E Pluribus Unum: Framing, Matching, and Form Emergence in U.S. Television Broadcasting, 1940–1960

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Recent research holds that new organizational forms emerge from the identity of candidate organizations that enter a domain. In this study we argue that emergence of a new form, which is ultimately based on validation by external audiences, depends on two mechanisms: identity framing, i.e., how audiences perceive and frame the identity of an emerging organizational domain, and identity matching, i.e., the match between the identity of the domain and the identity of candidates. Accordingly, form emergence is best characterized as contextual rather than as an inherent attribute of the categories of candidate organizations. Using data on the U.S. commercial television industry from 1940 to 1960, we explore how entry rates of TV stations were affected by audiences’ expectations about the identity of the nascent domain and by the densities of organizations with different origins. We find evidence that focused expectations expressed through public discourse about media, and the number of stations coming from radio broadcasting increased entry rates. We reconcile our findings with existing theory on the emergence of organizational forms by pointing to the joint relevance of domain-related and candidate-related identities.

Key words: organizational form; organizational identity; de novo/de alio; U.S. television industry

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1. Introduction

The emergence and establishment of new organizational forms has always been a central concern for classical works in economics (Schumpeter 1934) and economic sociology (Weber 1978). Because of its role in generating and sustaining diversity in the organizational world, the process of form emergence also plays a central role in contemporary ecological theories of organizations (Hannan and Freeman 1977, 1986). Despite considerable theoretical interest in form emergence, major organizational paradigms have yet to produce a generalizable explanatory model of the development of organizational forms (Ruef 2000, p. 659; Romanelli 1991). Recent theoretical efforts in this direction have documented how the emergence of a new organizational form requires acceptance of a new organizational identity on which the new form is based, and conferred by a heterogeneous set of agents or audiences (Pólos et al. 2002, Hsu and Hannan 2005).

Organizations’ entry decisions can be viewed as claims for membership in a specific domain defined as “[a] culturally bounded segment of the social world containing producers/products, audiences, and a language that tells to whom these distinctions apply and what they mean” (Hannan et al. 2007, p. 34). Claims of membership expose organizations to scrutiny and evaluation by the audiences that follow the action and value offerings in the domain and that control crucial resources.

Based on the notion that membership is an outcome of competition among organizations for the attention of relevant audiences, recent studies have argued that categories of organizations that are more accurately perceivable by relevant audiences have higher chances of promoting the establishment of a new form (McKendrick and Carroll 2001, McKendrick et al. 2003). According to this argument, the establishment of a new organizational form ought to be facilitated by increases in the number of new startup entrants (de novo) that have more focused identities than preexisting producers (de alio). Hence, de alio organizations that derive their primary identity from other domains should have a weaker impact on the creation of a new form.

However, identities, as well as social rules and actions, are firmly grounded in a logic of appropriateness that hinges on the answers to three fundamental questions: How are situations interpreted and recognized? How are organizational identities defined? How does the match between situations and identities happen? (March
environment is primary to the invention of a new organizational form (Hannan and Freeman 1986, 1989). Once a new resource space is created, various mechanisms will induce different organizations to populate the new space (Romanelli 1991). Preexisting organizations may enter this space through diversification (Haveman 1993) or local search (Cyert and March 1963, Greve 2003, March 1991, Nelson and Winter 1982). Alternatively, new organizations may appear de novo and develop competencies, capabilities, and routines that are specific to the new space. Although these examples describe which organizations would enter a new space, they do not explain the mechanisms through which a new form is established.

More recently, studies have become available that emphasize the role of organizational identity as a fundamental basis for the conceptualization and identification of organizational forms (Ruef 2000, Pólos et al. 2002, Hsu and Hannan 2005). According to this view, a new space in the environment is not only a collection of resources, but also a culturally bounded social setting where interaction occurs among various sets of agents with different roles (i.e., producers/products and audiences). The emergence of a new organizational form is a process based on the social approval of producer/product identities by audiences, a heterogeneous set of agents that can be both internal (e.g., workers, managers, members of the board) as well as external (e.g., consumers, banks, funding agencies, intellectuals, professional bodies, unions, business circles, public opinion, and the media). Audiences exert control over material and symbolic resources organizations need to operate and prosper in a given domain and are able to reward the organizations that conform to their standards and punish those that deviate (Hannan et al. 2007).

Organizations are viewed as candidates competing for the right to control the new domain and its resources. Audiences screen and cluster potential claimants into different categories according to their observable features, then sort them out based on the association between those features and shared sets of rules or expectations (Zuckerman 1999). When the number of actors classified under a given category increases to some ceiling, the category gains the status of form, and audiences legitimize the category as a taken-for-granted type of organizational form with jurisdiction over the domain (Pólos et al. 2002).

