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Between inertia and change: The entrepreneurial process in the rise of electronic music

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Abstract

This paper explores the structural conditions under which a reduced number of entrepreneurial events is observed. Hypotheses are tested in the context of the music industry, and in particular during the rise and establishment of electronic music. Empirical evidence provides support to the arguments advanced in the paper and implications for the relevant literatures are sketched.

**BETWEEN INERTIA AND CHANGE:
THE ENTREPRENEURIAL PROCESS IN THE RISE OF ELECTRONIC MUSIC**

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INTRODUCTION

Sure enough, entrepreneurial events keep occurring despite the high failure rates of new ventures (Aldrich and Ruef, 2006; Caves, 1998; Klepper and Graddy, 1990). This well-documented empirical regularity suggests that a prime exception in the entrepreneurial process pertains to inaction, rather than to actions that prove unsuccessful (Carroll and Khessina, 2005). As long as the understanding of exceptions helps a more comprehensive grasp of regularities, a set of notable works has focused on the cases in which entrepreneurial action has not always been promptly realized (Carroll and Hannan, 2000; Lomi, Larsen and Wezel, 2010; Sørensen and Sorenson, 2003). The antecedents of entrepreneurial inertia (Ruef, 2006), namely of the inaction resulting from the procrastination of market entry, have been located in the environment and in specific characteristics of the entrepreneurial organizations (Kuilman and Li, 2006; Kuilman, Vermeulen and Li, 2009; Schoonhoven, Eisenhardt and Lyman, 1990). However, the factors that bring about inaction by influencing the entrepreneurial organizations' *interpretation* of the market environment are worthy of further exploration (Ruef, 2005; Tolbert, David and Sine, 2011). Our paper builds on this research need and analyzes how the socio-cognitive structure of a market can be conducive to entrepreneurial inertia.

To this purpose, we integrate the classical view in economics, defining the market structure through the number and size distribution of incumbent firms, with the following sociological insight: markets are structured also by the horizontal and vertical classifications of products, firms and

industries enforcing the social and cognitive boundaries drawn around economic activities (Baron and Hannan, 1994: 1136; Porac and Thomas, 1990). Once institutionalized, these socio-cognitive structures ease commensuration, valuation and decision-making by current market actors such as producers, consumers and intermediaries (Zuckerman, 1999). We first contend that the same applies to entrepreneurs: socio-cognitive market structures, and categories as their components (Hannan, Polós and Carroll, 2007), constitute useful maps to scan and interpret the environment (Kirzner, 1973). These maps are nevertheless imperfect, because their components are incessantly altered by market actors' activities. The greater the alteration, the more complex the interpretive process (Zuckerman, 2004), the more "a sense of doubt that blocks or delays action" (i.e. uncertainty; Lipshitz & Strauss, 1997:150; McMullen and Shepherd, 2006) is likely to arise. Therefore, we argue that entrepreneurial inertia is due to the uncertainty faced by potential entrants, with respect to specific market opportunities and risks, when incumbents are significantly engaged in category recombination. We define this market activity as the mixing and matching of features from products affiliated to distinct categories/product niches, mostly with the purpose of delivering novelty to the market (see Schumpeter, 1934; Stark, 1996). Incumbents performing category recombination consequently display multi-category positioning (Hannan, 2010).

We introduce the *extent* and the *mode* of category recombination as two mechanisms, through which incumbents reshape the basic elements of market structures and unleash the uncertainty conducive to entrepreneurial inertia. First, a diffused engagement of incumbent category members in recombinant activities alters the boundaries drawn around a focal category and, consequently, weakens the distinction *between* that category and other categories (Kovács and Hannan, 2010). Here, the market structure recalls a map with blurred areas, which make potential entrants uncertain about the location of prospective competitors and, consequently, about their own opportunities for positioning (White, 1981). Second, at any given extent of category recombination, the more isolated and uncoordinated the incumbent category members are in performing recombinant activities, the

greater the variety introduced *within* the focal category (Stark, 2009), the more unsystematic the mode of recombination appears. Unsystematically recombined categories evoke sirens' calls: on the one hand, these portions of the market structure promise opportunities for creativity; on the other hand, they signal a perilous environment high in competition (Audretsch, 1995). Potential entrants' uncertainty ensues from the fixing of opportunities, there where incumbents attempt to match transient consumers' preferences (Tripsas, 2008) through scattered experimentations, and without converging towards an exemplar yet legitimate way of performing recombinant activities (Aldrich and Fiol, 1994; Fiol and Romanelli, 2012).

Categories are often described in a non-valence fashion, but they actually exhibit variation in their vertical ordering (Jensen et al., 2011). We account for this vertical dimension of market structures in further contending that entrepreneurial inertia can be mitigated with the status signals (Podolny, 2005) emitted by categories. We capture category status through the rewards from validating groups (Perrow, 1961) as accumulated by incumbent category members. We then discuss how status, by acting as a balancing force in markets, alleviates the uncertainty related to category recombination (Podolny, 2001). In the case of the uncertainty due to extensive recombination and weakened boundaries, status increases the *visibility* (Podolny 1993) of the category and eases potential entrants in positioning. When categories exhibit unsystematic patterns of recombinant activities, status resolves the uncertainty faced by potential entrants, because it increases the perceived *quality* associated to the category. Status indeed signals the incumbents' combinatory experiments as legitimized, and even as the hallmark of the category. In this way, status compensates for the absence of reference points such as market exemplars, and increases the confidence of potential entrants about future returns (Sauder et al., 2012).

We test our predictions in the music industry and focus on the electronic music genre as a stylized market segment, where "styles" represent established categories/product niches. Here, we count the number of entries of record labels through the music releases issued during the period 1978-

2011. Our interest in the electronic music is rooted into the technological developments witnessed by this genre, particularly appropriate to the theoretical arguments of this paper: instruments like samplers and synthesizers certainly enable the material recombination of established styles into new releases (Manning, 2013). Moreover, styles require incumbents and consumers “to partake in a highly ritualized form of cultural production and reproduction” (Pinch and Bijsterveld, 2004: 639), and are arguably informative to potential entrants about ongoing market activities and interactions. The next section of the paper develops our arguments on entrepreneurial inertia through the analogy between market structures and maps. The main effects of the extent and mode of category recombination on market entry as well as the moderating role of category status are later introduced. We then describe our empirical setting and present the major findings. We conclude the paper by discussing its contributions to the pertinent literature.

