paulson, Henry. 2007. The key test of accurate financial reporting is trust. *Financial Times* (May 17): 15.

Phillips, Damon J. and Ezra W. Zuckerman. 2001. "Middle-Status Conformity: Theoretical Restatement and Empirical Demonstration in Two Markets." *American Journal of Sociology* 107(2): 379-429.

Phillips, Damon J. and Catherine J. Turco and Ezra W. Zuckerman. 2010. "High-Status Conformity and Deviance: Pressures for Purity Among U.S. Corporate Law Firms." Working Paper. Massachusetts Institute of Technology.

Podolny, Joel. 1993. "A Status-Based Model of Market Competition." *American Journal of Sociology* 98: 829-72.

Podolny, Joel. 1994. "Market Uncertainty and the Social Character of Economic Exchange." *Administrative Science Quarterly* 39: 458-483.

Podolny, Joel. 2001. "Networks as the Pipes and Prisms of the Market," *American Journal of Sociology* 107(1): 33-60.

Podolny, Joel. 2005. *Status Signals*. Princeton, NJ: Princeton University Press.

Podolny, Joel and Damon Phillips. 1996. "The Dynamics of Organizational Status." *Industrial and Corporate Change* 5(2): 453-471.

Podolny, Joel and Toby Stuart and Michael Hannan. 1996. "Networks, Knowledge and Niches: A Sociological Examination of Worldwide Competition in the Semiconductor Industry." *American Journal of Sociology* 102: 659-689.

Pontikes, Elizabeth. 2008. "Fitting In or Starting New?: An Analysis of Technological Innovation, Category Constraint, and the Emergence of New Categories in the Software Industry, 1990-2002." Unpublished PhD. diss. Stanford University.

Rao, Hayagreeva and Phillipe Monin and Rodolphe Durand. 2003. "Institutional Change in Toque Ville: Nouvelle Cuisine as an Identity Movement in French Gastronomy." *American Journal of Sociology* 108(4): 795-843.

Rao, Hayagreeva and Phillipe Monin and Rodolphe Durand. 2005. "Border Crossing: Bricolage and the Erosion of Categorical Boundaries in French Gastronomy." *American Sociological Review* 70(6): 968-91.

Ridgeway, Cecilia. 1991. "The Social Construction of Status Value: Gender and Other Nominal Characteristics." *Social Forces* 70: 367-86.

Ridgeway, Cecilia and Shelley Correll. 2006. "Consensus and the Creation of Status Beliefs." *Social Forces* 85: 431-453.

Scholz, Susan. 2008. The Changing Nature and Consequences of Public Company Financial Restatements 1997-2006. Washington, DC, PCAOB.

Shils, Edward A. 1968. "Deference." Pp. 104-132 in J. A. Jackson (ed.) *Social Stratification.* Cambridge: Cambridge University Press.

Sorensen, Aage B. 1996. "The Structural Basis of Social Inequality." *American Journal of Sociology* 101(5): 1333-1365.

Srinivasan, Suraj. 2005. "Consequences of Financial Reporting Failure for Outside Directors: Evidence from Accounting Restatements and Audit Committee Members." *Journal of Accounting Research* 43(2): 291-334.

Stewart, Penni A. and James C. Moore 1992. "Wage Disparities and Performance Expectations." *Social Psychology Quarterly* 69: 797-811.

Stoller, Gary. 2002. Funny Numbers. *USA Today.* Oct. 21: 3b.

Stuart, Toby and Ha Hoang and Ralph Hybels. 1999. "Interorganizational Endorsements and the Performance of Entrepreneurial Ventures." *Administrative Science Quarterly* 44: 315–349.

Tajfel, Henri and John C. Turner. 1986. "An Integrative Theory of Intergroup Conflict." Pp.2-24 in S. Worchel and W. Austin (eds.), *Psychology of Intergroup Relations* Chicago: Nelson-Hall.

Turner, John C.1985 "Social Categorization and the Self-Concept: A Social Cognitive Theory of Group Behavior." In Edward Lawler (ed.) *Advances in Group Processes: Theory and Research*, 2:7-122 Greenwich, CT: JAI Press.

Ungar, Sheldon. 1981. "The Effects of Status and Excuse on Interpersonal Reactions to Deviant Behavior." *Social Psychology Quarterly* 44(3): 260-263.

Weber, Max. 1946. "Class, Status and Party," pp. 180-195 in *From Max Weber: Essays in Sociology,* eds. H.H. Gerth and C. Wright Mills. New York: Oxford University Press.

Zerubavel, Eviatar. 1996. "Lumping and Splitting: Notes on Social Classification." *Sociological Forum.* 11(3): 421-433.

Zhou, Xueguang. 2005. "The Institutional Logic of Occupational Prestige Ranking: Reconceptualization and Reanalyses." *American Journal of Sociology* 111(1): 90-140.

Zuckerman, Ezra. 1999. "The Categorical Imperative: Securities Analysts and the Illegitimacy Discount." *American Journal of Sociology* 104(5): 1398-143.