Asking where new organizational forms come from implies asking what kind of external identity organizations must have to be recognized as legitimate and preferred candidates that can claim access to resources in the new domain. Classification of candidate organizations based on industry of origin provides an intuitively appealing rule. At first glance, organizations can be identified as new entrants (de novo) or diversifying entrants that come from other industries (de alio). This classification captures a number of fundamental differences
within organizational processes such as foundings or disbandings (Haveman 1992, 1993; Carroll et al. 1996; Klepper and Simons 2000; Phillips 2002). Recent studies suggest that legitimacy of an organizational form emanates from the density of de novo firms in a market (McKendrick and Carroll 2001, McKendrick et al. 2003). Based on the claim that more focused identities favor clearer perceptions and increase distinctiveness among audiences who evaluate producers and their features, the core idea of this claim is that audience perceptions will be more focused when the identities arise from de novo entrants. In their analysis of the disk array industry, McKendrick et al. (2003) explain that de alio entrants derive their primary identities from other industries and are likely to have established ties and commitments to other audiences in other domains. When organizational identities are diverse and diffuse, the result is a lack of sharpness, and the emergence of a collective identity is more problematic. By deriving their primary identity exclusively from one domain, de novo organizations rely on common resources, recognize common interests, and coalesce into a collective identity. Audiences are more likely to perceive and recognize their more focused identity as distinctive, making form boundaries and rules of exclusion simpler to enforce. We propose instead that neither a firm category nor the other causes an increase in entry rates in a new domain, but rather that the match between a firm category and its environment causes such an increase.

In the next two subsections we articulate our view that legitimization of an organizational form depends on two distinct processes: (1) domain framing, by which audiences establish the identity of the new domain, and (2) candidate matching, by which audiences judge the identity of the organizational candidates that claim membership in the new domain against the identity of the domain.

### 2.2. Identity of a New Organizational Domain

Sociological research has traditionally focused on the identity of individual social agents or groups (see Cerulo 1997 for a review). Likewise, organizational research has shown substantial interest in the concept of organizational identity (Albert and Whetten 1985, *Academy of Management Review* 2000, Hannan et al. 2007) and how it affects organizational interpretations, actions, and potential for change. For example, strong dominant identities that are simple, clear, highly focused, and consensual can lead to survival (Baron 2004) or competitive advantage (Fiol 1991). At the same time, strong and unitary organizational identities can severely constrain what is expected from an organization and thus what an organization can do (Dutton and Dukerich 1991, Hannan et al. 2006).

Recent studies have started to shift attention from the identity of organizations to the identity of settings, showing how they affect organizational actions. Identity is as much a characteristic of settings as it is of the individuals who inhabit them (Gieryn 2000). Places—geographical, organizational, or social—not only represent contexts for something else, but are also active players—a force with detectable and independent effects on social life (Werlen 1993). Places are identity settings that contain implicit, taken-for-granted expectations about how their inhabitants should behave (Cresswell 1996). The way individuals behave and are perceived is a socially constructed and context-dependent result that resides in the inter-action between the identity of the individuals and the identity of the places by which they are surrounded (Gieryn 2000).

In organizational research, Romanelli and Khessina (2005) introduced the concept of “regional industrial identity,” speculating that when audiences develop a social code that summarizes their shared view of a region as a legitimate place for particular industries, the region acquires an industrial identity, affecting economic decisions and investments, such as where to locate their talents or organizations and how to target financial resources.

Perceptions of regional features, rather than resources, form the basis for observers’ understandings about the attractiveness of a region and thus for their investment decisions. Regions with a focused identity—i.e., regions whose business activity is dominated by a single industrial cluster—have stronger industrial identities. By presenting a unified industrial identity to external audiences, single-cluster-dominated regions are better able to attract and retain attention and resources from prospective workers, managers, investors, scientists, suppliers, and buyers. Besides geographical boundaries, in a study on eBay auctions, Köçak (2005) finds that the meanings of goods in exchanges shape transaction patterns and attribute identity to markets where goods are traded.

Following this line of reasoning, it is possible to consider a new organizational domain like a background social space that, by enhancing cognitive recognition and normative standing, can provide candidate organizations with a set of signals of what would be considered legitimate (Carroll and Hannan 2000). When audiences share similar perceptions about the characteristics of the new domain, they will develop a code that forms the basis of the identity of this domain. The identity of a domain conveys information on the features organizations must have to be considered legitimate occupants and consequently affects their decisions about whether to enter the new domain.

We argue that new domains with a focused and stronger identity are more likely to make sense of complicated social phenomena and to reduce the ambiguity that characterizes an emergent organizational form (Romanelli and Khessina 2005). By increasing cognitive recognition and facilitating externally enforced rules,
focused domains have higher chances of developing uniform social codes and, in turn, taken-for-grantedness (Carroll and Hannan 2000). Organizations will find it easier to attract attention and access resources, and form emergence will materialize through increased entry of similar organizations into the new domain (Ruef 2000, McKendrick et al. 2003). Accordingly, we claim the following:

**Hypothesis 1.** A focused domain identity increases the rate of organizational entries into the new domain.

### 2.3. Identity of Candidate Organizations

Although any kind of organization may enter in the selection contest for the development of a new organizational form, as described in the previous section, a new domain tends to attract those organizations whose identity does not violate the expectations of the audience about the identity of the domain. Once a domain is established, organizations represent the actual candidates that audiences will screen and select on the basis of conformity to prior expectations.

Previous studies have argued that increased attention of audience members toward certain categories of candidate organizations plays a significant role in the selection process leading to form emergence (McKendrick et al. 2003, Hannan et al. 2007). However, if audience perception of candidates is a necessary condition for legitimacy, high visibility of a category of candidates does not seem a sufficient condition because it does not automatically imply recognition. As illustrated by studies on discrimination and stigma (Goffman 1963, Link and Phelan 2001), a clear and sharp identity is the common basis for both social recognition and discrimination. Spoiled identities—i.e., the outcome of structural discrimination of stigmatized groups—and legitimate identities alike originate from sharp identities.

