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Emergence of Market Orders:
Audience Interaction and Vanguard Influence*

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Abstract

Research in the sociology of markets finds that shared meanings facilitate valuation and exchange by providing frameworks for perceiving and evaluating products and producers. Whereas studies of local sensemaking explain how meanings emerge in market interaction and macro sociological accounts explain how meanings embodied in conventions, structures, and institutions are used in markets, understanding of the links between these two levels of analyses remains underdeveloped. In this paper, we propose a theory of how engagement and influence at the micro level gives rise to conventional labels and categories. Our theory proposes three processes through which audiences in markets come to share meanings: i. through interaction among the audience, ii. through influence of vanguard audience members on lay audiences, and iii. through vanguard influence on authorities. We investigate some of the propositions on label use and category differentiation in 23 product categories on eBay.

Keywords: conventions, labels, categories, sociology of markets
Introduction

Sociological studies reveal that the existence of a stable market requires some minimal consensus about how a good is defined, who can trade it, and how trading is conducted (Zelizer, 1979; Smith, 1989, 2007; Kennedy, Lo, Lounsbury 2010). Shared meanings that are embodied in labels, categories, standards, metrics, and evaluation tools are integral to markets, including markets for equity, labor, commodity, and consumer goods (Callon, 1998; Espeland and Stevens, 1998; Carruthers and Stinchcombe, 1999; Rosa, Porac, Runser-Spanjol, and Saxon, 1999; Favereau, Biencourt, and Eymard-Duvernay, 2002; MacKenzie and Millo, 2003; Beunza and Garud, 2007). Divergence in the meanings that guide perceptions, comparisons, and decision-making contributes to volatility in prices (Shiller, 1990; Zuckerman, 2004) and disorder in markets (MacKenzie, 2011).

Sociological theories about the emergence of shared meanings divide by level of analysis. According to micro-level theories of sensemaking and social construction, meaning arises from interactions through a collective effort. In this view, meanings are shared because they are jointly created (Weick, 1979; Rosa et al., 1999; Smith 2007). Order emerges locally, and consensus about meaning is fleeting, tenuous, and plastic.

According to macro-sociological theories, participants, faced with coordination problems during exchange, derive shared meaning from the structural, institutional, and cultural embeddedness of markets (Fligstein, 2001; Beckert, 2009, 2010). In this view, consensual meanings reside in macrostructures and remain uniform and stable so long as the macrostructures persist. Order arises as actors refer to the same structures.

Despite extensive research at each of these two levels of analysis, theory on links between local sensemaking and the global spread of meanings remain underdeveloped.
Some research sees sensemaking as an explanation of cognitive embedding in markets at large (Kennedy, 2008; Khaire and Wadhwani, 2010). However, sensemaking theories cannot explain market consensus unless most market participants interact with each other – an unlikely assumption in large markets. Other research that aims to link the two levels sees local meaning in markets as being derived from socio-structural, institutional, and cultural embeddedness of markets (Beckert, 2009). Both approaches can be criticized for conflating social interaction with social structure and thereby overlooking inequalities of power and influence in markets (see Gemici (2012) for a more elaborated discussion).

In this paper, we address this gap by developing a theory of the emergence and development of shared meanings (at the market level) from engagement and influence (at the micro level). Our theory also addresses variations in the engagement of audience members in the construction of meaning. Micro-level studies portray all market actors as active participants in the collective effort of meaning emergence. Macro-level work, in contrast, draws a sharp distinction between a vanguard of influential producers and intermediaries, and the passive “lay” audience. These studies show how producers and intermediaries actively promote and disseminate particular categorical frameworks (Porac, Thomas, Wilson, Paton, and Kanfer, 1995; Kennedy, 2005; Rao, Monin, and Durand, 2003; Lounsbury and Rao, 2004; Anteby, 2010; Negro, Hannan, and Rao, 2010). Producers also form interest groups and associations to establish quality standards tied to categories and lobby authorities or media to endorse certain classification systems (Lounsbury and Rao 2004; Zhao, 2005; Weber et al., 2008; Bogaert, Boone, and Carroll, 2010). We bridge these perspectives by considering how meanings can be shared either
through decentralized interactions among the audience or through the influence of vanguards on lay audiences.

We first review studies on the origin of meaning in markets. We then elaborate on three mechanisms of convergence of meanings at the collective market level and develop propositions that relate patterns of audience participation to the emergence of market conventions. We use data from multiple markets on eBay to investigate some of these implications. Though not a conclusive test of causality, the associations we find support our arguments. Our analysis also shows that comparative, multi-market studies can advance our understanding of the origin of market orders.

Consensus in Markets and Sensemaking in Micro Situations

Market order depends on the existence of shared conventions. Conventions allow participants to perceive the ambiguous stimuli found in markets as a recognizable situation consisting of goods, their producers/sellers, and a set of potential buyers/consumers. Such recognition precedes the resolution of problems of valuation, cooperation, and competition (Beckert, 2009).

We follow Lewis (2002 [1969]) in treating conventions as supported by common knowledge that aligns the expectations of agents. Unlike Lewis (2002 [1969]), we conceptualize commonality of knowledge, or the degree of consensus, as being variable¹. The greater the market-level consensus, the greater will be the overlap among repertoires of meanings that agents bring to a random situation, and the greater will be the likelihood that they reach an agreement about the definition of the situation.

¹ This is different from Lewis’s (2002[1969]) degree of conventionality, which depends on expectations of others’ conformity. He assumes common knowledge.
This focus on consensus invites two key questions: how do meanings originate in the unstructured case where there is no prior meaning, and how do they become consensual? Previous empirical studies of markets suggest that market understandings emerge and diffuse through story telling: stories told by consumers through venues such as product reviews and by producers through press releases and product brochures provide opportunities for the creation and dissemination of shared meanings (Rosa et al., 2005; Kennedy, 2008; Navis and Glynn, 2010; Wry, Lounsbury, and Glynn, 2011; Fiol and Romanelli, 2012). Similarly, descriptions of artworks in auction catalogs and websites allow participants to account for value of art works (Khaire and Wadhwani, 2010).

Not just stories, but potentially all interactions can become sensemaking episodes. As Weick (1979) theorizes, sensemaking begins with an actor enacting her conception of a situation. As one person enacts interpretations and labels, interaction partners accept, reject or modify them. In turn, the first actor abandons, revises, or maintains her initial interpretation. Similarly, Lewis (2002 [1969]) argues that solutions to novel coordination problems emerge through agreement (by communication or displays of conforming action), luck, or by actors picking salient alternatives. Both theorists suggest the key unit of analysis is the micro situation in which agents interact.

Following their lead, we identify participants’ diverse engagements with the market as occasions for meaning enactment. Engagements can involve asking for a price, sampling merchandise, haggling, enquiring about various qualities, purchasing, consuming, and displaying goods (Douglas and Isherwood, 1979; Smith, 1989; McCracken, 1990; Spillman, 1999). They include interactions with other individuals,
with organizations, or with outputs such as product descriptions, product reviews, and company reports (Preda, 2009).

Agents engaged in a market with other actors are motivated to coordinate their actions (Lewis, 1969 [2002]; Schelling, 1978), make their worlds more orderly by resolving ambiguity (Weick, 1979), and identify a compromise that serves their common interest (Boltanski and Thevenot, 2006). In an effort to align their accounts and actions, they seek to understand how other participants make sense of things and form higher-order expectations about others’ expectations (Smith, 2007). Convergence of meanings thus arises at the micro level due to interdependence.

Of course, by convergence we do not necessarily mean complete consensus in meanings. In markets, order often prevails despite lack of full consensus. Aversion to equivocality within interaction generally causes agents to settle for a focal point that works (i.e., a plausible interpretation of the situation that allows them to coordinate) rather than search for an optimal convention within each situation (Weick et al., 2005). Interacting participants look for meanings in their individual repertoires that can be applied to particular situations. If agents’ meaning repertoires do not suffice individually for coordination, they might suffice collectively. Therefore, it is sufficient that there exist applicable meanings in some part of a market, not everywhere.

