
Mixing genres and matching people: a study in innovation and team composition in Hollywood

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Summary

The study of innovation in cultural industries has addressed primarily the role played by organizational and environmental determinants. Research on teams has shown that innovation also depends on team composition and related team-level processes. In this study we develop two hypotheses arguing that the introduction of newcomers, and new combinations of both newcomers and old-timers in teams show positive relationships with innovation. We test our theory in the U.S. feature film industry and consider genre innovation as our measure of innovation. We use data on 6446 motion pictures produced by the Hollywood Majors in the period 1929–1958 for our empirical analysis. Copyright © 2007 John Wiley & Sons, Ltd.

Introduction

Organizations' increasing reliance on teams puts forth the question about the relationship between team composition, creativity, and innovation. As defined by previous researchers, creativity is the production of novel and useful ideas in any domain, while innovation is the successful implementation of creative ideas within an organization (Amabile, 1988; Woodman, Sawyer, & Griffin, 1993). This relationship is particularly important for the cultural industries, i.e., industries that commingle elements of art and commerce and where artists and managers are both present at the input stages (Hirsch, 2000). Cultural industries generally offer creative goods that are subject to rapid obsolescence and seasonal variation, and whose chances of success are highly ambiguous, uncertain, and contradictory (Hirsch, 1972). In cultural industries, novel and innovative products are thus in great demand, and competition is driven by a search for novelty (Lampel, Lant, & Shamsie, 2000). Moreover, some cultural industries offer complex creative goods, i.e., creative outputs that require teams of diverse skilled and specialized workers, each bringing personal, and many times diverging, tastes with regard to the quality or configuration of the product (Caves, 2000).

In cultural industries, managers face different constraints generated by both the economic need of delivering relatively standardized short life products to a volatile market seeking innovation, and by team composition, where members' different artistic values, individual characteristics, and

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expectations pose constraints in assembling the creative team (Caves, 2000). In this study we investigate how the mixing and matching of new members (newcomers) and experienced members (old-timers) affect innovation.

The distinction between newcomers and old-timers is particularly relevant in temporary structures with intended short life spans, where teams and their members continually cycle and recycle (Arthur, 1994). According to March (1991), while newcomers enhance exploration, innovation, and the chances of finding more creative solutions to team problems, old-timers increase exploitation, inertial behavior, and resistance to new solutions. In the cultural industries, where 'consumers need familiarity to understand what they are offered, but they need novelty to enjoy it' (Lampel, Shamsie, & Lant, 2006: 292), the tradeoff and the balance between exploitation and exploration is particularly important.

Innovation may consist of either the introduction of a new good with which consumers are not yet familiar, or new combinations that endow old resources with new value (Schumpeter, 1934). Even if innovation in cultural industries differs from innovation in other industries, this definition continues to hold. On one hand, organizations in cultural industries seek novelty by recombining existing elements and style belonging to established artistic and aesthetic conventions. On the other hand, they push innovation beyond the existing limits by introducing cultural products that break established styles and traditions (Lampel et al., 2000).

In this study we suggest that new configurations of team members are major sources of innovation. By integrating the literature on organizational learning and organizational demography, not only we provide an empirical validation of one of the general propositions included in March's (1991) model of organizational exploration, but we also try to extend the theory by showing that innovation comes from both newcomers and the novel combination of old-timers.

We focus our research on genre innovation. In most cultural industries, genre innovation is fundamental for sustaining demand, product variety, and differentiation (Lampel et al., 2000; Mezias & Mezias, 2000). In all art forms, genres are formed by sets of conventions and are useful categories that bridge multiple concerns (Kawin, 1987). From the organizational perspective, genres can be viewed as formulas that precede and model cultural industry production, the formal framework on which individual products are founded. From the consumers' perspective, a genre is a sort of contract that fulfills their expectations of novelty in a controlled environment that they recognize and somehow seems familiar (Altman, 1999). Genres usually have clear, stable identities, and borders. In the genre world, however all genres are interfertile and may at any time be crossed with any genre that ever existed (Beebe, 1994). As a matter of fact, a new genre is often derived from borrowing and recombining the different conventions of multiple genres (Lampel et al., 2000).

We test our theory on the U.S. motion picture industry by analyzing 6446 movies produced by the Hollywood studios from 1929 to 1958. In the film industry, innovation is crucial. Films generally have short life cycles and non-repeated consumption patterns. These features induce high product turnover on the market, which translates into continuous introduction of new products. Sustaining innovation in products is thus relevant for stimulating demand. In 1938, MGM producer Hunt Stromberg described that the big problem in filmmaking was holding the balance between 'formula' or giving the public what it wants, and 'showmanship' as something novel, something truly different (Bordwell, Staiger, & Thompson, 1985: 110). As pointed out by Altman (1999), studios are like candidates for political office, above all concerned to avoid alienating any particular group of voters. The splitting of audience into multiple small sectors induced Hollywood's constant tendency for a simultaneous presence in different genres in order to assure a film's appeal to different recognized audience sectors, to be present in an even broader selection of genres and sub-genres. As a consequence, 'Hollywood has throughout its history developed techniques that make genre mixing not only easy, but virtually obligatory' (p. 132).

Among the cultural industries offering complex creative goods, the film industry is an ideal setting to combine an analysis of team-based production in organizations with systematic innovation. Films are

short-term projects where team composition can be described as the mixing and matching of actors, directors, and other creative and non-creative personnel into new team configurations. Members are selected from a pool of available resources and assigned to specific films. Once films are completed, team members will wait until a new project is offered or assigned. Rosten (1941: 15) claimed that, 'Hollywood's endless search for new faces and rare skills is a magnet which attracts hope. . .and the movies are one of the very fields of enterprise left in America in which youth is promised high rewards.' Every year in the movie industry, small armies of established and would be actors, artists, and technicians compete for projects (Faulkner & Anderson, 1987). Newcomers and/or old-timers are thus constantly mixed and matched into new teams, within or across organizations (Jones, 1996), to increase the chances of producing hits and to satisfy consumers' demand for novelty (Lampel et al., 2000).

Theory

Team composition and innovation

Team composition deals primarily with diversity (i.e., within-team heterogeneity) and to the degree to which members or sub-groups of a team are similar or dissimilar along different attributes, such as gender, ethnicity, age, education, culture, and functional experience (Jackson, May, & Witney, 1995). Diversity research asserts that variations in the demographic and social composition of teams affect group processes, such as conflict, cohesion and communication, and ultimately influence group effectiveness on different outcomes, such as performance or innovation.

Some researchers have argued in favor of team homogeneity, while others supported team heterogeneity (Guzzo & Dickson, 1996). These camps of scholars based their claims on different theoretical underpinnings (Williams & O'Reilly, 1998). According to social categorization theory (Turner, 1987), the similarity-attraction paradigm (Pfeffer, 1983) and the homophily literature (McPherson, Smith-Lovin, & Cook, 2001), individuals prefer to interact with others having similar attributes and perceived to be part of the same group, reinforcing their identification as group members. Thus similarity breeds connection, influencing the information similar people receive, the attitudes they form, and the interactions they experience.