Sociological research posits that individuals possess a combination of identity attributes that define who they are (Hogg 2006); at the same time social settings have different membership claims and embody intangible cultural norms and identities. For example, settings may contain moral judgments about deviant practices (Goffman 1959, Gieryn 2000). The perception and legitimation of specific identities thus depend on audiences’ assumptions and expectations about what is appropriate in specific settings. Different positions of discrimination and privilege are the result of the interplay between the combination of devalued and valued attributes possessed by agents as well as the normative claims that places take for granted (Zerubavel 1991). For example, tags of graffiti artists violate norms when sprayed on the sides of subway cars or public walls, but they become legitimate art when moved inside a gallery or museum (Lachmann 1988).

We argue that the social distinction between marked and unmarked elements (Brekhus 1998) is heuristically valuable for analyzing the interplay between the identity of domains and the identity of candidates, and for describing the conditions by which different categorical identities are selected as legitimate candidates for shaping a new organizational form. Behaviors, categories, identities, social spaces, and environments that are considered socially extreme are marked; those that are regarded as socially neutral remain unmarked. Positions of stigma and privilege are respectively the result of the mismatch and match between agents and places. If we assign a negative sign (−) to attributes that are marked in socially generic settings and a positive sign (+) to the absence of those attributes, in any situation in which the identity of the setting and the identity of the agent have the same sign, the agent will be taken for granted. When the signs differ, the agent will be actively highlighted and often discriminated (Brekhus 1998).

Previous studies showed that although greater concentration and higher visibility of agents that match the sign of the environment establish or reinforce the identity of places (e.g., ethnic or gender enclaves like Chinatown or San Francisco’s Castro), a concentration of agents that do not match the sign of the environment represents a danger to the social and mental order by diluting the identity of a place (Gieryn 2000). Because it engenders confusion in an established system of classification and rules, the mismatch weakens the legitimacy, if not the existence, of a domain (Douglas 1966, Zerubavel 1991).

The same dynamics can be observed in organizations. In their analysis of the market for legal and investment services in Silicon Valley, Phillips and Zuckerman (2001) show that, to have a chance of seeing their offers accepted, candidates must demonstrate that such offers “conform to the criteria that define members of the audiences’ consideration set” (p. 383). Misaligned candidates are marked as deviant because (their) offers are impure or illegitimate in the sense that they threaten the existing system of classification. The need for comparability is such that the interface collapses if offers are so different from one another as to make cross-offer comparison impossible. (Phillips and Zuckerman 2001, p. 383)

The social validation of a new organizational form depends on the match between identity of the domain and density of candidate organizations bearing specific identities. This process is similar to what happens in social settings, where legitimization is a product of social construction, collective agreement, and progressive assimilation of the identities of the individual agents with those of the places they inhabit (Gieryn 2000). The emergence of a new organizational form becomes the result of a matching process of identities to recognized situations (March 1994, p. 58).

Previous theories show how specific environmental characteristics that are mapped onto an organization’s
structure at certain key development stages have persistent effects on the organization’s chances for success (Stinchcombe 1965, Carroll and Hannan 2000). In the emergence of an organizational form, we observe a reverse process by which legitimate candidates (i.e., candidates whose identity matches the perceived identity of a domain) imprint the domain according to audience expectations, whereas marked candidates (i.e., candidates whose identity does not match the perceived identity of a domain), by creating confusion in the perception of audiences, threaten the identity of a domain and its appeal. Entry into the new domain will be influenced differently by the two groups of candidate organizations: Increasing density of the former will stimulate taken-for-granted acceptance, whereas increasing density of the latter will lower it. Accordingly, we claim that

**HYPOTHESIS 2A.** The density of organizations whose identity matches the identity of the new domain increases the rate of organizational entries into the domain.

**HYPOTHESIS 2B.** The density of organizations whose identity does not match the identity of the new domain decreases the rate of organizational entries into the domain.

3. **Research Design**

3.1. **U.S. Television Industry**

Early history of television broadcasting provides an important opportunity to illuminate aspects of our theoretical arguments. According to one prominent historian of broadcasting in the United States, in the formative years of television,

> [I]f a boom was certain, its shape was not. The very certainty of the boom was bringing to television migrations from other fields—film, theater, newspaper, magazine, radio. Each had felt tremors; in each there was a search for escape routes, a look toward new frontiers. But each inevitably had its own ideas on the destiny of television and the direction it should take. (Barnouw 1970, p. 6)

However, if television witnessed different startups and migrations, it was considered, as the president of RCA put it, the “party of radio” (Boddy 1990, p. 16) and radio stations saw it as their natural extension: “[A]sk a radio man about TV. You will find that he regards it as his own legitimate territory, by right of direct succession. He is convinced that television, in its general lines, will follow the existing pattern of commercial radio” (Houseman 1950, p. 55). In contrast to the wide-ranging debates of the 1920s over the social uses of radio, “[t]he debate over the applications of, and economic support for, television broadcasting was narrow and muted” (Boddy 1990, p. 17). The fact that television would have followed the pattern of radio was the common perception, long before it started operation.

The emergence of American television took place from 1940 to the end of the 1950s. Prior to 1940, service was limited to experimental television stations, and even if television was formally inaugurated at the New York World’s Fair in April 1939, licenses for commercial stations were authorized only in the summer of 1940, after the adoption of television standards by the National Television System Committee, created by the Federal Communications Commission (FCC).