Zelditch’s (2001, Zelditch and Floyd, 1998) work on legitimation suggests two additional reasons why full consensus is unnecessary for market order. First, any market situation demands that multiple elements be defined, such as the product and its attributes. Agreement of participants about some but not all elements might be sufficient for performing the desired action (evaluation, transaction). In negotiated situations, agents
may exploit disagreements regarding different elements as bargaining chips, eventually reaching sufficient agreement. Some dissensus may even be desirable because it enables flexibility and creativity (Boltanski and Thevenot, 2006; Stark, 2009; Huault and Rainelli-Weiss, 2011). Such collaborative definitions of situations are more likely if agents perceive their own meaning repertoires to be incomplete.

For example, in Appendix 1.1, eBay participants in the “coin” chat room point out that authoritative sources differ on the criteria for rating Liberty coins, indicating that there is less than full consensus. They note that people might be motivated to offer different evaluations depending on whether they are buying or selling, and that these evaluations would be negotiated along with price. At the end of the chat sequence, they agree that the divergence in criteria concerns a nuance that often will not greatly affect quality classification. We see partial and amicable convergence in understandings in this example. The participants recognize that they would use their preferred criterion along with their skills of examination to make a final judgment in each situation.

Second, agents need not believe in the propriety of conventions to use them. Supporting this idea, Bowker and Star (1999) note that standards and categories converge, even as their users may not internalize them. They recount the example of psychoanalysts who, despite not endorsing the biochemistry based classifications of the Diagnostic and Statistical Manual of Mental Disorders, use its categories as a shorthand to communicate with one another.

In market situations, too, use of conventions might be purely instrumental. Even when labels are contested for reasons of efficacy, aesthetics, or politics, participants keep using them to carry on their transactions, all the while negotiating application and
meanings (Fine, 2004). Thus, agreement within a local situation means that mutual expectations and orientations are assumed to be similar enough to conduct a transaction and does not necessarily imply internalization or advocacy.

As our overview indicates, theories of how meaning emerges in micro interaction are quite advanced. And while theorists do not analyze how locally emergent meanings become conventional or come to be stored in social structures, they do recognize that meanings in local interaction are sometimes derived from macro structures. For example, not only do people make sense from and enact a certain social position and identity, but they also have an awareness of the social positions and identities of those with whom they interact (Weick, 1979). Institutions prime and edit sensemaking by activating identities, roles, and frames that guide action and evaluation of others’ action (Weber and Glynn, 2006).

Making the link to macrostructures even more obvious, definitions of what lies in the domain of a market are embedded in societal institutions (Polanyi, 1944). Historically and contextually varying organizations, institutions, and norms shape cognition in markets (Zelizer, 1979; Fligstein, 2001; Bourdieu, 2005; Carruthers, 2005; Jones et al., 2012). Actors draw upon institutionally established frames of meaning, called orders of worth (Boltanski and Thevenot, 2006) or institutional logics (Friedland and Alford, 1991), when making sense of markets. Meanings, therefore, emerge in contexts that are relationally and symbolically structured by embedded norms (Lazega and Favereau, 2002).

Despite these links to macro structure, questions of how local emergent meanings become stable across micro situations and spread throughout a market, and how they
develop into more complex schemata, remain unaddressed. In the following sections, we integrate key ideas underlying the sensemaking approach with Hannan, Pólos, and Carroll’s (2007, hereafter HPC) theory of category emergence (also used by Kennedy, Lo, and Lounsbury, 2010; Negro, Hannan, and Rao, 2010; Hsu, Hannan, and Pólos, 2011; and Fiol and Romanelli, 2012) to develop a theory of how meanings come to be shared, how they become conventional, in market contexts.

Validation & Convergence

In studying the emergence of conventions, we focus on two types of conventions that are fundamental for market action: labels and categories. Like other conventions (standards, metrics, tools of evaluation), labels and categories are used by market participants to make sense of micro situations. Moreover, they likely precede and play a role in the emergence of more complex conventions and components of market order such as role structures (White, 1981) or hierarchically ordered status orders (Podolny, 1993) among producers.

Market labels include labels for producers, products, and relevant attributes used in evaluating goods. Labels are conventional in that participants use them when they can presume that others will understand them. Ethnographic studies document the use of market-specific labels and idiosyncratic languages. For example, members of many auction markets speak in jargon or use signals with meanings obscure to outsiders (Smith, 1989). Likewise traders in global-currency markets use an idiosyncratic conversational system to transact on an electronic interface (Knorr-Cetina and Bruegger, 2002). In Appendix 1.2, we observe the importance of market-specific labels from the point of
view of eBay participants. In this chat-room excerpt, a participant named “the_perfect_dark” seeks information about a vintage Egyptian scarf s/he intends to sell. Other chat-room participants collectively work to pinpoint the appropriate label for the item and warn that trying to sell it without the correct market-specific label could result in a bad sale or lack of bids.

Similarly, in Appendix 1.3, an eBay user discusses the impact that selling in the “wrong Ebay category” can have on the value sellers get for their listings. Market categories help buyers and sellers negotiate exchange. As “cognitive infrastructures,” they provide simplifying frameworks that help sensemaking and joint problem solving (Zuckerman, 1999; Hsu, 2006; Hsu et al., 2009; Schneiberg and Berk, 2010).

Markets are typically structured into category systems: sets of categories, which might or might not be nested, that distinguish between the myriad details that define and distinguish offerings. Markets differ in their degree of elaboration—the degree to which they are further decomposed into subcategories. Such elaboration requires not only agreement on a set of labels, but also some agreement on the relation(s) among them, and therefore is different from proliferation of labels.

In the eBay context, different markets vary considerably in the elaboration of their categorization systems. For example, the “dolls’” market has 107 subcategories, based on dimensions such as period, manufacturer, artist, material, and character. In contrast, “folk-art” (a category one could easily imagine being classified into similar subcategories) has only one.

Rosa et al. (2005) show that categories become elaborated as new products are introduced into the market. This is driven not just by the existence of variation, but also
by audience members’ recognition of variation. Subcategories are socially constructed to organize and process intra-category variation. Accordingly, we seek to understand category elaboration as a function of social processes and not exogenous stimuli.

We begin our theory development by defining several basic concepts: a market, a market audience, and consensual meaning. We then consider three processes through which consensus emerges and is elaborated among the various participants in a market. (In the Discussion we consider some reasons for expecting that convergence might not happen generally despite the operation of these three mechanisms.)

**Basic concepts**

Following HPC 2007, we conceptualize particular conventions of labels and categories as being specific to an audience in a market. By “a” market, we refer to the intersection of “the” market for a particular class of items (such as crude oil, oranges, or contemporary art) and of a particular “marketplace” where market participants meet (face-to-face or virtually) at a given point in time. The audience in/of a market is the set of agents that play an evaluative role in that market and control resources that matter for the success of those who offer products in it. We recognize that agents in markets can occupy the roles of audience or producer (seller), sometimes occupying both roles simultaneously or in turn, as in the case of insiders (members or employees of producer organizations).

Our theory operates at the interface of collectively shared meanings (in audiences) and local market situations in which audience members participate. We link these two levels through cognitions of individual audience members. Each audience member can be characterized by her grade of membership in a consensus. This reflects the degree to which her understandings match those of other audience members. The degree of
consensus at the market level reflects the overlap among individual participants’ repertoires of meanings.

Agreement about categories takes two forms. First, there is agreement about the extension of the label—the set of products/ producers /attributes to which the label refers. When the situation involves an unfamiliar stimulus, agents’ agreement on the application of labels to objects is facilitated by an agreement about the intension of the label, its meaning. The likelihood that audience members in a marketplace will agree in applying labels increases with the degree to which they share a repertoire of labels. Therefore, the likelihood of agreement in a randomly chosen situation depends on degree of extensional and intensional consensus.

With these definitions in place, we consider three processes through which consensus among a market audience increases.