THEORETICAL DEVELOPMENT

Categories and category recombination: from ideal to actual maps of the market

Ideal maps

Even the most adventurous travelers need a map to start a journey. This map will primarily help the travelers make sense of the target land. Similarly, categories compose the map that supports potential entrants in the interpretation of the market environment, specifically in the evaluation of the opportunities and risks incidental to entrepreneurial action (Shane and Venkataraman, 2010). Some instances of categories are SIC codes partitioning the industrial landscape, patent classes organizing the panorama of technological inventions, genres designing the scene of artistic production and consumption. A large body of works has illustrated the cognitive and normative functions served by categories in market (Durand and Paoletta, 2012; Glynn and Navis, 2013; Negro, Koçak and Hsu, 2010). First, categories are cognitive shortcuts that provide access to the maximum information with the minimum effort (Rosch, 1998). This is especially true when the differences between categories

are maximized, whereas the differences among incumbent members within each category are minimized. If these conditions hold, market actors will meaningfully use categories to sort things out and make sense of the environment (Bowker and Star, 1999; Glynn and Navis, 2013). Second, by establishing also norms and expectations, categories sustain shared understanding, substantiate valuation, and ease the interaction between candidates and audience members (Zuckerman, 1999).

Based on these arguments, a crystal clear market structure is one whose components show maximum-between and minimum-within difference, because market actors preserve social boundaries by strictly complying with the norms and expectations entrenched in categories. This ideal map of the market recalls a situation of equilibrium. Here, by unambiguously inferring incumbents' focused activities and clear identities from well distinct categories, potential entrants can quickly grasp what prospective competitors do and what they do not, who they are and who they are not (Etzion, 2013), in response to symmetrically and neatly segmented consumers' preferences. Hence, potential entrants can easily make sense of the market environment. Such situation is advantageous to entrepreneurs, regardless of the possible mode of entry. Indeed, the establishment represented by a static and well defined map of the market is in principle favorable to the action of both reproducers, because of vicarious learning and legitimacy spillovers, and innovators (Aldrich and Ruef, 2006), whose diversifying action is supported by the existence of clear templates (Ruef, 2005).

Actual maps

Market structures actually appear as dynamic and flawed maps, because categories as their basic components are neither natural nor exogenous, being instead relentlessly altered by actors' activities (Baron and Hannan, 1994; Bowker and Star, 1999; DiMaggio, 1987). Among these activities, category recombination is possibly the most impactful (Stark, 2009), and consists in the mixing and matching of features from products affiliated to distinct categories, with the purpose of delivering novelty to the market. For example, Thomas Edison introduced the electric light by leveraging yet eroding the established technical artifacts, as well as the associated social structures of

“gas and water utilities”, “telegraphy” and “arc lighting” (Hargadon and Douglas, 2001). Similarly, by creating meals that combined elements from “traditional” and “nouvelle” cuisine, French chefs contributed to relax the boundaries drawn around these two categories (Rao, Monin and Durand, 2005). The establishment of the new “Indian modern art” (Khaire and Wadhvani, 2010) was initiated by the mixing of traits from “Indian” and “modern Western” categories. Then as well, techno music was born “when Kraftwerk and George Clinton got stuck in an elevator together” (Butler 2006: 7), namely with the combination of the German “krautrock” and the African American “funk”. Recent updates from the business world also help instantiating category recombination. In announcing the fourth fiscal quarter of 2013, Apple CEO Tim Cook acknowledged the company’s ability to enter new product categories thanks to its position in “hardware”, “software” and “services”.¹

The consequences of category recombination as inferred from analogous cases of multi-category positioning have been explored in a wide range of empirical context (Hsu, 2006; Hsu, Hannan and Koçak, 2009; Jensen, 2010; Kovács and Hannan, 2010; Pontikes, 2012; Smith, 2011). These works have focused on incumbents as the candidates that perform recombination, and on intermediaries or consumers as the audience engaged in the evaluation of the recombinant activities. Studies on disk-arrays (McKendrick and Carroll, 2001; McKendrick et al., 2003), commercial television (Perretti et al., 2008), satellite radio (Navis and Glynn, 2010) and wine (Negro, Hannan and Rao, 2011) producers contributed to explore the implications of category recombination for entrepreneurial organizations. Our paper departs from these works twofold. First, it does not focus on entrepreneurial organizations as the main subjects performing recombinant activities, but as those agents subject to the outcomes of category recombination performed by incumbents. Second, although acknowledging recombination as an important determinant for the creation of new categories, our work instead centers on established, taken for granted (Berger and Luckmann, 1967)

¹ Apple Press Info. 2013. “Apple Reports Fourth Quarter Results. iPhone Sales Grow 26% to Establish New September Quarter Record”: <http://www.apple.com/pr/library/2013/10/28Apple-Reports-Fourth-Quarter-Results.html>

categories, which provide incumbents with the elemental material for recombination. We accordingly assign the role of candidates to the incumbents of a category and that of audience members to potential entrants. Our presumption is that the activities of incumbents provide meaning and substance to the categories structuring the market. By relying on categories, potential entrants scan the market and collect information about the interactions between incumbents and their target consumers (White, 1981), thus being able to evaluate the opportunities and risks associated with market entry.

Uncertainty and entrepreneurial (in) action

Yet, any map will lose informative power if the inhabitants of the target area challenge its basic facets, by continuously calling boundary lines into question. The same happens to market structures when incumbent organizations are significantly committed to category recombination. Our broad argument is that category recombination elicits the potential entrants' uncertainty with respect to the opportunities and risk incidental to the entrepreneurial action. By analogy, the reliance in a map that is constantly altered and made outdated by ongoing changes makes the travelers disoriented and, overall, undetermined about what they are going to encounter. In this regard, we embrace a conceptualization of uncertainty as: "a sense of doubt that blocks or delays action" (Lipshitz & Strauss, 1997:150). This conceptualization fits our focus on entrepreneurial inertia, particularly because of two reasons. First, uncertainty is theorized as a subjective experience, which accounts for the chance of different interpretations of an identical market's map. Thus, our predicted collective outcome does not exclude, for instance, the presence of some risk takers, or of some organizations that are able to resolve uncertainty by accessing privileged information channels (Smith, 2011; Zuckerman, 2004). Second, the chosen conceptualization specifically deals with the effects of uncertainty on action, in our case with "hesitancy, indecisiveness and procrastination" (McMullen and Shepherd, 2006: 135). In the following, we introduce the *extent* and the *mode* of category recombination as two different mechanisms, whereby incumbents reshape the basic elements of

market structures and evoke the uncertainty conducive to inaction, which we infer from a decrease in the number of market entries.

Extent of category recombination: blurred maps

The extent of category recombination captures how much incumbents recombine the category to which they belong with other ones. A category that is extensively recombined is a category whose majority of incumbents blends the elements of the focal category with those of other categories. Yet, the sole extent of category recombination does not provide any information about which specific other categories may be involved. For instance, in the market for restaurants, it can be argued that the category “U.S. Midwestern” is extensively recombined simply because most restaurants that belong to this category offer meals that mix the typical ingredients of the traditional American food culture with others belonging to different cuisines, no matter which ones they are. Similarly, in the music industry, the style “Tribal” is extensively recombined because most producers in this style incorporate its primitive monotonous sound with elements from other music genres. Once again: for the time being, we can remain agnostic about these other genres. The key argument, here, is that extensive category recombination violates one of the principles of cognitive parsimony, according to which categories have to be maximally distinct one from another. This happens because the more the incumbents of a category perform recombinant activities and therefore claim multi-category positioning, the more the boundaries of that category become blurred. As consequence, the distinctiveness of the category compared to other categories decreases, while the ambiguity (Fleischer, 2009; Ruef and Patterson, 2009) in that specific portion of the market structure increases.