From this perspective team heterogeneity leads to communication difficulties, augmented conflict, and may increase the salience of members' social identities, inducing favoritism, discrimination, stereotyping, and a higher likelihood of turnover from the group, especially among members who are most different (Wagner, Pfeffer, & O'Reilly, 1984). Team members must interact to create a viable product, and teams must obtain and transfer information and resources from and to other parts of the organization (Ancona & Caldwell, 1992). Team heterogeneity may be responsible of initiating a variety of interpersonal processes that can hinder innovation and result in a loss of team effectiveness.

Looked at from an opposite perspective homophily can be seen as limiting people's social worlds, affecting information transfer and other types of interactions. Connections and flows of cultural, behavioral, and material information will tend to be localized within the network of similar people, and thus diversity may broaden the network of external contacts through which a team gains access to valuable resources. Members with multiple experience and perspectives may increase the information available for problem solving, improve the team's ability to consider alternative interpretation, of both the internal environment and external competition, and enhance the ability of the group to generate effective or creative solutions to problems (Watson, Kumar, & Michaelson, 1993). As a consequence, team heterogeneity may provide cognitive resources and social capital that can enhance team

effectiveness by challenging previously accepted answers, thereby fostering innovation (Ancona & Caldwell, 1998).

The extant literature on team diversity suggests a tradeoff between diversity and team effectiveness and/or team performance. In homogeneous groups, members may get along well together, but lack the full complement of resources needed to perform well. In heterogeneous groups, members may have a rich diversity of talent and perspective, but they are unable to use it well because they are too different in how they think and behave (Hackman, 2002). Empirical research has highlighted how team heterogeneity in different cases is associated with positive or negative outcomes, or even with no effects at all (Jackson & Joshi, 2004). In their comprehensive review of the literature, Williams and O'Reilly (1998) explain this ambiguity by pointing out that diversity has been measured by different demographic and socially construed attributes, and not every characteristic is expected to have the same effects on team outcomes.

Newcomers as sources of innovation

The diversity attribute we investigate is newness of team members, which leads to discriminate, as a first approximation, between two kinds of members: newcomers and experienced members or old-timers (Jackson, Stone, & Alvarez, 1993). Both the organizational learning and the organizational demography perspectives have examined this dimension of diversity. The literature on organizational learning (Levitt & March, 1988; March, 1991) shows that the mixing of these two categories of members affects organizational learning and innovation. On analyzing the relation between the exploration of new possibilities and the exploitation of old certainties, March (1991) suggests that personnel turnover between old-timers and newcomers produces a tradeoff of knowledge distribution. Experienced members on average know more, but what they know is redundant with the knowledge already reflected in the organizational code, and they are less likely to contribute new knowledge. On the other hand, new recruits are less knowledgeable than the individuals they replace, but what they know is less redundant with the organizational code, and they are more likely to deviate from it. According to March's simulation model old-timers would thus elicit exploitation (i.e., production, efficiency and implementation), while newcomers will increase exploration (i.e., search, discovery and innovation).

The literature on organizational demography and diversity shows that the newcomer/old-timer attribute is also relevant for team effectiveness and socialization process (Chen & Klimoski, 2003; Jones, 1986; Louis, 1980; Saks, 1995). Newcomers and old-timers not only are distinct and identifiable group of individuals inside organizations, but also have a different interpretation of organizational reality and use different sense-making processes (Louis, 1980; Rollag, 2004). Old-timers are more socialized than newcomers because they have had more time to observe, to accept, and to adopt predominant norms and values, but they are also the major source of inertial behavior, of rigidity and of resistance to new solutions (Rollag, 2004). On the other hand, newcomers are more flexible, but their organizational integration can be a costly and time-consuming process. In entering unfamiliar organizational settings, newcomers may experience a reality shock or a sense of surprise, which has been likened to entering a new and foreign culture (Jones, 1986; Louis, 1980). By experiencing a liability of foreignness, newcomers incur the risks of higher information search costs, of stereotyping, and of marginalization by old-timers (Jackson et al., 1993).

By incorporating the organizational demography perspective in the organizational learning literature, the role of newcomers as sources of innovation is less straightforward than the one proposed by March (1991). Although newcomers bring with them a wealth of new knowledge, this knowledge will not be useful unless it is successfully incorporated into the social context of the organization.

Previous studies suggest that the successful integration of newcomers depends on the nature of the work (Lee & Allen, 1982). Different organizational functions or areas have different communication and socialization requirements (Tushman, 1979). In their analysis of different R&D project teams, Lee and Allen (1982) show how different types of R&D work (pure and applied research activities and development and technical activities) have different effect on both the possible benefits and potential problems of integrating newcomers.

The development and technical activities require new ideas and up-to-date technological information, but they must operate within the existing standard and capabilities of the organization. Newcomers, with their knowledge and fresh external contacts can provide valuable information, but they must learn the new organization's standards and philosophy. Old-timers, with their parochial knowledge of technology and heavy burden of daily design work, find it difficult to keep abreast of new outside developments. The communication between the two groups can indeed be difficult: not so much frequent and with problems of misinterpretation due to language differences. While the new employees have the potential of providing critical new knowledge, their integration with old-timers is much more difficult.

In the case of research activities, the benefits and problems of utilizing newcomers are somewhat different. Creativity is a treasured quality for researchers and newcomers with their fresh outlook and new approaches are important assets. Due to the more universal state of research, as opposed to the parochial nature of technology, veteran researchers stay in closer contact with external knowledge. Moreover because the terminology and standards in research are not organization-dependent, newcomers do not experience language barriers problems. The socialization and integration of newcomers in research activities is thus a less difficult problem for management.

According to this view, whenever an understanding of the organization's tacit knowledge and operational constraints is more important than creativity, the knowledge that newcomers possess cannot be integrated into actual designs and is of little use to the organization. In the context of project-based organizations, where creativity is fundamental and the industry culture establishes common routines and conventions that allow previously unacquainted individuals to work together (Jones, 1996), newcomers may be critical for the development of new products or processes. Cultural industries, where creative activities not only define them, but also run through their entire value chain (Caves, 2000; Lampel et al., 2006), fall in this second case. This is true especially in project-based organizations, like the film or the music industry, where the rules for coordinating the work of different members depend upon a set of shared values and do not have to be re-created for each project (Jones, 1996). Accordingly, we propose:

Hypothesis 1: Teams with higher incidence of newcomers show a positive relationship with innovation.

New combinations as sources of innovation

Many ingredients for innovation originate outside the boundaries of the firm or the industry, and innovators constantly import previously untried components from outside those boundaries (Rosenkopf & Nerkar, 2001). However, some works suggest that innovation also arises from a new combination (or recombination) of previously combined components (Fleming, 2001; Fleming & Sorenson, 2004). Many successful innovators accumulate stocks of knowledge over time, and mix and match pieces from this stock to create innovation, rather than looking for completely new knowledge (Garud & Nayyar, 1994).