**Convergence of Meanings Through Engagement**

One way to conceptualize convergence at the market level is directly as a super-position of micro level sensemaking that we have outlined above. Previous empirical work that focuses on sensemaking through collective stories adopts this approach by assuming that published stories and public discussions reveal cognitive structures that are used by all market participants (Kennedy, 2008; Khaire and Wadhwani 2010; Bingham and Kahl, 2013). Research in markets dominated by few agents has also treated the larger market as one local situation (Beunza and Garud, 2007). In both cases, collective sensemaking not only gives rise to meaning but also accounts for its dissemination across the market.

We note that while this approach is suitable for analyzing convergence in small work groups or organizations (Stigliani and Ravasi, 2012), it is not suitable for markets
where many market participants never directly interact. Therefore, we take a two-step approach, theorizing first about the convergence of an audience member’s repertoire to that of the others with whom she interacts in a local market. We elaborate on processes of experiential and vicarious learning through market engagement. Next, we argue that collective consensus develops as a convergence of individual repertoires that are enacted across different market situations.

The solutions audience members have found to past coordination problems, or their previous sensemaking experience, constitute precedents for later episodes (Lewis, 2002 [1969]). As Kennedy, Lo, and Lounsbury (2010, p. 375) note, “[a]udience members iteratively refine their understanding of a category label with each usage they encounter by hypothesizing about the recurring patterns that relate labels for defining synonyms, instances, and attributes.” Upon agreeing with an exchange partner about the definition and application of labels and categories, their first-order and second-order expectations about meanings are affirmed.

When an agent’s enactment of meanings is contested, she is challenged to revise her meaning repertoire. Whether she can reach an agreement with her partner or not, she gets exposed to a new label/category or novel application of ones in her existing repertoire. This expands her repertoire. In cases where the partner had a higher typicality (grade of membership) in the consensus, the focal actor’s typicality in the consensus increases as well. When the newly acquired application of the existing label/category does not belong to the evolving consensus, the focal actor’s typicality does not increase. As long as new meanings do not displace old ones, typicality does not decline as a result of individual learning.
In our conceptualization, market engagement includes observation of other agents’ interactions (i.e., vicarious learning). If the observed alters agree and the focal agent finds their repertoires to be congruent with her own, then the affirmative value on her meaning repertoire is greater. When they disagree with each other or with the focal agent, the observer is more likely to revise her repertoire. Engagement with market artifacts, such as product descriptions, guides, consumer reports, and price lists, also occasion vicarious learning. Such artifacts embody meanings created in previous interactions (Preda, 2009). In these instances, revisions to the repertoire are more likely to increase the focal actor’s grade of membership in the consensus, because what gets embodied in artifacts is more likely to be closer to the core of an evolving/existing consensus.

As agents continue to engage with the market, they might then draw upon the new label or category they have learned if they deem it useful for coordinating with their new exchange partners. Because agents are motivated to come up with a working definition in each micro situation, and because meanings might be used instrumentally without regard to personal views of their propriety, expansion of repertoires through previous engagements implies greater likelihood of using labels and categories that are part of the consensus.

*Proposition 1. As they engage more with the market, audience members become more likely to use the labels and categories that are part of the market consensus.*

Producers, too, can engage with the market as audience members. As producers increase their engagement and grade of membership in the audience consensus, they should find it easier to appeal to other audience members as sellers.

*Proposition 2. The offerings of sellers who engage more with the market as a member of the audience will have greater appeal for the audience.*
We move from individual to collective level by conceptualizing audiences as aggregations of individual actors. Individual actors play two key functions in the emergence of shared meanings: i. enacting interpretations and ii. carrying a repertoire of meanings accumulated over previous experiences of sensemaking from one engagement to another. These dual functions, together with the conjecture that grades of membership increase with engagement, means that meanings converge in an audience even when all of its members do not directly interact. An experimental study by Malt and Sloman (2004) illustrates the spread of new labels across different sets of interaction partners. After a confederate introduced a new label to a study subject during a collaborative task, the subject was likely to carry and apply the new label in a subsequent task with a new interaction partner. As a result, subsequent subjects adopted labels introduced by the confederate despite never having interaction with him or her.

Thus, the repeated engagement of an individual in a market not only increases her grade of membership in its consensus, but it also contributes to the consensus by carrying meanings to other participants. This effect will be stronger if participants interact with different others each time they engage in the market. As more potential combinations of pairs of individual actors are realized, meanings will diffuse faster.

As a label or category gets used, it becomes increasingly salient and cognitively accessible to market actors (Hsu and Elsbach 2013). Repeated engagement by the same individuals thus makes it more likely that the same meanings will be re-enacted across different sensemaking episodes, increasing the rate at which a consensus emerges.
Persistent use of labels and categories by market participants also constrains other actors who transact with them. According to Rosa and Spanjol (2005), once a consensus has formed, category descriptions disappear from stories because they become default assumptions. Newcomers are not exposed to alternative categories, but simply learn and adopt the dominant ones as part of their socialization.

The emergence of conventions can also be facilitated by consciousness of a developing consensus. As meanings become consensual, individuals have a greater incentive to learn them in order to facilitate coordination. Together, these lines of reasoning suggest that higher intensity engagement by the average market participant increases the level of consensus.

*Proposition 3. Audience consensus about a label increases with the average intensity of audience engagement.*

Audience engagement likely affects not just the degree of meaning consensus, but also the nature of shared meanings. In particular, common labels become more elaborated when the convergence in understandings is more complete. This argument goes back to Hume (1854 [1752]), who maintained that those more experienced with art works and genres make finer distinctions among them. Becker (1982) also found that sustained engagement allows experienced members of the audience to develop greater awareness of the myriad details associated with the production, display, and interpretation of art works. Mitchell and Dacin (1996) review research which shows that a similar dynamic characterizes market contexts: more engaged audience members develop more refined understandings of the patterns of feature values associated with the label as well as of the distinctions among the offerings.
An important form of label elaboration involves the development of agreement about subcategories. These finer typifications emerge when audience members perceive distinct clusters of producers nested within a category label, label these, and come to agreement about their meaning. As we noted above, more engaged audience members generally detect and code finer shades of variation within classes and categories. It follows from the foregoing argument that differentiation of subtypes will increase with audience engagement.

*Proposition 4. The hazard of subcategory creation within a category increases with the average intensity of audience engagement in the activities associated with the label.*

Previous work supports this claim. Writing about the arts, DiMaggio (1987) posits that a greater degree of interaction among social groups increases the universality of systems of classifying art works and other kinds of cultural productions into genres. In asset markets, Shiller (1990) argues that popular models for evaluating speculative assets are learned through years of common discourse. And Smith (2007) relates the prevalence of definitional practices in price-setting markets to the interactive intensity of participants.

Consensus makes meanings sticky. However, habits of thought and action can be challenged by new stimuli, such as new vehicle models that do not fit existing categories (Rosa et al., 2005) or new macro-economic developments (Knorr-Cetina and Bruegger, 2002). Therefore, we recognize that a consensus is not final, even if regularly taken for granted. Sensemaking happens all the time in markets, and sometimes leads to changes in labels and category schemata (Schneiberg and Berk, 2010).
Convergence of Meanings Through Vanguard Influence in Interaction

Some audience members might have more influence than others in the emergence of a consensus. A diverse set of audience roles are particularly important for creating and disseminating labels and categories in markets, including critics (Shrum, 1991; Glynn and Lounsbury, 2005), producers (Carroll and Swaminathan, 2000; Jones et al., 2012), activists (Rao, Monin, and Durand, 2003; Weber et al., 2008), enthusiasts (Kovacs and Hannan, 2010; Fiol and Romanelli, 2012), and highly engaged consumers and users of products (Rosa and Spanjol, 2005; Schneiberg and Berk 2010; Bingham and Kahl, 2013). We refer to this collection of roles as a vanguard.

Vanguard members sustain higher levels of engagement in a market; this, according to our prior propositions, leads to higher grades of membership in the market’s consensus. This is consistent with previous research that shows vanguard members to develop subtler, more fine-grained distinctions and more elaborate systems of categorization (Mervis and Rosch, 1981; Rota and Zellner, 2007). Vanguard members are also more likely to refer to categories when engaging with products (Mitchell and Dacin, 1996; Cowley and Mitchell, 2003). Furthermore, they might be members of interpretive communities (Beunza and Stark, 2004) or communities of practice (Fiol and Romanelli, 2012), whereby their collective identity spurs them to theorize about the market. They might also engage with the products in multiple role capacities, which would contribute to a deeper, more elaborated understanding (Fine, 2004).