Zuckerman, Ezra and Tai-Young Kim. 2003. "The Critical Trade-off: Identity Assignment and the Box-office Success in the Feature Film Industry." *Industrial and Corporate Change* 12(1): 27-67.

Zuckerman, Ezra and Tai-Young Kim and Kalinda Ukanwa and James von Rittman. 2003. "Robust Identities or Non-Entities: Typecasting in the Feature-Film Labor Market." *American Journal of Sociology* 108(5): 1018-74.

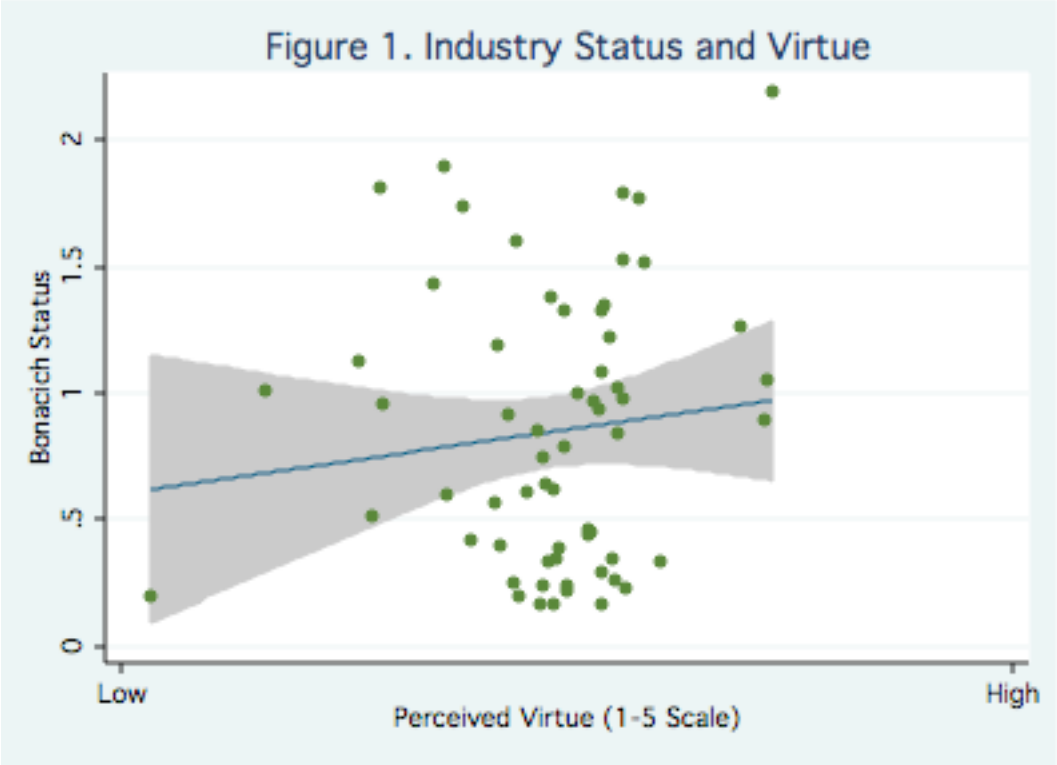
Figure 1. Industry Status and Virtue
Bonacich Status
0
.5
1
1.5
2
Low
High
Perceived Virtue (1-5 Scale)

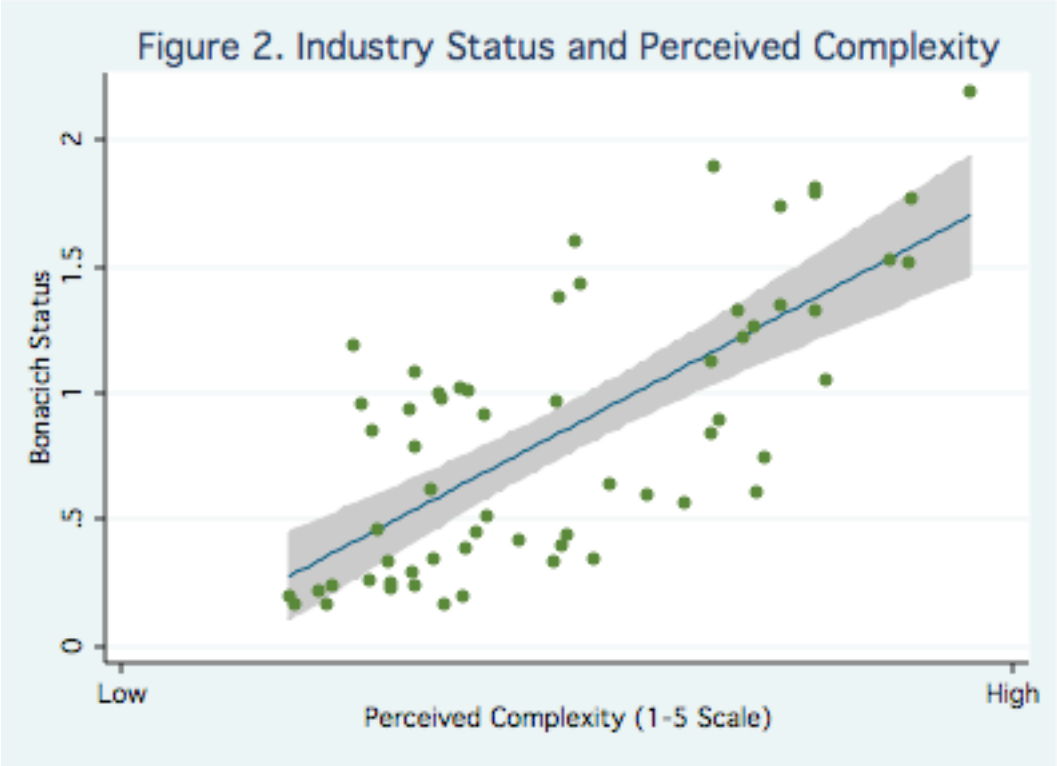
Figure 2. Industry Status and Perceived Complexity
Bonacich Status
0
.5
1
1.5
2
Low
High
Perceived Complexity (1-5 Scale)