By expanding the set of potential new solutions, the recombination of previously used components increases exponentially innovators' combinatorial possibilities. However, the process of recombination remains strongly influenced by cognitive and social phenomena, such as the number of potential

components and combinations that a person can simultaneously consider (Fleming, 2001). Thus, recombinations usually occur in the neighborhood of a firm's current expertise or knowledge, between a familiar set of components that are salient, proximal, and available (Fleming & Sorenson, 2004).

According to the preceding arguments, organizations can foster innovation in different ways. They can use familiar knowledge elements that have proven their value in the past, and mix and match these elements in new ways. Otherwise, they can use the existing combination of knowledge elements as a starting point, but replace one or more of the elements in the combination with a new knowledge element acquired outside the boundaries of the firms' or industry's existing stock of knowledge (Katila, 2002). Nevertheless, focusing on familiar combinations can preclude organizations from investigating more distant, and potentially more useful, possibilities. As organizations continue to work with a particular set of components, not only they decrease their potential of developing a radical innovation that is of much greater impact, but they also may exhaust the set of useful combinations (Fleming & Sorenson, 2004).

The preceding arguments can be applied to the mixing and matching of newcomers and old-timers in teams. Teams are not a mere collection of people—new recruits or experienced members—but can be considered as configurations of social actors joined to one another by basic ties (McGrath, Arrow, & Berdahl, 2000). In creating a new team, organizations not only select between newcomers and old-timers, but they choose from a set of three types of combinations: (a) old-timers that have worked with other team members in previous projects (old combinations), (b) old-timers that work for the first time with other experienced team members (new combinations of old-timers); and (c) newcomers (new combinations between newcomers and/or between newcomers and old-timers).

Thus, team composition deals not only with the mixing and matching of newcomers and old-timers, but also more generally with the problem of balancing: (a) the use of existing knowledge, by exploiting the wisdom gained from members who worked together in prior teams; (b) the recombination of existing knowledge, by exploiting the experience accumulated in different areas; and (c) the introduction of new knowledge, by hiring new members and exploring new sources of external knowledge that could be later re-used in other team configurations. As a consequence, the source of innovation could be represented not only by newcomers, but also by old-timers combined in different ways. Hence, we propose:

Hypothesis 2: Teams with higher incidence of new combinations, both from old-timers and from newcomers, show a positive relationship with innovation.

Method

Research setting

For our study, we collected and analyzed data on all 6918 feature films produced by the seven largest U.S. motion picture industry producers ('the Majors') from 1929 to 1958. These organizations are: Columbia Pictures, MGM, Paramount, RKO, 20th Century-Fox, Universal, and Warner Bros. (United Artists, generally associated with the Majors, operated as a distributing rather than a producing organization, and is therefore excluded from the dataset). Our sample focuses on fictional feature films, the main type of motion pictures they produced and/or released, and excludes animation, documentaries, newsreels, and short films, because their production and distribution require different sets of resources and capabilities, both creative and technical (Jones, 2001). We also eliminated silent movies, which by 1930 represented a minor and rapidly declining product typology in the industry

(Balio, 1993), starting our observation period in 1929, when the Majors had completed their transition to sound (Crafton, 1999), in order to analyze team composition without focusing on any underlying architectural variation. We end our analysis in 1958, the year RKO terminated production before disbanding, and before the reorganization induced by antitrust intervention and competition from television led to a drastic decline in the number of feature films produced and released by the Majors.

Our primary data source is the American Film Institute Catalog of Motion Pictures (AFI), a decade-by-decade encyclopedic publication that provides product-level information on all motion pictures produced and released in the U.S. between 1893 and 1970 using the same compiling methodology (Jones, 2001; Mezas & Mezas, 2000). Where this catalog's records are incomplete (from 1951 onwards), we relied on Fetrow's (1999) and Nash and Ross' (1985) filmographies for missing data. All records were checked with the federal *Motion Picture Catalog of the Library of Congress 1950–1959*, a government publication that details films receiving copyright protection along with production entities and copyright entry dates. Due to occasional gaps in information from these sources, our final sample comprises the 6446 features for which we have complete records. Table 1 summarizes the frequency distribution of observations in our sample. Among the seven producers, MGM produced the largest number of films in the observation period and Paramount produced the smallest volume. The range of frequencies indicates an overall balanced sample (values between -1.36 and $+0.40$ standard deviation from mean frequency).

Measures

Dependent variables

To analyze innovation, we focus on film genres, a core element in the analysis of creativity in the motion picture industry (Jones, 2001; Mezas & Mezas, 2000). To do so, we created two count variables, one measuring the introduction of new genres ($New\ genres_{it}$) and the other measuring new combinations of existing genres ($New\ genre\ combinations_{it}$). The two variables measure the yearly sum of films in which the firms in our sample use respectively new genres and new combination of existing genres.

The data source classifies films either in a single-genre category (e.g., musical) or in multiple categories (e.g., musical and drama). When multiple genres are employed to classify a film, they follow a hierarchical logic: the first genre defines the major features of the film; the second defines the minor features; consecutive genres, if used, define accessory features. During the period of our analysis, 77 different genres were used for film classification (see Appendix for the genre list). In the sample, 2639 films are recorded as single-genre pictures and 3807 are multiple-genre pictures.

Table 1. Sample characteristics

Producer	Frequency	%
Columbia	1027	15.93
Metro-Goldwyn-Mayer	1064	16.51
Paramount	731	11.34
RKO	734	11.39
20th Century-Fox	1019	15.81
Universal	977	15.16
Warner Bros.	894	13.87
Total	6446	100.00

We employ the first genre assigned by AFI as the leading categorization for the film (Miller & Shamsie, 2001) describing common features like structure of dramatic action, narrative style and structure, setting, and characters (Altman, 1999). The first genre serves as the basis for the measurement of both dependent variables. We also analyzed the secondary genre, which is employed by the data source to describe minor features like sub-plots, etc., to calculate the new genre combination variable. Taken together, the two dependent variables aim at measuring both major and minor sources of genre innovation (third and consecutive genres are used in a very small frequency of cases, mainly to inform about the inclusion of singing scenes, and we do not examine them). To avoid inflation in the first years of observation, we analyzed films produced from 1926 and classified genres as new if they had not been employed by the sample firms in this prolonged window. We classified genres as new in the first 2 years since its first appearance, to account for a realistic representation of the production process in the industry, which takes an average of 12 months to proceed from the development stage to the release in theaters (Bordwell et al., 1985; Caves, 2000).

Due to the use of multiple sources for our data and the potential concern of consistency in classification across sources, we compared the sub-set of 335 films available from AFI for the period 1950–59 against the 1244 films included in Fetrow (1999) and Nash and Ross (1985). We found correlation between the two sources equal to 0.92 for the primary genre and 0.87 for the secondary genre, indicating that classification can be regarded as uniform throughout the observation period.