Vanguards contribute to the audience-level convergence of meaning in two ways. They influence the rest of the audience through direct interaction, and they shape the
market artifacts the rest of the audience learns from. We elaborate on the first process in this section and address the second in the next.

We begin again with the local situation. Given a pair of interacting agents that make sense of a common situation and learn of one another’s meaning repertoires, those that learn from a vanguard have a greater increase in their grade of membership. This follows directly from vanguard’s greater membership in the consensus.

Vanguards may also have greater influence in local convergence if other agents recognize their vanguard status. If agents are aware that they are interacting with a member of the vanguard, they may regard the terminology they learn from them to be more consensual. Thus, they may be more likely to use it the next time they engage in the market, contributing to its dissemination.

Moreover, vanguards, more than lay audience members, share and advocate their individual repertoires in interaction with others and to seek and create such occasions of engagement. Considering art markets, for example, Becker (1982, p. 64) emphasizes the role of the artist in influencing how works of art are perceived: “Audiences learn unfamiliar conventions by experiencing them, by interacting with the work and, frequently, with other people in relation to the work. They see and hear the new element in a variety of contexts. The artist teaches them what it means, what it can do, and how they might experience it by creating those contexts.” In the domain of cost accounting, Schneiberg and Berk (2010) show that associations of manufacturers in various industries mobilized their members in the early 20th century to develop a common lexicon and categories. Rather than dictating categories top down, the vanguard facilitated interaction in the audience, encouraging them to deliberate and build new classifications from the
bottom up. In this process, cost accountants evolved into “category midwives” rather than “category gatekeepers,” creating a permanent role as collaborators of producers and their associations in category creation and revision. Dubuisson-Quellier (2013) shows how social movement organizations strategically influence both sides of the market interface by engaging with consumers and influencing them to incorporate eco-friendly principles into their assessments of worth, and then using consumer preferences to convince producers to change their behavior.

Moving to the market level, we conjecture that a vanguard’s influence on the rest of the audience increases with vanguard prevalence. This is because (1) the likelihood of any audience member interacting with a vanguard member increases with the latter’s prevalence, and (2) the salience and visibility of a vanguard to the rest of the audience, and therefore the likelihood of any audience member learning vicariously from the vanguard increases with their prevalence.

*Proposition 5. Both the level of audience consensus about a label and the hazard of subcategory creation within a category increase with vanguard influence.*

*Proposition 6. The influence of the vanguard increases with the prevalence of vanguards in the audience segment.*

In addition to prevalence, the level of interaction of a vanguard with the rest of the audience determines its influence. Collins (2004) characterizes markets as two separate networks of interaction, one of producers and one of the buying public. We expect this kind of mutual exclusion among audience members occupying different roles to be rare. But it is not unknown: Vanguards such as critics, or fan groups, may shun interaction with the rest of the audience. In some music genres, for example, fans with in-depth
knowledge keep a deliberate distance from commercial music and its classification system (Santini, 2011).

*Proposition 7. The influence of the vanguard increases with the frequency of interaction of vanguards with each other and with rest of the audience.*

**Convergence through Vanguard Influence on Intermediaries and Authorities**

In addition to influencing folk classifications through direct interaction, vanguards can influence the rest of the audience by shaping the classifications authorized by formal authorities. This becomes possible in markets where an authoritative agent can enact, and possibly enforce, a particular label or category. A similar dynamic may occur in markets with important intermediaries who adopt and disseminate a particular label or category.

Vanguards often have privileged access to the resources to engage in collection action or to influence authorities and/or powerful intermediaries. Lounsbury and Rao (2004) find that powerful incumbent producers in the American mutual-fund industry were able to shape categories used by industry media because the latter often relied on the endorsement and support of dominant players. Kennedy (2008) finds that, even when professional norms prevent journalists from accepting payment from or developing social obligations with producers, they often rely on firms’ press releases for information. Previous work also shows high-status wine producers (Zhao, 2005) and activists in the grass-fed cattle movement (Weber et al 2008) to influence formal governmental classifications.

In turn, market participants learn from and adopt formal classifications and categories as they engage in the market. Editors and writers of enthusiast magazines such as Road & Track, Motor Trend, and Car & Driver, for example, have been influential
information brokers for the U.S. automotive market (Rosa and Spanjol, 2005). Rosa et al. (2005) find that motorcyclists use such journalistic accounts to articulate their own preferences, even if they do not always agree with them. In music, when Billboard changed its method of collecting information for its weekly performance charts, participants’ understanding of the market changed as previously underreported genres and records became noticed (Anand and Peterson 2000).

The strength of vanguard influence on authorities and mediators varies across markets. Santini’s (2011) comparison of a folksonomy and a commercial classification for music reveals considerable variance across genres in the degree to which these two classification systems match. She explains that genres with dedicated fans who establish their cultural identities through genre boundaries exhibit a better match with the commercial classification because these fans pressure the industry to adapt the commercial classification system to their preferred classification system. Likewise, we propose that vanguards will be more likely to have a powerful influence on mediators if they are greater in number. Thus, Proposition 6 also applies to vanguard influence through mediators.

An Empirical Investigation: eBay Auction Markets

We investigate several of our theoretical propositions using data on 23 diverse product markets within the online auction site eBay. These are: “antique furniture,” “antiquities,” “folk art,” “US coins,” “digital cameras,” “camera lenses,” “dolls,” “antique dolls,” “health,” “model trains,” “Elvis memorabilia,” “drawings,” “prints,” “antique prints,” “art photographs,” “other art,” “Pokemon,” “printers,” “printer supplies,” “watches,”
“antique watches,” “tickets,” and “weird stuff.” These markets were sampled to maximize variation in the degree to which items auctioned in them had symbolic value and the degree of uncertainty that audiences generally face in evaluating the items. They also vary in size, in terms of number of items auctioned and the number of buyers and sellers.

eBay sellers describe their items in a few pages and use a single line auction title to attract bidders to their auctions. These item titles are listed by category and the subcategories under them. Bidders can either browse titles under certain (sub)categories or can search for market-specific keywords (labels) related to what they are looking for. Soon after these data were collected, eBay adopted a searchable attribute-based classification system for some categories, encouraging sellers to specify the attributes of their items and buyers to search for items by indicating value ranges for relevant attributes. This dramatic change to the basic categorization system at the site precludes us from undertaking a longitudinal analysis of category structures on the site. Instead, we do a cross-sectional analysis, using information on category systems and language as they existed at the end of our observation period. As a result, our analyses should be interpreted as preliminary.

Interactions among participants on eBay happen directly through chat rooms and discussion forums, and indirectly through item descriptions. Casual observation suggests that a small portion of participants (likely members of the vanguard) participate in chat rooms and discussion forums. Vanguards can influence the categorization system directly as well. eBay has a clear interest in its category scheme fitting users’ views; its staff calls for input from users before changing the subcategory structure. Users and staff meet
virtually at a previously announced time in dedicated Discussion Forums to discuss possible changes to subcategories.

Online markets might be considered an unfavorable setting to investigate our claims because they are likely not the marketplaces with the most intense, encompassing interactions. Moreover, people might prefer face-to-face interaction when they are purchasing certain kinds of items. The availability of data on a range of markets that share a basic infrastructure, however, makes this a rare and fertile setting for a comparative study of markets. Being non-experimental and using cross-sectional data, our empirical investigation has some serious shortcomings that we explain below. Yet, the analyses make a contribution given the sparse background of comparative research on markets (Baker, 1984).