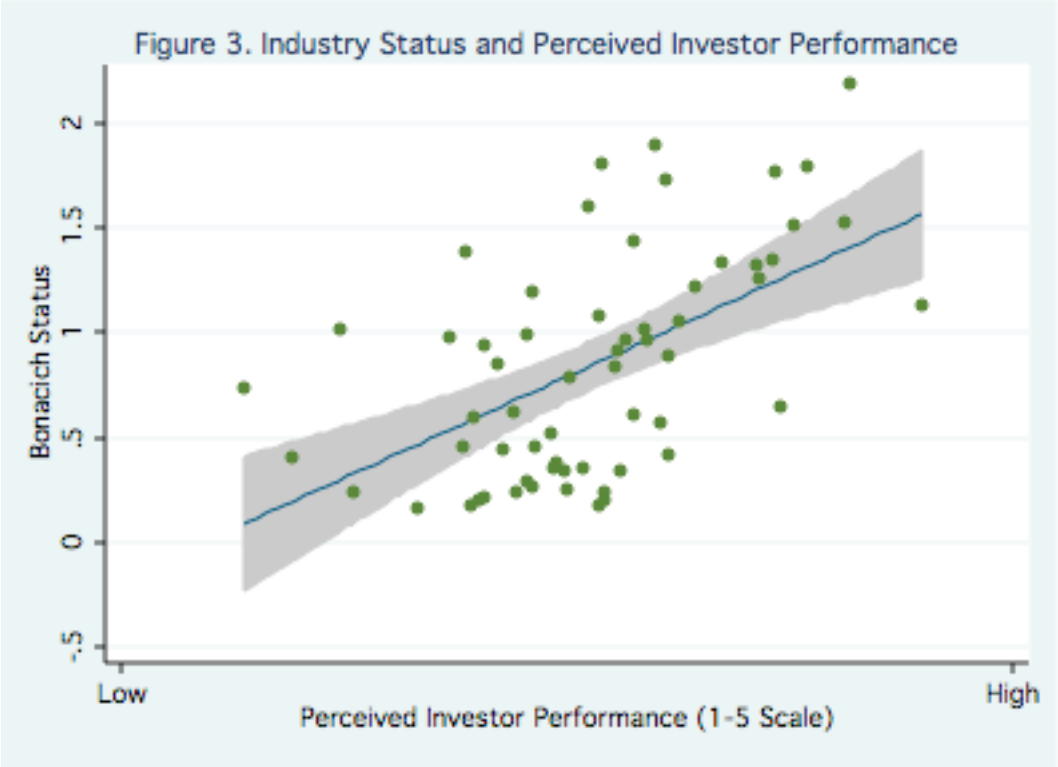
Figure 3. Industry Status and Perceived Investor Performance
Bonacich Status
-.5
0
.5
1
1.5
2
Low
High
Perceived Investor Performance (1-5 Scale)

