Is Category Spanning Truly Disadvantageous?

Is Category Spanning Truly Disadvantageous? New Evidence from Primary and Secondary Movie Markets

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Genre assignments help audiences make sense of new releases. Studies from a wide range of market contexts have shown that generalists defying clear mapping to established categories suffer penalties in market legitimacy, perceived quality, or audience attention. We introduce an empirical strategy to disentangle two mechanisms, reduced niche fitness and audience confusion, causing devaluation or ignorance of boundary-crossing offers. Our data on 2,971 feature films released to US theaters and subsequently made available on DVD further reveal that consequences of category spanning are subject to strong moderating influences. Negative effects are far from universal, manifesting only if (a) combined genres are culturally distant, (b) products are released to a stable and highly institutionalized market context, and (c) offers lack familiarity as an alternative source of market recognition. Our study provides ramifications as to the scope conditions of categorization effects and modifies some widely acknowledged truisms regarding boundary crossing in cultural markets.

Introduction

Socially shared categorizations (e.g., genres) allow consumers to make sense of and compare available offerings. Valuation requires comparison, for which crisp categorization provides "interpretative packages" ([Bielby and Bielby 1994](#), p. 1291). In this sense, categories simplify perception and evaluation by grouping similar objects together and help audiences form expectations about organizations and products ([Cerulo 2010](#); [DiMaggio 1997](#); [Rosch and Lloyd 1978](#)). Today, the socio-cognitive structuring of markets stands at the core of theoretical advances in economic sociology and organizational science ([Hannan 2010](#);

Lamont 2012). Cases when actors or objects defied clear categorization and crossed genre boundaries received particular scrutiny. Most importantly, research has shown that generalists (i.e., category-spanning producers or products) experience decreased market legitimacy, perceived quality, or audience attention.[1]

Categorization researchers have proposed two mechanisms—reduced niche fitness and audience confusion—behind the negative consequences of boundary crossing (e.g., Hsu, Hannan, and Koçak et al. 2009; Kovács and Hannan 2010). They have dubbed the first mechanism the "Jack-of-all-trades problem" (Hannan and Freeman 1989; Hsu 2006): Generalists gain less experience in any particular genre than do specialists who concentrate their efforts reliably on one category, thus developing less ability to satisfy any particular audience's needs. The "uncertainty problem" of many markets lays the foundation for the confusion mechanism: Generalists are ambiguous such that audiences have difficulty forming expectations and hence tend to stay away.

Pinpointing the scope conditions of spanning effects has also received substantial effort. Unambiguous mapping to genres appears to be particularly relevant in opaque markets, providing needed guidance for otherwise uninformed audiences (e.g., Hsu 2006; Hsu, Hannan, and Koçak 2009). In markets with fuzzy (Kovács and Hannan 2010; Negro, Hannan, and Rao 2011) or as-yet-un-institutionalized boundaries (Rosa et al. 1999; Ruef and Patterson 2009), on the other hand, category spanners typically face fewer penalties. Important interaction effects with respect to additional sources of market recognition also pertain. Pairing boundary-crossing products with well-established elements such as brand names or popular collaborators can alleviate the negative consequences of spanning (Zhao, Ishihara, and Lounsbury 2013; Zuckerman et al. 2003) and even contribute to the establishment of new categories (Jensen 2010; Kennedy 2008).

We combine both strands of research into how market conditions act on both the niche-fitness and the confusion mechanism in bringing about negative spanning effects. We intend a rigorous identification of spanning effects' contextual moderators on the grounds of a common dataset. We find that boundary crossing is not universally detrimental and strong moderating influences can occur. Effect heterogeneity arises from the socio-cultural distance between categories spanned, the market environment against which one judges boundary-crossing objects, and their market recognition from sources apart from crisp categorization.

Our empirical work focuses on feature films released to US theaters during 1997–2010 and subsequently made available on DVD. From a methodological standpoint, the film industry offers an expedient test bed for categorization theory. Hollywood provides a constant flow of innovations featuring graded memberships in genres as well as a "tumultuous context" in which "[e]lements are combined, taken apart, and recombined in a continuous process of organizational formation and dissolution" (Baker and Faulkner 1991, p. 283). Movies are highly ambiguous (Bielby and Bielby 1994), and the film industry operates under extreme uncertainty (Caves 2000; DeVany 2004; Goldman 1983). Evaluating new releases depends on both social interaction and shared understandings, such that social assignments of product legitimacy mold aggregate

demand. Besides these qualities, the film industry also provides an increasing volume and variety of fine-grained data on the level of suppliers, products, intermediaries, and various audience types.

Our contribution to categorization research is fourfold. First, we empirically disentangle the niche-fitness mechanism and the confusion mechanism, which together may cause ignorance or devaluation of boundary-crossing offers. We expect the confusion mechanism to be relatively more important in causing spanning effects in cultural industries, as their mainstream markets provide experience goods (Nelson 1970) whose characteristics and "quality" one can evaluate fully only through consumption.

Second, we hypothesize that the relevance of both mechanisms varies strongly with the market context new products are released to. To demonstrate the moderating influence of market context, we utilize the film industry's partition into a well-ordered major and a more opaque independent segment. Films distributed by major studios typically exhibit mass-market tailoring, permitting strong inferences on underlying product features. Failing to achieve a clear-cut genre assignment should severely exacerbate product valuation. In the independent segment, we expect spanning effects to be less pronounced. Audience expectations are less restrictive, and independents' "arthouse" positioning is intrinsically vague (Zuckerman and Kim 2003). Our study thus relates to a growing literature on the role of market characteristics in bringing about specific consequences of category spanning.

Third, we show that spanning effects vary with products' acquired recognition among early audiences. Sequential distribution—first to movie theaters and eventually to retailers—offers an opportunity to observe two unique releases for each sampled offer.[2] Controlling for unobserved product characteristics, the theatrical run provides data on entirely new releases, whereas secondary-market data depend in part on a history of primary-market success and thus a subset of DVDs is familiar to potential viewers. We hypothesize that product familiarity cuts off the confusion mechanism which, in turn, should reduce penalties for category spanning. Hence, we also contribute to typecasting theory (Zuckerman et al. 2003), which posits that generalists drawing on alternative sources of market recognition go unpunished and, under some circumstances, can expand niches to attract even larger audiences.

Fourth, we quantify boundary crossing with respect to the socio-cultural distances between categories spanned. Spanning should induce severe consequences only if the genres involved have little overlap. Prior research has mostly neglected the fact that spanning effects should mitigate if categories are not mutually exclusive. We introduce a straightforward modeling approach to account for the commonality of categories based on their frequency of co-occurrence.

Our results highlight that negative consequences of category spanning occur only if the particular genres are culturally distant. More importantly, we show that distinctions between market context and product familiarity are highly relevant. Negative consequences of category spanning are far from universal but manifest only in a stable mainstream environment and which already-familiar

generalists can overcome. Hence, our empirical work has important ramifications for understanding the scope conditions of categorization effects and modifies some well-known truisms on boundary crossing in cultural markets.

In the remainder we proceed as follows: In the Theory and Hypotheses section, we summarize prior theorizing on the expected main effect of category spanning and provide a more detailed rationale for the moderating influence of socio-cultural distance, market context, and product familiarity. We spell out our methodology in the Methodology and Data section, proposing our analytic strategy in empirically disentangling the mechanisms behind spanning effects and their interaction with context and familiarity. The Results section summarizes our findings. In the Discussion section, we relate our findings to prior results and indicate potential generalizations to further domains of social life as diverse as individual careers, scientific schools of thought, political party positioning, and perceptions of race and ethnicity.

Theory and Hypotheses

In the form of genre assignments, product categories are particularly relevant and highly salient in cultural markets. Genres, just like any category convention, are rooted in social consensus about object similarities (Bielby and Bielby 1994; DiMaggio 1987). By fostering shared understandings, genre conventions resolve ambiguity and permit efficient processing of perceptions and experiences. Within a cultural toolkit, they reveal to potential audiences subtle information about underlying product characteristics without "spoiling" new releases.

Sociological studies of cultural markets have long recognized categories' function as a communication device between artists and audiences. In a foundational article, Bielby and Bielby (1994, p. 1292) state that "[w]ork outside of established genres disrupts shared understandings and requires more effort to coordinate and promote." Largely propelled by Zuckerman's (1999) seminal contribution on product perception among securities analysts and a growing intersection with organizational niche theory (Hannan, Pólos, and Carroll 2007), interest in market mediation by categorization has fulminated.