The 1950s are generally seen as the formative decade of American television,

> [W]hen the medium moved from its scientific origins to its place as a ubiquitous consumer good, developed its unique program forms and production practices, and discovered its regulatory constraints and commercial potential. (Boddy 1990, p. 15)

It was “[d]uring the 1950s, in a frontier atmosphere of enterprise and sharp struggle, [that] the American television system took its shape” (Barnouw 1970, p. 3). The economic and programming trends within the TV industry “[c]limaxed at the end of the 1950s, giving American television a relatively stable set of commercial structures and prime-time program forms” (Boddy 1990, p. 2).

3.2. **Data**

We started our data collection by identifying all commercial television stations that operated in the United States from 1940 (when commercial television licenses were first issued) to 1960. Our observation scheme covers the history of commercial television since its inception and allows the minimization of research design flaws, notably left-truncation that excludes the early history of a population (Carroll and Hannan 2000, pp. 218–19). The censoring of the analysis to 1960 is suggested by historical sources that indicate that the formative phase of television was completed by the end of the 1950s. Data were collected on the basis of the information reported in the *Television Factbook*, an industry directory published every year that contains a wide array of information on stations in the United States.

Television stations have legal recognition, and they possess specific structures, goals, resources, and strategies that make them clearly identifiable organizational entities (Walker and Ferguson 1998). In the United States and elsewhere, television broadcasting is a regulated activity; potential licensees are required to file applications to operate stations. Data included in the applications allow the *Factbook* to identify systematically the background of individual applicants and organizations entering the industry. We used such information to determine organizational origins.

Our study focuses on the entire set of commercial stations and therefore differs slightly from those used in previous studies conducted in the same setting (Sørensen
3.3. Variables and Measures

Prior research modeled organizational form emergence as a stochastic process that generates event counts of organizational entries (Ruef 2000). The aggregate number of entries of commercial television stations (Entry) in each semester from 1940 to 1960 is the dependent variable used in the study. Entry dates are defined as dates on which a station begins broadcasting. During our period of observation we identified 596 commercial television station entries, as depicted by Figure 1.

The first independent variable that we constructed to test our hypotheses is based on public discourse and measures focus of the domain identity. Public discourse reflects general expectations about the development of social domains. Recently, research has linked legitimization to the diffusion of general knowledge about an industry as measured by the appearance of articles in the mass media: A larger number of articles covering a domain denotes higher social acceptance of the domain that in turn stimulates entry (Ruef 2000, Sine et al. 2005, Kessina and Romanelli 2006). To construct the independent variable we analyzed newspaper articles that constitute one natural medium for channeling public discourse. Specifically, we focused on The New York Times (NYT), the leading U.S. newspaper in terms of circulation during the period of the study. Using the ProQuest Historical Newspaper database restricted to articles and excluding TV listings, classified ads, and obituaries, we counted the number of NYT articles that in the same paragraph (within approximately 1,000 characters) cited the word “television” in association with three other words that define distinct domains: “radio,” “film,” and “newspaper.” Other articles that cited television independent of these domains were included in a fourth group. Hence, we measured the focus of domain identity as a semiannual Hirschman-Herfindahl concentration index (multiplied by 100) of the relative frequency of articles by group:

\[ NYT_{\text{ArticleFocus}}_t = \sum_{i=1}^{4} \left( \frac{p_i}{P} \right)^2, \]

where \( p_i \) is the count of articles that mention television and other domains, and \( P \) is the total count of articles that mention television. Because of the cumulative character of legitimization processes, television is likely to have generated discourse prior to commercial broadcasting, so we constructed our variable using cumulative article counts from 1923 (the year experimental operations began) to each semester in the observation window. According to Hypothesis 1, we expect the NYT article focus to have a positive effect on entry rates. Alternative searches that replaced or added words—e.g., “motion picture” instead of “film”—did not affect the result we report. Figure 2 provides a graphic representation of the NYT article index during the study period, illustrating the dynamics of the domain identity focus. The index ranges from 0 to 100: Values of the index below 10 are interpreted as signs of low concentration. Values between 10 and 18 are associated with moderately high levels of concentration. Values above 18 suggest that high levels of concentration are present (Scherer and Ross 1990). For about the first half of the observation period, the domain of television increased its focus. In this context the article co-occurrence with radio had the largest share, peaking at 55%. Later, the index starts to decrease, as does the share of radio-television co-occurrences. After 1956, concentration becomes low, and this coincides with the fourth group of articles taking the largest share of discourse, which also suggests that by then television had established a distinct recognition vis-à-vis other domains, particularly radio.

Our second independent variable is organizational density, which ecological theory interprets as controlling the processes of legitimization (and competition).
in a domain. Density is measured by the number of stations in operation during each period. For each station, we obtained information about prior experience of corporate and individual controlling entities. To test Hypotheses 2A and 2B we calculated density subcounts of density of de alio organizations, i.e., the number of entrants from other domains, and density of de novo organizations, i.e., the number of entrants without prior experience in other domains. Figure 3 illustrates the annual density of stations for the two groups.