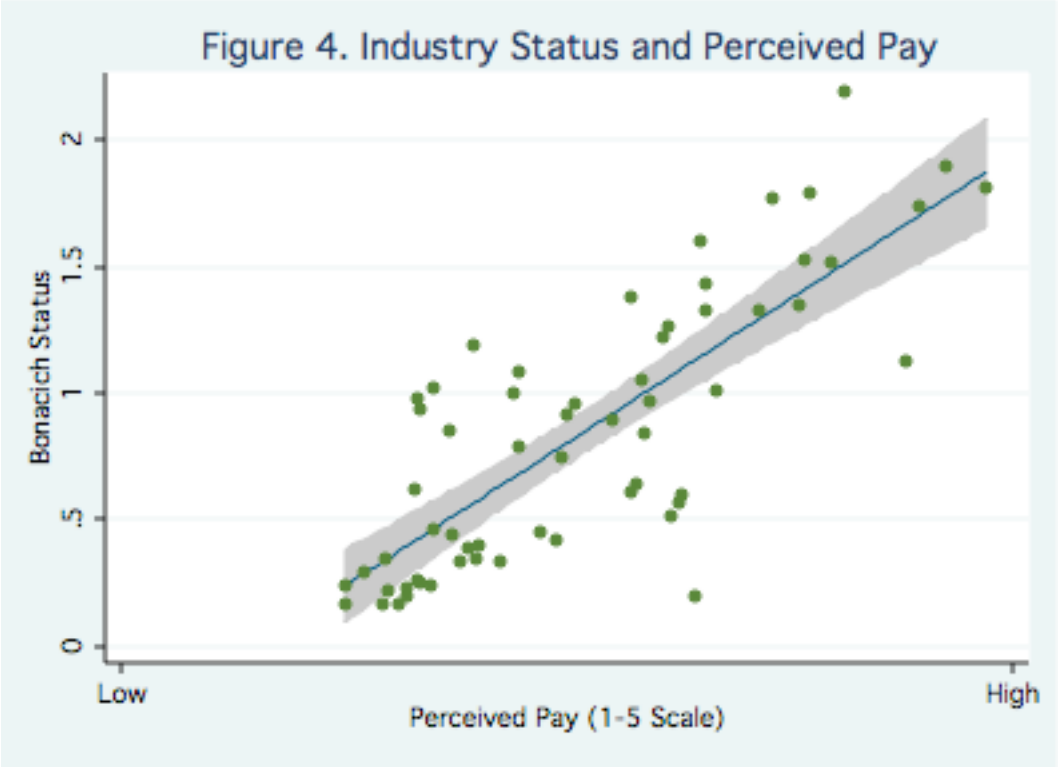
Figure 4. Industry Status and Perceived Pay
Bonacich Status
0
.5
1
1.5
2
Low
High
Perceived Pay (1-5 Scale)

Table 1.

Industry Status and Consensus on Status

	Industry	Bonacich Status	Mean Percent Dominance	Mean Status Score	Percent High/ Very High Status	Percent Low/ Very Low Status	Consensus
1	Biotechnology	2.20	82.13	85.21	93.72	0.52	44.26
2	Investment services	1.89	72.62	77.34	74.48	6.77	32.26
3	Banking	1.81	70.59	75.39	75.52	6.77	32.00
4	Computers – software	1.80	70.88	75.26	75.00	3.65	34.04
5	Aerospace defense	1.77	70.07	74.09	70.83	4.69	31.69
6	Diversified financial services	1.74	68.16	72.63	71.58	10.53	29.93
7	Movies & home ent.	1.60	64.54	69.76	64.92	8.38	30.34
8	Pharmaceuticals	1.53	63.15	66.54	64.58	8.85	36.72
9	Semiconductors	1.51	61.94	66.22	59.04	10.11	29.95
10	Advertising & marketing	1.44	60.35	64.79	53.93	6.81	34.88
11	Broadcasting	1.38	58.05	62.83	52.38	11.64	31.26
12	Computers - commerc. Svc	1.35	57.22	62.63	49.48	9.38	32.44
13	Telecommunications	1.33	57.16	62.63	50.52	8.85	33.87
14	Computers – hardware	1.33	56.70	62.17	48.69	9.95	33.33
15	Health care- medical products	1.27	54.91	60.34	44.50	8.90	36.63
16	Electronics & electrical equip	1.22	52.74	58.55	44.21	15.79	33.59
17	Jewelry novelties & gifts	1.20	50.77	56.81	42.41	21.47	27.16
18	Oil & gas	1.13	48.56	55.24	40.84	24.61	25.81
19	Leisure time products	1.08	48.39	55.60	33.85	15.10	36.03
20	Health care- hospital mgmt	1.05	46.94	53.13	33.33	22.40	31.04
21	Publishing	1.02	45.56	51.60	29.26	24.47	32.67
22	Gaming	1.01	43.12	49.34	38.42	35.79	23.45
23	Lodging	1.00	45.03	52.50	31.05	22.11	33.87
24	Photography & imaging	0.98	43.51	50.27	28.80	28.26	29.51
25	Commercial & consumer services	0.97	44.56	51.84	27.12	19.21	38.22
26	Alcoholic beverages	0.96	43.11	50.00	28.27	26.18	30.42
27	Restaurants	0.94	42.60	50.26	28.95	28.95	30.33
28	Cosmetics, household & personal care	0.92	41.85	49.22	25.00	27.08	32.89
29	Health care – long-term care	0.89	40.59	46.79	26.20	33.69	28.53
30	Textiles, apparel & footwear	0.85	39.55	47.38	21.47	30.37	33.46
31	Engineering & construction	0.84	39.22	46.94	20.21	28.19	35.10
32	Food & non-alcoholic beverages	0.79	37.30	46.43	18.52	30.16	36.13
33	Airlines	0.74	35.29	42.19	16.67	36.46	31.47
34	Natural gas distributors	0.64	30.21	39.54	12.50	46.20	30.83
35	Retailing	0.62	30.56	40.13	10.53	41.58	35.05
36	Chemicals	0.61	29.65	38.45	8.70	45.11	34.84
37	Savings & loan companies	0.60	29.43	37.23	10.11	48.94	32.76
38	Insurance	0.57	28.41	37.11	9.38	51.56	34.39
39	Insurance brokers	0.52	25.65	34.61	7.89	55.79	32.37