Consequences of Category Spanning

Conventions regarding grouping and labeling objects are often "taken for granted," maintained through social consensus and habitualization (Berger and Luckmann 1966; Meyer and Rowan 1977; for a much earlier account, see Durkheim and Mauss [(1903) 1963], p. 8]). A dominant view among cognitive scientists places categories around prototypes as ideal representations of a specific set of attributes (Cerulo 2010; Hampton 2007; Rosch and Lloyd 1978). Hence, one may conceptualize product perceptions as organized according to their distance from an ideal representation. Closeness implies both cognitive fluency and cultural meaning, whereas remoteness overstrains audiences and often results in ignorance or illegitimacy.

An object's typicality—its grade of membership (GoM $\in [0, 1]$) within a socially shared category (Hannan 2010; Hsu, Hannan, and Koçak 2009)—can thus be essential for audience attention. Easily accessible offerings are more likely to be considered for consumption, raising the number of potential consumers (DiMaggio 1997). Products which, on the other hand, defy clear classification and cross categorical boundaries should suffer from what some have prominently termed an "illegitimacy discount" (Zuckerman 1999, p. 1415).

This negative consequence of category spanning is empirically well established in various markets (see Hannan [2010]; Negro, Koçak, and Hsu [2010] for overviews). Non-transparent and fast-paced cultural industries received particular scrutiny, including markets for wine (Negro and Leung 2013; Negro, Hannan, and Rao 2011), restaurants (Kovács and Hannan 2010; Rao, Monin, and Durand 2005) and, most importantly for this study, feature films. Based on a sample of 398 films released to US theaters in 2002 and 2003, Hsu, Hannan, and Koçak (2009; see also Hsu's [2006] pilot study) show that generalists receive less attention at the box office and inferior evaluations by both professional critics and the general audience. The authors introduce a now-widely-accepted measure for category spanning based on genre assignments recorded in multiple web archives. We adopt and extend their measure in our analyses. As we will argue below, the study is less instructive when it comes to modeling the mechanisms underlying illegitimacy discounts. Zhao, Ishihara, and Lounsbury (2013) examine the legitimating function of films' referral to established reputations. Their results, based on 2,827 films' opening week box-office revenues, suggest that naming strategies can mitigate audiences' disregard of boundary crossers. When a film's title clearly labels it as a sequel of a successful predecessor, inattention diminishes. Investigating the crucial interaction of familiarity and category spanning, their analysis relates closely to our study. As we elaborate in more detail below, our two-market design takes a more general perspective on familiarity's moderating role, overcoming previous restrictions to sequel films.

Mechanisms

Of the different mechanisms proposed to explain devaluation or disregard of generalists (e.g., Hsu, Hannan, and Koçak 2009; Kovács and Hannan 2010), two processes appear particularly relevant in explaining the impact of category spanning in cultural markets:

In the case of the first mechanism, dubbed the "Jack-of-all-trades problem" (Hannan and Freeman 1989; Hsu 2006), audiences with well-defined preferences as to the thrust and content of cultural offerings perceive generalists as less able to meet their particular needs. Spanning categories results in a thin spreading of efforts across various genres, typically entailing reduced focus to and lower investment in each category. A broader niche (Dobrev, Kim, and Hannan 2001; Hannan and Freeman 1989), in other words, carries the cost of reduced fitness. We term this the *niche-fitness hypothesis*:

> *H1: Category spanners are less able to meet targeted audiences' niche expectations.*

The second mechanism is rooted in the "uncertainty problem" of many markets, cultural markets in particular (Caves 2000; Goldman 1983). To assess offerings' alignment and value upon considering consumption, potential consumers refer to existing product categories against which they may evaluate new releases. Objects assigned to a single category are relatively accessible, allowing members of the audience to infer "the nature of the protagonist and antagonist, the structure of dramatic action, the catalytic event, narrative style and structure, and tone" (Hsu 2006, p. 427). Failing to achieve a clear-cut genre assignment exacerbates audience confusion, such that generalists receive less recognition and are ultimately less likely to succeed. We call this the *confusion hypothesis*:

> *H2: Category spanners are ambiguous and thus receive reduced audience attention.*

In the remainder of this section, we delineate potential moderators of spanning effects that either affect illegitimacy discounts in general or act on a specific underlying mechanism. First, certain genre combinations may be more acceptable than others, such that devaluation or inattention diminishes. Second, we expect penalties for boundary crossing to be context dependent. Third, we theorize that generalists bolstered by alternative sources of market recognition may alleviate consequences of category spanning.

Socio-Cultural Distance

It appears plausible that illegitimacy discounts are negligible if involved categories are noncontradictory and frequently co-occur (e.g., "romantic comedy"). On the other hand, one can expect grave consequences if spanned categories are mutually exclusive (e.g., "science-fiction Western"). The first case complies with cultural codes, and audiences perceive such films as more or less crisply categorized. The latter case, however, clearly breaks with categorical boundaries and hampers interpretation of new releases (Goldberg, Hannan, and Kovács 2016; Kovács and Hannan 2015). We thus formulate the *distance hypothesis*:

> *H3: Category spanning is punished only when the specific genres co-occur irregularly.*

Market Context

We have so far elided the underlying conditions of film production and marketing. Films are typically collaborations of experts working temporarily together to create singular cultural artifacts (Faulkner and Anderson 1987; Lutter 2015). Film studios then acquire the rights to promising productions and work to distribute them to consumer markets.

Distributors cater to either a stable mainstream or a more opaque independent market segment. Upon releasing their products, major distributors ascertain

mass-market compatibility within a highly institutionalized segment with strong expectations about acceptable product characteristics. Independents, in contrast, assign a more vague "arthouse" identity within a variable and highly ambiguous environment (Zuckerman and Kim 2003). Resulting product placements determine audiences' expectations and the frames against which they will judge available offerings (Baker and Faulkner 1991; White 2007).

Facing stricter expectations as to product features deemed acceptable, we expect severe penalties for less typical releases in the mainstream segment. Independent films, instead, trade under relaxed niche expectations, so that boundary crossing should not compromise perceived niche fitness. This leads us to propose the *context × niche fitness hypothesis*:

H4: Category spanning reduces perceived niche fitness for major films. For independent films, this effect is attenuated.

Films distributed by major studios are readily accessible by large audiences and typically permit strong inferences concerning underlying features. The filtering role of independent distributors is much weaker, resulting in a wider and fuzzier range of movies. Independent films are thus more ambiguous from the beginning and, at the point when audience members consider attendance, already more difficult to categorize. Whereas category spanning should exacerbate interpretation in a mainstream context, we predict that it would not add confusion in the independent segment. Hence, we frame the *context × confusion hypothesis*:

H5: Category spanning among major films induces uncertainty, resulting in reduced audience attention. For independent films, this effect is attenuated.

Product Familiarity

In being considered for consumption, newly released products also benefit from associations with familiar content and established reputations (Rogers 2003; Sauder, Lynn, and Podolny 2012). This principle of "compatibility" has a long history in diffusion research (Coleman, Katz, and Menzel 1957; Graham 1954) and has been adapted to cultural markets (e.g., Rossman 2014). Studying producers' strategies in introduction of new television series, Bielby and Bielby (1994), for example, highlight the importance of linkages to familiar content in gaining legitimacy among financiers and broadcasters. They observe that "[e]stablishing such a claim reduces the need to use other reputational or imitative rhetorical strategies to describe a new series. It also reduces the need to make claims about departing from widely shared conventions" (p. 1298).