To recall the analogy with the map, the extensive recombination performed by incumbents blurs the boundaries of an ideal and identifiable “region”, which the category represents. In place of that neat “region”, potential entrants find an area where clarity is lacking, and the perceived opportunities appear to differ from the actual ones (March and Olsen, 1976; Davis, Eisenhardt and Bingham, 2009). Here, potential entrants are primarily uncertain about incumbents’ exact location in

the target portion of the market structure. This location is less identifiable and, consequently, it does not represent a neat term of comparison, which is instead necessary to potential entrants' to establish their own market position (Leifer and White, 1987; White, 1981). If a category becomes less informative about what incumbents do and do not, about who they are and are not, namely about incumbents' market activities and identities (Navis and Glynn, 2011), then the ability of potential entrants to undertake a straightforward evaluation leading to a confident decision will decrease, and entrepreneurial action will be suspended. Indeed, it will be hard for potential entrants to imitate incumbents but also to differentiate from them (Baum and Haveman, 1997; Dobrev and Kim, 2006; Boone, Wezel and Van Witteloostuijn, 2013; Greve, 1998), simply because any of these options will look difficult to assess when prospective competitors are not easily and quickly recognizable. As result, we expect that, with an increasing extent of recombination, a given category will exhibit a reduced number of market entries:

H1. *The number of market entries in a given category decreases with the extent of recombination exhibited by category incumbents.*

Mode of category recombination: sirens' calls

Holding constant the extent of category recombination, the mode of category recombination captures which elements of other categories incumbents recombine. Therefore, the mode of category recombination provides additional information about the categories that are mixed by incumbents, and whether these categories are the same or rather diverse. A category that is systematically recombined is a category whose majority of incumbents exhibit an organized pattern of affiliation to the same other categories. For instance, in the market for restaurants, the category "Italian" may be conceived as systematically recombined, because most of the restaurants that belong to this category somehow converge in offering meals that combine "Italian" with elements from "Mediterranean" cuisine. Conversely, a category that is unsystematically recombined is a category whose majority of incumbents exhibits a scattered affiliation to other categories. In the music industry, the category

“jazz fusion” is marked by nonconformity (Smith, 2011) and improvisation, being unsystematically recombined with a wide set of different elements belonging to other diverse styles: producers of “jazz fusion” can once integrate the electric noise of “rock”, they can favor the sophisticated compositions of “classical” music, or they can lean towards the rhythm of “funk”.

Unsystematic recombination violates the second principle of cognitive parsimony, according to which, ideally, members of a category have to be minimally different from each other. In fact, the sprinkled recombinant activities performed in isolation by incumbent category members increase the internal variety of the category, and consequently lowers the chances for any exemplar (see Murphy, 2004) to be established. We here define market exemplars as concrete instantiations of how incumbents do a particular thing (Fiol and Romanelli, 2012): recombination, in our specific case. In the eyes of potential entrants, the mixing of “Italian” with “Mediterranean” cuisine appears both familiar and possibly legitimized, due to an elevated frequency of recombination (Fleming, 2001; Ruef and Patterson, 2009). Category incumbents converge and look similar even by positioning into these two categories. When the mode of category recombination performed by incumbents is rather unsystematic, namely disorganized, there is no critical mass for developing an exemplar. Although belonging to the same category, incumbents will appear to potential entrants as widely diverging from each other.

Unsystematically recombined categories look as unsettled regions in the map used by potential entrants. On the one side, these categories are identifiable; on the other side, the content of these categories appears muddy, because the recombinant activities of incumbents do not converge towards an exemplar way of performing such activities. As result, potential entrants see categories that are unsystematically recombined as established yet unpredictable portions of the market, where opportunities hardly exhibit a consistent pattern (Davis et al., 2009). Such inconsistency may occur because incumbents attempt at delivering novel combinations to the market in response to heterogeneous consumers’ preferences (see also Tripsas, 2008). Categories that are unsystematically

recombined therefore signal to potential entrants a potential mismatch in the interactions between incumbents and consumers, and generate uncertainty concerning the associated opportunities and risk. In this respect, categories that are unsystematically recombined resemble sirens' calls (Audretsch, 1995): at a first glance, a mismatch in the interaction between incumbents and consumers could be considered as an opportunity to penetrate these categories, especially when embracing the narrative of entrepreneurs as overconfident gamblers (Xu and Ruef, 2004). However, entering unsystematically recombined categories could also represent an umpteenth attempt at meeting the needs of an unpredictable market environment, where the risk associated to competitive pressures is significantly high. The process of evaluation by potential entrants is thus stuck in this trade-off and, once again, their commitment to action is expected to decrease. Taken together, these arguments lead to the following hypothesis:

H2. The number of market entries in a given category decreases as the mode of recombination of category incumbents becomes increasingly unsystematic.

The moderating effect of status

Our previous discussion suggests how a high extent and an unsystematic mode of category recombination are conducive to entrepreneurial inertia. Either because of the decreasing distinctiveness of the category or because of the increasing differences among incumbents, the potential entrants' commitment to action is hindered. Categories are after all entrenched into value systems (Zuckerman, 2012) that provide additional information about the caliber of the activities and offerings associated to each category. We contend that status, here defined by the categories' rank ordering matured from the accumulated acts of deference of validating groups (Perrow, 1961) like intermediaries or consumers, serves to contextualize and complement the information related to category recombination (Jensen et al., 2011). For instance, in the market for fashion, the vertical ordering of the category "haute couture" results from the accrued attention and positive judgments, which validating groups have attributed to the activities of incumbents favoring craftsmanship over a

business-oriented approach, customization over mass production, and so on. As result, the category “haute couture” displays higher status compared to the category “ready to wear”. Hence, it is relevant to understand how the vertical ordering of a category in the market structure affects the perceptions of potential entrants about the recombinant activities of incumbents. In other words: are potential entrants more likely to commit to action when recombination is coupled to high status categories? We believe so. Our general reasoning is as follows: being an important market signal, status acts as “an inherently conservative, stabilizing force” (Podolny 2005: 255), and thus as a cognitive anchor that resolves the uncertainty brought about by incumbents’ recombinant activities. This stabilizing effect of status operates on the extent and on the mode of category recombination through two different mechanisms, respectively. The former hinges upon the visibility provided by status, while the latter revolves around status as a signal of quality (Podolny, 1993).