A second critical issue in the construction of the dependent variables refers to the risk of retrospective bias in the classification system used to catalog films by researchers at AFI. Since we rely on modern accounts to analyze historical phenomena it might be argued that genres are defined in light of films produced later. We believe that our measures are not critically affected by this process. First, intuitively the large number of film genres in our classification system suggests the opposite case. If researchers engaged in retrospectively biased evaluations, they would tend to rationalize and reduce the number of categories. Consistent with this reasoning, Schatz (1981) observes that genres are very often subject to selection processes. The Western and the musical seem to represent genres in which the evolutionary cycle from experimentation to maturity seems more or less complete. However, ‘not all genres complete that cycle or can follow such a progression. For example, in the gangster genre, various external pressures (primarily the threat of censorship and religious boycott) disrupted the genre’s internal evolution. And in the war genre, the prosocial aspects of supporting a war effort directly ruled out any subversion or even the serious questioning of the hero’s attitudes. War films that did question values were made after the war and generally are considered a distinct genre’ (p. 40).

Second, in the introduction to the catalog volumes the AFI editors explain that researchers involved in the classification collected information (e.g., plot summaries) based solidly on primary sources and from that point of departure have proceeded to discover the additional data published contemporaneously with the release of the film. Therefore data come from the films themselves when prints were available and when it was impossible to see a film, on a variety of sources, including contemporary trade publications, copyright records, and in a small percentage of cases, scripts that were part of corporate records.¹ As the 1921–1930 Catalog specifies ‘the indication of genre is expressed in the vernacular of the 1920’s’ (AFI, 1997: xv). Researchers in every respect ‘made an effort to retain contemporary interpretations and language even if terminology was streamlined to make information more accessible to modern readers’ (xvi). They used modern sources, autobiographies,

¹Secondary sources used by AFI include trade publications, such as *The Moving Picture World*, *Variety*, *The Motion Picture News*, *Wid’s Film Daily Yearbook*, *Exhibitors Trade Review*, *Film Daily*, *Motion Picture Almanac*, *Motion Picture Studio Directory and Trade Annual*, *Moving Picture World*, *National Board of Review Magazine*, and *Photoplay Magazine*, selected issues of the *American Cinematographer*, clipping files compiled by the Community Motion Picture Bureau, a service which provided films for the American Armed Forces and civic groups during the world wars, newspaper reviews, and news from the *New York Times* and the *New York Morning Telegraph*.

photographs, documentaries, and personal reminiscences only for notes or note credit information. The above arguments support the idea that in our analysis the risk of retrospective bias in genre classification is therefore limited.²

Independent variables

We analyzed newness in team composition by defining two sets of variables that describe the combination of members in the film production core team. First, based on the most important seven creative and technical categories associated with film production (director, producer, two leading actors in their screen credit order, screenwriter, editor, and director of photography), for each film we calculated the number of newcomers included in the team. Then we summed the values for all films produced by the firm each year. The resulting variable is called *Newcomers*. We include it in the analysis as our first independent variable using the complementary variable, *Old-timers*, as the reference group against which the newcomer effects are assessed.³

Second, relying on the same personnel categories in each team we calculated (1) the number of dyads involving newcomers, and the number of dyads involving (2) new, and (3) old combinations of previously employed personnel. Then for each firm we summed the scores obtained for all films produced in each year. We name the three resulting measures respectively *Newcomer combinations*, *New old-timer combinations*, and *Old old-timer combinations*. We estimate our models including the first two and treating the third as the reference group.⁴

The measures consider individuals as new if they had never been previously employed in the industry starting from 1926 (to avoid inflation in the first years of observation). We define newcomers when they are new ‘to the industry’ rather than new ‘to the firm,’ new ‘to team work,’ or new ‘to members in the organization’ because we aim at capturing the risk taking and search dimensions of exploration. This approach is consistent with DeFillippi and Arthur’s (1998) description of career development in the film industry. Moreover, March (1991) explains that exploration depends on gaining new information to improve future returns rather than on using currently available information to improve present returns. If we focused on a new ‘to the firm’ definition of newcomers, for example, we would treat as exploration choices made using existing information about personnel who worked for competitors—this would indicate more exploitation than exploration.

McPherson et al. (2001) identify the dyad as the essential unit of social interaction, which is the basis for more complex forms and the unit that provides the ideal locus to study homophily relations, of which the newcomer-old-timer is a specific instance. Among the dyads resulting from the selection of the seven key creative categories, we included the combinations illustrated in Figure 1 as the basis on which to compute the three variables.

This set of dyads was chosen to provide a meaningful representation of the film production process and centers on the director. As film scholars and industry experts (e.g., Caves, 2000; Goldman, 1984; Schatz, 1981) point out the process is organized as an interdependent sequence where two distinct core

²Moreover, every innovation study practically may suffer from the same problems. For example, the way in which researchers need to ascertain whether a dominant design emerges in an industry requires that an innovation reaches 50 per cent of diffusion in the market. This can only be determined ex-post.

³As an example, *Let’s Face It* (produced in 1943 by Paramount) starred two newcomers (the lead actress Betty Hutton and the cinematographer Lionel Linton), together with five personnel with previous experience (the director Sidney Lanfield, the producer Fred Kohlmar, the lead actor Bob Hope, the screenwriter Harry Tugend, and the editor Paul Weatherwax). Therefore, the *Newcomers* measure for the film is 2, while the *Old-timers* measure is 5.

⁴In terms of dyads, the *Newcomer Combinations* measure for the movie *Let’s Face It* is 4 (and is equal to the sum of the dyads involving the two newcomers). The *New old-timer combinations* measure is 2 (the producer had never worked with the lead actor or with the editor before). The *Old old-timer combinations* measure is 5: the director Sidney Lanfield had worked on previous films with the lead actor Bob Hope (*My Favorite Blonde*—1942), with the editor Paul Weatherwax (*Hat Check Girl*—1932 and *Broadway Bad*—1933), with the producer Fred Kohlmar (*The Lady Has Plans*—1942), and with the screenwriter Harry Tugend (*Wake Up and Live*—1937); the screenwriter and the producer worked together in 1942 (*The Lady Has Plans*).