The informative function of popularity is particularly well understood in cultural markets. Social cues to others' cultural choices (Keuschnigg 2015; Salganik, Dodds, and Watts 2006) and word of mouth (Liu 2006; Moul 2007) guide audience attention in opaque environments and effectively reduce uncertainty regarding a work's value. Early success should thus be a substantial source of market recognition for new releases. In accordance with

Zhao, Ishihara, and Lounsbury (2013), we consider that generalists already familiar with potential consumers can overcome illegitimacy discounts. More precisely, we expect that prior popularity cancels out the confusion mechanism, because past successes at the box office, rampant media coverage, and word of mouth can provide visibility and inform audiences about underlying product features. We thus coin the *familiarity × confusion hypothesis*:

> H6: *Category spanning goes unpunished for familiar offerings.*

Accordingly, the *confusion hypothesis* (H2) should no longer hold when category spanning combines with familiarity. Others have formulated similar arguments into what is now known as typecasting theory (Zuckerman et al. 2003). Studying actors' careers in the film industry, Zuckerman and colleagues show that a narrow range of previously adopted roles helps actors get further contracts. In averting confusion, well-established actors, however, rely less on signaling a focused skill set and can thus take liberties, spanning multiple genres. This, in turn, increases both their scope of employment and their opportunities for artistic expression. Hence, achieving "multivocality" (Pontikes 2012; Zuckerman et al. 2003), that is, an identity only loosely confined by categorical boundaries, permits legitimate agents to expand market niches and attract larger audiences.

Methodology and Data

The current literature has not, as yet, rigorously identified the niche-fitness and the confusion mechanism within a common dataset. To separate both mechanisms we first use consumer evaluations to quantify a film's compliance with niche expectations. Taking into account that films are experience goods (Nelson 1970), only people who actually viewed a picture can provide such information. Hence, rather than using Hsu, Hannan, and Koçak's (2009) approximation of niche fitness on the grounds of market success (the logarithm of box-office revenue), we explicitly operationalize the concept using audience evaluations conditional on having experienced the film. We believe that evaluations provide a valid indicator of niche fitness because the viewers rate films in relation to similar releases (i.e., same-genre films). During their lifecycles, most movies reach various audience types. We thus measure niche fitness based on critics', moviegoers', and DVD consumers' ratings of each film. We resort to measures of product revenue only for determining the effect of category spanning on audience attention.

Further, and importantly, in some models we "screen out" the influence of niche fitness on audience attention by including consumer evaluations as an independent variable. In doing so, we isolate the relevance of the confusion mechanism in explaining the consequences of boundary crossing. The inclusion of estimated niche fitness is crucial, as it allows us to quantify category spanning's confusion effect net of the "Jack-of-all-trades problem."

Others have previously reported moderating influences of market context, which we address in H4 and H5, for blurred categorical systems (e.g., Kovács and Hannan [2010] for gastronomy; Negro, Koçak, and Hsu [2010] for

winemaking) and for unstable categorical environments, such as in emerging markets (see Ruef and Patterson [2009] for nineteenth-century finance) and industries undergoing change (see Rosa et al. [1999] for car-making). Hence, prior results already indicate that spanning effects are, to some extent, context dependent. In our design, we consistently distinguish between films distributed by either major or independent studios to compare spanning effects in two parallel market segments. Previous film studies (Hsu 2006; Hsu, Hannan, and Koçak 2009; Zhao, Ishihara, and Lounsbury 2013) include distributors' sizes as a control yet neglect this highly relevant interaction effect.

Finally, to examine the interplay of category spanning and product familiarity, we utilize the release of identical offers in two sequential markets. Focusing on DVDs, we differentiate between movies highly successful at the box office and movies without primary-market success. Whereas we interpret the former as well-established cultural content, the latter still represents ambiguous content. Hence, our design permits direct measurement of a film's familiarity among DVD consumers. Unlike Zhao, Ishihara, and Lounsbury (2013), who settle for an indirect measure of familiarity based on prequels' success, we dismiss potential selection bias, as commercially successful films are more likely to spawn sequels. Moreover, direct comparison of spanning effects between primary and secondary markets fully controls for films' unobserved characteristics. This requires, of course, the assumption that consumers in both markets do not, on average, differ in their preferences for generalists, but our data will allow direct evaluation as to this assumption's validity.

Data Collection

We gathered film data in February 2015 from three archival websites and from Amazon.com. We sampled all feature films originally released to US theaters in 1997–2010 that were available on DVD at Amazon during data collection. We set 1997 as our data window's lower boundary, because mass-market introduction of DVDs took place in that year's first quarter (see also online appendix A1). The year 2010 serves as our upper boundary, so that observed films will have had sufficient time to diffuse in both the primary and the downstream DVD markets.

Data collection followed four steps. First, we compiled information on films' distributors, release dates, box-office revenue, and number of opening theaters from Box Office Mojo (BOM), a leading provider of film industry data. Second, we matched data from the Internet Movie Database (IMDb), including movies' genre assignments, general audience evaluation, and production budgets. Third, we collected alternative genre assignments and critics' ratings from Rotten Tomatoes (RT), a popular aggregation site for professional reviews. We then gathered all secondary-market characteristics from Amazon's American website on February 11 and 12, 2015 (see table 1).

This procedure leaves us with a cut set of $N = 2,971$ films. For the same period, the Motion Picture Association (2004, 2010) estimates the total number of movies released to US theaters at 7,302. This coverage gap arises because not

Table 1. Description of Variables

Variable	Scale	Source	Descriptive statistics				
			N	Min	Max	Mean	SD
Audience response							
RT critics' rating	1–10	RT	2,896	1.70	9	5.43	1.36
IMDb users' rating	1–10	IMDb	2,971	1.30	9	6.22	1.04
Amazon users' rating	1–5	Amazon	2,958	1.25	5	3.88	0.50
Box-office revenue	0–1	BOM	2,971	0	1	0.50	0.28
log(DVD price)	cont.	Amazon	2,971	1.39	4.64	2.15	0.57
Film characteristics							
Category spanning	0–1	IMDb, RT	2,971	0	0.88	0.55	0.23
Co-occurrence	cont.	IMDb, RT	2,615	1	741.00	271.22	212.76
Major distributor	0,1	BOM	2,971	0	1	0.49	
Opening theaters	0–1	BOM	2,971	0	1	0.50	0.29
Budget	0–1	IMDb	2,164	0	1	0.50	0.29
Star power/100	cont.	Hot List	2,971	0	2.96	1.53	0.85
Foreign	0,1	IMDb	2,971	0	1	0.10	
Season	0,1	BOM	2,971	0	1	0.48	
DVD controls							
log(Number of offers)	cont.	Amazon	2,971	0	5.23	3.10	0.87
Streaming availability	0,1	Amazon	2,971	0	1	0.81	
Weeks since release	cont.	Amazon	2,971	25.70	918.30	523.03	189.24

Note: cont. = continuous, BOM = Box Office Mojo, IMDb = Internet Movie Database, RT = Rotten Tomatoes.

all releases were subsequently available on DVD. With respect to films released to both theaters and the DVD market (our sampling condition), we literally achieve full coverage. We can thus reject "success bias" (Denrell and Kovács 2008; Elwert and Winship 2014), which would occur if complete information was more likely for higher-budgeted and more popular movies. Consequently, our coverage rate is considerably larger than those yielded in recent studies of category spanning in the primary movie market.[3]

Variables

In the following, we describe our dependent variables capturing audience response to newly released films and DVDs. We then delineate our measures of category spanning and its potential moderators, and summarize film characteristics and secondary-market specifics held constant in our analyses.

Niche fitness. RT, IMDb, and Amazon provide highly frequented rating appliances offering large-N evaluations by three distinct audience types. First, RT aggregates influential expert critiques published by large newspapers, national broadcasters, and popular websites. We interpret RT critics' average rating, a 10-point scale averaging individual raters' scores, as experts' assessment of a theatrical release's niche fitness. From our sampled films, 2,896 (97.5 percent) received some rating. Our first measure utilizes 272,083 expert judgments. On average, each film rating is the aggregate of 94 expert evaluations. Second, IMDb provides evaluations from a more general audience, allowing each registered user to cast a single vote for each listed movie and presenting a weighted average on a 10-point scale. Because a large fraction of voter activity occurs early in films' lifecycles, we interpret this score as moviegoers' assessment of niche fitness. Our indicator utilizes 159 million votes, on average 17,326 per movie. Third, every registered Amazon client can rate films on a 5-point scale. Because Amazon trades in DVDs and movie streaming, one may plausibly assume its rating system to be maintained mostly by secondary-market consumers. We thus use Amazon's 5-star rating specifically to measure DVD viewers' preferences. Evaluations rely on 842,501 votes, on average 140 per film.[4]

Primary-market attention. We collected total domestic earnings in the United States and Canada as the standard measure of audience attention to newly released films. Because our dataset is a cross-section of films released over a 14-year period, we account for market trends (e.g., average theater attendance, concentration on blockbusters) potentially affecting theatrical revenues over time: We transform box-office earnings into a continuous relative measure of primary-market success where, within a three-year bracket (release year +/− one year), the highest- (lowest-) grossing movie receives the value 1 (0). For film i, we calculate the transformed measure q as the number of films in the selected time span yielding box-office earnings lower than i divided by the number of all movies within that period (including i). According to this definition, i's box-office earnings correspond to the value of the q-quantile of the distribution of all films within the three-year reference period. This measure is less sensitive to extreme outliers such as *Titanic*, *Avatar*, and *Star Wars Episode 1*, our sample's top-selling movies.[5] In another interpretation, this variable acts as a measure of a film's familiarity among secondary-market consumers.