Status in extensively recombined categories: visibility

As discussed, the more the incumbent members of a category engage in recombination, the weaker the boundaries of that category become. This process generates an ambiguous portion of the market environment, which potential entrants find hard to accurately identify. Therefore, the position of incumbents in the market will appear unclear and potential entrants will face increasing difficulties in positioning with respect to prospective competitors. Nonetheless, if the extensively recombined category displays high status, then potential entrants will be more at ease in committing to entrepreneurial action. We ground our reasoning by translating to the category level the positive relationship between status and market actors’ prominence (Sauder et al., 2012): if status strengthens the distinctiveness of a market actor, and if the majority of market actors (i.e. incumbents) in a category display high status, then this majority will result as collectively distinctive, and the category as a whole will become more visible. Therefore, when incumbents in an extensively recombined category accumulate attention and rewards by validating groups, they will collectively become more prominent and they will contribute to light up that category, which in absence of status would be

made vague by extensive recombination. As result, potential entrants will be eased in locating incumbents and in considering positioning by comparing to prospective, yet now more traceable competitors. We thus expect potential entrants to become more committed to action and we predict status as mitigating entrepreneurial inertia.

H1(a). *The negative effect of extensive category recombination on the number of market entries is reduced with an increasing status of that category.*

Status in unsystematically recombined categories: quality

Consider now the failure to establish exemplars in presence of unsystematic recombinant activities of incumbents, the ensuing signals of heterogeneous preferences of the target consumers, as well as the subsequent unpredictability of the market environment. By translating to the category level the positive relationship between information asymmetries and the strength of status as a signal of quality (Podolny and Stuart, 1995; Podolny, 2001) we argue that, if the unsystematically recombined category displays high status, then potential entrants' uncertainty may be resolved. More specifically, we expect the lack of exemplars in unsystematically recombined categories to increase information asymmetries and therefore the vigor and the usefulness of status as a signal of quality. In these categories, the attention and positive judgments granted by validating groups to incumbent members does not restrict to visibility, but also points to the scattered combinatory experiments of incumbents as "good" and legitimated. From the perspective of potential entrants uncertainty is resolved, because the sprinkled recombinant activities of incumbents do not reflect any longer a disorganized attempt at matching heterogeneous preferences of consumers, which instead appear ready to accept experimentation as the hallmark of the category. Thanks also to the positive spillovers that status portends (Jensen et al., 2011), such category will appear even rewarding to potential entrants, which will become more confident in committing to action. Once again, entrepreneurial inertia will result as tempered:

H2(a). *The negative effect of unsystematic category recombination on the number of market entries is reduced with an increasing status of that category.*

EMPIRICAL SETTING AND DATA SOURCES

The music industry and the electronic music genre

To test our predictions, we were in need of a setting meeting three main criteria. The first, and most important, was the presence of categories as the basic components of a structure mapping the market environment. To be truly informative about established and ongoing interactions (Hsu and Hannan, 2005), categories had to be not super-imposed by third parties, but socially constructed by market actors. The second criterion was the relevance of category recombination as market activity. Here, category recombination had to be not a mere juxtaposition of category labels, but the concrete blending of elements from products associated to different categories. That is: multi-category positioning had to be the result of recombination at the product level, and not the sole organizational attempt to appeal to multiple audiences by displaying multiple labels. The third criterion was heterogeneity in categories, so to meaningfully analyze the predicted effects of the variations in the extent and mode of category recombination, as well as in status, on entrepreneurial inertia. We opted for the music industry as the context that, in our view, matched all the three criteria.

In coherence with the first criterion, the music industry is organized around socially constructed genres and sub-genres that structure production and consumption (Lena and Peterson, 2008; Negus, 1999), thus constituting a useful map to make sense of the interactions at play in the market environment. Yet, genres and subgenres are not stable components of this map, as they also represent the basic material for market actors' activities (Sewell, 1992; Swidler, 1986). In this regard, to especially meet the second criterion, we focused on the electronic music genre and on the related sub-genres, or styles. Electronic music has been indeed acknowledged as "material", where the material is "what artists work with" (Adorno, 1997:147), in a constant cycle of construction,

reproduction and destruction. For instance, the use of digital sampling in electronic music allows the old to sound as new, it makes the new sounding old, and it questions the identity of established styles by transposing some of their elements in original productions. Consumers' taste then grows challenged, stimulated and broadened (Demers, 2010). The materiality of electronic music is tight to the function that technology serves in this genre: instruments like drum-machines, synthesizers and samplers certainly help producers in generating novelty (Manning, 2013; Pinch and Trocco, 2004) through recombination. Because of the variety of its constitutive styles, the electronic music meets also our third criterion. Styles in electronic music are assorted and often antithetical, ranging from the highbrow *Musique Concrète* to the mainstream *Europop*, including legitimated sounds like the ones of *Techno* and *House* music, but also *avant-gardist* experimentations.

Data

The relative youth of electronic music provided us with the additional advantage of a more reliable and comprehensive data collection. To this specific aim, we referred to *Discogs.com* as the most reputed web-based source for the electronic music.² *Discogs* is not only a user-built database; it is also a true marketplace that “connects buyers and sellers across the globe”. Here, contributors submit details for a release and need to possess a physical copy “for the sake of accuracy”. Information on each release include the artist, the title, the label, the format, the country, the year of issue, as well as the style(s) to which each release is associated.³ Engaged members of *Discogs*' community then vote each submission, meaning that new members do not have the right to express their preference but after accumulating experience and interactions with the community. Grading ranges from "entirely incorrect" to "correct and complete".⁴ A release is made fully active in the database only if it is acknowledged as either “correct” or “correct and complete”, namely if consensus

² General description of the web-based source: <http://www.discogs.com/about>

³ Procedure for contribution: <http://www.discogs.com/help/contributing.html>

⁴ Voting guidelines: <http://www.discogs.com/help/voting-guidelines.html>

(Hannan et al., 2007) among the members of the community is reached about the submission's information, including the membership of the releases and of the associated record labels in styles. A submission may be instead rejected from the database if the community members agree upon incorrectness. This procedure was particularly crucial to our framework. Discogs' marketplace "is built on top of the accurate Discogs database", therefore the displayed membership in styles is not the outcome of a mere audience based classification, but of a downright market actors' convergence towards a social and cognitive structure that sustains production and consumption.

Experts and critics equate the birth of the electronic music to the popularization phase of the mid Eighties, which was possible through lower production costs and because of the stylistic antithesis between *Chicago House* and *Detroit Techno* (see Reynolds, 2011). Hence, to capture the early dynamics of the genre, we collected our data by setting the beginning of the observation window in 1978. Upon choosing a restricted pool of countries – i.e. France, Germany, Italy, Japan, U.S. and U.K. - based on the criteria of album sales/market value and relevance for the genre, we obtained a dataset containing 533.503 unique music releases (664.793 including reissues) and 63.575 record labels, which represent the basic organizational units in this setting (Lena, 2012). In coherence with our theoretical framework, we collapsed data to set our analyses on the style/year level. The final dataset resulted in an unbalanced panel covering 119 styles over 33 years.⁵ Here, styles represent the established and distinct product categories mapping the electronic music genre.