	Industry	Bonacich Status	Mean Percent Dominance	Mean Status Score	Percent High/ Very High Status	Percent Low/ Very Low Status	Consensus
40	Housewares & household durables	0.46	23.05	33.07	4.76	58.20	34.28
41	Homebuilding	0.46	22.97	32.62	8.02	63.10	34.31
42	Manufacturing	0.45	22.38	31.35	2.65	61.90	36.32
43	Metals & mining	0.42	19.77	29.03	8.06	68.28	30.69
44	Autos & auto parts	0.40	19.72	28.53	6.81	67.54	30.69
45	Electric utilities	0.38	18.96	27.66	4.79	70.74	33.29
46	Supermarkets & drugstores	0.35	18.59	29.47	1.58	69.47	40.53
47	Industrial machinery	0.35	17.38	26.78	3.28	75.41	38.06
48	Employment services	0.34	17.80	26.91	2.19	73.22	37.59
49	Commerc. Transportation	0.33	17.01	27.60	4.92	76.50	41.13
50	Agricultural products	0.29	14.50	23.54	3.19	77.66	34.85
51	Hardware & tools	0.26	13.53	23.64	2.72	84.24	43.89
52	Heavy construction materials	0.25	12.29	21.30	2.65	83.07	37.32
53	Distributors	0.24	13.13	23.19	1.11	83.89	43.57
54	Printing	0.24	12.16	21.72	2.73	85.25	40.46
55	Water utilities	0.24	11.15	19.05	3.70	85.71	37.94
56	Office equip. & supplies	0.21	11.77	21.93	0.53	83.96	41.08
57	Tobacco	0.20	9.73	14.61	3.16	83.68	45.01
58	Trucks & heavy equipment	0.20	10.17	19.44	1.06	86.77	40.09
59	Waste management	0.17	7.91	13.43	3.19	88.30	45.60
60	Containers	0.17	8.66	17.45	1.10	90.11	41.60
61	Paper & packaging	0.16	8.34	17.34	1.08	90.32	41.83

Table 2.

Partial Correlations Among Status and Perceived Complexity, Virtue, Pay and Investor Performance

	Status	Investor Performance	Virtue	Complexity	Pay
Status	1.00				
Investor Performance	0.08***	1.00			
Virtue	0.13***	0.04**	1.00		
Complexity	0.23***	0.09***	0.17***	1.00	
Pay	0.35***	0.26***	-0.22***	0.35***	1.00

N=3,498 individual-industry observations

Table 3.

Summary Statistics for Variables Used in Analysis of Restatements

Variable	Mean	Std. Dev.	Minimum	Maximum
CAR (%)	-3.83	13.14	-108.12	61.47
Initiator=company	0.60	0.48	0.00	1.00
Initiator=auditor	0.12	0.32	0.00	1.00
Initiator=SEC	0.09	0.29	0.00	1.00
Cause=revenue	0.31	0.46	0.00	1.00
Cause=cost	0.37	0.48	0.00	1.00
Irregularity	0.27	0.44	0.00	1.00
Ln assets ($M)	6.29	2.21	0.23	13.82
Std. dev. of returns	0.04	0.03	0.00	0.23
Status	1.06	0.53	0.16	2.20
Virtue	2.98	0.39	1.13	3.92
Pay	3.36	0.79	2.00	4.88
Complexity	3.33	0.76	1.75	4.81
Investor performance	3.34	0.61	1.55	4.59

N=1,753 restatements

Table 4.

Correlations of Variables Used in Analysis of Restatements

	CAR	Initiator = Company	Initiator = Auditor	Initiator = SEC	Cause = Revenue	Cause = Cost
CAR	1.00					
Initiator=company	-0.01	1.00				
Initiator =auditor	-0.02	-0.06*	1.00			
Initiator =SEC	0.01	-0.38*	-0.11*	1.00		
Cause=Revenue	-0.10*	0.02	0.01	-0.06*	1.00	
Cause=Cost	0.03	0.16*	0.02	-0.09*	-0.24*	1.00
Irregularity	-0.22*	0.08*	0.02	0.05*	0.21*	-0.08*
Ln assets	0.10*	0.03	-0.02	0.05*	-0.09*	0.03
Std. dev. of returns	-0.14*	-0.04	-0.02	0.03	0.15*	-0.13*
Status	0.02	-0.03	0.06*	0.03	0.14*	-0.11*
Complexity	0.00	-0.04	0.02	0.00	0.14*	-0.17*
Virtue	-0.03	-0.01	-0.04	0.03	0.19*	-0.01
Pay	0.00	-0.06*	0.06*	0.00	0.08*	-0.17*
Investor performance	-0.02	-0.04	0.00	0.01	0.15*	-0.14*

	Irregularity	Ln assets	Std. dev. of returns	Status	Complexity	Virtue
Irregularity	1.00					
Ln assets	0.12*	1.00				
Std. dev. of returns	0.12*	-0.42*	1.00			
Status	0.06*	-0.11*	0.15*	1.00		
Complexity	0.05*	-0.08*	0.16*	0.78*	1.00	
Virtue	0.07*	-0.30*	0.27*	0.11*	0.16*	1.00
Pay	0.04	0.02	0.06*	0.84*	0.85*	-0.22*
Investor performance	0.06*	-0.14*	0.18*	0.61*	0.72*	0.14*

	Pay	Investor performance
Pay	1.00	
Investor performance	0.71*	1.00

N=1,753 restatements

* = $p<0.05$

Table 5.