Data

We conducted analyses to investigate our claims at the auction level and at the market level. Our data include all auctions held in the 23 markets on eBay from April 2000 through August 2001. We calculate variables on sellers and bidders’ previous engagement on the 17 months of data spanning the period until August 31, 2001. Variables pertaining to the number of auctions and bidders in the current period aggregate information from all 41,490 auctions in these markets that ended on August 31, 2001. Because this involved intensive manual coding, we calculated variables pertaining to label use on a subsample of 1444 auctions conducted on the same day, stratified by number of items sellers sold and the markets in which they sold them. This is also the subset of auctions on which we run our auction-level analyses. Our market level analyses aggregate auction level data to the market level, resulting in 23 observations.
Dependent variables

We measure label use by the presence of proper names in titles of items on auction. This is akin to coding descriptions of consumer products in catalogues or of art works in auction catalogues. For some goods, proper names are brand names. In the “health” market, for example, the title “Perfection Shiatsu Massager” contains a brand name, while “Total Body Massage Mat” does not. For art, the proper names used in auction descriptions are mostly artists’ names. “Cave of Storm Nymphs canvas nudes—Poynter” is an example of an item with the artist’s name in its title; “Leda & Swan Greek Mythology Nude Sexy Print” is an auction title without any proper names. For both brand and artist names, use in single line titles suggests that sellers believe these names convey relevant information to prospective buyers. We reason that sellers will use proper names as item descriptors only when they expect audience members to understand them. At the auction level, our outcome variable is whether an auction includes a proper name in its title. At the market level, we calculate the proportion of auctions that have a brand or artist name in their titles.

Category schemas vary in complexity. Our measure of subcategory differentiation at the market level is the count of the number of subcategories that are nested under the main product market category in eBay. Because the number of auctions in different markets is a likely driver of subcategory differentiation, we normalize our measure of subcategory differentiation by dividing the number of subcategories by the number of auctions in each market category.

At the auction level, we code the inverse of subcategory differentiation by marking the existence of the word “Other” in the subcategory label. We consider auctions

In the auction level analysis, we measure appeal as a positive outcome on an auction (making a sale) as an indication that an offering had at least moderate appeal.

**Independent variables**

**Intensity of engagement.** On the buyer side, bidding on auctions is the most elementary form of engagement that we can observe. Bidding on an item involves reading item descriptions posted by sellers and deciding on an amount to bid. Thus, it involves engagement with the labels and category descriptors that sellers use, as well as with information and know-how that is relevant for valuation. We measure intensity of engagement at the individual level as each users’ total number of bids over the previous seventeen months. We represent intensity of audience engagement through frequency and stability of bidder engagement. We measure frequency of bidder engagement by the median number of items that bidders in the market bid on over seventeen months. We measure the stability of audience engagement by the proportion of bidders who bid on more than one item over seventeen months. This measure ranges from 0.24 (in “other art”) to 0.64 (“Pokemon”) in our sample.
Vanguard prevalence. We cannot observe activists such as the ones Weber et al. (2008) write about, as we do not have systematic data on the direct interaction of vanguards with eBay staff. Markets on eBay also do not have the kind of critics and analysts that are found in many other markets. We can, however, observe and identify three kinds of vanguard on eBay.

First, we identify super-consumers as “consumers who do a disproportionate amount of buying and probably wield a disproportionate amount of influence” (Anderson and Engledow, 1977: 186). In product markets, firms consult super-consumers when designing new products or marketing plans. Similarly, in art markets, serious collectors are treated as opinion leaders by the rest of the audience (Fine, 2004) and they are more likely to lead public discussions, and they are more likely to be consulted by authorities. We measure the prevalence of super-consumers in markets with the proportion of all bids over seventeen months due to the most active bidders in the market. Various cutoffs of this measure yield highly correlated measures; we report models including the most active five percent of bidders. As the proportion of bids that come from the most engaged of bidders in a market rises, the influence of this vanguard group also rises. This measure ranges from 0.21 (“weird stuff”) to 0.66 (“coins”) in our sample. Not surprisingly, this measure is highly correlated ($r = 0.55$) with stability of audience engagement.

We next identify enthusiasts--those participants that display a symbolic engagement with the market--as bidders who have picked eBay user IDs that make reference to the eBay market category. We code eBay user IDs such as “elvis*fan,” “trainman1,” “print27,” and “shortstop” as indicating an identification of the bidder with
the markets for, respectively, “Elvis memorabilia,” “model trains,” “antique prints,” and “tickets”. We measure prevalence of enthusiasts in markets by the proportion of bidders with symbolic user names. This measure ranges from zero (“antique furniture,” “digital cameras,” “drawings,” “printer supplies,” “prints”) to 0.20 (“antique dolls”) in our sample. Enthusiasts have their personal identities invested in the collective identity of a market and regard market engagement in as not only an economic activity but also a social one. The symbolic capital of enthusiasts likely makes them more visible targets of other audience members’ attention. They might also have greater influence on authorities because the latter attribute dedication and focus to them.

Finally, we identify eBay users who occupy multiple roles in a market. Insiders, those who play both roles of seller and buyer, tend to exert more influence because they interact not only with buyers (as sellers), but also with other sellers (as buyers). Fine (2004) observes that roles are fluid in art markets, as considerable numbers of participants take on multiple roles of artist, dealer, collector, and critic either simultaneously or at different times. Insiders have more credibility in markets because they are considered more knowledgeable (Fine 2004) or more authentic (Carroll and Swaminathan 2000). We measure prevalence of insiders with the proportion of sellers in the eBay market who also bid on items in the same market over the seventeen months. It ranges from 0.07 (“drawing”) to 0.45 (“digital cameras”) in our sample.

**Hypotheses**

Using these variables, we can re-state the implications of the propositions we can test as follows:

*Hypothesis 1 (Individual engagement: Propositions 1 and 2). Sellers that engaged more as bidders in the market are more likely to (a.) use proper names in item*
titles, and (b.) use more elaborate subcategories when listing their items (c.) appeal to buyers.

Although Propositions 1 and 2 apply to all audience members and not only to those that also sell, we can observe use of labels and categories only when users auction items on eBay. Therefore, insiders are the ones whose behavior we examine in auction-level regressions. Our next two hypotheses are at the market level:

Hypothesis 2 (Convergence through engagement; Propositions 3 and 4). Markets with greater average engagement by audience members have (a.) proportionately greater use of proper names in item titles and (b.) more subcategories per item.

Hypothesis 3 (Convergence through influence; Proposition 6). Markets with more prevalent vanguards have (a.) proportionately greater use of proper names in item titles and (b.) more subcategories per item.

Results

Table 1 reports the descriptive statistics for the market-level and auction-level variables we use in analyses and their correlations.

[Table 1 about here]

A principle components analysis of the two engagement measures (frequency and stability) and the three vanguard-prevalence measures (of super-consumers, enthusiasts, and insiders) at the market level shows that two components account for 89% of the variation. The engagement measures load on the first component but not on the second component; prevalence of enthusiasts loads on the second component but not on the first component; prevalence of super-consumers mainly loads on the second component but also partly on the first component; prevalence of insiders, like the engagement measures, loads on the first but not the second component. This pattern of loadings confirms that the
two engagement variables are measuring similar constructs and that the vanguard prevalence measures are capturing different constructs.

We begin by testing Hypotheses 1a, 1b, and 1c at the auction level. As explained above, we use data on a sample of 1,444 auctions. The data have a hierarchical structure: auctions are listed by sellers, who can list more than one auction; and auctions are listed under market categories. We estimate mixed logistic models, using the xtmelogit routine in Stata 12 (StataCorp, 2011). This allows us to estimate a “fixed” coefficient for our covariates while estimating random intercepts for markets and sellers. Because sellers are not completely nested within markets, we estimate “crossed-effects” models, assuming that the effect due to the seller is the same regardless of the market that the auction is in.

The analyses reported in Table 2, Model 2.1, show that sellers that engaged more in the market category as bidders were more likely to use proper names in the one-line item titles that they used for advertising their auctions. Model 2.2 shows that they were less likely to list their auction in a subcategory that contained the word “Other.” These findings support Hypotheses 1a and 1b. Model 2.3 shows that insiders were also more likely to sell their items, supporting Hypotheses 1c. In Model 2.3, we also estimate the effect of label use and subcategory differentiation on likelihood of sale. Auctions listed with a proper name have a 36% greater chance of ending with a sale and auctions listed in subcategories that are not called “other” have a 32% greater chance of ending with a sale. Sellers’ experience of bidding increases the likelihood of sale net of these effects.