Most studies focus on de alio as a master status identity, neglecting the diversity of organizational identities that this category typically entails. Although the analysis of differences in terms of performance and survival can treat de alio and de novo as alternative comparable categories, differences in terms of identity require the comparison of de novo with other de alio identities. De alio entrants in television came mainly from radio broadcasting, newspaper publishing, magazine/book publishing, and motion pictures (other nonmedia domains include manufacturing of electronic receivers). We use density of entrants from other domains by splitting de alio density into four categories: radio (de alio radio stations), publishing (de alio news stations), motion pictures (de alio film stations), and other (de alio stations). We compare the effects of the disaggregated de alio densities with de novo density.

Our analysis includes a number of control variables. The first control captures identity matching through product origin to determine whether identities are built around products rather than organizations (McKendrick et al. 2003). We analyzed the program synopses included in Brooks and Marsh (2003), a comprehensive directory of all prime-time network television programming: The synopsis for each program provides information about cast, storyline, and subject source. For example, “Break the Bank” was an ABC quiz show that began on the radio in 1945 and started television simulcasts in 1948 (Brooks and Marsh 2003, p. 153). The directory covers programs that went on the air since 1944; its focus on prime time is motivated by the fact that TV viewership largely concentrates in that time window (Owen and Wildman 1992). We systematically identified the origin of TV programs with respect to one specific connection—radio—and contrasted programs that had connection to the radio industry to those that did not have such a connection. We constructed a ratio formed by the number of television shows broadcast each year that were based on radio programs/formats and the total number of shows. As this proportion takes very low values, especially in the very early period, our variable TV program focus is the square-root transformation of this ratio (Zar 1999). TV programs are highly visible products, and their focused identity may have been the driver of audience attention; hence, an increasing connection between radio and television could encourage entry as a result of the matching process.

Annual reports of the U.S. Census Bureau and the FCC Economics Division provide information about the other control variables, one of which measures the industry resource environment. Broadcasters sell program audiences to advertisers in the form of units of commercial time based on viewership size. This variable measures the value of television advertising in millions of dollars as an indicator of the carrying capacity for the stations’ population (Owen and Wildman 1992). Regulation by the government systematically influences operations within the industry (Walker and Ferguson 1998) and represents an outgrowth of the need to allocate scarce space in the broadcast frequency spectrum according to constraints imposed both by technological factors and by political considerations. To control for the influence of regulation, we chose to identify time periods in terms of scope and content of specific rules affecting industry entry (Howard 1998). We created two binary period indicators that correspond to the following two periods:

(1) 1941–1952 (National TV Ownership Rule period). In 1941 the FCC first adopted national ownership restrictions for television broadcast stations, placing limits on the number of stations that could be commonly owned. At the end of 1952 the FCC lifted a “freeze” introduced in 1948 that had suspended the granting of new television licenses. It permitted already authorized stations to go ahead with construction but froze all other applications. In addition to the period dummy, which we will use as comparison period, we include a dichotomous variable equal to one in year 1953 and to zero otherwise to account for anomalous effects of the regulatory freeze on station entry.

(2) 1954–1960 (Multiple Ownership Rule period). Between 1953 and 1954 the FCC adopted limits on multiple ownerships of broadcast stations at the local level to prevent undue concentration of control over the broadcast media. Those limits sanctioned group ownership and determined the allowable number of stations.
per owner (seven television stations, seven AM radio stations, and seven FM radio stations). In fact, this regulatory period extended until 1964, when the FCC introduced the Local TV Multiple Ownership Rule, whereby an entity would be allowed to own two television stations in the same market area only if (1) at least one of the stations was not ranked among the four highest ranked in the area and (2) at least eight independently owned commercial or noncommercial broadcast television stations remained in the area after the proposed combination.

The NYT article index and the density measures are updated each semester, whereas the numerical values of the other covariates are updated every year and interpolated linearly between the two periods within each year. All covariates are lagged one period except the year and period dummies.

3.4. Model Estimation
To estimate rates of entry we adopt event-count models in which the organizational population itself is considered as the unit at risk of experiencing an event (Carroll and Hannan 2000). The presence of overdispersion—the tendency of variance of an event-count series to exceed its mean—suggested the use of the negative binomial form in place of the Poisson (Greene 2004). Our model specifications parameterize dispersion as a function of the expected mean. The estimates that we report are obtained by applying the method of maximum likelihood and robust variance estimators. We rely on the Akaike’s information criterion (AIC) as the main likelihood-based measure of model fit. Smaller AIC values indicate a better fit.

4. Results
We organize the presentation of the analytical results in two parts. In the first we report the estimates of the models that we specified to test our hypotheses. In the second we estimate additional models to clarify specific aspects of the sample and to establish the robustness of our conclusions with respect to alternative explanations that our results may suggest. Table 1 reports the descriptive statistics for the main variables used in the study, and Table 2 presents the maximum likelihood estimates of models for entry rates.

Model 1 in Table 2 includes only the advertising market control variable and the period effects. We find that growth of the television advertising market increased the entry rate of stations. Regulatory changes had the opposite effect. Model 2 introduces the NYT article index. The more media discourse about television focuses—in this case in association with radio—the higher the entry rate. The AIC value shows that Model 2 improves the fit. Together with the description of the trend of Figure 2, this finding supports Hypothesis 1.