⁵ Abstract, Acid, Acid House, Acid Jazz, Acoustic, Alternative Rock, Ambient, Avantgarde, Ballad, Bass Music, Big Beat, Breakbeat, Breakcore, Breaks, Broken Beat, Chicago Blues, Chiptune, Comedy, Crunk, Cut-up/DJ, Dark Ambient, Darkwave, Deep House, Disco, Downtempo, Drone, Drum n Bass, Dub, Dub Techno, Dubstep, EBM, Electro, Ethereal, Euro House, Europop, Experimental, Field Recording, Folk, Folk Rock, Free Funk, Free Improvisation, Free Jazz, Freestyle, Funk, Fusion, Future Jazz, Gabber, Garage House, Ghetto, Glitch, Go-Go, Goa Trance, Gospel, Grime, Happy Hardcore, Hard House, Hard Trance, Hardcore, Hardstyle, Hi NRG, Hip Hop, Hip-House, House, IDM, Illbient, Industrial, Instrumental, Interview, Italo-Disco, Italodance, Jazz-Funk, Jazzdance, Jumpstyle, Jungle, Krautrock, Latin, Leftfield, Lo-Fi, Lounge, Makina, Minimal, Modern Classical, Modern Electric Blues, Musique Concrete, Neo-Classical, Neofolk, New Age, New Beat, New Wave, Noise, Pop Rap, Pop Rock, Power Electronics, Progressive House, Progressive Trance, Psy-Trance, Punk, Reggae, Reggae-Pop, Rhythmic Noise, RnB/Swing, Rock & Roll, Screw, Soul, Soul-Jazz, Soundtrack, Space Rock, Space-Age, Speed Garage, Speedcore, Spoken Word, Synth-pop, Tech House, Techno, Trance, Tribal, Tribal House, Trip Hop, UK Garage, Vocal.

Variables

Dependent variable

We inferred entrepreneurial inertia from a decrease in the number of market entries, and we measured market entries as the count of record labels entered into a style i in a given year t . In line with extant contributions on product demography (Khessina and Carroll, 2008), we took the first affiliation by each record label to each style in a given year as an instance of market entry. To clarify our measure, let us consider the example of a record label x that, in year 1990, issued 3 releases a , b and c . The release a combined elements from the styles “Techno” and “Synth pop”, the release b sounded as pure “Ambient”, and the release c mixed features from “Synth pop” and “Italo Disco”. Hence, for year 1990, we counted 4 entries of label x : one in “Techno”, one in “Synth Pop”, one in “Ambient” and one in “Italo Disco”, thus excluding the second entry in “Synth Pop”. This empirical choice suited well the specificities of our context and linked to a key theoretical rationale. Most record labels producing electronic music are independent from major corporations, run tight on budget, and do not issue a large number of releases (Demers, 2010: 160). Therefore, the record labels’ yearly commitment to deliver releases in certain styles is critical for (re) positioning in the genre as a whole, and it is also reasonably sensitive to the uncertainty generated by the incumbents’ alteration of these styles.

Independent variables

Extent of category recombination

The extent of category recombination captures the degree to which, in a given year, incumbent record labels recombine a focal style with other styles: recall that, the more extensively a category is recombined, the weaker its boundaries result. In line with the existing literature (Kovács and Hannan, 2010), we measured the extent of category recombination through the average grade of membership (GoM) in a style by incumbents. For instance, if a release is associated to “Techno”, “Trance” and “Tribal”, its GoM in each style will be equal to $1/3$. Thus, we first computed the

average GoM in a style i of the releases associated to that style in a given year t . Second, we obtained the extent of recombination by taking the converse measure of the average GoM. The measure ranges between 0 (low extent of recombination, or strong boundaries) and 1 (elevate extent of recombination, or weak boundaries). Hence, the more the measure approximates its maximum value, the weaker the boundaries of the focal style will be, and the less distinct this style will result.

Mode of category recombination

Holding constant the extent of category recombination, the mode of category recombination captures whether, in a given year, record labels recombined a focal style with the same other styles, or instead with a diverse set of styles. Building on Katila and Ahuja (2002), we first computed every possible pairwise combination observed within each style i and in each year t of our time window. We then took the ratio between the count of original combinations in a style i year t , and the times each combination was repeated in that style/year. A large numerator points to a style where a prevailing number of record labels issue releases combining the focal style with diverse styles and, thus, where a prevailing number of record labels exhibit an unsystematic mode of category recombination. Conversely, a large denominator points to a style in which a prevailing number of record labels issue releases combining the same styles and, thus, where a prevailing number of record labels can be thought as of reproducers that exhibit a systematic mode of category recombination. The measure ranges between 0 and 1: as Table 1 shows, an increase in the denominator approximates the measure to its minimum value (systematic mode of recombination), while an increase in the numerator mirrors a style whose mode of recombination is increasingly unsystematic. Hence, the more the measure approximates its maximum value, the more the style displays a failed convergence of incumbent record labels towards a specific way of combining styles.

Insert Table 1

Category status

Creative settings like the music industry are known to be particularly susceptible to judgments, reviews, awards or specific metrics by validating groups (Sauder et al., 2012). End users adopt these metrics to make decision about goods whose value can be assessed only upon consumption (Caves, 2000). Likewise, the acts of deference by validating groups are crucial to market actors, including incumbents, to infer the status position of the producers delivering such goods. Given the focus of our theoretical framework, we were interested in capturing status as a category-level attribute. In this regard, category status had to result from the *cumulative* acts of deference gained by incumbent members. To this purpose, we primarily focused on community-level data from *Discogs*' marketplace and, for each release, we collected information on two key-indicators. The former was meant to account for the vertical ordering provided by status to the market structure (Jensen et al., 2011), and was inferred from the rating expressed by *Discogs*' community members. This rating ranges from 1 (minimum) to 5 (maximum). The latter indicator was intended to account for the distinction provided by status, and was derived from the number of "wants" that each release obtains. The number of "wants" captures a latent demand, whose increase flags scarcity value (Bourdieu, 1984). Data on the marketplace were available up to 5.000 releases per year and we were thus able to collect useful information on 50.299 observations included in our sample. Status was therefore measured as the average rating of the releases associated to each style i in a given year t , multiplied by the cumulative demand obtained by such releases belonging to the same style in the same year. Our measure for status is sensitive to the growth in demand for releases. An increase in demand in turn flags scarcity: the more requested the releases and the higher the collected ratings, the higher the status of the style should be. We finally opted for a square-root transformation of the status variable to correct for positive skewness.