Secondary-market attention. DVD prices are usually set by distributors and negotiated with large sellers. Prices vary between films and retailers and decrease as DVDs get older (Mortimer 2007). Amazon fights distributors over pricing and "typically sells DVDs with little, or no profit margin because it competes with stores like Wal-Mart and Best Buy that sometimes price new releases below their wholesale costs to attract foot traffic" (*Wall Street Journal* 2014). Unlike in the primary market, there is no uniform pricing, rendering it impossible to construct a comparable measure of audience attention from revenue data. We thus use price as a proxy for aggregate audience attention. Given Amazon's strategic pricing, we resort to DVD prices freely set at Amazon Marketplace, an online consumer-to-consumer market. We assume that—controlling for a film's secondary-market supply (log(number of offers), streaming availability) and potential market size

(budget, genre, foreign production)—unregulated prices reflect the degree of audience attention. To preclude traces from usage and other unobserved heterogeneity across used DVDs, we restrict price collection to the minimum offer of each DVD in original packaging (see online appendix A4 for details). The price variable is highly skewed (mean 10.67 > median 7.49 > mode 4.00) and thus used on a logarithmic scale.

Category spanning. We adopt our measure of boundary crossing from Hsu, Hannan, and Koçak's (2009) operationalization of "niche width." We collected information on audiences' assignments of films into genres from two archival sources, IMDb and RT. The former reports genre classifications provided by a large community of film enthusiasts, while the latter is based on professional assignments by expert critics. We identified 15 genres common to both sources. Across sources, films have been located within three genres on average (range 1–9). We followed Hsu et al.'s procedure, explicated in online appendix A2, to construct a standard measure of category spanning, $S_i \in [0, 1]$, with $S_i = 0$ representing identical pure-type category assignments in both archives and $S_i > 0$ denoting boundary crossing for film i. S_i increases with both the number of categories assigned and the disagreement across archives. Moviegoers and critics categorized 356 of the sampled movies (12 percent) unambiguously in both archives ($S_i = 0$), while the remaining 2,615 films (88 percent) feature category spanning of varying magnitudes ($S_i > 0$).

Distance of spanned categories. Well established in the literature (see, e.g., Hannan [2010]; Zhao, Ishihara, and Lounsbury [2013]), the above indicator of boundary crossing, however, does not take into account socio-cultural distances between the categories spanned. In an attempt to remedy this crucial lack, Kovács and Hannan (2015) recently introduced a measure of "atypicality" based on categories' co-occurrence over time (see also Goldberg, Hannan, and Kovács [2016]). We follow their co-occurrence approach, although Kovács and Hannan's original measure of atypicality (0–1) appears inappropriate for our application. Their concept of crossing cultural boundaries seems to be quite different from the frequency or acceptance of specific categorical combinations. In fact, in the case of feature films, some categories (e.g., "family" and "romance") appear almost exclusively in combination with other categories. Following this observation, it would be misleading to assign an atypicality value of 0 to "romance," one of the rarest categories in our dataset (two films), and 0.72 to the relatively frequent combination "comedy + romance" (294 films). Circumventing this shortcoming, we propose a straightforward weighting approach: We interact Hsu et al.'s original measure with the frequency of co-occurrence of combined genres. Because we have no knowledge on the functional form of socio-cultural distances' moderating influence, we resort to discrete modeling, using interval dummies for various degrees of co-occurrence. We code as "rare co-occurrences" genre combinations that appear in our sample fewer than 63 times (lowest quartile in the frequency variable). This is the case for 657 films (22 percent of our sample). "Some co-occurrence" applies to 1,302 films (44 percent) in the frequency variable's middle quartiles (63–487 co-occurrences). The third dummy marks 656 films (22 percent) covering more acceptable combinations that occur "often" (highest quartile in the frequency variable).

Distributor. In our definition of distributor type, we follow Zuckerman and Kim (2003, p. 36): "while there are those who would consider any distributor a major if it is owned by a major studio (e.g., Miramax is a division of Disney), we follow common practice in the study of cultural markets ... by regarding the label identity rather than the owner of the label as most salient." Hence, we consider as major distributors (number of sampled films in parentheses): Sony Pictures (259), Warner Brothers (222), Paramount (182), Buena Vista (175), Twentieth Century Fox (175), Universal (171), New Line (114), Metro-Goldwyn-Mayer (105), and DreamWorks (49). We classify all other distributors as independents, including Miramax (130), Lionsgate (120), Fox Searchlight (86), Sony Classics (83), and 258 smaller outlets (with 1–64 releases each).

Film controls. Availability of films in the primary market depends on the number of opening theaters. Screenings of a particular film reflect both distributors' advertising efforts and allocation decisions by exhibitors. Repelling trends in the number of operating theaters over time, we also transform this variable into a relative measure. Then, we control for production budget, understood as a film's effort to appeal to a larger audience and thus as an indicator of potential market size.[6] Considering trends toward highly budgeted films as well as inflation, we again use a relative indicator. We further include a measure of star power, utilizing data from James Ulmer's 2000 publication of *The Hot List*, which ranks more than 1,400 actors according to their "bankability."[7] We assign each movie the star power of its highest-ranking actor. Finally, we control for foreign production (0,1) and the season of theatrical release. The latter takes on the value 1 for a movie released in summer (May to August) or before Christmas (November and December). Both periods reportedly attract larger audiences (e.g., DeVany 2004).

Secondary-market controls. Drawing conclusions from DVD prices requires controlling for three secondary-market particularities: First, the number of offers surely has negative consequences on a DVD's price. Taking into account a decreasing marginal effect on price competition, we log transform this count variable. Second, Amazon hosts a comprehensive streaming service that, at the time of data collection, offered instant access to 81 percent of sampled films. Providing a low-cost substitute, online streaming should limit the demand for physical DVDs. Finally, the weeks since DVD release will plausibly influence demand.[8]

Results

Our dependent variables—audience evaluations (1–10 and 1–5), relative box-office revenue (0–1), and DVD price (US$4–100)—are both left and right censored. We thus report results from tobit regressions throughout.[9] We centered all continuous independent variables at their (subsample) mean to secure both meaningful main effects for interacted variables and an interpretable intercept. We start with an examination of spanning effects on perceived niche fitness. We then apply our methodology to audience attention in the primary and in the secondary market.

Perceived Niche Fitness

Table 2 summarizes our results for perceived niche fitness using Hsu, Hannan, and Koçak's (2009) original measure of category spanning as our main independent variable. In accordance with their modeling approach, we include a range of film characteristics controlling for potential market size and, in another interpretation, specific niche expectations that go along with costly wide releases and thus larger and more heterogeneous audiences (Kovács and Sharkey 2014). The number of opening screens, star power, a peak-season release, and being a foreign production all associate positively with average audience ratings. More expensive productions, rather, receive reduced ratings on average; reductions are substantial particularly when highly budgeted major films meet expert critique.

In line with the *niche-fitness hypothesis* (H1), we find that both professional critics (model 1) and moviegoers devalue generalists (model 3). A 10 percent increase in category spanning associates with an approximate 6 percent decrease in average audience ratings. This relationship, however, only holds in the mainstream segment. Independent films receive only small and insignificant penalties for boundary crossing from both experts (model 2) and the general audience (model 4). Corroborating our *context × niche fitness hypothesis* (H4), the spanning effect on perceived niche fitness reduces in a vague "arthouse" context. This finding provides our first important ramification, as prior research on categorization in the film industry has neglected effect heterogeneity as to new releases' market contexts. Note at this point that Amazon clients—representing first of all secondary-market consumers—on average do not respond to category spanning when evaluating films. Coefficients generally differ in models 5 and 6, indicating that the market for DVDs obeys different rules than the theatrical market.