Model 3 introduces the density variables to test Hypotheses 2A and 2B while also controlling for the TV program focus. We find that the density of stations coming from radio broadcasting has a positive and significant effect on entry in support of Hypothesis 2A, but the other density terms do not show significant effects. Moreover, the TV program variable also shows a positive effect on entry, pointing to the relevance for television of assimilating show format from radio. Model 3 improves the fit over Model 1 as indicated by the AIC value.

Model 4 is our full specification, which includes all independent variables. The NYT article variable continues to show a positive effect on entry. A percent change in the cumulated article index increases entry rates by 27.6%. Among the density measures, the de alio radio variable shows positive and significant effect and de novo density has a negative and significant impact. A percent change in the density of de alio stations from radio increases entry by 5.4%, whereas the same change in the density of de novo stations decreases entry by 9%. This result indicates that when one directly measures the focus in domain identity, the pattern of density effects shifts and may suggest a reinterpretation of previous research that observed significant impact of de novo but not de alio (McKendrick et al. 2003) density.

We amplify this point further in the discussion section. The absence of a significant negative effect for de alio densities other than radio hints of the syncretic identity of television as a medium of mass communication. By combining the qualities of other established media, television represented a “s[ynthesis of them all. It is radio with eyes; it is the press without the travail of printing; it is movies without the physical limitations of mechanical reproductions and projection” (Houseman 1950, p. 51). Model 4 finds support for Hypotheses 1, 2A, and 2B. In unreported analyses we explored whether concentration

<table>
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<th>Variable</th>
<th>Mean</th>
<th>Std. dev.</th>
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<th>Max</th>
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<td>28.61</td>
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<td>Density of other de alio stations</td>
<td>2.25</td>
<td>0.95</td>
<td>0</td>
<td>3.00</td>
</tr>
<tr>
<td>Total density of TV stations(\times 10^{-3})</td>
<td>68.81</td>
<td>96.46</td>
<td>0</td>
<td>250.00</td>
</tr>
<tr>
<td>Time</td>
<td>20.00</td>
<td>11.40</td>
<td>1</td>
<td>39.00</td>
</tr>
</tbody>
</table>
of densities also affected entry rates but found that this is not the case. Also, the TV program effect continued to be positive and significant. According to the AIC values, Model 4 represents an improvement over the previous models.

We estimated additional models to check the robustness of our analysis and to explore alternative explanations for the results. Because the range of the density of each group of *de alio* stations outside radio is limited, one concern can be the inadequate contrast that can be inferred between the *de alio* from radio and the other *de alio*. We combine these densities into a single term and reestimate the full specification in Model 5. The main findings are unaltered.

Next, a methodological issue confronting our analysis is right censoring, arising from ending our observation in 1960. Although we provided substantial motivation for the selection of this cut-off point, corroboration of our findings is needed in light of different patterns of right censoring. Models 6 and 7 reestimate our full model for a prolonged and an abbreviated observation period, respectively reducing and increasing the observation window by two years. In both cases the findings obtained under our full model are unaffected.

Then Model 8 adds the second-order term of total station density to control for competitive processes. On one hand, during our observation period the number of TV stations reached a considerable level, so competition among stations might have ensued. On the other hand, *de novo* density starts increasing when *de alio* density is already high, so the negative sign of *de novo* density may reflect the competitive pressure that stations experienced in later years. As Model 8 shows, the squared density term has a negative effect as expected, but is statisti-
cally nonsignificant; previous findings are not affected. Finally, prior research has shown that the legitimization of an organizational form depends not only on density, but also on industry maturity (Hannan 1997). Model 9 tackles this logic in a simplified way and includes a measure of industry age in our full specification. Increasing age shows a negative coefficient, but its effect on entry is nonsignificant. Different functional forms for measuring the effect of industry age (e.g., quadratic terms) do not modify this result, and our main findings remain unaffected.

An important alternative explanation of our results is capability spillover, i.e., prior organizational forms can provide a set of structures and routines that can be adopted by new forms with related identities. Next, we try to rule out this explanation. After entry into the new television domain, de alio organizations can continue to use the same call letters used in the radio business as their corporate name. Recent research shows that organizational names are a key identity marker whose choice is affected by pressures to legitimize organizational identities (Glynn and Abzug 2002). At the cognitive level, a common name emphasizes the homogeneity of different objects by inducing people to focus on similarities among them and to connect them in their minds (Zerubavel 1997). Dobrev et al. (2006, p. 581) note that the early name by which carmakers entered the public discourse was that of “horseless carriage” manufacturers. Their success at drawing public attention built on the similarity between the general mission and stated goals of the two types of organizations.

Ingram (1996) argues that name homogeneity among similar organizations may help to engage and commit their audiences, particularly customers. Finally, common names facilitate communication about different entities: Actors learn about such entities and share their knowledge about them through interaction with others (Hannan et al. 2007).

We performed tests for equality of survival functions of stations that entered using the former radio name versus those that did not. We used log-rank tests (Savage 1956) and Tarone-Ware tests (Tarone and Ware 1977) comparing distributions of stations using same-call-letter names to other stations. The expected number of exits is obtained under the null hypothesis of no differences between the survival experiences of the compared groups. The log rank \( \chi^2 (1 \text{ d.f.}) \) is 14.64; \( p \text{ value} = 0.0001 \) (number of total exits = 62). The Tarone-West \( \chi^2 (1) \) is 6.78; \( p \text{ value} = 0.0088 \). Finally, this analysis was checked for robustness by performing stratified tests by network affiliation, group ownership, time periods, and UHF/VHF band of transmission. Stratified tests provided statistically significant results that continue to reject the null hypothesis of survival function equality.