[Table 2 about here]

In testing Hypotheses 2 and 3, we use fractional logit regressions. Because these hypotheses apply to the market level and the data cover only 23 markets, we face an
obvious problem of small sample size. We therefore perform bootstrap estimation (with 100 replications). We replicate our results with OLS and robust regressions.

In all market-level regressions we control for the number of bidders that bid on at least one auction during the previous seventeen months (as a measure of demand) and for the proportion of auctions that had a fixed price listed (as an inverse measure of uncertainty). In regressions on the use of labels, we also control for the number of auctions in the market. The dependent variable of subcategory proliferation adjusts for this variable by construction.

Table 3 contains estimates of the effect of audience engagement on label use (prevalence of proper names in auction titles) and proliferation of subclasses (ratio of subcategories to auctions). Median frequency of engagement (Model 3.1) and stability of engagement (Model 3.2) by audience members has a significant positive effect on the use of proper names in auction titles, supporting Hypothesis 2a. In Model 3.3, the effect of frequency of engagement on the proliferation of subclasses is not significant. In Model 3.4, the effect of stability of engagement is statistically significant. Therefore, our evidence on Hypothesis 2b is mixed.

[Table 3 about here]

Table 4 reports estimates of specifications that test our argument about convergence of meanings through the influence of vanguards. All three measures of vanguard prevalence have a positive significant effect on the proliferation of subclasses, but not on label use. This supports Hypothesis 3b and rejects Hypothesis 3a.

[Table 4 about here]


Discussion and Conclusion

In this paper, we have proposed a theory of consensus in markets that explicitly operates at the interface of local market situations and collectively shared meanings. As we build on micro theories that suggest individuals collaborate to resolve any ambiguity in local situations, we underscore that the motivation to agree on a definition of a local situation is not the same as the desire to create or implement a collective consensus. To coordinate with others, agents may use shared meanings instrumentally. They can hold potentially conflicting meanings in their repertoires. And they focus on achieving a minimal agreement in each situation, rather than on finding the best overlap. As a result, we can distinguish conventions from social contracts and norms (Lewis 1969; Goffman 1983). Conventions can contribute to a market order that is too costly (to be a contract) or exclusionary (and thus not legitimate) for some participants. In fact, a majority of participants might not favor the consensus.

Because meanings diffuse through interaction and because vanguards (and the artifacts or formal classifications they help build) have greater influence in interaction, we can relate market-level factors such as intensity of engagement and prevalence of vanguards to the degree of consensus in a market. Thus, while the stability of meaning across local situations emerges through local processes of social validation, these processes are necessarily influenced by market macrostructures that structure patterns of participation. This is a macro-micro interaction that is different from agents enacting the meanings that are embedded in cognitive and cultural institutions.

We see this as one potential direction to develop our theory. Vanguards’ connections to rest of the audience and to authorities, regulators, or market intermediaries
are important determinants of their influence. Further theorization might focus on studying how different vanguard roles have different effects on the development of a market’s order. For instance, Preda (2005) shows that stockbrokers emerged as a status group in various contexts, limiting membership in all instances. We conjecture that while the legitimacy accorded to status groups is likely to increase their influence on formal classifications, exclusivity of their membership might prevent the spread of labels and meanings to the masses. Also left unexplored in this paper are the actions of authorities, regulators, or market intermediaries (Fligstein, 1996). Our theory indicates that strength of authorities or intermediaries amplify vanguard influence.

Studying the effect of patterns of participation, rather than the text of that participation, forces one to realize the importance of interaction, not only among vanguards as in previous studies, but also potentially among lay audience members. Previous studies of shared meanings in markets focused on stories found in the media, the construction of which most often involves vanguards more than lay audience members. Our preliminary findings indicate, however, that while vanguards indeed have influence on category elaboration, prevalence of label use may be driven more by average intensity of engagement.

By considering the interactions of lay audiences and of vanguard audience members as potentially loosely coupled processes, our theoretical treatment opens additional questions: What are the conditions for divergence between lay and expert schemas? And how do factors such as credibility, trust, and confidence affect the emergence of a consensus? For example, do insiders exert greater influence when product
Another key question for future investigation is what conditions are likely to cause dissensus in meanings among audience members to emerge and/or persist over time, despite the three mechanisms of convergence outlined in this paper. Dissensus may emerge when the network structure consists of cliques or disconnected components and different components develop diverging “local” meanings. A special case of this occurs when different segments of the audience learn from different vanguards. According to the theory we developed, subaudience schemas would converge to those of the “local” vanguard and thereby diverge globally.

Dissensus might persist despite exposure of different segments of the audience to each other if different audience segments develop divergent but internally coherent pairings of labels and schemata. Internal cohesion of these schemata, and in particular, of intensional definitions, makes it more likely that local interaction among parties with diverging repertoires does not result in convergence (Zelditch 2001). Without interdependence among agents involved in the local situation, agents lack the motivation to learn from each other, leading those with divergent views to exit the local situation and seek other partners whose meaning repertoire have greater overlap with their own. This is more likely to happen if collective meanings take on a moral significance and agents refuse to employ meanings instrumentally in local situations, for the sake of coordination.

A special case of this emerges when different vanguards engage in collective action to promote their preferred meanings in opposition to another vanguard’s preferred meanings. It is also more likely if oppositional identities are associated with each
audience segment and their consensus. In such cases, even if lay audiences do not take sides with any vanguard, disagreement among the vanguards diminishes their influence because contestation confuses members of the lay audience about which meanings are consensual (HPC 2007: 117-8).

For instance, Reinecke et al. (2012: 802) find that standard-setting bodies—significant vanguards—converged on industry-wide codes of good practice, building a common vocabulary of sustainability as “the result of mutual observation and dynamic interaction among standards organizations.” Yet, the organizations resisted consolidation, insisted on maintaining their distinctive identities, and they defended their autonomous positions on sustainability standards. This led to a proliferation of subcategories of sustainability without attendant consensus at the market level.

In another example, Negro and colleagues (2011) document a case in which the producers of Barolo wines in Italy that use barriques to age their wine (in rejection of the regional tradition) refused to accept the label “modernist;” but the critics and the botti-users insisted that they were. This led to considerable contention about what was the authentic Barolo, including public debates among the protagonists and public calls to the Consortium to sort this out by creating a “Barolo classic” designation with its own rules. While the contestation persisted, the audience was confused about what was “Barolo.” During this time, the growing complexity was associated with growing dissensus, not consensus.

Nonetheless, we think that significant divergence will likely not persist in the long run in most markets, unless divergent and internally coherent schemata are polarized by being associated with oppositional identities. Markets create incentives for subaudiences
to interact. Furthermore, the presence of a centralized authority or salient intermediary makes it more likely that vanguards interact and eventually negotiate common classifications (Bowker and Star, 1999). Clearly, we need to learn more about these issues.

Improvement in understanding would also come from better-designed empirical studies. Whereas our illustrative investigation shows the benefits of a multi-market comparative study, it is compromised by the cross-sectional nature of the data. The associations we observe between intensity of engagement in the audience and prevalence of label use and between prevalence of vanguards and category elaboration are subject to issues of reverse causality and endogeneity. Reverse causality is a threat, in particular to the set of analyses on label use. It is possible that markets with well-developed labels attract participants over and over again, leading to greater engagement. This, however, would run counter to research in market development, which finds that standardization encourages more casual and transitory participation in markets (Espeland and Stevens, 1998).

Nevertheless, it is possible that some antecedents of audience engagement and vanguard prevalence also give rise to shared meanings. We think, for instance, that communities of collectors sustain higher levels of audience engagement and vanguard prevalence in markets. The variation we find in patterns of participation across markets on eBay may reflect that in other marketplaces or community gatherings, where meaning convergence happens. However, we contend that this does not diminish the value of our empirical investigation. eBay is a decentralized market where the label use we observe among users and the category system are likely to be at least partially the result of
convergence through engagement on eBay. This is corroborated by our auction-level analyses. Still, investigation into the co-development of markets and communities would be an important direction for future research.