Estimated Coefficients from Regressions of CAR on Industry Status and Other Selected Variables, Jan. 1997-Sept. 2005

	5a	5b	5c	5d	5e	5f	5g
Post-Sarbanes Oxley	1.795	1.686	1.729	1.529	-1.296	1.562	-1.214
	(1.720)	(1.717)	(1.720)	(1.717)	(2.174)	(1.717)	(2.174)
Initiator = company	-0.673	-0.697	-0.710	-0.836	-0.838	-0.836	-0.839
	(0.705)	(0.703)	(0.705)	(0.704)	(0.703)	(0.704)	(0.703)
Initiator = auditor	-0.953	-1.158	-0.920	-1.057	-1.036	-1.093	-1.071
	(0.944)	(0.945)	(0.946)	(0.944)	(0.943)	(0.944)	(0.943)
Initiator = SEC	1.041	0.969	0.979	0.899	0.989	0.845	0.935
	(1.156)	(1.154)	(1.156)	(1.153)	(1.153)	(1.153)	(1.152)
Type = Revenue	-0.707	-0.764	-0.739	-0.709	-0.744	-0.773	-0.804
	(0.721)	(0.719)	(0.722)	(0.720)	(0.720)	(0.721)	(0.721)
Type = Cost	-0.797	-0.828	-0.840	-0.963	-0.981	-0.962	-0.980
	(0.687)	(0.685)	(0.686)	(0.686)	(0.685)	(0.686)	(0.685)
Ln Assets	0.481**	0.503**	0.447**	0.453**	0.461**	0.446**	0.454**
	(0.168)	(0.168)	(0.170)	(0.170)	(0.169)	(0.170)	(0.170)
Std. Dev. of Stock Returns	-10.89	-12.64	-12.95	-13.45	-12.23	-12.74	-11.56
	(15.49)	(15.47)	(15.50)	(15.46)	(15.45)	(15.46)	(15.46)
Irregularity	-9.107**	-9.096**	-9.006**	-8.875**	-8.901**	-10.953**	-10.91**
	(1.143)	(1.141)	(1.144)	(1.142)	(1.141)	(1.786)	(1.784)
Post-SOX X Irregularity	4.762**	4.587**	4.652**	4.577**	4.555**	4.502**	4.482**
	(1.427)	(1.425)	(1.428)	(1.425)	(1.423)	(1.425)	(1.424)
Status		2.422**		4.844**	4.127**	4.317**	3.631*
		(0.833)		(1.566)	(1.601)	(1.604)	(1.636)
Virtue			-1.782	-3.244+	-3.091	-3.064	-2.919
			(1.911)	(1.964)	(1.963)	(1.967)	(1.966)
Complexity			3.527*	4.202**	4.106**	4.119**	4.027**
			(1.505)	(1.517)	(1.517)	(1.518)	(1.517)
Pay			-1.751	-6.048**	-5.984**	-5.921**	-5.863**
			(1.544)	(2.074)	(2.072)	(2.075)	(2.073)
Investor Performance			0.530	1.199	1.194	1.137	1.135
			(1.123)	(1.141)	(1.140)	(1.141)	(1.140)
Status X High Uncertainty Period (July 2002-Dec. 2003)					2.815*		2.765*
					(1.330)		(1.330)
Status X Irregularity						1.968	1.898
						(1.301)	(1.300)
Constant	-4.947	-8.522	-8.325	0.602	2.156	0.5906	2.117
	(1.875)	(2.239)	(7.145)	(7.690)	(7.717)	(7.687)	(7.714)

Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sector fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-statistic d.f.	6.27** (20, 1724)	6.40** (21, 1723)	5.59** (24, 1720)	5.78** (25, 1719)	5.74** (26, 1718)	5.65** (26, 1718)	5.61** (27, 1717)

N= 1,753 restatements
+ p <0.10; * p<.05; ** p<.01 (two-sided tests)

METHODOLOGICAL APPENDIX

Appendix A: Details of Status Survey

Survey Distribution and Respondents

The survey was distributed to all students in the 2010 and 2011 MBA classes at the Stanford Graduate School of Business via a student-run listserv, direct emails from two professors in a required course for all first-year students and flyers in each student's mailbox. Students were told that, in exchange for completing the survey, they would be entered into a drawing for prizes. Appendix Table 1 presents descriptive statistics about respondents, as compared to the business school overall. The table shows that first-year students were significantly more likely to respond. This was expected, given the survey distribution method. In terms of gender and U.S. citizenship status, respondents were similar to the overall student population. However, respondents differed from other students in terms of racial/ethnic background; minority students were significantly more likely to respond.[3]