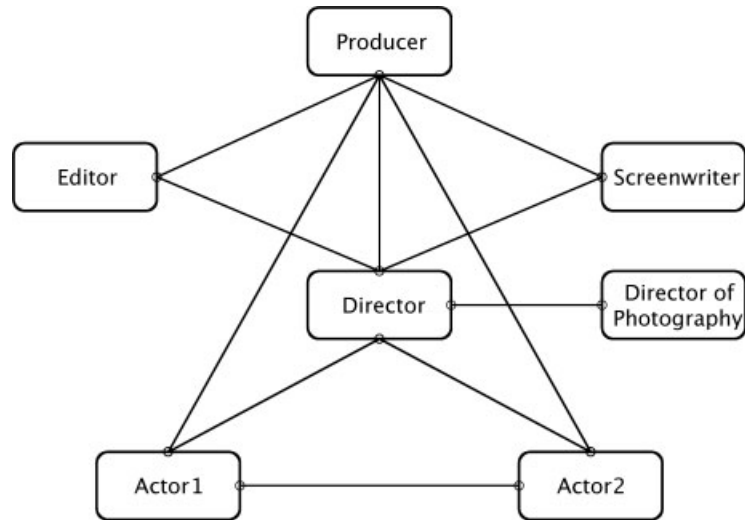


Figure 1. Dyads included in the measurement of the new combinations index

teams (artistic and technical) operate and the director plays the main coordinating figure with links to every other team member (Kawin, 1987). Silver's ethnographic work (1975) analyzes how the director functions as the mediator in the teams' interaction patterns. He observes that technicians did not even talk to the actors during shooting: 'they spoke to the assistant director who then spoke to the director who then spoke to the actors' (p. 87). The multiple phases of film-making are linked by the director's continuing presence throughout the process: 'The fact that the director is permanent and others are temporary contributes to his ability to maintain control although actually engaging in real creative collaboration' (Silver, 1975: 173). A principal actor explains: 'My communication was with the director, the central man; everything revolved around him. As it should. Every function on a film—whether actor, editor, cameraman, or writer—should work through the director' (p. 77). With respect to the director, the producer plays a supervizing and design role and has less interaction with team members (Kawin, 1987; Silver, 1975).

Within the artistic team, the lead actors and the director are the most visible resources that are assembled as the basic package, presented to top-management for green-lighting and to investors to seek financing. They are crucial for differentiation and signaling purposes. Within the technical team, we selected the three functions that make the most general contributions to the structural design and quality of realization of the product (Bordwell et al., 1985). Finally, the selected dyads should limit the likelihood of observing links as an artifact of random association patterns when there is no direct interaction between actors, editors, screenwriters, or cinematographers.

Control variables

In addition to our explanatory variables, our analysis includes a number of controls. At the organizational level, we introduced a control for *Executive tenure*. According to one view, top managers can experiment early their appointments in order to learn how to be effective. Later, they become more confident but feel less pressured to increase their learning (Miller & Shamsie, 2001). A second view posits that when managers increase their experience, they tend to be less prone to error and are more likely to be rewarded for their experiments. As a result, the costs of innovation should decrease and managers would develop more innovation over the course of their tenure (March, 1991). We measured tenure as the (logged) number of years since the studio head of production, who was the

general supervisor of filmmaking activities (Bordwell et al., 1985), was appointed in her position. Data are found in Finler (1988).

Organizational research has argued and shown that *Size* affects innovative activities. Larger organizations tend to be more bureaucratic and less flexible in their decisions (Hannan & Freeman, 1984). Although increasing size generally implies excess resources that could be used for innovation, excess resources can become over-abundant and damage performance by diminishing project selection discipline (Nohria & Gulati, 1996). We operationalize size in two ways: (i) using the total number of contracts held by each studio with creative and technical personnel (the minimum contractual duration considered here is 2 years) and (ii) using the number of films made by each studio. Producing organizations in fact may recruit few talents to make many films or recruit many talents to make few films (Zuckerman, 2005). The data come from the annual directories of *Motion Picture Almanac*, *Film Daily Year Book* and Finler (1988). In the results section we discuss an alternative operationalization of the size measure based on firm revenues. In the context of our study accounting data look as less reliable—during our observation period film studios were engaged in diversification but did not broke down assets or financial performance by business.

We also included a control for *Genre portfolio*. Learning and inertia theories suggest that market scope influences innovative behavior. Firms remember routines by doing more of a particular activity, giving organizational behavior a path dependent character (March, 1991). Consistent with this argument, resource partitioning studies observe that generalist firms tend to become larger and more general over time (Carroll & Hannan, 2000). Just as behavioral inertia induces generalists to introduce more products it should also lead them to introduce more products outside their existing niches (Sorenson, McEvily, Ren, & Roy, 2005). As a result, holding size constant, the introduction of new genres or new genre combination may increase when the genre portfolio, measured as the number of different film genres in which the firm is engaged each year, is larger. Data come from AFI (1993, 1997, 1999), Fetrow (1999), and Nash and Ross (1985).

At the environmental level, we introduced a control for *Weekly attendance* in film theaters. Over the observed period motion pictures went from being the primary form of visual entertainment (1912–1946) to being an alternative to television (1947–1970). Film studio management might have responded to decreasing demand with augmented innovative activity (Miller & Shamsie, 1996). We measured attendance as millions of admissions in theaters each year. Data for this measure come from the *Motion Picture Almanac* and the *Film Daily Year Book*.

Finally, we included an industry-specific control for the institutional context. In 1948 a series of antitrust decrees issued by the Supreme Court (*United States v. Paramount Pictures*, 334 U.S. 131) imposed separation of exhibition interests from the production and distribution activities on the vertically integrated Majors. Experimenting with film genres might have become progressively more hazardous for studios in the presence of a diminishing direct control of distribution outlets. We introduced a dichotomous variable named *Post-Paramount* (1 = after 1948 and 0 = otherwise) to account for specific innovation in the use of creative resources in this period. All control variables are lagged 1 year.

Analytic strategy

The first dependent variables of the study, *New genres_{it}*, include counts of films with a large number of zero values (no new genre introductions in a given year). We adopt negative binomial panel regression for the first set of analyses (Cameron & Trivedi, 1998). The second dependent variable, *New genre combinations_{it}*, is not affected by the incidence of zero observations therefore we use a panel Poisson regression (McCullagh & Nelder, 1989). The Poisson specification ensures that zero values of the

dependent variable are incorporated into the model rather than implying truncation as in OLS regression. These estimation techniques are common in new product introduction studies (e.g., Blundell, Griffith, & van Reenen, 1995).

Additionally, longitudinal data with repeated yearly observations for each subject can introduce bias since observations for the same subject can be correlated. Within-subject correlation usually reduces the variance of the parameters and overestimates the significance of the covariate effects. To correct for potential bias caused by such correlations, we use the Generalized Estimating Equations (GEE) regression method (Liang & Zeger, 1986). This method accounts for autocorrelation—due to repeated yearly measurements of the same firms—by estimating the correlation structure of the error terms. To account for any over-dispersion in the data we report all results with robust standard errors (White, 1980) that relax the assumption that the choice of the correlation structure follows exactly the hypothesized one.

Results

Table 2 reports the means, standard deviations, and correlations among the variables used in the study. Regression results are presented in Tables 3a and 3b. Table 3a contains the negative binomial regression estimates for the introduction of new genres, and Table 3b contains the Poisson regression estimates for the new combination of previously employed genres. Hypothesis 1 predicts a positive relationship between newcomers in the team and genre innovation. Hypothesis 2 predicts a positive relationship between newcomer and new old-timer combinations and genre innovation. To test the hypotheses we first examined a baseline model including only the control variables, and then tested the two hypotheses separately.