In a second step, we differentiate generalists by the socio-cultural distances between spanned genres (figure 1). Obviously, frequent co-occurrence mitigates penalties for major movies (left panel), indicating greater acceptance for well-established genre combinations. In accordance with the *distance hypothesis* (H3), only genre combinations that co-occur irregularly drive the marginal effect of category spanning. Again, boundary crossing is irrelevant for independents (right panel) and, in both the major and the independent segment, among secondary-market consumers.

Audience Attention in the Primary Market

In table 3, we test for category spanning's consequences on audience attention in the primary market. All indicators of potential market size, again included to yield unbiased spanning estimators, point in the expected direction: Coefficients are positive, except for the limiter of being a foreign production, which reduces potential market size in the United States.

In models 1 and 3, we estimate the total effect of boundary crossing on audience attention for both major and independent films. Apart from our sample split along market segments, model specifications follow Hsu, Hannan, and

Table 2. Perceived Niche Fitness of Category-Spanning Films

	RT critics' rating (1–10)				IMDb users' rating (1–10)				Amazon users' rating (1–5)			
	1 Majors		2 Independents		3 Majors		4 Independents		5 Majors		6 Independents	
	β	se	β	se	β	se	β	se	β	se	β	se
Category spanning	−0.562*	(0.281)	−0.166	(0.272)	−0.595**	(0.199)	−0.116	(0.201)	−0.050	(0.098)	−0.171	(0.106)
Opening theaters	0.784***	(0.206)	0.566***	(0.215)	0.534***	(0.155)	0.512**	(0.159)	0.439***	(0.074)	0.307***	(0.083)
Budget	−0.453*	(0.223)	−0.460	(0.282)	−0.236	(0.171)	−0.125	(0.190)	−0.216**	(0.073)	0.029	(0.098)
Budget data miss.	−0.189	(0.107)	−0.085	(0.105)	−0.068	(0.079)	−0.102	(0.073)	0.059	(0.036)	−0.057	(0.037)
Star power	0.530***	(0.060)	0.105*	(0.047)	0.395***	(0.049)	0.175***	(0.034)	0.010	(0.021)	−0.073***	(0.019)
Season	0.213**	(0.066)	0.217***	(0.064)	0.136**	(0.050)	0.062	(0.044)	0.016	(0.023)	−0.015	(0.026)
Foreign	0.471	(0.244)	0.519***	(0.078)	0.430*	(0.176)	0.484***	(0.055)	0.075	(0.066)	0.111***	(0.033)
Constant	4.849***	(0.199)	5.309***	(0.250)	5.857***	(0.152)	6.024***	(0.177)	3.982***	(0.068)	4.015***	(0.095)
N movies	1446		1450		1452		1519		1449		1509	
Pseudo R^2	0.079		0.054		0.111		0.098		0.194		0.089	

Note: Tobit regressions. Non-standardized coefficients, robust standard errors in parentheses. All models include genre GoMs and year dummies.
*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

Figure 1. Perceived niche fitness: spanning effects by co-occurrence
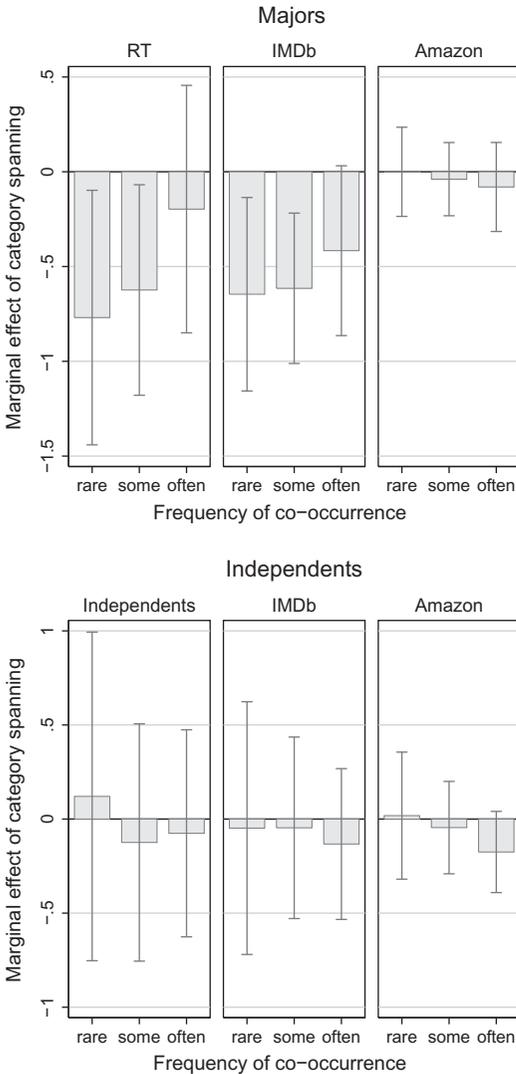
Note: Marginal effect of category spanning differentiated by involved genres' frequency of co-occurrence. The 0-reference line represents films without category spanning. Models specified as in table 2, models 2 and 4.

Koçak's (2009) film study. Estimates of category spanning reflect the relevance of both mechanisms underlying illegitimacy discounts in the film industry. As was the case for audience evaluations, substantial and significant negative consequences on audience attention occur only in the stable mainstream environment. A crisp genre assignment proves irrelevant for independent movies.

In models 2 and 4, we screen out the influence of niche fitness by including moviegoers' average evaluation of each film as an additional regressor (we could

Table 3. Primary-Market Attention for Category-Spanning Films

| | Box-office revenue, 3 yrs relative | | | | | | | |
| | 1 Majors | | 2 Majors | | 3 Independents | | 4 Independents | |
	β	se	β	se	β	se	β	se
Category spanning	−0.064**	(0.022)	−0.045*	(0.021)	−0.032	(0.019)	−0.028	(0.018)
IMDb rating			0.032***	(0.002)			0.039***	(0.003)
Opening theaters	0.804***	(0.024)	0.787***	(0.023)	0.896***	(0.013)	0.875***	(0.013)
Budget	0.066***	(0.019)	0.073***	(0.018)	0.077**	(0.024)	0.082***	(0.022)
Budget data missing	−0.038***	(0.008)	−0.035***	(0.008)	−0.056***	(0.009)	−0.052***	(0.008)
Star power	0.026***	(0.004)	0.014***	(0.004)	0.015***	(0.003)	0.008**	(0.003)
Season	0.041***	(0.004)	0.037***	(0.004)	0.040***	(0.005)	0.038***	(0.004)
Foreign	−0.036*	(0.015)	−0.049***	(0.014)	0.014*	(0.006)	−0.005	(0.006)
Constant	0.501***	(0.015)	0.512***	(0.015)	0.515***	(0.020)	0.523***	(0.019)
N movies	1452		1452		1519		1519	
Pseudo R^2	0.628		0.671		0.598		0.649	

Note: Tobit regressions. Non-standardized coefficients, robust standard errors in parentheses. All models include genre GoMs and year dummies.
*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

likewise use RT critics' average rating; results are nearly identical). Isolating the relevance of the *confusion hypothesis* (H2) yields reduced effect sizes in both market segments. A Wald test indicates a significant reduction in the major segment ($\chi^2 = 9.17$; $p = .003$). This finding is consistent with our theorizing that two mechanisms, the "Jack-of-all-trades problem" as well as the "uncertainty problem," guide cultural choices. In line with our expectation, however, the confusion mechanism is relatively more important than the niche-fitness mechanism in explaining audience inattention in the primary market. The confusion mechanism accounts for approximately 70 percent of the illegitimacy discount for major films (($.064-.045)/.064 = .297$).

In the independent segment, almost 90 percent of the illegitimacy discount is attributable to boundary crossing's role in confusing potential audiences (($.032 -.028)/.032 = .125$). Still, estimates are small and insignificant, highlighting independent films' inherently high ambiguity. Hence, the confusion argument holds only in the mainstream market. This supports the *context × confusion hypothesis* (H5).

Furthermore, confusion diminishes for well-established genre combinations that add little to audiences' uncertainty upon deciding to watch a category-spanning major production (figure 2, left panel). Marginal effects of boundary crossing are large and significant only when involved genres co-occur infrequently. This result, again, is clearly in line with the *distance hypothesis* (H3), suggesting that unsurprising genre combinations do not increase audience confusion.