Categories

The first step in measuring industry status involved identifying the relevant industry categories. Government researchers have created many different industry classification schemas over the years (e.g., Standard Industrial Classification codes, the North American Industrial Classification System), but it is unclear whether and how industry boundaries imposed by researchers and analysts correspond to industries as seen and experienced by actual market participants. Therefore, rather than using one of these

[3] In results not shown here, I ran Pearson's chi-square tests to check for any association between status scores and minority status. There was a statistically significant association in only 5% (=3/61) of the industries, which is what would be expected at random.

classification systems, I began with one of these and modified it based on industry divisions I observed to be enacted in practice.

Specifically, I began with 121 industry categories that the credit rating agency Standard & Poor's uses to label companies in Compustat, a standard database of financial information used by business researchers. Because I suspected that several of the 121 industries were artificially narrow compared to the way people think about firms in markets, I cross-checked this list of 121 with the groupings Standard & Poor's uses when it issues analyst reports on different industries. Market participants actually read reports from Standard & Poor's for guidance but do not tend to use Compustat, so the divisions found in these analyst reports should correspond more closely to how market participants view industries. On this basis, I reduced the list of 121 to 92 industries, combining industries wherever Standard & Poor's covered them together in a single report. Most of these combinations have face validity. For example, the categories "Autos" and "Auto Parts" became a single category, "Autos and Auto Parts." Finally, because this list of 92 industries still seemed to contain some artificial distinctions, I turned to the business magazine *Institutional Investor*, which conducts an annual survey to rank investment analysts within their respective coverage category (e.g., best analyst in insurance or best analyst in leisure goods). The survey is conducted by asking respondents to nominate analysts in a given category, so it would seem likely that the categories are meaningful and recognizable to a business audience. Using *Institutional Investor*'s categorization schema, I again reduced the list of 92 categories, combining industries where *Institutional Investor* treated them as a single category. In the end, I was left with 61 for which to measure status.

Survey Questions

Respondents answered questions about status as well as the perceived virtue, pay, investor performance and complexity of different industries. The specific wording of survey questions was as follows:

1. How prestigious, esteemed or respected do you think organizations in the following industries are? {very high prestige – very low prestige}

2. How complex do you think these types of businesses are? {very high complexity-very low complexity}

3. How virtuous or morally good to you think organizations in these industries are? {very high virtue – very low virtue}

4. How well would you say these industries have performed for investors in the last 10 years? {very high performing – very low performing}

5. How high-paying do you think these industries are for most people in managerial positions? {very high-paying – very low-paying}

Status Measure

Survey respondents grouped industries into one of five buckets according to status level (very low to very high status). To calculate Bonacich status for each industry, I transformed the survey responses into a 61x61 relational matrix (**R**), where each cell r_{ij} represents the proportion of times industry *i* is rated as more prestigious than industry *j* among all respondents who rated both industries. Formally, in matrix notation, I computed Bonacich status as:

$$c(\alpha,\beta) = \alpha(I - \beta R)^{-1} R1$$

where "**1**" is a column vector of ones, ***I*** is an identity matrix, and **R** is the aforementioned relational matrix. The parameter β represents the weight given to more distant industries and, following Podolny (1993), is set to three-quarters the value of the largest eigenvalue. The parameter α is a scaling factor set so that:

$$\sum_{i=1}^{n} c_i(\alpha,\beta)^2 = n$$

where n is the number of industries being rated.

Appendix Table 1.

Demographic Characteristics of Survey Respondents Compared to Overall GSB Student Population

	GSB Student Population[1]	Survey Respondents
1st years	51%	78%***
2nd years	49%	22%***
Male	65%	69%
Female	35%	31%
Minority	22.5%	35%***
White	77.5%	65%***
International	33.5%	30%
Total Students	755	192 (25.4%)

* p<0.10; ** p<0.05; *** p<0.01, indicating significant differences between respondents and the overall student population

1. Source: http://www.gsb.stanford.edu/about/facts.html

Appendix B: Experiments

Experiment 1

Experiment 1 was intended to test the idea that industry status influences the attractiveness of individual organizations belonging to an industry. Subjects participated in a vignette study that examined their willingness to affiliate with an organization as a function of the status of the category to which the organization belonged. In particular, students were told that an anonymous university's contract with the corporate partner for its football stadium was about to expire and that the university was considering switching to a new partner. Students were told that financial aspects of the relationship would be the same regardless of partner and that the university was seeking the input of college students such as themselves as one component of their decision-making process. Students read brief descriptions of both the current partner and the potential new partner and then were asked to make a recommendation as to which the university should choose. I developed this type of affiliation-choice exercise because previous work has shown that status influences affiliation patterns, both among individuals and organizations (Elias and Scotson 1994; Podolny 2001; Jensen 2006). In addition, the cover story was designed to maintain the interest and engagement of subjects, who were undergraduates at Stanford University (N=62).