Models 1a and 1b include the control variables. We find that executive tenure has a non-significant effect on genre innovation. Product scope has a positive and significant influence on genre innovation: When the film studios operated in broader genre niches they kept innovating. The models also show that size negatively affects new genre introduction and combination, providing evidence supporting inertia-based claims. Among the other effects, theater attendance stimulated new genre introduction but not new genre combination. Symmetrically, the antitrust intervention did not seem to influence innovation in new genres but had a negative effect on innovation in combining existing genres.

In the next step, Models 2a and 2b test Hypothesis 1 by including our measure of newcomers in the teams. We find, as predicted, that the relationship is positive and statistically significant, showing that more newcomers increase the rate of innovation in new genres and in new genre combinations. For any firm in our sample, the newcomer variable at its mean value (31.89) increases new genre introduction by 180 per cent and new genre combination by 140 per cent (relative to old-timers). The Wald test for Models 2a and 2b respectively obtains χ^2 of 40.83 and 52.38, statistically significant at $p < 0.001$ and 1 df. The inclusion of the variable significantly improves the explanatory power of the model over the baseline. We find strong support for Hypothesis 1.

Models 3a and 3b estimate the effect of newcomer and new old-timer combinations. We find that the relationships with the dependent variables are positive and statistically significant as expected. The effects are also substantial: at the mean value the number of newcomer and new old-timer dyads increase the rate of introduction of new genres by 379 and 235 per cent respectively, far above the effect of newcomers. The variables improve the fit of the models. The Wald test obtains χ^2 of 48.23 and 72.64 for new genre innovation and new genre combination respectively, at $p < 0.001$ and 2 df. We find evidence supporting Hypothesis 2.

Table 2. Descriptive statistics^a

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 Introduction of new film genres	1.03	2.02											
2 New combination of film genres	5.17	4.62	0.42										
3 Executive tenure	1.64	1.00	-0.09	-0.22									
4 Size—contracts	60.07	26.77	-0.01	0.18	-0.08								
5 Size—films	27.63	15.00	-0.18	0.20	-0.16	0.34							
6 Genre portfolio	15.75	6.34	0.18	0.69	-0.28	0.26	0.38						
7 Weekly attendance	60.80	13.94	0.26	0.23	-0.08	0.24	0.15	0.33					
8 Post-Paramount	0.33	0.47	-0.17	-0.54	0.30	-0.23	-0.33	-0.68	-0.62				
9 Newcomers	31.89	23.96	0.28	0.21	-0.24	0.01	0.01	0.34	0.14	-0.32			
10 Newcomer combinations	156.93	63.82	0.27	0.24	-0.25	0.02	0.03	0.39	-0.19	-0.35	0.69		
11 New old-timer combinations	0.52	72.32	0.11	0.22	-0.26	0.31	0.42	0.37	0.38	-0.40	0.34	0.36	
12 Firm revenues	6.39	0.74	0.08	0.09	0.09	0.62	0.08	0.07	0.11	-0.03	-0.04	-0.04	0.12

^aN = 203. Coefficients of 0.06 and above are significant at $p < 0.05$.

Table 3a. Results of negative binomial GEE regression predicting the introduction of new film genres

Variable	Model 1a	Model 2a	Model 3a	Model 4a	Model 5a
Constant	-3.747*** (0.792)	-3.001*** (0.740)	-3.700*** (0.781)	-4.277*** (0.768)	-3.851*** (1.151)
Executive tenure	-0.050 (0.092)	-0.044 (0.090)	-0.053 (0.091)	-0.024 (0.092)	-0.033 (0.093)
Size—contracts	-0.125*** (0.038)	-0.089** (0.034)	-0.119*** (0.040)	-0.131*** (0.040)	-0.111* (0.057)
Size—films	-0.047*** (0.005)	-0.016** (0.007)	-0.032*** (0.010)	-0.044*** (0.010)	-0.043*** (0.010)
Genre portfolio	0.168*** (0.020)	0.073*** (0.026)	0.031 (0.029)	0.011 (0.029)	0.011 (0.029)
Weekly attendance	0.043*** (0.007)	0.029*** (0.008)	0.040*** (0.009)	0.045*** (0.009)	0.044*** (0.009)
Post-Paramount	0.577* (0.325)	0.378 (0.346)	0.617 (0.365)	0.860** (0.363)	0.864** (0.364)
Newcomers		0.018*** (0.003)			
Newcomer combinations			0.006*** (0.001)	0.004*** (0.001)	0.004*** (0.001)
New old-timer combinations			0.008*** (0.003)	0.013*** (0.003)	0.013*** (0.003)
Introduction of new film genres _{it-1}				0.278*** (0.044)	0.281*** (0.045)
Firm revenues	184.16***	272.49***	278.70***	303.77***	-0.074 (0.152)
Wald χ^2	203	203	203	203	303.33***
Observations	203	203	203	203	203

Robust standard errors corrected for the effects of clustered data in parentheses.
 * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$.

Table 3b. Results of Poisson GEE regression predicting the new combination of film genres

Variable	Model 1b	Model 2b	Model 3b	Model 4b	Model 5b	Model 6
Constant	0.274 (0.302)	0.337 (0.303)	-0.091 (0.317)	-0.271 (0.319)	-0.302 (0.526)	-0.435 (1.332)
Executive tenure	-0.022 (0.040)	-0.020 (0.041)	-0.021 (0.041)	-0.032 (0.041)	-0.032 (0.041)	-0.007 (0.088)
Size—contracts	-0.021 (0.016)	-0.007 (0.017)	-0.031 (0.019)	-0.017* (0.012)	-0.031 (0.025)	-0.018 (0.056)
Size—films	-0.012**** (0.002)	0.001 (0.002)	-0.011*** (0.004)	-0.014*** (0.004)	-0.014*** (0.004)	-0.015 (0.011)
Genre portfolio	0.109**** (0.001)	0.070**** (0.010)	0.044**** (0.012)	0.045**** (0.012)	0.045**** (0.012)	0.043 (0.032)
Weekly attendance	0.001 (0.003)	0.003 (0.003)	0.004 (0.004)	0.005 (0.004)	0.004 (0.004)	0.007 (0.009)
Post-Paramount	-0.592**** (0.146)	-0.656**** (0.148)	-0.518**** (0.150)	-0.419**** (0.154)	-0.419**** (0.154)	-0.348 (0.355)
Newcomers		0.010**** (0.001)				
Newcomer combinations			0.003**** (0.000)	0.003**** (0.001)	0.003**** (0.001)	0.004** (0.002)
New old-timer combinations			0.005**** (0.001)	0.005**** (0.001)	0.005**** (0.001)	0.007** (0.003)
New combination of film genres _{it-1}				0.031*** (0.010)	0.031*** (0.010)	0.035 (0.028)
Firm revenues					0.005 (0.072)	-0.083 (0.177)
Wald χ^2	351.81****	383.17****	395.93****	429.18****	428.97****	119.39****
Observations	203	203	203	203	203	203

Robust standard errors corrected for the effects of clustered data in parentheses.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$.