References


StataCorp (2011). Stata statistical software: Release 12. College Station, TX: StataCorp LP.


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<th>Market level variables (N= 23)</th>
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<td>.318</td>
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<td>3. Auction ends with a sale</td>
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<td>7. ln(seller’s feedback score(t))</td>
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Table 2: Coefficient Estimates from Mixed Logistic Models of the Effect of Seller’s Engagement as an Audience Member (N=1444)

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<th>Model 2.2</th>
<th>Model 2.3</th>
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<td>Proper name used in auction title</td>
<td>.115*</td>
<td>−.122*</td>
<td>.119*</td>
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<td>(.056)</td>
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<td>Auction listed in “Other” subcategory</td>
<td>.311*</td>
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<td>−.379*</td>
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<td></td>
<td>(.156)</td>
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<td>(.168)</td>
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<tr>
<td>ln(no. items the seller bid on in the category in ([t_0, t]))</td>
<td>.112*</td>
<td>.021</td>
<td>−.124*</td>
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<td>(.056)</td>
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<td>No. of seller’s auctions in same category at t</td>
<td>−.010</td>
<td>−.153</td>
<td>−.385*</td>
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<td>−.314</td>
<td>.511</td>
<td>−.941*</td>
</tr>
<tr>
<td></td>
<td>(.246)</td>
<td>(.288)</td>
<td>(.198)</td>
</tr>
<tr>
<td>Seller auctioned in multiple categories ([t_0, t]))</td>
<td>−.182</td>
<td>−.144</td>
<td>−.596*</td>
</tr>
<tr>
<td></td>
<td>(.571)</td>
<td>(.290)</td>
<td>(.196)</td>
</tr>
<tr>
<td>Intercept</td>
<td>−.182</td>
<td>−1.932</td>
<td>−.497</td>
</tr>
<tr>
<td></td>
<td>(.571)</td>
<td>(.924)</td>
<td>(.333)</td>
</tr>
<tr>
<td>Random effects parameters:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market level</td>
<td>3.55</td>
<td>12.1</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>(1.29)</td>
<td>(5.37)</td>
<td>(0.86)</td>
</tr>
<tr>
<td>Seller level</td>
<td>1.67</td>
<td>1.662</td>
<td>.714</td>
</tr>
<tr>
<td></td>
<td>(.450)</td>
<td>(.546)</td>
<td>(.226)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>−743.9</td>
<td>−572.7</td>
<td>−897.8</td>
</tr>
<tr>
<td>Wald Chi-squared (d.f)</td>
<td>23.6 (6)</td>
<td>14.0 (6)</td>
<td>88.7 (8)</td>
</tr>
</tbody>
</table>

* p < .05 (two−tailed test)
Table 3: Effects of Audience Engagement on Label Use and Subclass Differentiation (Bootstrapped Fractional Logit Estimates with 100 Replications, N=23)

<table>
<thead>
<tr>
<th>Frequency of engagement:</th>
<th>Prevalence of label use</th>
<th>Subcategory proliferation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 3.1</td>
<td>Model 3.2</td>
</tr>
<tr>
<td>Median no. items bid on per bidder $[t_0, t]$</td>
<td>1.57*</td>
<td>.395</td>
</tr>
<tr>
<td>Proportion of bidders that bid on multiple items $[t_0, t]$</td>
<td>9.75*</td>
<td>(2.86)</td>
</tr>
<tr>
<td>ln(number of auctions$[t_0, t]$)</td>
<td>−.161</td>
<td>−.392</td>
</tr>
<tr>
<td>ln(number of bidders$[t_0, t]$)</td>
<td>.317</td>
<td>.438</td>
</tr>
<tr>
<td>Proportion of auctions with a fixed price</td>
<td>1.51</td>
<td>.930</td>
</tr>
<tr>
<td>Intercept</td>
<td>−4.37</td>
<td>−4.66</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>−9.94</td>
<td>−9.48</td>
</tr>
</tbody>
</table>

* p < .05 (two-tailed test)

Note: Numbers in parentheses are bootstrap standard errors.
Table 4: Effect of the Prevalence of the Vanguard on Label Use and Subclass Differentiation
(Bootstrapped Fractional Logit Estimates with 100 Replications, N=23)

<table>
<thead>
<tr>
<th>Prevalence of label use</th>
<th>Subcategory proliferation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 4.1</td>
</tr>
<tr>
<td>Prevalence of insiders:</td>
<td></td>
</tr>
<tr>
<td>Prop. of sellers that bid in ([t_0, t))</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>(5.53)</td>
</tr>
<tr>
<td>Prevalence of super consumers:</td>
<td></td>
</tr>
<tr>
<td>Proportion of bids by the top 5%</td>
<td>.849</td>
</tr>
<tr>
<td>most active of bidders ([t_0, t))</td>
<td>(3.52)</td>
</tr>
<tr>
<td>Prevalence of enthusiasts:</td>
<td></td>
</tr>
<tr>
<td>Proportion of bidders with</td>
<td></td>
</tr>
<tr>
<td>market-relevant eBay user IDs</td>
<td>−5.27</td>
</tr>
<tr>
<td>ln(number of auctions([t_0, t)))</td>
<td>.115</td>
</tr>
<tr>
<td></td>
<td>(.483)</td>
</tr>
<tr>
<td>ln(number of bidders([t_0, t)))</td>
<td>−.368</td>
</tr>
<tr>
<td></td>
<td>(.663)</td>
</tr>
<tr>
<td>Proportion of auctions with a</td>
<td></td>
</tr>
<tr>
<td>fixed price</td>
<td>.515</td>
</tr>
<tr>
<td></td>
<td>(2.60)</td>
</tr>
<tr>
<td>Intercept</td>
<td>.611</td>
</tr>
<tr>
<td></td>
<td>(6.04)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>−10.0</td>
</tr>
</tbody>
</table>

* p < .05 (two−tailed test)
Note: Numbers in parentheses are bootstrap standard errors
## Appendix 1.1

<table>
<thead>
<tr>
<th>Posted by banddgifts (3363) on Aug-02-01 at 05:38:38 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>On NDNs, is it still the law that there has to be a full liberty to be called fine?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by pennyman23 (316) on Aug-02-01 at 05:45:47 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>B&amp;D, I don't know for sure, but I think in some years of the NDN's had a weak strike on some of the die's..Therefore I think it would be possible.JMO..</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by dbic (157) on Aug-02-01 at 05:47:29 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BandD:Depends whether you're a buyer or seller?????:o)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by banddgifts (3363) on Aug-02-01 at 05:52:46 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>dbic - I bought a 1865 &amp; 1866 listed as fine and fine plus (no pics) from an occasional poster here. Asked me 3 times for feedback but neither has full liberty. ;(</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by coltom (132) on Aug-02-01 at 06:02:07 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oh no Dbic, we're going to get into that argument again. For Fine, all letters of liberty should be visible, although by Club and Snow grading, not necessarily readable. The liberty is a bad indication of wear for a fine, as it was often poorly defined because of shallow strikes and the such. Conversely, 1865, 1866 was two to three years into the master dies, and most master dies produced excellent working dies, although because of the copper shortage many were worked to destruction. But, a poor die should not be forgiven when superior specimens are abundant.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by dbic (157) on Aug-02-01 at 06:02:52 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning Jivealott! :) BandD: I know I can't sell a fine to another dealer without full LIBERTY..... ANA says weak but readable??? Snow says something different???</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by coltom (132) on Aug-02-01 at 06:10:36 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dbic, it is not a big difference. Club grading. And you are only talking about the bottom part of the grade. The VG grade is rather wide anywhere from three to five letters visible, the Fine grade is very narrow, a true fine is a fairly rare coin, as it likely took a few weeks to wear from a VF-20 to a F-12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted by coltom (132) on Aug-02-01 at 06:15:26 PDT</th>
<th>Auctions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

52
IN fact, for a DDR 1865 F-12 I would gladly pay $100, even if all the letters were not readable. (*Grin* and a little more if they were)

**Posted by dbic (157) ★ on Aug-02-01 at 06:15:58 PDT**  
Auctions

ColTom: I’m not going back into the argument... I will state what I know as fact and that is some of the most dingiest and yellowest 2X2s in a show dealers case contain IHCs marked Fine without full LIBERTY!!!!