Control variables

We added a set of controls to account for alternative factors that could discourage potential entrants to undertake action and that could consequently hinder the number of market entries. First, we included measures for density and squared density to capture dynamics of legitimation and competition, respectively (see Carroll and Hannan, 2000). Here, for a given style i , we assumed legitimation and competition as depending on the size of the entire population of releases issued by record labels and associated to that style (i.e., not only first time entrants). We then computed density as the total number of releases' affiliation to each style i in year t . Second, on the chance that entries of record labels could be simply stimulated by music fads and, thus, discouraged by old styles, we included the age of the style as an additional control variable. Third, coherently with the business model that notably prevails in the electronic music production, record labels in our dataset are predominantly independent; yet, parent labels are shown to control almost 1/3 of these organizations. Being able to detect whether parent labels were related to major corporations (i.e. the “Big Three”: Sony Music Entertainment, Universal Music Group, Warner Music Group), we computed the proportion of majors active in each style/year. This variable was meant to account not only for an additional source of competition that could potentially discourage entrepreneurial organizations by raising the entry barriers into a given style, but also for aesthetic motives underlying the genre. A high proportion of majors could indeed make a style repulsive to potential entrants, because these are mostly opponents of mainstream sounds and run against pure commercial logics. We further accounted for specific country-effects by adding for each style/year the proportion of releases originally issued in each of the observed countries. Finally, year-dummies and style-dummies were added to our models to control for time and style-specific unobserved heterogeneity. Upon consulting

a key-informant in the field, we created 50 dummies for those styles regarded as central to electronic music genre over the period covered by our study.⁶

Models

Our dependent variable - i.e. number of market entries - takes the form of non-negative integers, thus calling for the estimation procedures typical of count data (Cameron and Trivedi, 1998). After testing for over-dispersion (likelihood-ratio test; parameter alpha significantly different from zero: $p < 0.01$), we found the Negative Binomial model as providing a better fit to the data, compared to the Poisson one (Long and Freese, 2005). Based on the panel structure of our data, and on the theoretical rationale behind our hypotheses, a fixed effects specification of our model appeared as the most appropriate. Fixed effects allowed analyzing the relationship between our key independent variables and the number of entries within each style, with the advantage of accounting for the unobservable and time-invariant characteristics that each style might have and that might impact the dependent variable. The Hausman test supported our intuition. However, as long as the conditional fixed effects specification has been found as not controlling for all the stable covariates (Allison 2005), we opted for an unconditional fixed-effects negative binomial estimator with robust standard errors. This model specification implies a manual inclusion of the style-dummies in the regression, and asks to correct for potential downward bias in the standard error estimates through a multiplication of the standard errors by “the square root of the ratio of the Pearson chi-squared goodness-of-fit statistic to its degrees of freedom” (Allison and Waterman, 2002: 257). In the following models, we used the lead of the dependent variable to prevent for potential simultaneity biases, and we included mean-centered independent variables.

⁶ Abstract, Acid, Acid House, Ambient, Avantgarde, Breakbeat, Dark Ambient, Darkwave, Deep House, Disco, Downtempo, Drum n Bass, Dub, Dub Techno, EBM, Electro, Euro House, Europop, Experimental, Gabber, Garage House, Glitch, Grime, Hard House, Hard Trance, Hardcore, Hi NRG, Hip-House, House, IDM, Illbient, Italo- Disco, Jungle, Krautrock, Leftfield, Minimal, Musique Concrète, New Age, New Beat, Progressive House, Progressive Trance, Speed Garage, Synth-pop, Tech House, Techno, Trance, Tribal, Tribal House, Trip Hop, UK Garage.

RESULTS

Table 2 provides the descriptive statistics and the bivariate correlations among the variables included in our models. To test for multicollinearity, we computed the VIF of all our models, whose mean value amounts to 2.72 in the full model specification (i.e. Model 5). The low correlation (0.18) between the extent and the mode of category recombination supports our theoretical argument that these two variables capture different mechanisms whereby the basic components of a market structure can be altered.

Insert Table 2

Model 1 of Table 3 includes the control variables. The significant effect (beta coefficient: 1,3 $p < 0.01$) of density on entries displays an inverted U-shape pattern, as expected. That is, the number incumbent record labels at time $t-1$ triggers entries into a given style up to a point after which competition discourages further entries. The age of the style exerts a positive and significant effect (beta coefficient: 0,024 $p < 0.01$) on entries: the older and more established a style, the more entries into that style are observed. As contemplated, an increase in the proportion of major record labels that are active in a style instead discourages entries (beta coefficient: -2,346 $p < 0.01$).

Hypothesis 1 proposed a negative effect of the increasing extent of category recombination on the number of entries. Models 2 to 5b support this hypothesis ($p < 0.01$): the number of entries in a given style decreases when the style shows an increasing extent of recombination by incumbents. More specifically: for a standard deviation increase in the extent of recombination, the number of entries is expected to decrease by 13%, holding other variables at their mean. Models 3 to 5b provide support ($p < 0.01$) to Hypothesis 2, showing the strong, negative effect of the mode of recombination on the number of entries. For a standard deviation increase in the mode of recombination, entries are in fact expected to decrease by 45%, holding other variables at their mean.

Model 4 introduces the status variable, whose effect on the number of entries is positive and significant (beta coefficient: 0,004 $p < 0.01$). For a standard deviation increase in the status of a style, entries in that style are expected to increase by 34%, holding other variables at their mean. Although not theorized, this effect of status seems consistent with our emphasis on its signaling effect. Model 5 is the full model, which introduces the (mean-centered) interacted variables. Results weakly support Hypothesis 1a (beta coefficient: 0,004 $p < 0.1$), which proposed status as attenuating the negative relationship between extensive category recombination and the number of entries. Hypothesis 2a predicted status as also mitigating the negative relationship between an unsystematic mode of category recombination and entries. This prediction appears strongly supported (beta coefficient: 0,023 $p < 0.01$): the negative effect exerted by an unsystematic pattern of recombination on the number of entries into a given style is reduced at increasing values of status of that style. Model 5a displays the estimates from a Generalized Linear Model specification, including the Negative Binomial as distribution family and a log-link function. Here, standard errors are scaled using the square root of the Pearson chi-square dispersion. The coefficients do not diverge much from those in Model 5, but standard errors are often smaller. As consequence, results from this model specification provide a stronger support to our predictions, in particular to Hypothesis H1a.

Insert Table 3

DISCUSSION AND CONCLUSIONS

As in a famous quote by Robert Louis Stevenson (1878), for those travelers willing to undertake a journey, “the great affair is to move”. Albeit often depicted as risk-takers, in some circumstances potential entrants might similarly perceive their transition to the market as a “great affair”. Consequently, they might show caution in entry decisions, and lead to a decrease in the number of entrepreneurial events. Under which conditions is such inertia more likely occur? To answer this question, we complemented the extant literature’s interest in the environmental and

organizational determinants of entrepreneurial inertia and we focused our study on the function served by socio-cognitive market structures, which entrepreneurial organizations leverage as maps to interpret the target environment. Categories stand for the basic components of these maps, whose alteration by incumbents' recombinant activities brings about potential entrants' uncertainty. The results of our empirical analyses specifically suggest the following.