Model determination is high in all four specifications (pseudo R^2 ranges from 0.598 to 0.671), due mainly to the large influence of the number of opening

Figure 2. Primary-market attention: spanning effects by co-occurrence
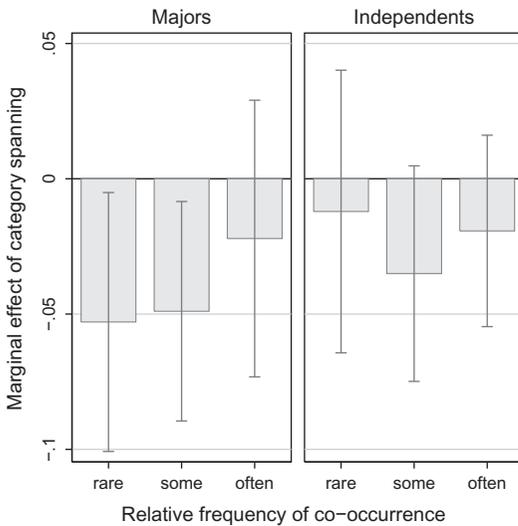
Note: Marginal effect of category spanning differentiated by involved genres' frequency of co-occurrence. The 0-reference line represents films without category spanning. Models specified as in table 3, models 2 and 4.

theaters, the best predictor of box-office totals in our models. Exhibitors' allocation choices strongly guide audience attention by providing a wide availability of films. Opening theaters' relevance also relates to the more general finding that professional filtering provides a clear indication of preferable product attributes and thus reduces uncertainty as to a work's value (e.g., Hirsch 1972; Lamont 2012).[10]

Audience Attention in the Secondary Market

We turn finally to secondary-market success to quantify the moderating influence of product familiarity on spanning effects. Our models are similar to the specifications reported above, differing only in that the dependent variable is now DVD price at the time of data collection and that we condition on secondary-market specifics, namely the availability of streaming, the (log) number of offers at Amazon Marketplace, and the time since DVD release. Table 4 summarizes our results.

The controls show the expected coefficients: Streaming is a mild (yet insignificant) substitute for DVD purchase, average price drops substantially with the (log) number of offers, and the time since release exerts the influence discussed more closely in online appendix A4. As reflected in the differences across model constants, average price is higher for major films ($\exp(2.19) = 8.94$) than for independent films ($\exp(2.03) = 7.61$).

More importantly, primary-market success—our measure of films' familiarity among DVD consumers—clearly translates to the DVD market. Films successful at the box office trade at higher prices on DVD, suggesting that a successful theatrical run does not saturate demand in the downstream market. Product familiarity appears as a powerful indicator of product value. Consequently, the production budget's marginal effect, although large in the primary market, is negligible for DVD prices. A similar argument applies to star power, which loses its signaling function in the secondary market (see McKenzie [2010] for similar findings).

We hypothesized that product familiarity cancels out the confusion mechanism. To isolate the confusion part of category spanning, we again include measures of perceived niche fitness. We differentiate between general ratings reported in IMDb (models 1 and 3; alternately, RT ratings reproduce our results) and evaluations by Amazon clients (models 2 and 4). We include the latter variable particularly to control for potential differences in audience types' preferences regarding category spanning. Within market segments, results do not differ between specifications. With respect to our main finding, models 1 and 2 as well as models 3 and 4 return very similar results. Preference differences across consumer types thus do not drive outcomes.

The reported main effect of category spanning indicates potential discounts due to confusion for films with average box-office success. In this specification, boundary crossing is irrelevant for DVDs in the major segment (models 1 and 2), but associates with reduced prices in the independent segment (models 3 and 4). Main effects, however, obscure the strong moderating influence of product familiarity on the confusion mechanism.

In figure 3, we depict this interaction for both market contexts based on models 2 and 4, respectively. We plot predicted prices for various degrees of category

Table 4. Secondary-Market Attention for Category-Spanning Films

	log(DVD price)							
	1 Majors		2 Majors		3 Independents		4 Independents	
	β	se	β	se	β	se	β	se
Category spanning	0.016	(0.082)	−0.016	(0.082)	−0.178*	(0.084)	−0.168*	(0.085)
Box-office revenue	0.168*	(0.069)	0.164*	(0.070)	0.207**	(0.064)	0.283***	(0.063)
Spanning × Box-office	0.683**	(0.243)	0.717**	(0.248)	−0.380*	(0.172)	−0.413*	(0.174)
IMDb rating	0.061***	(0.011)			0.097***	(0.012)		
Spanning × IMDb rating	−0.007	(0.039)			−0.013	(0.035)		
Amazon rating			0.140***	(0.021)			0.136***	(0.021)
Spanning × Amazon rating			−0.043	(0.099)			0.064	(0.080)
Budget	−0.035	(0.065)	−0.030	(0.065)	0.006	(0.082)	−0.054	(0.083)
Budget data missing	0.063*	(0.032)	0.048	(0.032)	−0.020	(0.032)	−0.006	(0.032)
Star power	−0.011	(0.017)	0.012	(0.017)	−0.034*	(0.017)	−0.013	(0.016)
Foreign	0.352***	(0.079)	0.376***	(0.082)	0.053	(0.029)	0.089**	(0.028)
Streaming	−0.022	(0.034)	−0.025	(0.034)	−0.059*	(0.027)	−0.052	(0.027)
log(Offers)	−0.487***	(0.021)	−0.486***	(0.021)	−0.519***	(0.018)	−0.525***	(0.018)
Weeks since release	−0.001***	(0.000)	−0.001**	(0.000)	−0.001***	(0.000)	−0.001**	(0.000)
Weeks since release spline	0.001***	(0.000)	0.001***	(0.000)	0.001***	(0.000)	0.001***	(0.000)
Constant	2.191***	(0.059)	2.190***	(0.059)	2.075***	(0.069)	2.030***	(0.069)
N movies	1452		1449		1519		1509	
Pseudo R^2	0.524		0.525		0.461		0.463	

Note: Tobit regressions. Non-standardized coefficients, robust standard errors in parentheses. All models include genre GoMs.
*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$.

Figure 3. Category spanning × box-office revenue in the secondary market
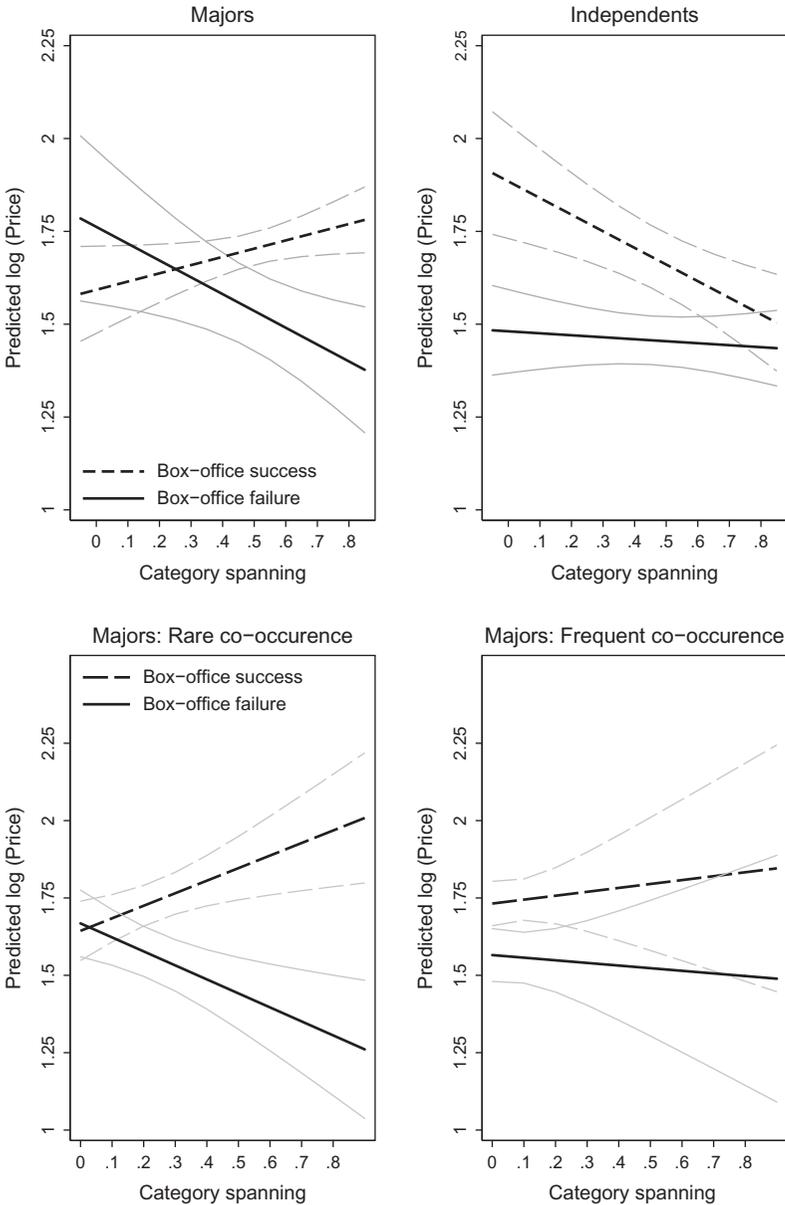
Note: Interaction between continuous category spanning and a dummy for relative box-office success (1) or failure (0). Models specified as in table 4, models 2 and 4. The two panels "at the bottom" further differentiate between involved genres' frequency of co-occurrence.