Robustness checks

The robustness of the results was tested in several ways. One potential concern in the analysis is unobserved firm heterogeneity. Organizational learning and search literatures argue that firms differ in their search behaviors, and that most firms do not search in perfect ways. For example, search actions are inertial and rationality bounded (Hannan & Freeman, 1984). As most commonly suggested, we addressed this issue by using the lagged dependent variable as a proxy variable and including it as an additional regressor (Heckman & Borjas, 1980). In Models 4a and 4b we report the results of this estimation, which continues to show strong support for the original findings. Moreover, in Models 5a and 5b we included one additional measure of organizational size (*Firm revenues*), operationalized through the (logged and lagged) total volume of ticket sales generated by the films released by each firm as provided by Finler (1988) and company financial reports. This re-specification did not change the results. We also ran additional analyses by including both firm size variables in the same model. This sensitivity test, which combines the additional size measure and the control for firm heterogeneity are reported in Models 5a and 5b, and continue to support the main findings of the study. Finally, for models estimating the new combinations existing genres (Table 3a) we applied a generally used parametric approach to handling unobserved heterogeneity in Poisson regressions: we presumed that the unobserved error follows a gamma distribution and estimated a negative binomial model (the models in Table 3b already use negative binomial regression and were not re-estimated). The negative binomial regression of Model 6 again exhibited the same pattern as the original results. Finally, the use of GEE method in all models aims at correcting and controlling for any remaining serial correlation that arises if unobserved heterogeneity is not directly accounted for.

A second issue related to the form of the relationships between team members. In the social network perspective, the set of dyads under study here is a combination of Simmelian, that is, reciprocally tied to each other and to at least one party in common, and non-Simmelian ties (Krackhardt, 1999). The dyads linking the actors and the director are examples of the former, and the dyads linking the editor and the director of photography to the director are examples of the latter. The score calculation in our variables does not distinguish between such relationships. To control for differences in their effects, we computed separately the three independent variables using only the Simmelian triads director–actor1–actor2, producer–actor1–actor2, producer–director–actor1, and producer–director–actor2, and re-estimated Models 2a, 2b, 3a, and 3b. Our main findings were unaltered. While we acknowledge that the distinction between Simmelian and non-Simmelian ties plays a relevant role in many analyses of bargaining power or conflict (or more in general analyses involving the identification of structural holes), it does not seem to affect the relationship we focus on.

Discussion

In this study we analyzed how team composition, with regards to the newcomer/old-timer distinction, affects innovation and exploration in cultural industries. This study has two main findings. First, we provided an empirical validation of March's (1991) simulation model of organizational learning, showing the role of newcomers in fostering innovation and affecting the balance toward exploration. Second, by introducing a social perspective to teams, and by analyzing within-team combinations between members, we showed that also old-timers could be a source of innovation.

Our empirical study of feature film production in Hollywood shows support for these theoretical claims. We analyzed how the seven largest film producers managed genre innovation from 1929 to

1958 and the principal creative and technical personnel were mixed in production teams. Our analysis shows that genre innovation was usually built on the introduction of newcomers rather than old-timers, and on the use of new combinations of both newcomers and old-timers.

Study limitations

Despite the support for the theoretical claims, the study suffers from some limitations, which in turn may suggest future research opportunities. First, our study is limited to a set of large organizations in a specific historical period. It would be important to extend our analysis to smaller producers, not only to avoid size bias, but also to determine the consistency of the patterns we observed. Smaller firms may either be more limited in their innovation search or be more adventurous because they need to grow and reduce competitive overlap with other firms. In a study of the 1912–1929 period Mezas and Mezas (2000) find that specialist film producers are more likely to introduce new genres. Their study defines specialist producers as producers that did not integrated vertically into distribution. It would be interesting to investigate also if size influences innovation or if the pattern they observed holds in later periods like the one studied here. Future research might also benefit from pairing avant-garde and small commercial films to see if team composition has comparable effects.⁵

Second, our analysis of team member combinations included only a limited set of roles. The inclusion of a broader range of production personnel such as supporting actors might provide a more comprehensive picture of how innovation is affected by team-related processes. Also, our study does not investigate the effects of individual member characteristics or of past collaboration among members on exploration. Future extensions of our work could investigate whether individual or collective experience influences genre innovation as suggested by social network research.

Third, another limitation of the study is that the introduction of new genres or the combinations of existing genres defines only one aspect of product innovation in the film industry. Innovation also exists within single and established genres. Future research might analyze other elements like plot structures and/or subjects to address within-genre experimentation.

Fourth, our study does not address performance implications of team composition or exploration. For example, the presence of more newcomers induces exploration in genres but the resulting product may achieve lower commercial success due to the lack of familiarity of audiences with new plot structures, new personnel, or both. Studies developing links across these dimensions will make useful contributions to research in innovation, well beyond the focus on cultural industries.

Finally, our study focuses on team-based activities and the production of complex creative goods. Other contexts like book publishing, where individuals are responsible for producing simpler products, or the toy industry, where genre boundaries seem less relevant, might make replication more difficult. However, future research in such contexts may focus on informal teams and/or age groups to determine whether other types of collective effort influence innovation in product categories or configurations. Overall, we do not think that these limitations impair the validity of our results in relation to the proposed theory. They invite future research efforts to develop new work linking group-level processes to innovation and other organizational outcomes.

Contributions to theory

At a more general level, our study extends two different streams of literature. First, we make a contribution to the research on organizational learning, by providing an empirical validation of March's

⁵We thank an anonymous reviewer for suggesting this point.

(1991) theoretical claims. By incorporating the organizational demography framework, we suggest that March's predictions are valid within specific contexts or functions where creativity is fundamental. Moreover, whereas March consider members as loosely coupled pieces of knowledge, our study shows that by considering combinations between team members, both newcomers and old-timers play an active role in organizational exploration and innovation. Shifting the perspective from single components to structural combinations thus shows an otherwise undetected reality, where old-timers foster innovation. Although our study does not adopt a social network perspective, our results indirectly informs the literature addressing the diversity-performance debate in terms of network processes (Jones, Lichtenstein, Borgatti, Hesterly, & Tallman, 1997; Reagans & Zuckerman, 2001; Reagans, Zuckerman, & McEvily, 2004).

Second, we make a contribution to the research on organizational demography and diversity. Most empirical studies on the newcomer/old-timer distinction are focused on specific newcomers' outcomes or behaviors, like socialization tactics (Jones, 1986), performance improvement (Chen & Klimoski, 2003) or self-perception (Rollag, 2004). Our study is focused instead on teams' outcomes, and shows the positive effects of newcomers on innovation.

At a more specific level, our study makes a contribution to the research on creative and cultural industries. Previous studies identified the determinants of product innovation in specific environmental or organizational factors, like market concentration (Lopes, 1992; Mezas & Mezas, 2000; Peterson & Berger, 1975), and executive tenure (Miller & Shamsie, 2001). By focusing on team-level variables, our study improves the understanding of innovation in these industries. In this sense, our study aims at rejoining recent discussions on cross-level research in organizational behavior (Hackman, 2003).