The key manipulation in this study was whether or not there was a category status difference between the current partner and the potential new partner. Students were assigned to one of two conditions – either the status-difference condition or the equal-status condition. In both conditions, the potential new partner was a computer software company – exemplifying a relatively high-status category. However, the status of the

category to which the current partner belonged varied across conditions. In the status-difference condition, the current partner was a furniture company, which represented a lower-status category than the potential new partner. In the equal-status condition, the current partner was an entertainment company, which represented a category that was equal in status to the potential new partner. Information on the industry to which the organizations belonged was presented as part of brief descriptions of both organizations that the subjects were asked to read. The organizational descriptions had been pre-tested without category membership information to ensure that they were equal in status, overall attractiveness and desirability as a partner. Students read the organizational descriptions, made a recommendation and then answered a series of questions about their perceptions of the different industries involved. These included questions about status and overall attractiveness.

The categories chosen to represent various status levels in this study were selected based on their position in the status survey conducted earlier among Stanford MBA students. The experiment was conducted among members of a different population – Stanford undergraduates – and there was the possibility that any given individual did not agree with the status ranking that was found to exist more broadly. Thus, while the assignment of subjects to different conditions was intended to manipulate whether most people thought there was a category status difference between the two potential partners or whether most people thought there was equality, it was possible that any given individual's own perceptions of such a difference might diverge from what most people thought and from the intent of the manipulation. As a result, it was important to check the status perceptions of individual participants. I did so via a manipulation check in which

subjects were asked to rate the industries in their condition according to "how prestigious or respected" they thought the categories were. Ratings were done on a scale from 1 (very low prestige) to 7 (very high prestige). I then took the difference of the two category rankings and coded the result as "no difference," "a small status difference" (a one point difference), "a large status difference" (greater than one point difference). Results of the manipulation check are presented in Appendix Table 2. Findings show that people in the equal status condition (i.e., an entertainment company and computer software company, both high status), were significantly more likely to rate the two companies as equal in status or having only a small status difference, compared to subjects in the status difference condition (i.e., a furniture company and a computer software company). In contrast, those in the status difference condition were much more likely to see a large status difference. Thus, although there is some individual-level variation, the manipulation seems to have worked. In addition to this manipulation check, I also verified that subjects understood that the payment for stadium naming rights was the same across either the current or potential new partner and removed any subjects who did not believe this.

I then ran logistic regression models predicting the odds of switching to a new partner on the basis of whether the current partners were from equal-status categories or whether the potential new partner was from a higher status category. Appendix Table 3 presents the results of this analysis. Model 1 shows that people in the status-difference condition were significantly more likely to switch to the potential new partner, which was from a higher-status category than the current partner. Model 2 predicts switching on the basis of personal beliefs about category status, rather than the societal beliefs captured in

the manipulation across conditions. In these models, the effects of category status were even stronger. Finally, Model 3 includes variables for both the main effect of being in the status-difference condition, as well as variables for the individual's personal status beliefs about the categories at hand. These models again confirm that people who personally believed the status of the new partner to be significantly higher than the status of the current partner were much more likely to switch. These models also show a non-significant main effect of being in the status-difference condition, which lends support to the idea that there was no unmeasured difference between the conditions other than the manipulation of status beliefs. Overall, these models provide strong evidence that category status influences perceptions and evaluations of individual organizations.

Experiment 2

Experiment 2 was described in the main body of the paper. I have run approximately 2/3 of the subjects I need for this study, and I expect to complete the study by the end of this fall.

Appendix Table 2.

Manipulation Check: Distribution of Subjects' Category Status Perceptions by Condition

	Equal Status Condition	Status Difference Condition
Equal	0.29** (0.09)	0.06** (0.04)
Small Difference (Alternative is Higher)	0.58*** (0.09)	0.26*** (0.08)
Large Difference (Alternative is Higher)	0.13*** (0.06)	0.68*** (0.08)

Stars indicate test of difference in proportions between conditions
* p<.10 , ** p<.05, *** p<.01, two-tailed test for equal status and one-tailed tests for small and large status differences
N=62

Appendix Table 3.

Estimated Coefficients from Logistic Regressions of Switching Partners on Status Attributes

	Model 1	Model 2	Model 3
Status Difference Condition (ref. cat.= equal status condition)	1.43** (0.56)		0.68 (0.67)
Perceived *Category-level* Status Differences (ref. cat.= no difference)			
Alternative is Slightly Higher Status Category		1.13 (0.78)	1.07 (0.79)
Alternative is Much Higher Status Category		2.63*** (0.87)	2.22** (0.95)
Constant	-0.19 (0.36)	-0.98 (0.68)	-1.12 (0.71)
Likelihood Ratio χ^2 (vs. null model)	6.96**	12.00***	13.03***
Degrees of Freedom	1	2	3

N=62
* p<0.10 , ** p<0.05, *** p<0.01