spanning while fixing product familiarity either at its minimum (no box-office success, solid line) or maximum value (high box-office success, dashed line). Results in the first graph, focusing on major films, are in line with our *familiarity × confusion hypothesis* (H6): Category spanning is detrimental for unfamiliar offerings. In strong support of our hypothesis, however, familiarity clearly helps overcome attention deficits. Generalists not only go unpunished, but actually benefit from combining multiple genres. A broader niche, in this sense, permits market expansion for familiar offerings. This finding is consistent with typecasting theory, which posits that "multivocality" (Pontikes 2012; Zuckerman et al. 2003) permits legitimate offers to expand market niches and attract larger audiences.

In the lower part of figure 3, we repeat the same analysis for major films, but differentiate between genre combinations that co-occur rarely versus frequently. Whereas both lines are nearly parallel and statistically indistinguishable for well-established combinations, films mixing irregularly co-occurring genres drive the interaction effect. This pattern suggests another interpretation, different from typecasting theory: Confused moviegoers might have shunned generalists at the box office, particularly if they combined seemingly unrelated genres. If these films garner recognition among the general audience, hesitant consumers might have wanted to make up for their omissions in the home video market. Hence, the observed expansion effect might well reflect a catch-up effect brought about by previously dubious audience members.

Results differ in the more ambiguous independent segment. As shown in the second panel of figure 3, category spanning is irrelevant for box-office failures. Similar to our primary-market results for independents, category spanning as an additional source of uncertainty does not add to audience confusion. More importantly, however, category spanning has negative consequences for familiar independents. These films receive penalties just as major generalists do in the primary market. This finding mirrors earlier descriptions of the major-independent divide in the film industry (Zuckerman and Kim 2003) and highlights the fact that a film's identity changes with primary-market success. In line with these considerations, our results suggest that a film must first prove adequacy for a large and general audience before ambiguous categorization becomes detrimental for market success.

In figure 4, we address the transportability of primary-market success into the secondary market in more detail. The underlying models are similar to those reported in table 4. On the y-axis, we plot the relative DVD price increase for box-office successes compared with previously unsuccessful releases. On the x-axis, we group DVDs according to age at data collection. Grouping is relative (i.e., t_1 [t_4] includes all DVDs with age in the lowest [highest] quartile).

In the major segment, primary-market success is apparently most influential early in DVDs' lifecycle, increasing average price by 54 percent for newly released DVDs ($p < .001$). Primary-market success thus translates instantly into higher audience attention in the secondary market. Its influence decreases over time, and price gains over previously unsuccessful films become small and insignificant in age brackets t_3 and t_4. We further differentiate between narrow-niche

Figure 4. Transportability of primary-market success depends on category spanning
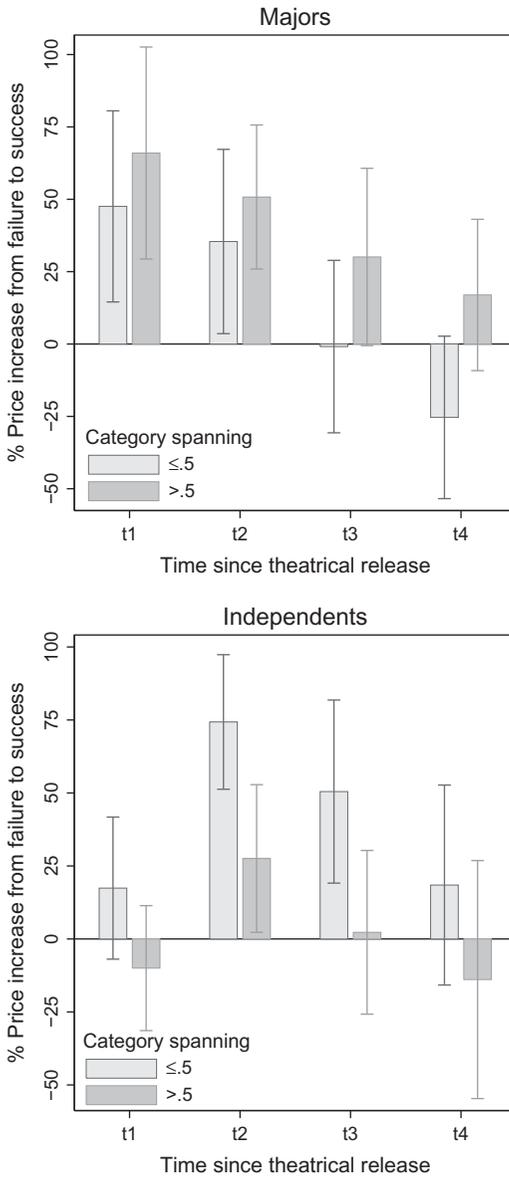
Note: Relative gains of box-office successes compared to previously unsuccessful movies conditional on DVDs' ages. We use a relative age grouping; that is, t_1 (t_4) includes all DVDs with age in the lowest (highest) quartile. We differentiate further between narrow-niche (category spanning ≤ 0.5) and wide-niche films (category spanning > 0.5).

(category spanning ≤ 0.5) and wide-niche films (category spanning > 0.5). Corroborating our finding on majors' expansion effect, generalist mainstream films benefit particularly from familiarity, yielding DVD prices more than 70 percent higher shortly after release compared to previously unsuccessful films (the control includes both generalists and specialists). Specialists' benefits from theatrical success, on the other hand, are relatively small and remain below generalists' gains in audience attention across all four age brackets.

Again, results differ in the independent segment. First, independent films experience something akin to an extended "out-of-market gap," during which audience attention is meager although DVDs are already available. Unlike for major films, gains from familiarity garnered during the theatrical run only manifest in independents' later secondary-market lifecycles. Second, familiarity benefits are larger for specialists than for generalists across all four age brackets. Independent DVDs thus benefit from previously achieved primary-market success given a narrow niche.

Discussion

Categorization theory posits that objects combining multiple genres are harder to interpret, such that audiences have difficulties placing them. As a result, generalists suffer from penalties in perceived quality or audience attention, an effect prominently termed "illegitimacy discount" (Zuckerman 1999, p. 1415).

Based on a dataset of 2,971 feature films released to the theater and home video markets, we empirically disentangled two mechanisms, reduced niche fitness and audience confusion, which the literature frequently discusses as bringing about illegitimacy discounts (Hsu, Hannan, and Koçak 2009; Kovács and Hannan 2010). Our results indicate that the confusion mechanism is relatively more important than the niche-fitness mechanism in explaining audience response to category-spanning films. More importantly, our empirical work has crucial ramifications for understanding the scope conditions of categorization effects and adjusts some seemingly established results on boundary crossing in cultural markets. We found that boundary crossing in the film industry is not universally detrimental, neither for critical appraisal nor for commercial success. Instead, the consequences of category spanning are subject to strong moderating influences.

Effect heterogeneity arises, first, from the atypicality of genre combinations. We proposed a two-dimensional measure of boundary crossing, weighting Hsu, Hannan, and Koçak's (2009) original measure of category spanning by the frequency of co-occurrence of combined genres. For illustration, consider the hugely successful films *Ocean's Eleven* (2001) and *The Dark Knight* (2008). Both score high on Hsu et al.'s traditional indicator (0.80 and 0.81, respectively). This obviously did not prevent them from becoming international blockbusters, because they combine frequently co-occurring genres such as "action + adventure + thriller," which are low in socio-cultural distance. According to our results, consequences of category spanning occur only if involved genres are culturally distant,

substantiating the call for refined measures of boundary crossing in categorization research.