First, the number of entries is reduced in categories that are extensively recombined by incumbents. A high extent of category recombination generates uncertainty, because it weakens the distinctions between the focal category and other categories, thus making boundaries more vague. Second, when the incumbents' mode of recombination looks uncoordinated, and inhibits the convergence towards a shared and legitimate way of performing recombination, the number of entries in the same category appears, once again, reduced. Although few, isolated entrepreneurs might choose to respond to the "siren's call" of a category that looks rich in opportunities for creative attempts, most entrepreneurial organizations will refrain from adopting the attitude of overconfident gamblers. Third, while the status of a category has proven to be insufficient to resolve the uncertainty unleashed by extensive category recombination, yet it remains a meaningful, cognitive anchor for entrepreneurial organizations tempted by sirens' calls. Category status has been in fact shown to reduce the negative effect exerted on market entries by unsystematic modes of recombination. The ensuing sections are devoted to discuss our results in the light of the pertinent literature.

Socio-cognitive structures and market activity

Market activities are sensitive to socio-cognitive structures such as systems of classificatory distinctions. When these fail to resolve interpretive difficulties, then inefficiencies will be more likely to occur (Zuckerman, 2004). Our paper primarily builds on this insight, but considers market activities like category recombination as altering socio-cognitive structures and categories as their elemental units. Our study further focuses on potential entrants into a market as the actors facing the interpretive difficulties that are here conducive to entrepreneurial inertia, which we acknowledge as

an exception in a well-documented empirical regularity more than as a type of market inefficiency. In this regard, the failure of socio-cognitive market structures to resolve entrepreneurial organizations' uncertainty still affects their commitment to action, but it in turn depends on the market activities already performed by incumbents. The specific case of category recombination shows that, despite being well-established "frames of comparability" (Leifer, 1985: 448), socio-cognitive market structures are far from resisting to "the flux of cues produced by market behavior" (Porac, Thomas, Wilson, Paton and Kanfer, 1995: 206). Socio-cognitive market structures can be thus included among the prime determinants of any market behavior especially when the elemental components of these structures represent stable, cognitive residues of market activities. However, these activities are neither permanently established, nor always well coordinated and aimed at reproducing the existing *status quo*. Therefore, in our view, future studies centering on categories will benefit from the adoption of an evolutionary perspective (Grodal, Gotsopolous and Suarez, 2013), which accounts for both the antecedents and the consequences of structural variations. This approach might explore, in a first stage, the factors underlying changes in categories and, in a further stage, the impact these alterations might have, beyond entrepreneurial action, on other relevant market activities, for instance on incumbents' strategic re-positioning, innovation, or even exit from the market.

Entrepreneurial events between inertia and change

Entrepreneurial are carriers of change in economic structures (Geroski, 1995). To call these structures into question, entrepreneurial organizations often bear uncertainty and risks, for instance by introducing novel combinations into a market (Schumpeter, 1934; Swedberg, 2006). According to this narrative, the structure of the market appears somehow rigid and inertial, at least until the influx of new organizations and products provides the seeds for change, and allows selection mechanisms to effectively operate (Hannan, 2005). Nonetheless, structures do not entail rigidity, as they both constrain and enable market activities (Sewell, 1992). Our study particularly shows that the socio-cognitive structure of a market constitutes the material for incumbents' relentless activities, while

hindering potential entrants' actions. On the one hand, this finding supports change as a process that is also endogenous to markets. In this direction, market change appears as not primarily driven by the novelties brought about by external agents, which can be instead made reluctant by too much environmental variability (Hannan and Freeman, 1989; Davis et al., 2009). On the other hand, our work calls for further research examining alternative outcomes of the dual nature of market structures. For instance, a question that would be worthy of attention pertains to the conditions under which systems of categories constrain current actors such as incumbents, while instead promoting exogenous change through the action of potential agents like entrepreneurial organizations.

Mode of recombination

Our paper is not the first to elaborate on the relevance of activities such as the crossing of category boundaries for market actors. A well-established bulk of literature has offered important theoretical insights and consistent empirical evidence about the negative consequences of displaying multi-category positioning (e.g., Negro et al., 2010). Multi-category positioning reduces audience attention and elicits uncertainty among evaluators. Our paper enriches this stream of work by showing that the uncertainty induced by category recombination, as well as by the subsequent multi-category membership, does not only affects the performance and attention outcomes of individual organizations, but also has profound consequences for entrepreneurial action. In relation to the extant literature on multi-category positioning, we also contribute by emphasizing the *mode of recombination* as a theoretically novel dimension of market categories. Our presumption is that when specific ways of performing recombination and of displaying multiple membership become frequent, they are also likely to become legitimate and exemplar (see also Ruef and Patterson, 2009). These exemplars embody concrete activities that are likely to appear plausible cognitive references to market actors. Overall, both the construct and the measure of mode of recombination capture this phenomenon and complements the measures already tested in the extant literature. The mode of recombination enriches the concept of average grade of membership, or contrast (Kovács and

Hannan, 2010) because it provides additional information beyond the neatness of a category's boundaries. Our construct also deepens the concept of leniency (Pontikes, 2012) in that a category unsystematically recombined is not only more lenient, but also less typical than a category displaying a systematic mode of recombination, simple because every incumbent seem to "sail alone" (Smith, 2012: 76). Analyses not reported here suggest that the extent and mode of recombination negatively interact in affecting market entries: a blurred map coupled with sirens' calls seems to provide the most worrisome scenario for entrepreneurs. Further research should test these arguments and further explore the robustness of our findings in different empirical contexts.

Limitations

We envisage three main limitations in our study. First, while our setting is certainly suitable to analyze recombinant activities and their impact on entrepreneurial action, it may raise issues of generalizability. The recurrent cycles of fads and fashion (Hirsch, 1972) and products' planned obsolescence (Lena, 2012) that characterize this industry – and, more broadly, creative industries (Pesendorfer, 1995) – render the blurring of maps and the sirens' calls more common than in peaceful seas. Because of these characteristics, we would argue that the familiarity of market actors with such problems speaks in favor of a conservative test of our hypotheses. Would entrepreneurial action be discouraged by recombination in qualitatively different contexts? No doubts, the replication of our analyses in industries marked by slower technological development and less turbulent evolutionary patterns is required.