The negative effect of same-call-letter names on station exit allows us to address related diversification as a competing explanation for our results. On one hand, radio and television have overlap in the resource space, and a negative effect of naming suggests identity transfer rather than resource-based mechanisms because resource overlaps would suggest a positive call-letter effect. On the other hand, the call-letter effect should only reflect the visibility of organizations, not that of their products. Finally, these additional findings suggest a connection between legitimization of a form and audience recognition, particularly listeners (Walker and Ferguson 1998).

5. Discussion

The genesis of organizational forms continues to generate intense debate within contemporary theories of organizations (Hannan and Freeman 1986, Ruef 2000, Padgett and McLean 2006). In this article we wanted to clarify aspects of this debate by investigating domain framing and candidate matching—two mechanisms that involve a complex interaction among audiences, emerging domains, and categories of candidate organizations. First, we proposed that the legitimization process leading to form emergence depends on the framing of the identity of the nascent domain. Second, we maintained that the process depends on the relative matching between domain and candidate identities. Our analysis of entry
rates in U.S. commercial television finds clear evidence of these mechanisms. The media discourse reflected expectations that television would follow the pattern of radio. As a consequence, the stronger connection to radio helped the emergence of the television form and stimulated entry into the new domain. We also find that the number of stations that came from radio—i.e., the candidate group that more closely matched audience expectations about the new domain—had a positive influence on form emergence, whereas the other candidate groups did not.

Recent accounts of the relationship between form emergence and the origin of entrants argue that new startup firms (de novo) can claim more focused identities that help new forms cohere. Diversifying firms (de alio) slow down this process because they reduce the distinctiveness and the perceptual focus of the audiences (McKendrick et al. 2003). Our results show a case where de alio organizations were able to legitimize and shape the emerging form of television broadcasting, whereas de novo had a negative impact on the creation of the new form.

As a preliminary argument, we note that previous research on form emergence finds results congruent with those we present. In a study of the U.S. health care sector, Ruef (2000) shows that new organizational forms are most likely to be legitimized when they fit into pre-existing cultural beliefs, meanings, and types (or forms) available within an organizational community. Particularly, the density of more similar forms increases the likelihood of emergence of a new form. Other studies (e.g., Mitchell 1989, Carroll et al. 1996) suggest that firms producing related products are more likely to enter new markets and to survive longer. Finally, studies that have addressed issues of organizational capabilities and industry diversification (e.g., Haveman 1993, Klepper and Simons 2000) indicate that prior experience shapes entry and firm performance.

More important, however, we think our theory can explain positive effects of de novo density as well as positive effects of de alio density. The emergence of a new form has been presented as a two-stage process where audiences first attract and then screen and select candidates. In the first stage, audiences’ shared perceptions of an emerging organizational domain enable the creation of an identity for the domain. In the absence of regulatory constraints candidate organizations may enter the domain and the selection contest. However, the identity of a domain tends to attract those candidates that are better aligned to audiences’ expectations. The second stage includes social screening and selection among actual candidates. The identity of a social domain works as a default assumption, an unmarked background against which audiences mark and screen alternative test offers. Candidates whose identity matches the domain identity will imprint the emerging organizational domain. How audiences perceive and validate candidates thus depends not only on candidates’ attributes, but also on the perceived characteristics of the new domain that candidates want to enter. In shaping expectations, domains stimulate differences in perceptions and induce different positions of privilege or discrimination.

One implication of our theory is that categories are not considered default regardless of the context to which organizations claim their membership. Rather, our results suggest that different domains offer alternative default settings, and the way a new organizational form emerges is in the context of interpretation and social classification of the identity of a domain as well as the identity of candidates. In other words, the understanding of form emergence requires that we pay equal attention to the interpretation of domains, the definition of organizational identities, and the matching between the two (March 1994, chap. 2).

A second implication is that organizational categories are more likely to be legitimized as preferred claimants of a new form when they satisfy audiences’ expectations about the features of the new domain. Our analysis suggests that the level of consensus/ambiguity within audiences affects the candidate-audience process. In cases of full consensus, expectations among the different audiences converge to a clear set of principles (Hsu and Hannan 2005), and we find clear contexts where audiences expect a new domain to be similar to or completely different from existing domains. In the former case, organizations from the de alio category that is deemed more similar will be the preferred candidates. In the latter case, de novo will be preferred. In cases of fragmented consensus—i.e., ambiguous contexts containing multiple operating principles of justification, none of which is clearly more appropriate or legitimate than others (Stark 1996)—there are no clear marking principles. Both de novo and de alio can be expected to have equal chances to shape the dominant identity of an emerging domain because this distinction is itself blurred and opaque.

In cases of ambiguity, organizational density within the specific category that first moves into the domain will be more likely to drive the process. Social psychology research suggests that the order in which people speak has a profound effect on the course of a discussion, and earlier comments are more influential and tend to provide a framework within which the discussion will occur (Myers and Kaplan 1976). As suggested by Hannan et al. (2007), the main agents in a domain—audiences and candidates—coevolve. By entering first, de novo or specific de alio candidates can influence audience expectations on the new domain and thus establish a consensus on their identity match. However, according to other studies (e.g., Padgett and Ansell 1993), identity portfolio management is an attempt to hold resources that can be considered legitimate under more than one
regime of justification. Under this assumption, actors with composite identities (de alio) are more likely to establish a new organizational form in institutionally fragmented environments. At the same time, in fragmented environments it is sometimes easier to reach a compromise on a new candidate instead of redirecting conflicting preferences on old candidates (Pierce and Rochon 1984).