Our findings are consistent with previous research on the film industry. Team composition is the most important tool to signal the belonging of a single film to a specific genre. Within the artistic team, lead actors and directors are the most visible components. Their presence can be employed and combined to give each film certain characteristics, and in the case of popular or exceptionally talented artists their involvement plays a signaling function. As pointed out by Altman (1999), 'such names as Boris Karloff, Errol Flynn, John Wayne, Gene Kelly. . . designate more than just actors and actresses—they guarantee a certain style, a particular atmosphere and a well-known set of attitudes' (p. 25). The repeated formulaic use of familiar stars usually makes films predictable on the basis of title and credits alone.

However, the signaling function of some creative resources, their appropriateness, and their previous success in specific films favor typecasting (Zuckerman, Kim, Ukanwa, & von Rittmann, 2003). Once a film is successful, Hollywood's producers try to replicate indefinitely the same formula until its exhaustion. The main drawback of typecasting is that the identification of an actor or, more generally, of a creative resource with a particular character or a specific film genre often prevents these resources from being considered for other roles or genres. In Hollywood, this happened not only with actors, but also with directors (e.g., Alfred Hitchcock with suspense films, John Ford with western, and Douglas Sirk with melodrama), or editors (Milton Carruth and Ted Kent with horror movies). Typecasting is part of the film business and is, to a large extent, inescapable insofar is crucial to the institution, enabling brand-naming, and marketing of star commodities (Wojcik, 2004). As a matter of fact, genre innovation was stimulated by relying increasingly on newcomers, or on new combinations of both newcomers and old-timers. Our results thus fit the cultural industries' conventional wisdom according to which 'producers are more likely to find market success when they blend familiar and novel elements' (Lampel et al., 2006: 292).

Implications for management practice

Previous research on innovation in cultural industries was mostly focused on environmental and organizational determinants, which are beyond the scope of or slowly affected by managerial action.

By suggesting a relationship between team heterogeneity and innovation, our study implies a wider role for managers. In some contexts, like the film industry, team composition is a very frequent decision. For this reason the film industry allows us to observe more clearly a relationship, which is limited not only to cultural or creative industries, but that could also be applied to other industries where innovation is a creative team-based process (e.g., software development, car design, etc.).

Our findings embody at least three paradoxes or tradeoff that managers and organizations face.

The innovation-failure tradeoff: According to our findings, genre innovation in the film industry is more likely to be achieved through the employment of newcomers. However, in order to decrease the risk of market failure for the film, producers tend to pull choices toward well-established and bankable actors and actresses (the so-called 'stars'), and successful professional personnel (Faulkner & Anderson, 1987). Increasing innovation through the employment of newcomers may dangerously go in tandem with increasing risk and the likelihood of unsuccessful products.

The innovation-legitimacy tradeoff: Managers face also another organizational tradeoff. A new genre is able to become a formula, which is amenable to be largely replicated only when it is established among the audience. Legitimation of a new genre can grow faster if endorsed by highly visible actors or directors because their involvement can reassure the audience. However, playing outside the field set by the typecasting rules, or in other words looking for discontinuity relative to prior films, can be risky. To wrong foot the audience by using actors and directors in other roles or in movies different from the kinds they are used to runs the risk of losing the audience's approval and its loyalty to future offerings. Consistently, it is difficult to find actors willing to experiment outside the typecasting rules. As shown by previous studies, careers marked by a low degree of coherence are likely to face greater difficulty than those that are more clearly defined (Zuckerman et al., 2003). Increasing legitimacy of a new genre may thus come at the expense of de-legitimizing valuable resources, thereby curtailing their careers.

The innovation-control tradeoff: Genre innovation is like discovering a formula for which there is no patent protection, and that can be copied and replicated by all the other organizations. In the film industry, although several studios or brands were particularly recognized in the heydays of the studio system for their excellence in producing specific genres (e.g., sophisticated dramas for MGM, comedies for Paramount, musicals for RKO, etc.), genres can never be fully controlled by a single studio. Accordingly Hollywood's studios seemed to have avoided genre innovation, favoring the production of series, cycles, remakes and sequels, featuring the same in-house star, character or look, and capable of developing a pre-sold audience for future films (Altman, 1999). This interpretation resonates with the innovator's dilemma (Christensen, 1997), where all too often large companies are reluctant to take on challenges in small and unknown terrain and instead look for growth in established markets, running the risk of being pushed aside by new entrants.

Cultural industries are clearly different from most other industries (Lampel et al., 2000), yet these tradeoffs suggest that managers operating in this field cope with the same challenges managers can face elsewhere. Managers are increasingly asked to deal with paradoxes, like how to increase efficiency and foster creativity, or to increase control and foster flexibility (Handy, 1994). Extant research shows that in order to face the paradoxes they encounter, managers need to explore, and to cope with their tensions, rather than suppressing them. Managing paradoxes requires managers to understand the ambiguity and the complexity of perceptions, to develop and use alternative frames, and to mimic the creative process of scientific and artistic geniuses and their capacity of Janusian thinking, that is, the simultaneous integration of antithetical elements (Lewis, 2000). According to this framework, managing the paradoxes of innovation, which depends on creativity, requires in its turn creativity. This seems another paradox. Managers in the cultural industries deal most and overall with the successful use of creativity. A better understanding of the solutions they found to this contradiction may thus provide a fundamental lesson that cultural industries can impart to other industries.

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Appendix: The List of Film Genres Used in the Study

Genre

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|---------------------|---------------------|
| 1 Action | 40 Medical |
| 2 Adventure | 41 Melodrama |
| 3 African American | 42 Military |
| 4 Allegory | 43 Musical |
| 5 Animal | 44 Mystery |
| 6 Anthology | 45 Newspaper |
| 7 Arabian | 46 Northwest |
| 8 Automobile racing | 47 Performance |
| 9 Aviation | 48 Police |
| 10 Baseball | 49 Political |
| 11 Biography | 50 Post-war life |
| 12 Boxing | 51 Prison |
| 13 Children's works | 52 Psychological |
| 14 Civil War | 53 Religious |
| 15 College | 54 Road |
| 16 Comedy | 55 Romance |
| 17 Compilation | 56 Rural |
| 18 Costume | 57 Satire |
| 19 Crime | 58 Science fiction |
| 20 Detective | 59 Screwball comedy |
| 21 Disaster | 60 Sea |
| 22 Domestic | 61 Show business |
| 23 Drama | 62 Social |
| 24 Elderly | 63 Society |
| 25 Epic | 64 Sports |
| 26 Espionage | 65 Suspense |
| 27 Exploitation | 66 Swashbuckler |
| 28 Fantasy | 67 Teenage |
| 29 Film noir | 68 Thriller |
| 30 Football | 69 Travelogue |
| 31 Gambling | 70 Variety |
| 32 Gangster | 71 War |
| 33 Historical | 72 War preparedness |
| 34 Homefront | 73 Western |
| 35 Horror | 74 World War I |
| 36 Horse race | 75 World War II |
| 37 Island | 76 Yiddish |
| 38 Jungle | 77 Youth |
| 39 Legal | |