**Posted by coltom (132) ★ on Aug-02-01 at 06:18:55 PDT**  
Auctions

Dbic, lower end of the grade normally are the ones that sit around the most, unless you give someone a "bargin" on the coin. But, if they are the yellowest 2x2, the obviously people have been grading this way for a long long time?

**Posted by pennyman23 (316) ★ on Aug-02-01 at 06:20:24 PDT**  
Auctions

Coltom, Dbic..Didn't mean to stir up an argument here on the NDN's..Just trying to help B&D..:)It is rather interesting to hear both sides though..:)

**Posted by dbic (157) ★ on Aug-02-01 at 06:24:37 PDT**  
Auctions

Coltom: Now that I agree with.... "give them a bargain" or in plain English "sell it to them as the VG it really is"...... :) They have been doing it a long time and that’s why I stated in the beginning "It all depends whether you're a buyer or seller...."

**Posted by dbic (157) ★ on Aug-02-01 at 06:27:09 PDT**  
Auctions

Also,they've been grading them just as long as they have 93-S dollars Fine where you can’t see the 2 down lines in the cotton bole......

**Posted by dbic (157) ★ on Aug-02-01 at 06:33:32 PDT**  
Auctions

BandD: The tip of the bust on the 64 L is pointed and not round..... Very easy to tell.....

**Posted by coltom (132) ★ on Aug-02-01 at 06:35:20 PDT**  
Auctions

But for the premium, the "L" needs to show. Its easy to tell Obverse 2 from the Obverse 3, but you need to see the "L"ongacre

**Posted by dbic (157) ★ on Aug-02-01 at 06:36:46 PDT**  
Auctions

It will show on a coin that's supposed to be fine????

**Posted by dbic (157) ★ on Aug-02-01 at 06:38:30 PDT**  
Auctions

I just use it as a focal point before I strain to see the L...
<table>
<thead>
<tr>
<th>Post author</th>
<th>Avatar</th>
<th>Time</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>coltom</strong> (132)</td>
<td>🌟</td>
<td>Aug-02-01 06:40:35 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>banddgifts</strong> (3363)</td>
<td>🌟</td>
<td>Aug-02-01 06:42:08 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>cameo2</strong> (618)</td>
<td>🌟</td>
<td>Aug-02-01 06:44:24 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>dbic</strong> (157)</td>
<td>🌟</td>
<td>Aug-02-01 06:44:58 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>pennyman23</strong> (316)</td>
<td>🌟</td>
<td>Aug-02-01 06:45:11 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>dbic</strong> (157)</td>
<td>🌟</td>
<td>Aug-02-01 06:48:30 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>coltom</strong> (132)</td>
<td>🌟</td>
<td>Aug-02-01 06:56:57 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
<tr>
<td><strong>the_perfect_dark</strong> (0)</td>
<td>🌟</td>
<td>Aug-01-01 04:18:35 PDT</td>
<td><a href="#">Auctions</a></td>
</tr>
</tbody>
</table>

Now DBIC, I am not sure I will agree with that. That darn L will sometimes show on a Good, and sometimes be hard to see on a VF. Its a tiny tiny little thing. But you are right, on almost all Fines it should show, as long as you know where to tip the coin, and hold the light, and make sure you are facing towards the setting sun with your feet pointed to the North and South.

**ROFL**

But only on a Sunday with a Blue Moon ;o)

Morning Mr Cameo Sir!
ColTom:With you toes pointed straight up in the air.....

Coltom, I thought the feet had to point east and west and you had to hold the coin to the north star to get the proper perspective on the "L"..)

ColTom:I usually pick out the pointed bust and then stick it under the 90X stereo scope.... Kinda removes all guess work!

Dbic, yes a 90X stereo does sort of do that. But at shows all I have is my 30x lighted single eye

---

**Appendix 1.2**

I have a question about an item that I’d like to sell. After looking through the selection list, ‘Antiques’ was the most appropriate. I have what appears to be a shawl. I’m not sure how old it is, but it is old. It’s sewn all over with small pieces of silver. This shawl is so loaded with silver that there is no more than threads holding it together. It has a couple of small holes, but all in all, it’s in
very good shape. It does need cleaned but I won't touch it. I'm by no means whatsoever comfortable with cleaning it, therefore it's best that I leave it alone. It weighs about 8 lbs. I took it to a local dealer and this person was not sure of it's age, or origin. He did tell me that it is real silver. I'm really stuck with this. I've looked through ebay, hoping to find something similar to it. Could anyone please give me any advice on what to do next? Thank you.

Posted by ngraef (1176) on Aug-01-01 at 04:22:44 PDT

perfect: I can't help with your item; but there are some who come in throughout the day who may be able to. If you could post a link to a picture it would be a big help to them.

Posted by finchnest (427) on Aug-01-01 at 06:13:04 PDT

Good morning! the_perfect_dark From your description, it sounds like you may have a kind of scarf called an assuyet. (I'm not absolutely sure of the spelling.) I was told that these were popular in the twenties and were exported from Egypt. Do the little silver palettes form geometric patterns? Perhaps if you show us a picture, we can tell you more?

Posted by marika5 (344) on Aug-01-01 at 06:25:25 PDT

the_perfect_dark Finchie is right but the spelling is assuit. There are some examples on Ebay that you can use to research by going to search at the top of the page....

Posted by finchnest (427) on Aug-01-01 at 06:27:44 PDT

Oh, thank you, marika! I've always wondered how to spell it!

Posted by finchnest (427) on Aug-01-01 at 06:35:40 PDT

Groan- I can see I sold the assuit I had way too cheaply! (Gnashing teeth.)

Posted by jred2 (228) on Aug-01-01 at 06:46:26 PDT

Marika- really thats true- I've watched some mouthwatering things that aren't noticed or spelled right go right up to the last without a bid.LOL!
Appendix 1.3

Coltom: If he gets $50 US for each set, he's doing well. $20 US or in that ballpark is a fair price. Some people like them for the themes, like cycling, etc. Topic specific resales are usually better. But then maybe there's coin shows in northern New Joisey where they sell for $10,000.00 a set. Matching markets is important.

Several years ago, I liked Ebay's World Coins: General category for Canadian coins. Some very nice buys in there. For about six months, I was hunting in there and finding nice deals, without much competition. THEN, others found out about people listing in there. At that point I began telling sellers to change categories to get maximum value. Those people were not matching the right market, just by being in the wrong Ebay category. Got my 1880 wide 0 quarter in there for about 20% Book Value after I graded it properly. It was F to F+ and not VF. Another unattributed variety. That one I knew right away, however.
Özgecan Koçak is Associate Professor of Management at Sabancı University in Istanbul, Turkey. She received her Ph.D. from Stanford University. Her research focuses on interaction of economic actors and evolutionary dynamics in markets. In her current projects she investigates how strategic interactions among banks changed as Islamic banking evolved in Turkey (with Serden Özcan and Özgür Rahşan Çetrez), and the differences in patterns of interactions among buyers and sellers that prevail in markets for different goods.

Michael T. Hannan is Stratacom Professor of Management in the Graduate School of Business and Professor of Sociology at Stanford University. His research concentrates on the ecology of organizations, categories in markets, and the development of formal theories of sociological processes. His current theoretical projects seek to formalize and integrate theories of fuzzy categories and niches. His empirical work addresses the emergence and persistence of categories in markets: French and Italian wines and restaurants.

Greta Hsu is an Associate Professor of Management in the Graduate School of Management at University of California, Davis. She received her Ph.D. from Stanford University. Her research interests center around evolutionary dynamics in markets and organizational identity. Her current research investigates evolution in the production and performance of genre spanning films (with Giacomo Negro and Fabrizio Perretti), the manipulation of category claims in the tobacco industry (with Stine Grodal), and divergence across constituent groups in their identity categorizations for an organization (with Kimberly D. Elsbach).