In the current stage of our research we do not have sufficient knowledge to determine adjudicate which interpretation is actually closer to reality, but the identification of its general underlying principles makes it possible to test the empirical implications of these arguments. As indicated by the strong effect of our public discourse construct, the emergence of television delineates a clear context where audiences developed expectations about the new form that were focused on the connection to radio broadcasting. Consistently, the number of television organizations that originated in radio broadcasting has been a driver for legitimation. For other settings we can only advance conjectures. For example, in disk arrays (McKendrick and Carroll 2001, McKendrick et al. 2003), audiences may have perceived the domain as being dissimilar from existing domains from which entrants moved. Alternatively, audiences may have been fragmented and de novo organizations moved into the domain earlier than de alio. In disk arrays we do not know if audience expectations focused on any relationship between domains, and we cannot discriminate between the cases of clear and unclear contexts.

A third implication of our theory is neutrality about the mechanisms underlying the formation of audience expectations (other studies on form emergence tend to take expectations as given; see McKendrick et al. 2003). Previous research on new organizational forms suggests that audience framing is influenced by various factors, such as technological change (Hannan and Freeman 1986, Carroll et al. 1996) or organized collective action (Hannan et al. 2007). The former seems to be more relevant in the context of this study. New resource spaces, which are primary to the establishment of a new organizational form, are frequently created by technological transformation (Romanelli 1991). Incremental or radical technological change may differently affect audiences’ perceptions and expectations about the distance between the new environment and established environments. The literature described this distance extensively by using different concepts such as competence-destroying or competence-enhancing discontinuities (Tushman and Anderson 1986), segregating or blending processes (Hannan and Freeman 1986), and strong or weak speciation (Rao and Singh 1999).

Competence-enhancing discontinuities, blending processes, and weak speciation allow existing firms to exploit their competence; instead competence-destroying

Discontinuities, segregating processes, and strong speciation require the development of fundamentally new skills. The latter processes favor new entrants vis-à-vis existing firms that are burdened by the legacy of prior technologies and ways of operating. De novo or specific de alio organizations may be more likely to cohere into a new organizational form when audiences are confronted with technological changes that they correspondingly perceive as radical or incremental with respect to the current situation. This logic fits our empirical setting, where commercial television was not recognized as a technological breakthrough that took the industry or the public by surprise. It was instead a technology that was planned and developed before being offered to audiences (Boddy 1990, p. 16). When first introduced to the public at the New York World’s Fair, television was described as the “hear-and-see radio,” and its identity clearly relied on the existing broadcasting operations (Becker 2001).

Besides the specificity of technological change, we also know that social actors and audiences generally rely on familiar contexts for the validation of a new social object. Social cognition research has found similar results that, to cope with novelty, individuals fall back on the familiar, and when individuals find themselves in unfamiliar settings, they tend to look for familiar objects and persons (Rheingold 1985). Audiences can thus be more inclined to perceive new domains as the extension of some old ones, rather than completely different settings. In our study, de alio organizations’ outside identity and organizational history provide social actors with a more grounded frame of reference for the new identity than completely unknown firms (Ruef 2000, Swanson 2002), and they have better chances to transfer their history-based legitimacy and reputation into new settings (Rao 1994).

Despite their potentially important theoretical implications, the results reported here must be appreciated in the light of a number of limitations. First, we assumed that agents are able to determine what their and other agents’ identities are and took the distinction between de novo and de alio as given. In many contexts, this distinction may not be so clear-cut because not all parts of an identity are available at the same time, and agents can shift identities across different contexts (March 1994). When this is the case, processes of categorization ought to be laid out explicitly. Also, the criteria along which different classes of de alio firms were defined need refinements and/or extensions. When dealing with actor and form classification, we have directed our attention to the dimensions of classification that represent shared audience conceptions of which market participants are aware. Future studies may investigate the relationships between competing systems of classification and the impact that each of them has on legitimation.

Second, we did not analyze directly the role played by multunit firms like networks in the evolution of television. The effects of density may depend on the diffusion

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and distribution of affiliations of stations with networks, and this remains an important empirical issue for the population under study here. Related to this point, our study uses stations as the unit of analysis: Our data allow us to identify the stations’ parent companies but not changes in ownership, making such alternative analysis unfeasible in the context of the present sample.

Finally, our study does not consider how the formation of localized expectations or density-dependent mechanisms coevolve with the aggregate processes we investigated. Yet the interaction between origin of entrants and spatial dependence may give rise to complex systems of organizational relationships. Identities might be found to shape organizational findings across multiple levels of spatial aggregation, a conjecture that, if supported in appropriate research settings, would suggest an important revision of much of what we know about the emergence of new organizational forms and the boundaries in and around organizational populations.

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Endnote

1The log-rank test uses a weight of 1 for all exit times. The Tarone-Ware test is used when hazard functions are thought to vary in ways other than proportionally and censoring patterns are similar across groups. The test statistic is constructed by weighting the contribution of each failure time to the overall test statistic by the square root of the number of subjects at risk.

References