Second, we highlighted that distinctions between market contexts are highly relevant. We utilized the film industry's partition into a well-ordered major segment and a more opaque independent segment to vary the market environment that generalists must weather. We showed that spanning effects on both perceived niche fitness and audience attention manifest only in a stable mainstream environment. Audiences neither devalue nor shun independent generalists, which face looser expectations as to their thrust and content and are more ambiguous from the beginning. Consequently, high-budgeted major films failing to provide a focused identity—such as *Gigli* (2003), starring Jennifer Lopez and Ben Affleck, which combines the distant genres "comedy + thriller"—tend to flop at the box office and quickly fall into oblivion. Independents such as Gwyneth Paltrow's early success *Sliding Doors* (1998), on the other hand, can afford vague categorization and still turn out as public attractions.

Third, we relied on sequential distribution to theater and home video markets to observe two unique releases for each sampled offer. Controlling for unobserved product characteristics, we were thus able to estimate audience response to category-spanning DVDs contingent on a history of theatrical market success. Most surprisingly, previously successful generalists not only go unpunished in the secondary market but actually benefit from combining multiple genres. A broader niche thus permits market expansion for familiar mainstream products.

Our design extended prior efforts by Zhao, Ishihara, and Lounsbury (2013), whose estimation of familiarity effects only addressed sequel films. Still, our study also possesses limitations. Our identification of the confusion mechanism relied on partialing out the competing explanation of reduced niche fitness. Alternative mechanisms not controlled for in our analysis may also exist, bringing about negative consequences of category spanning in cultural markets. If this is the case, our decomposition neglects direct effects of such unobserved intervening variables and overestimates the confusion mechanism's relevance. Further, a direct comparison of spanning effects between primary and secondary markets required the assumption that consumers in both markets do not, on average, differ in their preferences for category spanning. Our data allowed contrasting moviegoers' and DVD consumers' perceptions of niche fitness, suggesting that apparent differences in overall cultural tastes do not drive our results.

Having said that, our analysis of the DVD market expands research on cultural categorization to a more "normal" market environment. Unlike in primary cultural markets, well described by quality uncertainty (Keuschnigg 2015) and the possibility for shared consumption (Gilchrist and Sands 2016), many offerings in secondary markets are well known upon release and consumption is spread out over time (Walls 2010). Our study also opens up new avenues for studying how various intermediaries (Hirsch 1972) react to boundary crossing. Independent studios, for example, comply more strongly with cultural codes in that they release more pure-type films (17 percent) than major distributors (6 percent). A supplementary analysis of exhibitor behavior revealed that, upon release, mainstream generalists on average receive more screenings than pure-type

films. Our results also indicated that professional critics respond strongly to category spanning, particularly if films feature more exotic genre combinations. Most importantly, for the first time in categorization research, we were able to show that market recognition by early audiences substantively alters people's response to category spanning in a downstream market.

Concepts of categorization also connect to more general discussions in the social sciences. Besides their apparent applicability to questions of economic sociology—see, for example, Podolny's (2005) account on the market segments and industrial relations business organizations can engage in without threatening their strongly categorized status positions—insights from categorization theory generalize to other domains of social life. Social science research concerned with the consequences of classification has been active in numerous fields, including, among many others, the study of individual careers, social movements, and political party positioning, as well as perceptions of race and ethnicity.

Our result on the moderating role of familiarity, for example, relates to similar phenomena observed in the study of careers. Established scholars, for instance, can take the liberty of working on diverse topics while newcomers had best stick to building narrow profiles for gaining visibility within their respective academic fields (Leahey 2007). At a later stage, however, specialization decreases chances for tenure. In conformity with typecasting theory, "breadth, more than depth, signals intellectual creativity and the possibility of broader impact to promotion and tenure committees" (Leahey, Keith, and Crockett 2010, p. 150). Closely related to our finding on the context dependency of spanning effects, Leahey, Beckman, and Stanko (2017) further demonstrate that—depending on field-level interdisciplinarity—crosscutting research can associate with both production-side penalties (decreased output) and reception-side rewards (increased impact).

Similar thoughts apply to scientific movements (Uzzi et al. 2013), which have to establish labels with drawing power to attract funding and citations. At the same time, innovativeness absent compatibility with existing schools of thought cannot gain recognition among a broader audience of scientific peers. Trade-offs between a narrow niche and an appeal to larger audiences are also apparent for social movements (e.g., Benford 1993; Heaney and Rojas 2014). To make clearcut political demands, to attract the "right" people, and not to lose control over the movement, a narrow niche is truly advantageous. To gain a critical mass of sympathizers, however, boundary crossing can be helpful.

Parties' policy positions are often interpreted in terms of the "median voter theorem" (Downs 1957), which implies that platforms take moderate positions on a wide range of political issues in order to attract the largest possible share of the electorate. Particularly in European multiparty systems, relative ideological positioning often results in homogenization of mainstream agendas (Williams and Whitten 2015), while freeing up neglected policy areas for niche parties. A series of recent studies shows that niche parties' manifestos change over time (e.g., van Heck 2016; Zons 2016): Upon entering the political arena, parties typically benefit from highly focused identities; as they gain broader recognition and, most importantly, government involvement, programmatic concentration often decreases to accommodate larger and more diverse categories. Not least

the 2016 US presidential election suggests that newcomers can also succeed by shunning or actively devaluating established categorical systems altogether.

Finally, widely agreed-upon categories often separate people into groups and generate feelings of membership and similarity. In this context, categorical schemata and their change over time play an important role in people's perceptions of race and ethnicity (Lee and Bean 2004). A considerable part of this literature studies the production of racial and ethnic boundaries by governmental census categories (e.g., Lee 1993; Roth 2005). For those less easily classified, this can create new options of interracial identification but also feelings of "betweenness and marginality" (Rockquemore and Brunsma 2002, p. 335). Hence, on a more general level, research on categorization also connects to sociological concepts of symbolic boundaries (Lamont and Molnár 2002) and thus to social processes of inclusion and exclusion.

Notes

1. Hannan (2010) and Negro, Koçak, and Hsu (2010) summarize empirical results from a variety of economic contexts.
2. Rentals have become irrelevant, and this study does not consider them. Alternatively, online streaming services have become popular, offering instant access to a growing number of both classic and newly released films. Our analyses take into account the availability of streaming services.
3. For the years 2002 and 2003, Hsu et al. (2009) sampled 398 films as a cut set of three archival sources. Our data include 858 films for the same period. Zhao, Ishihara, and Lounsbury (2013) analyze data on all 2,827 films released to US theaters as reported by *Variety* between 1982 and 2007. This averages to 109 releases for each of their 26 consecutive years. We reach $N = 2,971$ in only 14 years, with an average of 212 releases per year.
4. Evaluations across audience types resemble each other, but linear correlations are not perfect: RT and IMDb are closely connected ($r = .766$; $p < .001$); less so IMDb and Amazon ($r = .509$; $p < .001$). Differences are largest between professional critics and Amazon clients ($r = .363$; $p < .001$), clearly indicating heterogeneity in audience types' cultural tastes.
5. Our results remain robust if we substitute the logarithm of (inflation-adjusted) box-office revenue for the relative measure (see online appendix A5).
6. IMDb provides budget information for only 73 percent of sampled movies. Data are unavailable particularly for unsuccessful movies, resulting in a correlation of $r = .448$; $p < .001$ between data availability and our relative measure of box-office revenue. To avoid success bias, we follow Hsu, Hannan, and Koçak (2009) in introducing a binary variable with value 1 for films without budget information. This workaround does not affect our results (see online appendix A5).
7. Scores reflect expert interviews and quantify actors' potential to raise financing for film productions. For details, see www.ulmerscale.com.
8. See online appendix A4 for the complex relationship of age and price.
9. We also ran OLS regressions yielding comparable results. We report further robustness analyses in online appendix A5.
10. We examine exhibitors' response to category spanning in online appendix A3.

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Supplementary Material

Supplementary material is available at *Social Forces* online, http://sf. oxfordjournals.org/.

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