A second challenge consists in exploring the consequences of recombination on different modes of entry. Are extensive and unsystematic recombinant activities differently perceived by organizations new to the market (*de novo* entrants) *vis à vis* diversifying firms (*de alio* entrants)? What is the role that industry experience and learning (Perretti et al., 2008) play in facing uncertainty? Incidentally, a more refined analysis of entry modes would also allow appreciating the potential endogeneity that may plague our estimates. In this respect, the results concerning the extent

of recombination may be exposed to problems of reverse causality: if recombination attracts less and more diversifying entrants, then these will contribute to increase the category's extent and mode of recombination in the subsequent period, and impinge on the number and type of observed entries. A convincing answer to these doubts is required to sustain the robustness of our results.

The third critical limitation pertains to the theorization of mechanisms not fully captured by our empirical analyses. Although we have tried to convincingly argue about the relation between category recombination and entry decisions, our analyses are unable to observe whether the main motive that we theorize (i.e., uncertainty) characterizes the lack of commitment to action: are entrepreneurs really puzzled by blurred maps? Do they hear sirens' calls? We believe that further analyses performed at a more refined level, jointly with qualitative evidence concerning the decision making process of entrepreneurs, are required to better establish the plausibility of the proposed mechanisms.

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APPENDIX

Style	Combination	New combination	N. of times the combination is repeated	Ratio
Techno	Techno&Trance	1	2	0.5
Techno	Techno&Tribal	1	1	1
Techno	Techno&Jungle	1	1	1
Techno	Techno&Gabber	1	1	1
Techno	Techno&Europop	1	3	0.33
		Mode of recombination		0.76
Ambient	Ambient&Illbient	1	10	0.1
Ambient	Ambient&Trance	1	20	0.05
Ambient	Ambient&Experimental	1	10	0.1
Ambient	Ambient&Trip Hop	1	10	0.1
Ambient	Ambient&New Age	1	10	0.1
		Mode of recombination		0.09

Table 1. Measure for the mode of recombination. The table shows how the style “Techno” is more unsystematically recombined than the style “Ambient”.

VARIABLES (uncentered)	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12
Density	540.14	901.50	0	6347.00	1.00											
Extent of recombination	0.49	0.11	0	0.77	-0.24	1.00										
Mode of recombination	0.20	0.20	0	1	-0.39	0.18	1.00									
Status (sqrt)	65.19	66.14	0	447.94	0.66	-0.26	-0.44	1.00								
Age of the style	15.51	8.73	1	33	0.31	0.28	-0.21	-0.02	1.00							
Proportion of majors	0.08	0.11	0	1	-0.14	-0.15	0.11	0.03	-0.43	1.00						
DE	0.25	0.19	0	1	-0.07	0.17	0.09	-0.09	0.09	0.00	1.00					
FR	0.08	0.10	0	1	-0.03	0.04	0.08	-0.01	-0.02	-0.01	-0.17	1.00				
IT	0.21	0.16	0	1	0.08	0.01	-0.07	0.02	0.01	0.03	-0.24	-0.04	1.00			
JP	0.08	0.14	0	1	-0.00	-0.21	-0.04	-0.02	-0.07	-0.02	-0.28	-0.00	-0.08	1.00		
UK	0.04	0.07	0	1	-0.09	0.11	0.01	-0.16	0.12	-0.06	-0.10	-0.06	-0.10	0.05	1.00	
US	0.33	0.22	0	1	0.05	-0.07	-0.04	0.12	-0.07	0.01	-0.40	-0.25	-0.41	-0.35	-0.15	1.00

Table 2. Descriptive statistics and bivariate correlation matrix.

VARIABLES (mean centered)	(1) Baseline model	(2) Extent	(3) Mode	(4) Status	(5) Full model	(5a) GLM Scaled SE	(5b) Reduced n. of styles
Extent of recombination		-1.242** (0.282)	-1.360** (0.209)	-1.339** (0.201)	-1.221** (0.204)	-1.385** (0.168)	-1.554** (0.264)
Mode of recombination			-3.569** (0.155)	-3.119** (0.158)	-1.931** (0.234)	-1.872** (0.208)	-2.455** (0.295)
Status				0.004** (0.000)	0.008** (0.001)	0.008** (0.001)	0.005** (0.001)
Extent#Status					0.004† (0.002)	0.005** (0.002)	0.001 (0.002)
Mode#Status					0.023** (0.004)	0.022** (0.003)	0.009* (0.005)
Density/1000	1.298** (0.050)	1.185** (0.054)	0.747** (0.036)	0.507** (0.038)	0.601** (0.040)	0.600** (0.046)	0.366** (0.035)
Density ² /1000	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000** (0.000)
Age of the style	0.024** (0.006)	0.036** (0.007)	0.025** (0.006)	0.031** (0.006)	0.029** (0.006)	0.030** (0.005)	-0.282* (0.134)
Proportion of majors	-2.346** (0.300)	-2.309** (0.296)	-1.490** (0.235)	-1.403** (0.223)	-1.314** (0.225)	-1.336** (0.160)	-0.952** (0.337)
DE	-0.007 (0.300)	0.048 (0.296)	0.243 (0.220)	0.394* (0.200)	0.390† (0.200)	0.392** (0.149)	0.464† (0.249)
FR	-0.422 (0.502)	-0.349 (0.494)	-0.308 (0.398)	-0.372 (0.357)	-0.373 (0.346)	-0.404† (0.221)	1.124** (0.308)
IT	-0.021 (0.339)	0.109 (0.333)	0.146 (0.236)	0.235 (0.214)	0.264 (0.215)	0.205 (0.168)	0.225 (0.230)
UK	-0.861† (0.465)	-0.734 (0.446)	-0.791* (0.315)	-0.284 (0.297)	-0.209 (0.303)	-0.082 (0.283)	-0.993* (0.486)
US	0.149 (0.265)	0.257 (0.263)	0.279 (0.190)	0.212 (0.168)	0.168 (0.167)	0.140 (0.137)	0.181 (0.181)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Style dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.567** (0.106)	4.481** (0.113)	4.436** (0.088)	4.391** (0.088)	4.543** (0.092)	4.538** (0.086)	8.537** (1.520)
Observations	1,422	1,422	1,422	1,422	1,422	1,422	1,014
alpha	0.287	0.281	0.148	0.127	0.121		0.0745
r2_p	0.130	0.132	0.178	0.188	0.191		0.207
chi2	8453	8707	34017	55568	48765		26469
df_m	90	91	92	93	95		93
Log (pseudo)likelihood	-8241	-8227	-7790	-7696	-7669	-8521	-5537
dispers_p						0.164	
deviance_p						217.7	
dispers_s						0.172	
deviance_s						228.6	

Table 3. Main models.

Estimates from Unconditional FE Negative Binomial Regression (Models 1-5 and 5b). Robust standard errors in parentheses: ** p<0.01, * p<0.05, † p<0.1

Estimates from GLM Regression (Model 5b). Standard errors scaled using square root of Pearson X2-based dispersion.